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Sustaining e-caring leadership in a post-pandemic world

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Abstract

At the convergence of the "new normal" from the COVID-19 pandemic and the combination of caring, leadership, and technology, a new environment for organizational culture was formed. The injection of technology into how leaders provided care to their organization launched e-caring, and this is now considered a key in employee engagement and retention post COVID-19 pandemic. The purpose of this editorial is to briefly reflect on the importance of e-caring for leadership during the crisis and increase the commitment of nursing leaders to continue their great works even after the pandemic with an organizational culture infused with e-caring.

Keywords

COVID-19; caring; leadership; new normal; technology; nursing; sustainable development

Editorial

It has been two years since the world was tumultuously turned upside-down with the advent of the COVID-19 pandemic, and the entire world adjusted to living with COVID-19. The pandemic has changed the way we live and how we work. Luckily, with advanced information technologies, we are still able to continue the working process and virtually connect to each other. Some call the use of technology to enable working from home, Work from Home (WFH), telework, or remote work, and this is possible with the help of internet connectivity. In the healthcare setting, the terms telehealth, telemedicine, and telenursing are used to describe electronic communication and patient care that occurs via technology without an in-person visit. We have learned many lessons in these two years to understand the positive and negative aspects of the pandemic and adapt to the situation as a "new normal."

The new year 2022 is highly anticipated to be the last year for the pandemic. Still, the various strains of the virus, including the Omicron variant, continue to disrupt life. In fact, a new wave in some countries, such as Indonesia, Thailand, and others, creates additional challenges for healthcare workers, especially nurses, who never stop fighting against the virus (Marzilli, 2021). Therefore, we cannot discontinue our support to the front-line workers; instead, we must continually motivate them out of necessity (Marzilli, 2021).

Leadership is one of the significant supports for nurses and other healthcare professionals (Oducado, 2021). However, with the physical distancing protocols during the pandemic, nurse leaders and managers needed to adopt a new strategy to connect with others. This led to the adoption of "e-caring leadership," as a combination of "e-leadership" and "caring" concepts.

According to Avolio et al. (2014), e-leadership refers to a process of social influence mediated by advanced information technologies to produce a change in attitudes, ways of thinking, behavior, and performance with individuals, groups, and organizations. The technologies include the internet, intranet, instant messaging, email, blogs, document sharing, video conferencing, smart apps, and social media (Avolio et al., 2014). While caring, according to Watson (2012), is the essence of nursing or a moral imperative to preserve human dignity and help achieve a higher degree of harmony within the mind, body, and soul through a transpersonal relationship (Gunawan et al., 2022). So, e-caring leadership can be defined as the interpersonal connection between leaders and subordinates, in which the leaders are able to take care of the physical, mental, social, and spiritual health as well as the quality of life of the employees, mediated by advanced information technologies. In other words, the fundamental principle in e-caring leadership is the ability of leaders to detect the condition of the employees and to be present via technology. The purpose of this technology-enabled presence, or e-caring, is to create mutual trust and genuinely elicit employee engagement levels even in the most difficult challenges, such as during the pandemic. At this point, the leaders virtually act proactively and frequently check-in, acknowledge, share, care, counsel, and provide assistance via technology. Leadership is not about being in charge but about taking care of those under their charge (Gunawan et al., 2022). Caring leaders can be seen from their sensitivity to others as a unique individual (Watson, 2012). We sincerely acknowledge all nurse managers and leaders worldwide who

keep showing care and concern to nurses in continuing to battle the virus.

Additionally, while it is essential that leaders engage in caring practices such as e-caring, it is also important to emphasize that leaders should engage in self-care first before caring for others. Engaging in self-care allows leaders to be their best version of a leader. In contrast, lack of self-care or insufficient sleep will render a leader to be less supportive, less creative, and poorly attentive to their staff (Gunawan et al., 2022). Moreover, self-care is not selfish and empowers a leader to provide the necessary care and support to their team. Self-care enables the caring leadership that should be grounded in every leader so caring via e-caring is communicated clearly across technology-based communication modalities.

This leads to the question, "What will happen post-COVID-19?" "Will nurse managers and leaders revert back to their old leadership styles?" These particular questions should be noted, and e-caring leadership must be maintained in the post-pandemic era. The reasons for this are very simple and three-fold.

First, it is noteworthy that, after two years of showing caring behavior virtually, nurse managers and leaders finally (wholly or partly) improved their information technology skills, compared to the era before the pandemic. They have also been empowered to get to know more about their employees as unique individuals because of the intense chatting, messaging, discussing, and teleconferencing in social media or application-based groups. It is important to note that not all staff nurses can talk or meet with their nurse managers daily because of shift work and the 24/7 nature of healthcare. Virtual meetings are beneficial to improve the interpersonal connection between the leaders and staff.

Second, even before the pandemic, we lived in an information and technology-based world (Nakano et al., 2021), so avoiding e-caring leadership or reverting back to a traditional leadership style may not be possible. The e-caring leaders should be open to new opportunities and emerging technologies to improve communication, develop new health care models, and enhance the quality of care and work-life balance. Nevertheless, it should be noted that being an e-caring leader does not mean that the leader is highly competent in technology; rather, the role of technology is considered a supporting tool in "blending" traditional and innovative skills to show caring and leaders. Minimally, e-caring leaders understand basic information technologies as leaders daily use laptops and mobile phones for work. This technological competency is gradually improving due to the faster movement of disruptive technologies today.

Third, e-caring leadership is a great fit for the culture associated with Generation Y and Z nurses, or digital natives. More interactive technologies to easily establish information exchange and improve engagement and retention are highly desirable. In addition, e-caring leadership offers less seniority or a hierarchical line of organizational structure to develop a solid and trustworthy relationship with employees (Gunawan & Marzilli, 2022). However, this lack of a focus on seniority does not mean there is no respect for senior leaders; rather, the digital native nurses should be taught about e-communication skills to show respect and appreciate the senior nursing leaders.

In conclusion, the idea of sustaining e-caring leadership should not be taken as the replacement of traditional leadership. The leadership styles of the nurse managers can be perceived differently by different nursing staff. Some may be easily motivated virtually, while some prefer a face-to-face meeting. Additionally, some may like both technology-based meetings and in-person meetings. Therefore, the leadership should consider a dynamic approach to showing care and be aware of the situation and open to new ideas and opportunities, such as e-caring. However, it is worth emphasizing that nurse managers and leaders are now working increasingly by combining electronic and traditional leaderships simultaneously. Foundationally, caring should always be the heart of nursing. As Dr. Jean Watson said, if we have no caring in our metaparadigm, we lose nursing practice values, ethics, and moral foundation. Caring is the core of what sustains humanity in the instance of all threats (Morrow & Watson, 2022) and e-caring leadership is an innovative way to sustain nursing leadership in a post-pandemic world.

Declaration of Conflicting Interest

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Data Availability

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References

Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly*, *25*(1), 105-131. https://doi.org/10.1016/j.leaqua.2013.11.003

Gunawan, J., Aungsuroch, Y., Watson, J., & Marzilli, C. (2022). Caring in nursing administration: Theoretical substruction of Watson's Theory of Human Caring. *Nursing Science Quarterly*. https://doi.org/10.1177/08943184211070582

Gunawan, J., & Marzilli, C. (2022). Senior first, junior second. *Nursing Forum*, *57*, 182-186. https://doi.org/10.1111/nuf.12654

Marzilli, C. (2021). A year later: Life after the Year of the Nurse. *Belitung Nursing Journal*, *7*(2), 59-61. https://doi.org/10.33546/bnj.1509

Morrow, M. R., & Watson, J. (2022). Nursing is the light in institutional darkness: A dialogue with Dr. Jean Watson. *Nursing Science Quarterly*, *35*(1), 35-40. https://doi.org/10.1177/08943184211051349

Nakano, Y., Yokotani, T., Betriana, F., Kawai, C., Ito, H., Yasuhara, Y., Tanioka, T., Locsin, R., & Miyagawa, M. (2021). Perceptions of nurse

managers and staff nurses regarding Technological Competency as Caring in Nursing theory in general hospitals in Japan. *Belitung Nursing Journal*, *7*(6), 467-475. https://doi.org/10.33546/bnj.1767

Oducado, R. M. F. (2021). Influence of self-esteem, psychological empowerment, and empowering leader behaviors on assertive behaviors of staff nurses. *Belitung Nursing Journal*, *7*(3), 179-185. https://doi.org/10.33546/bnj.1424

Watson, J. (2012). *Human caring science: A theory of nursing* (2nd ed.). Sudbury, Ontario, Canada: Jones & Barlett Learning.

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Aging-related Resiliency Theory Development

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Abstract

As a dynamic developmental process, the older population further displays the capacity to resist change over time, improve resilience, and keep a basis for the continuity working and progress over positive management of detrimental consequences of life risks and difficulties. This study aims at developing a theory that endeavors to explore the process of developing aging-related resiliency in people's later in life that can lead to a successful aging experience. In the development of a theory, this study utilized a deductive reasoning approach specifically, using the axiomatic approach. Aging-related Resiliency Theory was efficaciously developed by three propositions generated from four axioms that were derived after reviewing several sets of literature and studies. This developed theory implies that various deleterious events in life activate older persons to respond, adapt, and recover effectively. Acceptance emerges as they acknowledge the natural effects of aging while taking adaptive strategies and supportive resources to be resilient to one's environment. In this sense, it impacts their optimistic outlook towards successful aging. Based on the extraction of axioms, such propositions denoted those older adults call to respond with their total capacity to accept, adapt, recover, and continuously resist deleterious life experiences while using enriched coping strategies and resources towards an optimistic outlook in achieving successful aging. Therefore, emphasizing to improve their capacity to respond to natural decline to essential processes could benefit them at promoting a healthier life span.

Keywords

aged; aging; adaptation; humans; longevity; life change events; nursing

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Introduction

As the aging population surges, the demand for understanding towards optimistic features of aging and aged individuals' influences on ones' welfare and many are likewise increasing (Rantanen et al., 2018). In the year 2050, a projected 1.5 billion older persons aged 65 years or worldwide doubled such 703 million aged population in 2019 – that is, they globally shared the world population increased from 6% in 1990 to 9% in 2019 (United Nations, 2019). In this sense, maintaining a whole and independent life is the essence of successful aging, which is one of the gerontologists' most positive thoughts that perhaps every individual desire to age successfully until even in their older years (Andersen et al., 2019). It has become imperative to define the eminence of the aged, a multifaceted idea, and the key emphasis is how to magnify purposeful years in an advanced life period (Annele et al., 2019). As a multidimensional cycle of life, it involves resiliency with positive coping to escape from age-related morbidity and frailty, the preservation of physiological and perceptive ability, and constant social and engagement to dynamic events (Moore et al., 2015; Martínez-Moreno et al., 2020). In the process of aging, health-related events occur that compromise one's activities or even one's independence that emergent evidence has demonstrated concerns among older persons in achieving successful aging, which has resulted in difficulty achieving physical independence, satisfaction, and other related societal appreciation. However, older adults may exist with at least minimal ability to stun the challenges and adjust to the trials of progressive age despite advancing age in consideration with a phenomenon of a decline in every person's essential process (Martin et al., 2015; Araújo et al., 2016; Chaves et al., 2018). Therefore, an essential component contributing to age successfully is developing resilience and coping effectively with changing well-being later in life (Hochhalter et al., 2011).

Resilience defines and depicts the individual complexities and group responses to distressing and challenging events (Aburn et al., 2016; Hadley et al., 2017; Martin et al., 2019). In several studies, resilience is repeatedly used to advocate the capacity to overcome through recovery from a traumatic and relative degree of coping successfully that varies based on the confronting situations (Hicks & Miller, 2011; Wang et al., 2015). Resiliency in the elderly is simply maintaining stability

despite the loss, risk, or threats to physical and psychological health and likewise involves optimistic psychology, adult improvement, and stress and adaptive coping mechanisms inclusive of wisdom (Mlinac et al., 2011).

In the face of various attempts to augment understanding of the aging process and its implications to health, highlighting resiliency in the context of this normal life process infuses the idea that amidst changes caused by aging, adapting to these potentially brings about favorable outcomes. Therefore, this study aims at developing a theory that endeavors to explore the process of developing aging-related resiliency in people's later in life that can lead to a successful aging experience. Developing a working knowledge on how a person attains aging-related resiliency will contribute to assessing and managing health promotion among aging individuals. This will also provide an additional theoretical background in gerontology nursing.

Literature Review

Rowe and Kahn's idea of successful aging, the standard of old-age life, indicates an imperative ideal of older adult welfare that is likewise an interesting concern that is essentially important to investigate (Chard et al., 2017; Hsu et al., 2018). Research incorporating models (Pruchno & Carr, 2017; Cosco et al., 2019) and theories (Wang et al., 2015; Yates et al., 2015) of resilience towards successful aging, an optimistic result, notwithstanding some presence of stressful adverse events, has the prospective to recognize options for older adult well-being advocacy (Moore et al., 2015; Angevaare et al., 2020). The idea of adapting and resilience works a function in reaching a hopeful consequence that can aid at promoting older-adult quality of life (Huisman et al., 2017; Laird et al., 2019; Xu et al., 2019; Sun et al., 2020).

Likewise, maintaining psychological (Legdeur et al., 2018; Wister et al., 2018; Laird et al., 2019; Carandang et al., 2020), physiological (Fredriksen-Goldsen et al., 2015; Hadley et al., 2017; Jeste et al., 2019; Martínez-Moreno et al., 2020), emotional (Knepple Carney et al., 2021), and social health support (Fredriksen-Goldsen et al., 2015; Musich et al., 2019; Carandang et al., 2020; Martínez-Moreno et al., 2020) are possible domains to attain aging-related resiliency in older adults (MacLeod et al., 2016) that can influence their optimistic outlook towards aging (Kim et al., 2019; Martínez-Moreno et al., 2020). Such domains to attain aging-related resiliency were highlighted in several studies. An imperative shielding feature, psychological resilience, is an aid to fight that links to psychological well-being threats, low subjective well-being, and even both personal growth and life purpose (Laird et al., 2019; Carandang et al., 2020; López et al., 2020; Li et al., 2021). Likewise, it is a manner concluded to societal cope source that suggests person's promotion towards an approach of constructive adaptation and successful aging (Jeste et al., 2019; Soonthornchaiya, 2020). Aside from psychological, emotional, and social domains, physiological/functional domains characteristic is likewise coupled with resilience as it has been considerably linked with affirmative endings, involving efficacious and active aging, minor despair, and durability (MacLeod et al., 2016; Lau et al., 2018; Rantanen et al., 2018; Wister et al., 2018).

Methods

In the theory development, this study utilizes a deductive reasoning approach specifically, using axiomatic one to perform a theory-testing process that begins with an established generalization and later seeks to explore its' application to certain occurrences. In this sense, this approach employs pre-existing theories to deduce a hypothesis that must be subjected to empirical findings, which presents the theory and data relationship – based on existing theories to collect data to apply to specific circumstances (DeVellis, 2017). Therefore, this approach was more suitably adopted since empirical findings were collected and driven by existing theories and models to apply to the specific phenomenon – that is to develop a theory by framing several aging-related resiliency axioms based on studies and literature review, derive propositions from extracted axioms, and finally, analyze and interpret these propositions to support the developed theory, Aging-related Resiliency (ART).

ART followed an axiomatic deductive approach that intended to begin with the identification of the phenomena of interest. These concepts that relate to the topic are classified along with the inclusion of gerontology nursing to facilitate the enrichment of understanding. Understanding older adults in the context of the aging process and resiliency is substantiated with rigorous reviews of literature that encompassed formulation of review objective, extant literature search, screening for inclusion, quality assessment of information sources, data extraction, and analysis of literature data (Paré & Kitsiou, 2017). Following the generation of gathered information, the next steps proceeded with the identification of propositions along with exploration of possible relatedness of concepts. Consistent with the axiomatic approach, the extensive literature review paved the identification of non-debatable facts known as axioms. The study included the review of related literature as a basis in developing the axioms. The axioms served as the foundation of the propositions that considered the stand of the theorist and its assumptions. The selection of related literature is based on relevance following the traditional literature review approach using critical analysis. Through logical reasoning, the researchers developed the propositions that made up the theory assumptions developed. The formulation of propositions that serve to constitute the respective axioms followed an organized and systematic fashion.

Ethical Consideration

The protocol of this theory development is considered an exemption for review, which allows the authors to proceed in the study.

Results

Table 1 reflects the extracted four (4) axioms that generate three (3) propositions after the review of literature and studies. People uniquely able to cope for *people are subjected to various stressors that stimulate coping* ***(Axiom 1)***. Such capability reflects those *older adult responses to distressing and challenging life events contribute an impression to their*

total capacity to adapt and to recover positively ***(Proposition 1)***. Sustenance throughout adulthood or further in life provides a basis for the continuity working and progress over positive management of detrimental consequences of life risks and difficulties (e.g., hospitalizations and bereavements – loved ones' sickness and death, illness and mishaps, prestige loss, and even uncontainable late events affecting loved ones).

Human beings grow older through different phases in life. In later stages of life, several natural essential processes are declining that are helpful to understand, acknowledge, and accept aging in the context of these phases. In some people, changes in perspectives start when they are conscious of the change and decide to accept it or not. In a simpler sense, *acceptance is acknowledging one's environment as a primary phase to adapt (****Axiom 2****)*. It ensured the utmost suggestive impact on one's adaptation, which embodies the capability to adjust effectively to instabilities or threats. Therefore, ***adaptive coping among older adults is manifested by the effective use of coping strategies and resources (Proposition 2)***. Coping is comprehended as managing, resisting, and recovering from the deleterious consequences of stressful events in life that call for resilience as a primary focus of interventions – building older adult psychological, physiological, social, and emotional resilience and support associations. Such *factors contributing to one's adaptation are important initiatives to sustain resiliency* ***(Axiom 3)***.

Common characteristics are critically related to resilience, and therefore may all these contribute to successful aging, which resilience as a process implicates the idea that the older adult *resiliency is regarded as a dynamic capacity towards successful aging* ***(Axiom 4)***. Certainly, numerous models of successful aging have been suggested implicating intricate relations amongst physiological, mental, emotional, and psychosocial performance to optimism and resiliency for *resilient older adults tend to maintain a more positive outlook and cope with stress more effectively* ***(Proposition 3)*** and is likewise a hypothetically changeable health asset that values further to enhance the probability of healthy aging and enhancing the capability to respond to stressors.

Table 1 Propositions derived from axiomatic extractions

Axioms	Propositions	Theory
Axiom 1: People are subjected to various stressors that stimulate coping.	**Proposition 1:** Older adult responses to distressing and challenging life events contribute an impression to their total capacity to adapt and to recover positively *(Axioms 1 and 2)*.	In acknowledging the natural decline of essential processes, older adults respond to adapt and use coping techniques and resources to achieve and enhance resiliency that impacts optimism – aiding to age successfully ***(Aging-related Resiliency Theory)***.
Axiom 2: Acceptance is acknowledging one's environment as a primary phase to adapt. **Axiom 3:** Factors contributing to one's adaptation are important initiatives to sustain resiliency.	**Proposition 2:** Adaptive coping among older adults is manifested by the effective use of coping strategies and resources *(Axioms 2 and 3)*.	
Axiom 4: Resiliency is a dynamic capacity towards successful aging.	**Proposition 3:** Resilient older adults tend to maintain a more positive outlook and cope with stress more effectively *(Axiom 4)*.	

Discussion

ART overviews the understanding that as people age, they adapt accordingly to the experienced changes. While changes may vary from the physiological, psychological, and other aspects of this normal occurrence, the older adults are faced with a responsibility to thrive and to adapt, described in this context as resiliency. People are distinctively capable of handling their lifespan involvements and managing means (Fuller & Huseth-Zosel, 2021). They further display coping leading to resiliency afterward, especially those who cope with several stressful events such as personal experiences, deteriorating health, or socioeconomic circumstances (MacLeod et al., 2016). Such capability to high resilience is found despite stressful circumstances and is significantly associated with optimistic results, like, for instance, less despair and permanency (MacLeod et al., 2016). Likewise, their age expresses their ability to contest variation over time, which generates resilience (Levy et al., 2015).

Resilience is a dynamic course or a progressive ability relative to an inactive consequence or personality feature (Yates et al., 2015; MacLeod et al., 2016). It embodies the capability to adjust effectively to instabilities that threaten functioning and development (Masten, 2014). While resilience and coping skills established during younger years in life can endure being influenced in advanced ages (Boggs et al., 2017). For this reason, older individuals are skilled in great resilience while acknowledging financial difficulties, individual life involvements, and deteriorating health later in life (MacLeod et al., 2016). Coping is comprehended as managing, resisting, and recovering from the deleterious consequences of stressful events as age advances (Fontes & Neri, 2015). Refining adaptive coping skills helps to craft resilience through older adults' capacity to value constructive experiences, accomplishments to inspire expectation of upcoming occurrences, and gears to reinforce associations that initiate feelings of delightfulness (MacLeod et al., 2016). Therefore, coping effectively with risk and difficulty necessitates personal means, social resources, and other significant coping-related strategies (Fontes & Neri, 2015). However, assimilative older persons' coping strategies rest on their secondary assessment processes in which they judge their coping options' accessibility, efficacy, and sustainability. Older individuals with more enhanced coping ranges are hypothesized to be more resilient, have improved decision-making skills, and have chances for a more objectively defined, resource-rich resilience (Golant, 2015).

Frailty is identified condition of condensed resilience to disturbances and amplified susceptibility to unfavorable

consequences (Xu et al., 2019). However, research findings illustrated resilience in older adults contrary to the predominant view of vulnerability, especially during a pandemic crisis (Fuller & Huseth-Zosel, 2021). Therefore, resilience has been the primary focus of interventions such as social support to improve adjustment (Sun et al., 2020). Significant variables (e.g., well-being, fundamental association, societal involvement, and psychological welfare) are highly related to resilience (Fontes & Neri, 2015). Psychological and psychosocial resources (e.g., resilience and social support) are highly associated with reducing stress and increasing the likelihood to cope further (Moore et al., 2015). Psychological resilience, optimistic self-rated well-being, and apparent societal assistance are defending influences that impact personal health. Therefore, building older adults' psychological resilience and common encouragement associations within the society can improve their well-being (Carandang et al., 2020). However, such factors (e.g., physiological and psychological health-related quality of life, shared support, and social network size) can be protective ones from uncertainties – leading to better health and successful aging, which are critically important to be equalized and personalized while managing to support the strengths and difficulties older adults are experiencing (Fredriksen-Goldsen et al., 2015). Likewise, physical health supports can enable older adults to adjust to change while holding individuality and resilience (Grimmer et al., 2015). More so, resilience was expressively associated with a scope of older adult psychological vigor concepts with depression (Laird et al., 2019). Several studies have established that psychological, physiological, and social characteristics reveal a significant role in sustaining heightened resilience. The greatest evidence implies that psychological factors are essential aspects of preserving great resilience and would likewise be considered indispensable effectual management (MacLeod et al., 2016). More so, older adults attempt to keep emotional well-being whereas in older adults having faced with a lesser extent of the undesirable effect on their welfare or way better in controlling undesirable emotions than younger adults which findings are coherent with the strength and vulnerability integration model (Knepple Carney et al., 2021). Components (e.g., substantial role, interest, societal commitment, and psychological characteristics), including resilience and social engagement, have a particular emphasis on successful aging (Moore et al., 2015). Finally, merging components of challenges and efficacious coping within functional, social, and psychological domains generates a measure of resiliency related to a more optimistic health consequence (Wister et al., 2018).

Common characteristics (e.g., psychological, physiological, social, and emotional) are critically related to resilience, resulting in the best outcomes of enhanced quality of life or successful aging, happiness, and well-being or longevity (MacLeod et al., 2016). Positive psychological factors (e.g., resilience and self-efficacy) are predictive of future older adult quality of life (Moore et al., 2015) for positive resources (e.g., resilience and social networks) aid to safeguard the influences of adverse physical features among older adults (Musich et al., 2019). Likewise, protective factors (e.g., psychological resilience, optimistic self-rated well-being, and apparent societal assistance) lower subjective well-being. Therefore, building older adults' psychological resilience and social support systems within the community can improve their subjective well-being (Carandang et al., 2020). More so, resilience is most habitually regarded as a "process rather than a personality trait" that in time develops later in life despite personal experiences, deteriorating health, or socioeconomic circumstances (MacLeod et al., 2016). All these contribute to the successful aging formulation that entails the examination of how resilience and adaptation of people impact their quality of life (Golant, 2015). Certainly, numerous representations of successful aging have been suggested implicating intricate relations between psychological, mental, emotive, and psychosocial performance. Psychological and psychosocial resources (e.g., resilience and social support) have usually been reviewed in the perspective of stress and successful aging concepts (Moore et al., 2015). Recognizing resilience in centenarians implies that they may have several factors related to successful aging (Beker et al., 2020). Optimism, one of the utmost related concepts of affirmative psychology that are advantageous for both physiological and psychological well-being, is defined as a prognosticator of resilience in individuals who were highly disturbed by deleterious events, which associates with the capability to cultivate an efficacious aging process and thus, may aid to escalate older-adult quality of life (Hadley et al., 2017; Kim et al., 2019; Martínez-Moreno et al., 2020; Igarashi et al., 2021).

Aging-related Resiliency Theory

Amid challenges, resilience was identified as a dynamical activity of sustaining healthy adjustment and efficient managing approaches, especially that multiplicity within the aging population is broadly acknowledged that intensifies the need to recognize the concept of resiliency in aging interposes to the course of successful aging (Allen et al., 2011; Hochhalter et al., 2011; Carandang et al., 2020; Fuller & Huseth-Zosel, 2021). People are distinctively adept at handling their life experiences and coping mechanisms (Fuller & Huseth-Zosel, 2021). Such capability to high resilience is found despite stressful circumstances and is significantly associated with positive outcomes (MacLeod et al., 2016). As exemplified in **Figure 1**, Aging-resiliency Theory conveys those various deleterious events in life, which can be physiological, psychological, emotional, and social domains (Martin et al., 2015; Araújo et al., 2016; MacLeod et al., 2016; Chaves et al., 2018; Fuller & Huseth-Zosel, 2021) activate older persons to respond, adapt and recover effectively (Levy et al., 2015; Moore et al., 2015; Wang et al., 2015; Aburn et al., 2016; Hadley et al., 2017; Martin et al., 2019).

Acceptance emerges as they acknowledge the natural effects of aging while taking adaptive strategies and supportive resources to be resilient to one's environment (Huisman et al., 2017; Laird et al., 2019; Musich et al., 2019; Xu et al., 2019; Carandang et al., 2020; Sun et al., 2020; Knepple Carney et al., 2021). As a self-motivated development, resilience is identified as a progressive capacity to adjust effectively and influence the level of adaptation for health maintenance (Yates et al., 2015; MacLeod et al., 2016; Sun et al., 2020; Sadang & Palompon, 2021). In this sense, it impacts their optimistic outlook towards successful aging (Hadley et al., 2017; Wister et al., 2018; Kim et al., 2019; Martínez-Moreno et al., 2020; Igarashi et al., 2021). *Therefore,*

this theory hypothesizes that with advancing age, older adults assume to respond, accept, cope, and recover from life challenging experiences that hasten the capacity to resist over time which impacts optimistic outlook to age successfully. It likewise implies emphasizing for improving older adult capacity with appropriate focused interventions, coupled with healthcare provider competency in delivering care safety as a response to natural decline to essential processes (Hadley et al., 2017; Hsu et al., 2018; Feliciano et al., 2019; Kim et al., 2019; Feliciano et al., 2020; Feliciano et al., 2021). In this manner, the older group population could benefit from promoting a healthier life span for their coping strategies rest on their secondary assessment processes in which they judge their coping options' accessibility, efficacy, and sustainability.

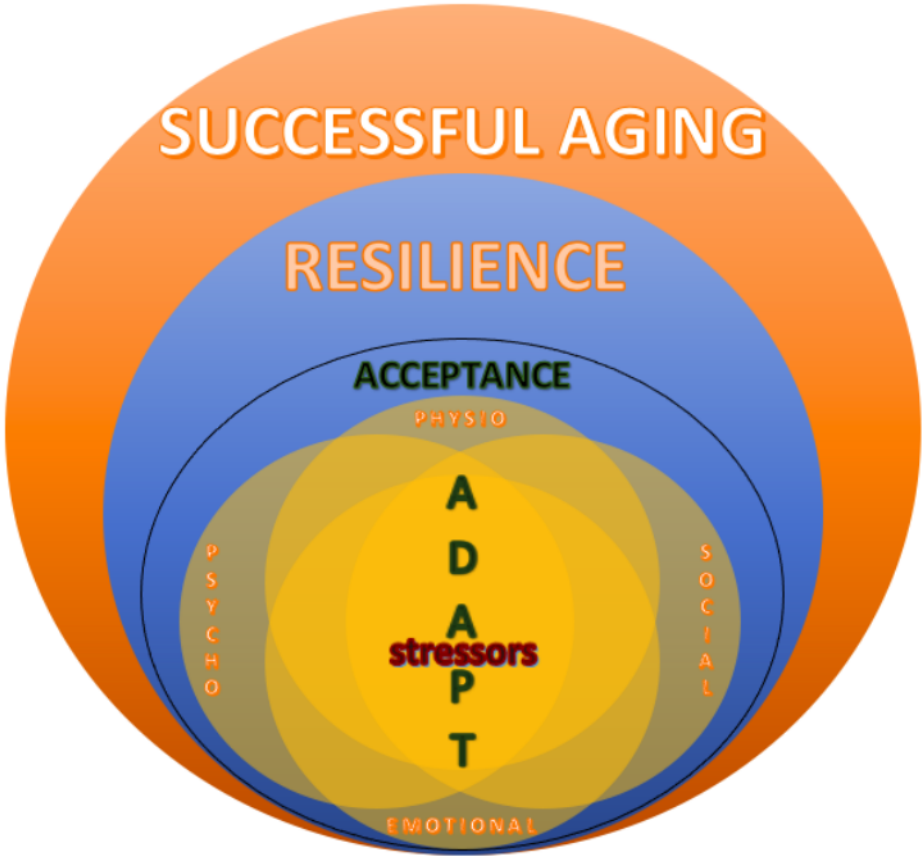

Figure 1 Aging-related Resiliency Theory

Conclusion

In a dynamic process of aging, older adults further display to be resilient, improve ones' resiliency that keeps them at continuing to function and progress as positive management from detrimental natural consequences of age-related life risks and adversities. As a primary phase to adapt, acceptance emerges when older adults take adaptive strategies and resources to cope and be resilient effectively. Amid challenges, resilience was identified as a dynamical course of sustaining healthy adaptation and effectual managing approaches, especially that multiplicity within the aging population is broadly acknowledged that intensifies the need to recognize the concept of resiliency in aging interposes to the course of successful aging. Threaded within the scope of advocating for older adults' health amidst challenges, responsiveness towards their needs positively favors quality living, dignified role assumptions, and acknowledged contributions to society. Therefore, it is essential to include healthcare interventions that may augment resilience to promote older adult healthy aging that is consistent and appropriate in the practice of gerontology nursing.

Declaration of Conflicting Interest

All authors declare no potential conflict of interest.

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Authors' Contributions

EF conceptualized, designed, analyzed, and drafted the study. AF contributed to conceptualization, edited, formatted, and prepared the final draft. DP likewise contributed to conceptualization and analysis, reviewed, and supported concepts with intellectual content and literature search. AB supported analyzed data with intellectual content and literature search. All authors substantially contributed with equal efforts until approval of the final

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Data Availability

Not applicable.

References

Aburn, G., Gott, M., & Hoare, K. (2016). What is resilience? An integrative review of the empirical literature. *Journal of Advanced Nursing, 72*(5), 980-1000. https://doi.org/10.1111/jan.12888

Allen, R. S., Haley, P. P., Harris, G. M., Fowler, S. N., & Pruthi, R. (2011). Resilience: Definitions, ambiguities, and applications. In B. Resnick, L. Gwyther, & K. Roberto (Eds.), *Resilience in aging*. New York, NY: Springer.

Andersen, S. L., Sweigart, B., Sebastiani, P., Drury, J., Sidlowski, S., & Perls, T. T. (2019). Reduced prevalence and incidence of cognitive impairment among centenarian offspring. *The Journals of Gerontology: Series A, 74*(1), 108-113. https://doi.org/10.1093/gerona/gly141

Angevaare, M. J., Monnier, A. A., Joling, K. J., Smalbrugge, M., Schellevis, F. G., Hertogh, C., & Huisman, M. (2020). The application of the concept of resilience in aging research and older adult care: A focus group study. *Frontiers in Medicine, 7*, 365. https://doi.org/10.3389/fmed.2020.00365

Annele, U., Satu, K. J., & Timo, E. S. (2019). Definitions of successful ageing: A brief review of a multidimensional concept. *Acta Bio Medica: Atenei Parmensis, 90*(2), 359-363. https://dx.doi.org/10.23750%2Fabm.v90i2.8376

Araújo, L., Ribeiro, O., Teixeira, L., & Paúl, C. (2016). Successful aging at 100 years: The relevance of subjectivity and psychological resources. *International Psychogeriatrics, 28*(2), 179-188. https://doi.org/10.1017/S1041610215001167

Beker, N., Sikkes, S. A. M., Hulsman, M., Tesi, N., van der Lee, S. J., Scheltens, P., & Holstege, H. (2020). Longitudinal maintenance of cognitive health in centenarians in the 100-plus study. *JAMA Network Open, 3*(2), e200094-e200094. https://doi.org/10.1001/jamanetworkopen.2020.0094

Boggs, J. M., Dickman Portz, J., King, D. K., Wright, L. A., Helander, K., Retrum, J. H., & Gozansky, W. S. (2017). Perspectives of LGBTQ older adults on aging in place: A qualitative investigation. *Journal of Homosexuality, 64*(11), 1539-1560. https://doi.org/10.1080/00918369.2016.1247539

Carandang, R. R., Shibanuma, A., Asis, E., Chavez, D. C., Tuliao, M. T., & Jimba, M. (2020). "Are Filipinos Aging Well?": Determinants of subjective well-being among senior citizens of the community-based ENGAGE study. *International Journal of Environmental Research and Public Health, 17*(20), 7636. https://doi.org/10.3390/ijerph17207636

Chard, S., Harris-Wallace, B., Roth, E. G., Girling, L. M., Rubinstein, R., Reese, A. M., . . . Eckert, J. K. (2017). Successful aging among African American older adults with type 2 diabetes. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 72*(2), 319-327. https://doi.org/10.1093/geronb/gbw119

Chaves, C. F., Mazzotti, D. R., Cendoroglo, M. S., Ramos, L. R., Tufik, S., Silva, V. C. d., & D'Almeida, V. (2018). Genes related to maintenance of autophagy and successful aging. *Arquivos de Neuro-Psiquiatria, 76*, 831-839. https://doi.org/10.1590/0004-282X20180142

Cosco, T. D., Kok, A., Wister, A., & Howse, K. (2019). Conceptualising and operationalising resilience in older adults. *Health Psychology and Behavioral Medicine, 7*(1), 90-104. https://doi.org/10.1080/21642850.2019.1593845

DeVellis, R. F. (2017). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications.

Feliciano, E., Boshra, A., Feliciano, A., Maniago, J., Alsharyah, H., Malabanan, M.,… Osman A. (2019). Understanding Philippine nurses' competency in the delivery of healthcare services. *Journal of Patient Care, 5*(1), 146. https://doi.org/10.35248/2573-4598.19.5.146

Feliciano, A., Feliciano, E., Feliciano, J. R., Fernandez, Z., Devkota, S., & Boshra, A. (2020). Philippine professional core competencies' impact on nurses' key performance indicators (KPIs) for patient safety outcomes. *International Journal of Advanced and Applied Sciences, 7*(1), 1-5.

Feliciano, E. E., Feliciano, A. Z., Maniago, J. D., Gonzales, F., Santos, A. M., Albougami, A., . . . Al-Olah, H. (2021). Nurses' competency in Saudi Arabian healthcare context: A cross-sectional correlational study. *Nursing Open, 8*(5), 2773-2783. https://doi.org/10.1002/nop2.853

Fontes, A. P., & Neri, A. L. (2015). Resilience in aging: Literature review. *Ciencia & Saude Coletiva, 20*, 1475-1495. https://doi.org/10.1590/1413-81232015205.00502014

Fredriksen-Goldsen, K. I., Kim, H.-J., Shiu, C., Goldsen, J., & Emlet, C. A. (2015). Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group. *The Gerontologist, 55*(1), 154-168. https://doi.org/10.1093/geront/gnu081

Fuller, H. R., & Huseth-Zosel, A. (2021). Lessons in resilience: Initial coping among older adults during the COVID-19 pandemic. *The Gerontologist, 61*(1), 114-125. https://doi.org/10.1093/geront/gnaa170

Golant, S. M. (2015). Residential normalcy and the enriched coping repertoires of successfully aging older adults. *The Gerontologist, 55*(1), 70-82. https://doi.org/10.1093/geront/gnu036

Grimmer, K., Kay, D., Foot, J., & Pastakia, K. (2015). Consumer views about aging-in-place. *Clinical Interventions in Aging, 10*, 1803-1811. https://dx.doi.org/10.2147%2FCIA.S90672

Hadley, E. C., Kuchel, G. A., & Newman, A. B. (2017). Report: NIA workshop on measures of physiologic resiliencies in human aging. *The Journals of Gerontology: Series A, 72*(7), 980-990. https://doi.org/10.1093/gerona/glx015

Hicks, G., & Miller, R. R. (2011). Physiological resilience. In B. Resnick, L. Gwyther, & K. Roberto (Eds.), *Resilience in aging*. New York, NY: Springer.

Hochhalter, A. K., Smith, M. L., & Ory, M. G. (2011). Successful aging and resilience: Applications for public health and health care. In B. Resnick, L. Gwyther, & K. Roberto (Eds.), *Resilience in aging* (pp. 15-29). New York, NY: Springer.

Hsu, H.-C., Kuo, T., Lin, J.-P., Hsu, W.-C., Yu, C.-W., Chen, Y.-C., . . . Yu, M.-T. (2018). A cross-disciplinary successful aging intervention and evaluation: Comparison of Person-to-Person and Digital-Assisted Approaches. *International Journal of Environmental Research and Public Health, 15*(5), 913. https://doi.org/10.3390/ijerph15050913

Huisman, M., Klokgieters, S. S., & Beekman, A. T. F. (2017). Successful ageing, depression and resilience research; a call for a priori approaches to investigations of resilience. *Epidemiology and Psychiatric Sciences, 26*(6), 574-578. https://doi.org/10.1017/S2045796017000348

Igarashi, H., Kurth, M. L., Lee, H. S., Choun, S., Lee, D., & Aldwin, C. M. (2021). Resilience in older adults during the COVID-19 pandemic: A socioecological approach. *The Journals of Gerontology: Series B*, gbab058. https://doi.org/10.1093/geronb/gbab058

Jeste, D. V., Glorioso, D., Lee, E. E., Daly, R., Graham, S., Liu, J., . . . Twamley, E. W. (2019). Study of independent living residents of a continuing care senior housing community: Sociodemographic and clinical associations of cognitive, physical, and mental health. *The American Journal of Geriatric Psychiatry, 27*(9), 895-907. https://doi.org/10.1016/j.jagp.2019.04.002

Kim, E. S., James, P., Zevon, E. S., Trudel-Fitzgerald, C., Kubzansky, L. D., & Grodstein, F. (2019). Optimism and healthy aging in women and men. *American Journal of Epidemiology, 188*(6), 1084-1091. https://doi.org/10.1093/aje/kwz056

Knepple Carney, A., Graf, A. S., Hudson, G., & Wilson, E. (2021). Age moderates perceived COVID-19 disruption on well-being. *The Gerontologist, 61*(1), 30-35. https://doi.org/10.1093/geront/gnaa106

Laird, K. T., Lavretsky, H., Wu, P., Krause, B., & Siddarth, P. (2019). Neurocognitive correlates of resilience in late-life depression. *The American Journal of Geriatric Psychiatry, 27*(1), 12-17. https://doi.org/10.1016/j.jagp.2018.08.009

Lau, S. Y. Z., Guerra, R. O., de Souza Barbosa, J. F., & Phillips, S. P. (2018). Impact of resilience on health in older adults: A cross-sectional analysis from the International Mobility in Aging Study (IMIAS). *BMJ Open, 8*(11), e023779. http://dx.doi.org/10.1136/bmjopen-2018-023779

Legdeur, N., Badissi, M., Carter, S. F., De Crom, S., Van De Kreeke, A., Vreeswijk, R., . . . Van Campen, J. P. (2018). Resilience to cognitive impairment in the oldest-old: design of the EMIF-AD 90+ study. *BMC Geriatrics, 18*(1), 1-16. https://doi.org/10.1186/s12877-018-0984-z

Levy, B. R., Slade, M. D., Chung, P. H., & Gill, T. M. (2015). Resiliency over time of elders' age stereotypes after encountering stressful events. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 70*(6), 886-890. https://doi.org/10.1093/geronb/gbu082

Li, F., Luo, S., Mu, W., Li, Y., Ye, L., Zheng, X., . . . Zhou, M. (2021). Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC Psychiatry, 21*(1), 1-14. https://doi.org/10.1186/s12888-020-03012-1

López, J., Perez-Rojo, G., Noriega, C., Carretero, I., Velasco, C., Martinez-Huertas, J. A., . . . Galarraga, L. (2020). Psychological well-being among older adults during the COVID-19 outbreak: A comparative study of the young–old and the old–old adults. *International Psychogeriatrics, 32*(11), 1365-1370. https://doi.org/10.1017/S1041610220000964

MacLeod, S., Musich, S., Hawkins, K., Alsgaard, K., & Wicker, E. R. (2016). The impact of resilience among older adults. *Geriatric Nursing, 37*(4), 266-272. https://doi.org/10.1016/j.gerinurse.2016.02.014

Martin, A. v., Eglit, G. M. L., Maldonado, Y., Daly, R., Liu, J., Tu, X., & Jeste, D. V. (2019). Attitude toward own aging among older adults: Implications for cancer prevention. *The Gerontologist, 59*(Supplement_1), S38-S49. https://doi.org/10.1093/geront/gnz039

Martin, P., Kelly, N., Kahana, B., Kahana, E., Willcox, B. J., Willcox, D. C., & Poon, L. W. (2015). Defining successful aging: A tangible or elusive concept? *The Gerontologist, 55*(1), 14-25. https://doi.org/10.1093/geront/gnu044

Martínez-Moreno, A., Ibáñez-Pérez, R. J., Cavas-García F, F., & Cano-Noguera, F. (2020). The influence of physical activity, anxiety, resilience and engagement on the optimism of older adults. *International Journal of Environmental Research and Public Health, 17*(21), 8284. https://doi.org/10.3390/ijerph17218284

Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development, 85*(1), 6-20. https://doi.org/10.1111/cdev.12205

Mlinac, M. E., Sheeran, T. H., Blissmer, B., Lees, F., & Martins, D. (2011). Psychological resilience. In B. Resnick, L. Gwyther, & K. Roberto (Eds.), *Resilience in aging*. New York, NY: Springer.

Moore, R. C., Eyler, L. T., Mausbach, B. T., Zlatar, Z. Z., Thompson, W. K., Peavy, G., . . . Jeste, D. V. (2015). Complex interplay between health and successful aging: Role of perceived stress, resilience, and social support. *The American Journal of Geriatric Psychiatry, 23*(6), 622-632. https://doi.org/10.1016/j.jagp.2014.08.004

Musich, S., Wang, S. S., Slindee, L., Kraemer, S., & Yeh, C. S. (2019). Association of resilience and social networks with pain outcomes among older adults. *Population Health Management, 22*(6), 511-521. https://doi.org/10.1089/pop.2018.0199

Paré, G., & Kitsiou, S. (2017). Methods for literature reviews. In F. Lau & C. Kuziemsky (Eds.), *Handbook of eHealth evaluation: An evidence-based approach [Internet]*. Victoria: University of Victoria.

Pruchno, R., & Carr, D. (2017). Successful aging 2.0: Resilience and beyond. *The Journals of Gerontology: Series B, 72*(2), 201-203. https://doi.org/10.1093/geronb/gbw214

Rantanen, T., Saajanaho, M., Karavirta, L., Siltanen, S., Rantakokko, M., Viljanen, A., . . . Lisko, I. (2018). Active aging–resilience and external support as modifiers of the disablement outcome: AGNES cohort study protocol. *BMC Public Health, 18*(1), 1-21. https://doi.org/10.1186/s12889-018-5487-5

Sadang, J. M., & Palompon, D. R. (2021). The development of Need–Threat Internal Resiliency Theory in COVID-19 crisis utilizing deductive axiomatic approach. *Belitung Nursing Journal, 7*(2), 72-77. https://doi.org/10.33546/bnj.1300

Soonthornchaiya, R. (2020). Resilience for psychological impacts of COVID-19 pandemic on older adults in Thailand. *HSOA Journal of Gerontology and Geriatric Medicine, 6*, 053. https://doi.org/10.24966/GGM-8662/100053

Sun, C., Yu, Y., Li, X., Cui, Y., Ding, Y., Zhu, S., . . . Zhou, R. (2020). The factors of adaptation to nursing homes in mainland China: A cross-sectional study. *BMC Geriatrics, 20*(1), 1-8. https://doi.org/10.1186/s12877-020-01916-x

United Nations. (2019). *World Population Ageing 2019: Highlights (ST/ESA/SER.A/430)*. Retrieved from New York: https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf

Wang, J.-L., Zhang, D.-J., & Zimmerman, M. A. (2015). Resilience theory and its implications for Chinese adolescents. *Psychological Reports, 117*(2), 354-375. https://doi.org/10.2466%2F16.17.PR0.117c21z8

Wister, A., Lear, S., Schuurman, N., MacKey, D., Mitchell, B., Cosco, T., & Fyffe, I. (2018). Development and validation of a multi-domain multimorbidity resilience index for an older population: Results from the baseline Canadian longitudinal study on aging. *BMC Geriatrics, 18*(1), 1-13. https://doi.org/10.1186/s12877-018-0851-y

Xu, W., Li, Y.-X., & Wu, C. (2019). Incidence of frailty among community-dwelling older adults: A nationally representative profile in China. *BMC Geriatrics, 19*(1), 1-9. https://doi.org/10.1186/s12877-019-1393-7

Yates, T. M., Tyrell, F. A., & Masten, A. S. (2015). Resilience theory and the practice of positive psychology from individuals to societies. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life* (pp. 773-788). New Jersey: John Wiley & Sons, Inc.

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The influence of workplace stress and coping on depressive symptoms among registered nurses in Bangladesh

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Abstract

Background: Nurses report high levels of workplace stress, which has been linked to an increased risk for experiencing depressive symptoms. Nurses' workplace stress is also linked to increased absenteeism and decreased job satisfaction.

Objectives: The objectives of this study were to examine: (1) the incidence of depressive symptoms among hospital-based registered nurses in Bangladesh; (2) common sources of workplace stress and their relationships to individual characteristics and depressive symptom scores; and (3) the potential mediating roles of coping strategies in the relationship between workplace stress and depressive symptoms.

Methods: A cross-sectional study design involved three hundred and fifty-two registered nurses. Data were collected using a demographic questionnaire and three standardized tools measuring sources of nurses' workplace stress, coping strategies, and depressive symptoms.

Results: More than half of the participants scored ≥ 16 on the CES-D, which was associated with a major depression episode. Total NSS scores had a small but significant influence on scores on the depression scale. Coping strategies had no mediated effect on the relationship between workplace stress and scores on the depression scale. Low-reliability coefficients for subscales of two of the standardized tools highlight the challenge for researchers in developing countries to address contextual differences that may influence the meanings attached to individual items.

Conclusion: Findings suggest that the mental health of registered nurses in Bangladesh requires immediate attention in part by attending to workplace stressors. Further research should focus on a deeper understanding of Bangladeshi registered nurses' work experiences and the unique contribution that workplace stressors have on their physical and mental health.

Keywords

occupational stress; depression; nurses; Bangladesh; psychometrics; mental health

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Background

Occupational stress is a major health and economic issue, with widespread impacts on individual workers' health and wellbeing, families, workplaces, and financial/economic stability. Well-described impacts for the individual include increased absenteeism, poorer job performance, work dissatisfaction, and stress symptoms (Peter et al., 2020). For health care settings, decreased productivity and absenteeism can have widespread and costly impacts on the workforce and those receiving care. Nurses experience higher rates of job stress compared to other professionals, with accompanying increased turnover, absenteeism (Kaddourah et al., 2018; Peter et al., 2020), and increased prevalence of chronic health problems (Deng et al., 2020). Not only does nurse-related job stress affect individual nurses' health and increase costs from replacement staff salaries, but it can also influence patient care and patient satisfaction. This, in turn, can influence recovery and increase the risk for medication or treatment errors (Martin, 2015).

In Bangladesh, approximately 4.1% of the general population had depression, and depression accounted for 7.1% of total years of life lived with disability in Bangladesh (World Health Organization, 2017). Recently, one study found that 80% of Bangladeshi nurses experienced stress at work, and 40% had depressive symptoms (Salma & Hasan, 2020). Studies completed in other countries found that the prevalence of depressive symptoms is higher in Registered Nurses (RNs) than in the general population (Hall et al., 2018). Significant

levels of depressive symptoms in RNs have been reported, 35.8% in China (Cheung & Yip, 2015) and 32.4% in Australia (Maharaj et al., 2019). Using diagnostic criteria, the one-year prevalence rate of Major Depressive Disorder (MDD) among Canadian nurses was 9.3% (Enns et al., 2015).

Specific work environment-related factors, including work overload and conflicts with physicians or other nurses, have been identified as contributors to depressive symptoms (Hall et al., 2018). In addition, several individual characteristics of nurses also were found to be associated with depressive symptoms, including age, marital status, professional education, and specialization practice settings (Khodadadi et al., 2016). The existing evidence indicated that nurses use problem-focused and emotion-focused coping strategies to deal with stressful situations (Li et al., 2017). Chen et al. (2020) found there was a significant association between coping and depression.

As the largest component of the health care workforce, it is critically important for health care settings and administrators to proactively consider strategies to attenuate occupational stress within the traditions, culture, and context of a specific health care system and the practice settings within that system. Potential strategies must be based on information obtained within a specific country, culture, and health care environment. Our overall aim was to fill that information gap specifically as it relates to Registered Nurses (RNs) in Bangladesh by initiating the first of a series of studies, beginning with a survey of RNs examining sources of work-related stress, how RNs coped with such stressors, and potential relationships among sources of work-related stress and depressive symptoms.

The present study was guided by the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984), which explains stress through the relationship patterns among three major concepts. These concepts include a cognitive appraisal, coping, and adaptational outcome. Cognitive appraisal is a process of evaluation to determine why and to what range a specific transaction or series of transactions between the person and the environment is stressful. Coping is a dynamic process that changes as the appraisal of the person-environment relationship changes over time based on the situation. This process can be a two-way process that alters the problem (problem-focused coping) and regulates the emotion behavior (emotion-focused coping). The long-term inability to cope with the situations may have an impact on adaptational outcomes, including psychological wellbeing, social functioning, somatic health, and illness of a person. In this study, workplace stress was used for cognitive appraisal while coping as a process of coping. The depressive symptoms were used as the adaptational outcome.

Our objectives were to examine (1) frequency of depressive symptoms as a common outcome of occupational stress; (2) the relationship among depressive symptoms, the various individual and system sources of work-related stress and coping strategies used by participants, and (3) the potential mediating roles of coping strategies in the relationship between workplace stress and depressive symptoms.

Methods

Study Design

This study used a correlational research design with a cross-sectional approach.

Participants

The population was RNs who had been working at governmental MCHs in Bangladesh. The sampling selection using proportional stratified random sampling with inclusion criteria: 1) respondents employed in the selected hospital for at least one year, and must have worked in the current unit for at least three or more months; 2) respondent is providing direct care for hospitalized patients. Exclusion criteria were nurses worked as a manager/supervisor or in the operating room or outpatient department and nurses currently on a long-term absence.

The sample size was determined by the power analysis method using G*Power 3.1 (Faul et al., 2007) based on a previous study (Tsaras et al., 2018). Three hundred and sixty respondents were needed for a two-tailed analysis using logistic regression with a .05 alpha level, 80 power, and 1.904 odds ratio. The questionnaires were distributed to 416 nurses, of which 360 sets were returned, translating to a response rate of 86.54%. A total of 8 questionnaires were incomplete and thus excluded from the analyses, leaving 352 sets eligible for data analyses.

Instruments

Demographic questionnaire. Respondents completed a demographic questionnaire that included age, religion, marital status, the highest level of professional education, work experience as a nurse, working experience in the current hospital, sufficiency of personal monthly income, number of children, and living arrangements.

Nursing Stress Scale (NSS) (Gray-Toft & Anderson, 1981), a 34-item questionnaire was used to measure seven different sources of workplace stress include: 1) Death and dying 2) Conflict with physician 3) Inadequate preparation 4) Lacks of support 5) Conflict with others nurses 6) Work overload and 7) Uncertainty about patient care. It is a 4-point Likert scale, responses range from 0 = [never] to 3 = [very frequently]. The sum of higher scores indicated that the nurses experienced higher levels of workplace stress. The value of Cronbach's alpha was .84.

Ways of Coping Questionnaire (WCQ) (Folkman & Lazarus, 1988a, 1988b), a 50-item questionnaire was used to assess the individual's use of eight different strategies of coping: 1) Confrontive coping; 2) Distancing; 3) Self-controlling; 4) Seeking social support; 5) Accepting responsibility; 6) Escape-avoidance; 7) Planful problem-solving; and 8) Positive reappraisal. In addition, the WCQ groups the items into two more general styles of coping (problem-focused coping and emotion-focused coping) (Folkman & Lazarus, 1985). The WCQ is a 4-point Likert scale, with responses ranging from 0 = [does not apply or not used] to 3 = [used a great deal]. The sum of higher scores indicated that the person frequently used the behaviors and cognitive strategies described by that scale during coping with a stressful event. The value of Cronbach's alpha was .92.

Center for Epidemiologic Studies-Depression (CES-D) (Radloff, 1977), a 20-item questionnaire, was used to measure depressive symptoms. The CES-D is a 4-point Likert scale, with responses ranging from 0 = [rarely or none of the time] to 3 = [most or all of the time]. The sum of higher scores indicated more symptoms of depression. The CES-D scale categorized depressive symptoms based on: not depressed (0-16); depressed (> 16). The value of Cronbach's alpha was .80.

All instruments used in this study are original English versions, which received permission from the authors.

Data Collection

Data collection was carried out by the first author from March to June 2017 at four governmental MCHs in Bangladesh.

Data Analysis

Data were analyzed using SPSS version 18 software. Descriptive statistics summarized demographic and relevant study variables. A logistic regression analysis was used to explore the association among depressive symptoms, workplace stressors, and personal characteristics with a significance level of p <.05. Baron and Kenny's method was used to test the mediating effect of coping on the relationship between workplace stress and depressive symptoms (Baron & Kenny, 1986).

Ethical Consideration

The study was approved by the Institutional Review Broad of Faculty of Nursing, Mahidol University, Thailand (COA. No. IRB-NS 2017/398.0602), and ethical clearance was obtained from the authorities of the selected Bangladeshi MCHs. Informed consent was signed by each participant prior to data collection.

Results

Table 1 summarizes the demographic information of the participants. There were no young early career participants (average age was 41, range: 29-59). Most were female and married. Two-thirds of the nurses (68.5%) were Muslim. Three-quarters of the RNs were diploma-prepared and had worked an average of 18 years as an RN. The four types of patient units were equally represented, and the average work experience in the current hospital was 10.9 years. Most of the participants lived with their spouses and children and reported that their personal income was insufficient.

Table 1 Demographic characteristics of nurses (N = 352)

Personal characteristics	% (*N*)	Mean (SD)	Range
Age (in years)			
29-39	44.6 (157)	40.1 (6.6)	29-59
40-49	45.2 (159)		
50-59	10.2 (36)		
Religion			
Muslim	68.5 (241)		
Hindu	30.1 (106)		
Christian	1.4 (5)		
Marital status			
Married	90.3 (318)		
Single	6.8 (24)		
Others	2.9 (10)		
Professional education			
Diploma in Nursing	74.7 (263)		
B.Sc. in Nursing/PHN	13.4 (47)		
MSN/MPH	11.9 (42)		
Experience as a nurse (in years)			
< 10	13.4 (47)	18.1 (7.1)	2-38
10-19	55.1 (194)		
20-29	28.4 (100)		
>30	3.1 (11)		
Years in current hospital			
1-9	51.4 (181)	10.9 (8.4)	1-32
10-19	32.1 (113)		
> 20	16.5 (58)		
Personal monthly income			
Sufficient	40.6 (143)	40.6	
Insufficient	59.4 (209)	59.4	
Number of children			
0	10.8 (38)		
1-2	82.4 (290)		
3	6.8 (24)		
Number of family members living with participant			
Only respondent	4.3 (15)	4.3	
1-4	68.5 (241)	68.5	
5-6	24.1 (85)	24.1	
7-8	3.1 (11)	3.1	

Table 2 summarizes the data obtained from the three standardized self-reports, including the means and standard deviations (SD) of the total scores, as well as the means and SD for the subscale scores for the NSS and WCQ and the calculated reliability coefficients. Although the overall average score for the entire sample on the CES-D was 15.73 (SD = 6.09), 51.4% of the RNs had scores of ≥16, equaling or exceeding the established cut-off score significantly correlated with MDD. The mean score in the subgroup of participants (*N* = 181) who had scores ≥16 was 20.35 (SD = 4.73).

The average score for the NSS was 50.67 (SD = 11.36). The most frequent sources of workplace stress (in rank order from highest to lowest) were Work Overload, followed by Death and Dying and Uncertainty regarding Treatment Care (Table 2). Conflict with Other Nurses and Lack of Support were perceived as the least stressful aspects of their workplace. The total mean score of the WCQ was 52.68 (SD = 17.30). The three coping strategies perceived to be most commonly used (by rank order from the most frequently used) included Seeking Social Support, Planful problem solving, and Positive reappraisal. Confrontive coping, Self-controlling, and Escape avoidance were deemed the least commonly used. When the WCQ items were dichotomized into the problem- or emotions-focused coping strategies, the mean of problem-focused coping strategies was 32.08 (SD = 8.44), and the mean of emotion-focused coping strategies was 20.56 (SD = 10.21). Table 2 also summarizes the calculated reliability coefficients for the NSS and the WCQ and their subscales.

Table 2 Means (SD) of total scores of the CES-D, NSS, and WCQ and subscale scores of the NSS and WCQ (N = 352) ranked from highest to lowest after accounting for the number of items

Scores	Mean	SD	Cronbach α
CES-D total score	15.73	6.09	.80
NSS total score	50.67	11.36	.84
WCQ total score	52.68	17.30	.92
NSS2 subscales (number of items)			
Workload (6)	10.88	2.79	.49
Death and dying (7)	11.62	3.53	.67
Uncertainty regarding Treatment (5)	8.10	2.79	.62
Inadequate preparation (3)	4.78	1.45	.56
Conflict with physician (5)	7.16	2.76	.66
Lack of support (3)	3.13	1.48	.32
Conflict with other nurses (5)	4.91	2.27	.44
WCQ4 subscales (number of items)			
Seeking social support (6)	8.79	2.07	.47
Planful problem solving (6)	8.39	2.44	.53
Positive reappraisal (7)	9.52	3.02	.65
Accepting responsibility (4)	4.38	1.87	.46
Escape-avoidance (8)	5.00	3.66	.75
Confrontive coping (6)	5.32	3.07	.68
Self-controlling (7)	6.23	3.55	.77
Distancing (6)	4.91	2.67	.68
Escape-avoidance (8)	5.00	3.66	.75
Coping scores grouped by:			
Problem-focused coping (25)	29.4	8.5	.85
Emotion-focused coping (25)	20.53	10.15	.90

Table 3 Multivariate logistic regression analyses on the related influencing factors of depressive symptoms

Variables	*B*	S.E.	*p-value*	OR	95% CI	
					LL	UL
Age	.01	.02	.69	1.01	.97	1.04
Marital status (ref: divorce, widowed, and separate)						
Single	-.09	.82	.92	.92	.19	4.56
Married	-.20	.71	.78	.82	.21	3.28
Professional education (ref: M.Sc. Nursing/PHN)						
Diploma in Nursing	-.11	.36	.77	.90	.44	1.83
B.Sc. in nursing / PHN	-.24	.46	.60	.79	.32	1.93
Working Unit (ref: Gynae/Obstetrics)						
Medical unit	-.31	.34	.37	.73	.38	1.43
Surgical unit	-.38	.33	.24	.68	.36	1.29
Critical care unit	-.06	.32	.86	.95	.50	1.78
NSS total score	.05	.01	.01*	1.05	1.03	1.08
Reference category		Non-depression				
Pseudo R2		.073				

Legend: * = significant ($p \leq .05$)

Table 3 provides information regarding relationships among age, marital status, professional education, working unit, and workplace stress and depressive symptoms. A significant positive association was found between NSS scores and

depressive symptoms [odds ratio (OR) 1.05, 95% confidence interval (CI) 1.03, 1.08, $p < .01$]. However, personal characteristics including age, marital status, professional education, and working unit were not associated with depressive symptoms.

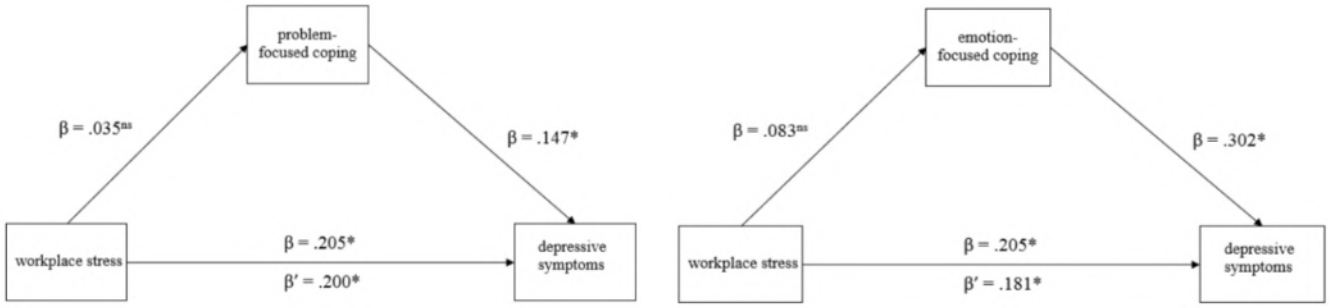

Figure 1 Testing the mediating effects of copings on the relationship between workplace stress and depressive symptoms (*$p < .05$)

Figure 1 show significant relationship between workplace stress and depressive symptoms ($\beta = .205$, $p < .05$) before controlling the mediating variable. When the mediating variable was controlled, the results showed that the relationship between workplace stress and depressive symptoms was still significant ($\beta' = .200$ and .181, $p < .05$). It means that there were no mediating effects of either problem- or emotion-focused coping scores on the relationship between workplace stress and depressive symptoms.

Discussion

The major finding that more than half of the nurses (51.4%) scored greater than 16 on the CES-D (mean 20.35, SD = 4.73) is alarming. Similar to the study with Chinese RNs (Li et al., 2017), the fact that half of the RNs that participated in the study (representing 12% of the overall pool of RNs) are likely experiencing MDD should be a call to action on the part of hospital administrators and unit managers. To add support that the work environment contributed to depressive symptoms is the positive relationship between the total scores on the NSS and CES-D.

Other sources of stress (e.g., home environment, financial insecurity, personal relationships, and chronic health problems) may also make a significant contribution to the risk of developing depressive symptoms. These external stressors may also increase the perceptions of the intensity of workplace stressors. Future research could help delineate the relative contribution of external stressors, workplace stressors, and a past history of MDD to the overall presence of depressive symptoms. It is noteworthy that 94% of the participants were female. It is well recognized that being female is an independent risk factor for MDD (Eid et al., 2019). In addition, Bangladeshi cultural norms include women as being responsible for meeting the care needs of all family members; thus, it is likely that many of the participants also carried additional household responsibilities related to caring for children and elderly family members. Future quantitative and qualitative studies would be useful in providing more detailed information about Bangladeshi RNs' perceptions of work-related stressors in the context of balancing home responsibilities and workplace responsibilities. Future studies could also explore the impact of the social stigma of being a female and choosing a career as a nurse on perceptions of occupational stress.

Prior to reporting our findings from the NSS and the WCQ, it is important to address the issue of reliability, in particular as it relates to the subscales within two of the questionnaires. The overall Cronbach α scores for the NSS calculated using the included sample are similar to those calculated by other researchers who have used these scales (Alenezi et al., 2018). However, for those that reported the calculated Cronbach α scores for the subscales, there is significant variability, which raises concerns about the reliability of specific subscales and if the meaning of each subscale is perceived differently in different groups of nurses across practice settings and national and cultural contexts. Even in the original development of the NSS and its examination of its psychometric properties in a group of American nurses, Gray-Toft and Anderson (1981) reported that only four of the seven subscales had Cronbach α scores greater than .70. Subsequent articles report a wide variety of NSS subscale Cronbach α scores, most often with higher subscale scores reported in the original study. Cronbach α scores for the subscales ranging between .67 to .89 have been reported across multiple countries and practice settings (Newman et al., 2020). Other researchers only reported the overall scores (Alenezi et al., 2018) or completed principal component analysis to support the use of only the total NSS score (Mert et al., 2021). Pathak et al. (2013) suggested that factor analysis completed with the involved study sample is required to better address the differences in working conditions in LMICs. In a study with 349 nurses in Turkish and after modifying the items loading on each subscale and rewording some of the subscales, the reliability coefficients for the subscales ranged from .63 to .81 (Mert et al., 2021). Other researchers have modified the original NSS (Alkrisat & Alatrash, 2017) to better reflect hospital-based practice, to better reflect specific national context (Kim et al., 2015), or for emergency room practice (Yuwanich et al., 2018).

The calculated Cronbach α scores for the subscales in this study (**Table 2**) were significantly lower than reported in the above studies, which must be considered a limitation to our results. Our findings suggest that future qualitative work will be crucial to gain a better understanding of the meaning of the

more common stressors that Bangladeshi nurses experience in their workplace. Using factor analysis to evaluate the Modified Nursing Stress Scale, similar to the Turkish study (Mert et al., 2021), would also be helpful for its relevance to Bangladesh.

The Cronbach α scores of the WCQ subscales were also calculated and similar to the NSS, showing some subscales with low reliability. Concerns about the reliability of the subscales are not limited to our experience. Kieffer and MacDonald (2011) completed a meta-analytic reliability generalization study and found that the Confrontive Coping and Distancing subscales generated the most variability across studies and that sample size, nature, and source of the participants, gender, and race all contributed to the observed variability. However, the authors note that the frequency of reliability reporting was less than 50%, making it difficult to draw robust conclusions. Another generalization study of the Ways of Coping found similar problems with lack of reporting reliability data in many studies but reported the subscale Self-Controlling as the most variable. The potential impact of lower subscale reliability on the results has been discussed (Labrague et al., 2018). There is also ongoing debate as to what is an acceptable reliability coefficient. Crocker and Algina (1986) suggested that, in general, 0.70 is acceptable; however, others argue a higher coefficient is necessary for confidence in the interpretation of data (Vakili & Jahangiri, 2018).

International researchers are often faced with challenging decisions at the design stage of the research process in terms of choosing well-published standardized tools. Their choices are often limited to using standardized tools, which are thought to be comparable to data from other studies, modifying tools, or having the time and skills available to develop and test a more contextually appropriate tool, which may then lack generalization. Using a standardized tool often means that it was developed in the context of a different culture, different sample, and for research with nurses working in different work environments. This study reflects our initial efforts to understand Bangladeshi RN's workplace stressors and the potential impact on their mental health. Our choice to use standardized tools exposed significant concerns regarding the applicability of the various items within the tools to Bangladeshi RNs. However, other international researchers have also used the same instruments, which provides some measure of comparability. Thus, in this contextual frame and acknowledging the lower reliability scores in some of the subscales of both the NSS and WCQ, we discuss our findings.

The average total score on the NSS was 50.67 (SD = 11.36), similar to the total scores reported in some (Alkrisat & Alatrash, 2017) but not all studies. A study of Hong Kong surgical nurses (N=54) reported a mean total score on the NSS of 67.70 (Newman et al., 2020). Our findings that workload was the most often reported source of stress was consistent with other countries' data (Karadzinska Bislimovska et al., 2014; Bautista et al., 2020; Newman et al., 2020). Walker et al. (2021) reported that younger nurses are more likely to feel stressed in the workplace; however, our data suggest that older, more experienced nurses can also experience significant workplace stress. Perceptions regarding workload as a stressor can include insufficient staff and/or too many non-nursing tasks as sources of workplace stress (Karadzinska Bislimovska et al., 2014). Evidence that non-nursing tasks likely account for some of the participants' perceptions of workload as a stressor comes from the previously mentioned study that observed about 60% of Bangladeshi RNs time working within government systems was taken up with direct patient care (Joarder et al., 2021; Rony, 2021). The low nurse-to-patient ratio [2 nurses per 10,000 population] (World Health Organization, 2020) in Bangladesh may also have influenced perceptions of workload as a stressor. Based on hospital records obtained as part of the study, the hospital occupancy rate was 131.4%, and the nurse-patient ratio was 1:10 at the MCHs. Bangladesh has 76 percent of the deficit of nurses (Rony, 2021).

The other two common sources of stress identified by the RNs in the study were Death and Dying and Uncertainty regarding Treatment. All practicing nurses experience caring for terminally ill patients, rapid changes in health status, unexpected death of patients, and supporting families after the death of a loved one. These are inherently stressful events. If these essential nursing responsibilities are perceived to be affected by other workplace stressors that interfere with providing quality care for the dying patient and their families, nurses may perceive this as a chronic stressor related to system issues rather than an individual limitation. Uncertainty regarding treatment could reflect multiple circumstances, including inadequate information from physicians, unavailability of a physician when needed, uncertainty regarding how to operate specialized instruments, and concerns about the effectiveness of the prescribed treatment regime. Similar results were reported in a Macedonian study (Karadzinska Bislimovska et al., 2014).

The personal characteristics (age, marital status, professional education, and practice setting) were shown to have no significant influence on depressive symptoms, in contrast to prior studies related to age (Walker et al., 2021), professional education, or specific practice settings (Khodadadi et al., 2016). The average age and years of experience, which have multiple impacts on competence and confidence regarding workplace responsibilities, may have contributed to the observed differences in our results compared to other studies (Folkman & Lazarus, 1980).

Although personal characteristics did not influence depressive symptoms, NSS scores had a significant positive association with depressive symptoms (OR = 1.05, $p < .01$). This finding is in keeping with multiple other studies (Khodadadi et al., 2016; Maharaj et al., 2019). A consistent association between stress and depression has been well recognized, especially in clinical and community-based research related to sex differences in mood and anxiety symptoms and disorders (Salk et al., 2017), as well as in the literature related to occupational stress and burnout (Bianchi et al., 2015). Although the workload was shown to be the highest source of workplace stress in this study, it was not a significant predictor of depressive symptoms. Further exploration of nurses' perceptions of their workload and their perceptions of the degree of control over their work responsibilities may help elucidate the underpinning of this apparent discrepancy.

The total mean score on the WCQ was calculated to be 52.68 (SD=17.3). Comparisons to other studies are difficult as there are multiple similar coping questionnaires, including the

Ways of Coping Questionnaire (Folkman & Lazarus, 1988a) and the Ways of Coping Scale (Folkman & Lazarus, 1988b), all derived from the original tool developed by Folkman and Lazarus (1980) (Ways of Coping Checklist). In addition, in studies where participants endorsed more of the various coping strategies as described within each subscale (Al Gamal et al., 2018; Labrague et al., 2018), then the average score will be higher than reported here. In our study, the three most often used coping strategies were Seeking social support, Planful problem solving, and Positive reappraisal. Interestingly, Positive reappraisal has shown the least variability across studies (Rexrode et al., 2008), suggesting that this subscale reflects a similar meaning across populations. It is important to note that previous articles related to reliability suggest that reliability testing needs to be calculated by sex (Rexrode et al., 2008; Kato, 2015). Our sample is 94% female, thus can add to the body of knowledge regarding the impact of sex and gender on coping.

Despite any minor differences across the above-mentioned coping instruments, all share the belief as described by Lazarus and Folkman (1984), that coping involves two overarching types of strategies, actions to alter the stressor or the behavioral response or by modifying the emotions related to the internal perceptions of the stressor. Similar to our findings, previous studies reported that nurses use both types of strategies to deal with stressful situations (Ramezanli et al., 2015). Given the underlying belief about the two general styles are used with different goals in mind, direct comparisons of the average scores between the two general styles are not appropriate. Despite the original description of the two overall styles not being mutually exclusive, comparisons have been previously reported. Our finding that the overall mean score for problem-focused coping was higher than observed for emotion-focused coping was similar to some reports (Ramezanli et al., 2015). However, Jang et al. (2019) reported that emotion-focused coping scores were higher than problem-focused coping scores in a group of South Korean nurses.

The finding that both coping styles had no effect on the relationship between workplace stress and depressive symptoms was congruent with the previous study (Lin et al., 2010) but contrary to the statement of Lazarus and Folkman (1984). A possible explanation is that both types of coping styles were used by nurses to control their workplace stress. Dewe et al. (2010) revealed that both coping styles might be either detrimental or beneficial, depending on how much control an individual has over the stressful situation. Wang et al. (2011) indicated that the use of coping strategies might vary with respect to the individual, psychological, and cultural factors.

It is noteworthy that when CES-D scores were dichotomized (less than 16 and 16 or greater), we did observe group differences. There were no differences in mean scores for problem-focused coping between the two groups subdivided by CES-D scores. However, participants who scored ≥16 on the CES-D had significantly higher average scores of emotion-focused coping compared to participants with CES-D scores <16 ($p = .007$). Lin et al. (2010) also found there was a significant association between coping and depression.

Limitations

This study was an initial effort to increase understanding of the types of common workplace stressors experienced by Bangladeshi RNs, potential relationships among workplace stressors, depressive symptoms, and commonly used coping strategies. The cross-sectional design was appropriate at this stage, despite its limitation in terms of identifying causal relationships among relevant variables. A limitation in our study was the calculated reliability coefficients of the NSS and WCQ subscales post-data collection. From these data, part of our ongoing research plan must include exploring the meanings inherent in the various items of both tools that are specific to the context of Bangladeshi RNs and the specific workplace (MCHs), as well as the Bangladeshi health system and the more general context of Bangladeshi society. Qualitative and mixed-method research methods can make important contributions to this work. Other limitations include limiting the recruitment to RNs from government MCHs only, a single type of nurse (RNs), and in-patient practice settings, all of which may limit the generalization of the data.

Recommendations

The high incidence of CES-D score ≥ 16 indicates that a large % of RNs struggled with significant depressive symptoms. This finding could have far-reaching and rippling effects, including impacts on the status of individuals' physical and mental health, their ability to provide quality care to their patients, their interactions with others on the health team in a positive manner, and their level of job satisfaction. Nursing education programs may need to evaluate their curriculum for current relevance. Hospital administrators may need to consider and adopt multiple strategies to address individual, systemic, and societal factors that increase job stress for Bangladeshi RNs. Such strategies as increased remuneration, increased participation in decision-making, increased personal autonomy in the workplace, specific stress management programs, advocacy at the local and national levels to increase funding to improve staff: patient ratios could all support improvements in the hospital work environment.

Conclusion

The results of this initial cross-sectional study raise serious concerns about the mental health and wellbeing of RNs in Bangladesh as it relates to various types of workplace stressors. A fuller understanding of the sources of workplace stress and the meanings attached to workplace experiences common to Bangladeshi RNs are needed as a basis to evaluate how to measure the unique sources and degree of job-related stress as experienced by RNs. Completing factor analysis on both the NSS and WCQ based on data from Bangladeshi RNs could be useful in modifying the tools for a better fit. However, our data reinforce others' findings that measurement tools arising within developed nations may not be reliable in developing nations, which presents a significant challenge for many international researchers. Detailed narratives about the day-to-day activities that constitute RN practice in Bangladeshi MCHs would also be useful as an initial basis for comparisons across practice settings. Any improvements in the health of nursing professionals will

translate to a better health care system and improvements in the quality of patient care.

Declaration of Conflicting Interest

The authors have no conflict of interest to declare.

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Authors' Contributions

RM: Conception and design of the study, acquisition, analysis, and interpretation of data, writing the article under supervision of all authors. YS: Consultant on the area of mental health and conceptual research framework, overall guidance, and supervision from the conception of the study to the final approval of the submitted version. NV: Supervision in methodology, data collection, analysis, and interpretation of results, facilitate in article revision for content accuracy. NC: Statistical analysis and interpretation of results KH: Consultant on the area of stress and coping, drafting the article and revising critically for important intellectual content, editing of article's grammar, and overall content flow and consistency. All authors agreed with the final version of the article to be published.

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Data Availability

Based on IRB-NS, raw data were not allowed to generate on request.

References

Al Gamal, E., Alhosain, A., & Alsunaye, K. (2018). Stress and coping strategies among Saudi nursing students during clinical education. *Perspectives in Psychiatric Care, 54*(2), 198-205. https://doi.org/10.1111/ppc.12223

Alenezi, A. M., Aboshaiqah, A., & Baker, O. (2018). Work-related stress among nursing staff working in government hospitals and primary health care centres. *International Journal of Nursing Practice, 24*(5), e12676. https://doi.org/10.1111/ijn.12676

Alkrisat, M., & Alatrash, M. (2017). Psychometric properties of the extended nursing stress scale: Measuring stress in workplace. *Journal of Nursing Measurement, 25*(1), 31E-45E. https://doi.org/10.1891/1061-3749.25.1.31

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Bautista, J. R., Lauria, P. A. S., Contreras, M. C. S., Maranion, M. M. G., Villanueva, H. H., Sumaguingsing, R. C., & Abeleda, R. D. (2020). Specific stressors relate to nurses' job satisfaction, perceived quality of care, and turnover intention. *International Journal of Nursing Practice, 26*(1), e12774. https://doi.org/10.1111/ijn.12774

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015). Burnout–depression overlap: A review. *Clinical Psychology Review, 36*, 28-41. https://doi.org/10.1016/j.cpr.2015.01.004

Chen, J., Li, J., Cao, B., Wang, F., Luo, L., & Xu, J. (2020). Mediating effects of self-efficacy, coping, burnout, and social support between job stress and mental health among young Chinese nurses. *Journal of Advanced Nursing, 76*(1), 163-173. https://doi.org/10.1111/jan.14208

Cheung, T., & Yip, P. S. F. (2015). Depression, anxiety and symptoms of stress among Hong Kong nurses: A cross-sectional study. *International Journal of Environmental Research and Public Health, 12*(9), 11072-11100. https://doi.org/10.3390/ijerph120911072

Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Orlando, FL: ERIC.

Deng, X., Liu, X., & Fang, R. (2020). Evaluation of the correlation between job stress and sleep quality in community nurses. *Medicine, 99*(4). https://dx.doi.org/10.1097%2FMD.0000000000018822

Dewe, P. J., O'Driscoll, M. P., & Cooper, C. (2010). *Coping with work stress: A review and critique*. Oxford: John Wiley & Sons.

Eid, R. S., Gobinath, A. R., & Galea, L. A. M. (2019). Sex differences in depression: Insights from clinical and preclinical studies. *Progress in Neurobiology, 176*, 86-102. https://doi.org/10.1016/j.pneurobio.2019.01.006

Enns, V., Currie, S., & Wang, J. (2015). Professional autonomy and work setting as contributing factors to depression and absenteeism in Canadian nurses. *Nursing Outlook, 63*(3), 269-277. https://doi.org/10.1016/j.outlook.2014.12.014

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175-191. https://doi.org/10.3758/BF03193146

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*(3), 219-239. https://doi.org/10.2307/2136617

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*(1), 150-170. https://psycnet.apa.org/doi/10.1037/0022-3514.48.1.150

Folkman, S., & Lazarus, R. S. (1988a). *Ways of coping questionnaire*. Palo Alto, CA: Consulting, Psychological Press.

Folkman, S., & Lazarus, R. S. (1988b). Coping as a mediator of emotion. *Journal of Personality and Social Psychology, 54*(3), 466-475. https://psycnet.apa.org/doi/10.1037/0022-3514.54.3.466

Gray-Toft, P., & Anderson, J. G. (1981). The nursing stress scale: Development of an instrument. *Journal of Behavioral Assessment, 3*(1), 11-23. https://doi.org/10.1007/BF01321348

Hall, A. L., Franche, R.-L., & Koehoorn, M. (2018). Examining exposure assessment in shift work research: A study on depression among nurses. *Annals of Work Exposures and Health, 62*(2), 182-194. https://doi.org/10.1093/annweh/wxx103

Jang, M. H., Gu, S. Y., & Jeong, Y. M. (2019). Role of coping styles in the relationship between nurses' work stress and well-being across career. *Journal of Nursing Scholarship, 51*(6), 699-707. https://doi.org/10.1111/jnu.12523

Joarder, T., Parvage, M. A., Rawal, L. B., & Ahmed, S. M. (2021). A policy analysis regarding education, career, and governance of the nurses in Bangladesh: A qualitative exploration. *Policy, Politics, & Nursing Practice, 22*(2), 114-125. https://doi.org/10.1177%2F1527154420988003

Kaddourah, B., Abu-Shaheen, A. K., & Al-Tannir, M. (2018). Quality of nursing work life and turnover intention among nurses of tertiary care hospitals in Riyadh: A cross-sectional survey. *BMC Nursing, 17*(1), 1-7. https://doi.org/10.1186/s12912-018-0312-0

Karadzinska Bislimovska, J., Basarovska, V., Mijakoski, D., Minov, J., Stoleski, S., Angeleska, N., & Atanasovska, A. (2014). Linkages between workplace stressors and quality of care from health professionals' perspective–Macedonian experience. *British Journal of Health Psychology, 19*(2), 425-441. https://doi.org/10.1111/bjhp.12040

Kato, T. (2015). Frequently used coping scales: A meta-analysis. *Stress and Health, 31*(4), 315-323.

Khodadadi, E., Hosseinzadeh, M., Azimzadeh, R., & Fooladi, M. (2016). The relation of depression, anxiety and stress with personal characteristics of nurses in hospitals of Tabriz, Iran. *International Journal of Medical Research & Health Sciences, 5*(5), 140-148.

Kieffer, K. M., & MacDonald, G. (2011). Exploring factors that affect score reliability and variability. *Journal of Individual Differences, 31*(1), 26-38. https://doi.org/10.1027/1614-0001/a000031

Kim, K. M., Nam, K. A., Lee, E., & Jeong, G. H. (2015). Validity and reliability of the Korean version of the expanded nursing stress scale. *Journal of Korean Academy of Nursing Administration, 21*(5), 542-551. https://doi.org/10.11111/jkana.2015.21.5.542

Labrague, L. J., McEnroe-Petitte, D. M., Leocadio, M. C., Van Bogaert, P., & Cummings, G. G. (2018). Stress and ways of coping among nurse managers: An integrative review. *Journal of Clinical Nursing, 27*(7-8), 1346-1359. https://doi.org/10.1111/jocn.14165

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Li, L., Ai, H., Gao, L., Zhou, H., Liu, X., Zhang, Z., . . . Fan, L. (2017). Moderating effects of coping on work stress and job performance for nurses in tertiary hospitals: A cross-sectional survey in China. *BMC Health Services Research, 17*(1), 1-8. https://doi.org/10.1186/s12913-017-2348-3

Lin, H. S., Probst, J. C., & Hsu, Y. C. (2010). Depression among female psychiatric nurses in southern Taiwan: main and moderating effects of job stress, coping behaviour and social support. *Journal of Clinical Nursing, 19*(15-16), 2342-2354. https://doi.org/10.1111/j.1365-2702.2010.03216.x

Maharaj, S., Lees, T., & Lal, S. (2019). Prevalence and risk factors of depression, anxiety, and stress in a cohort of Australian nurses. *International Journal of Environmental Research and Public Health, 16*(1), 61. https://doi.org/10.3390/ijerph16010061

Martin, C. J. (2015). The effects of nurse staffing on quality of care. *MedSurg Nursing, 24*(2), S4-S4.

Mert, S., Aydin Sayilan, A., & Baydemir, C. (2021). Nurse Stress Scale (NSS): Reliability and validity of the Turkish version. *Perspectives in Psychiatric Care, 57*(2), 443-454. https://doi.org/10.1111/ppc.12606

Newman, C., Jackson, J., Macleod, S., & Eason, M. (2020). A survey of stress and burnout in forensic mental health nursing. *Journal of Forensic Nursing, 16*(3), 161-168. https://doi.org/10.1097/JFN.0000000000000271

Pathak, V., Chakraborty, T., & Mukhopadhyay, S. (2013). Reliability and validity analysis of modified Nursing Stress Scale for Indian population. *Journal of Nursing Measurement, 21*(2), 224-245. https://doi.org/10.1891/1061-3749.21.2.224

Peter, K. A., Hahn, S., Schols, J. M. G. A., & Halfens, R. J. G. (2020). Work-related stress among health professionals in Swiss acute care and rehabilitation hospitals—A cross-sectional study. *Journal of Clinical Nursing, 29*(15-16), 3064-3081. https://doi.org/10.1111/jocn.15340

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385-401. https://doi.org/10.1177%2F014662167700100306

Ramezanli, S., Koshkaki, A. R., Talebizadeh, M., Jahromi, Z. B., & Jahromi, M. K. (2015). A study of the coping strategies used by nurses working in the intensive care units of hospitals affiliated to Jahrom University of Medical Sciences. *International Journal of Current Microbiology and Applied Sciences, 4*(4), 157-163.

Rexrode, K. R., Petersen, S., & O'Toole, S. (2008). The Ways of Coping Scale: A reliability generalization study. *Educational and Psychological Measurement, 68*(2), 262-280. https://doi.org/10.1177%2F0013164407310128

Rony, M. K. K. (2021). Diploma in Nursing or Bachelor of Science in Nursing: Contradictory issues among nurses in Bangladesh. *Belitung Nursing Journal, 7*(1), 57-58. https://doi.org/10.33546/bnj.1250

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: Meta-analyses of diagnoses and symptoms. *Psychological Bulletin, 143*(8), 783-822. https://psycnet.apa.org/doi/10.1037/bul0000102

Salma, U., & Hasan, M. M. (2020). Relationship between job satisfaction and depression, anxiety and stress among the female nurses of Dhaka Medical College and Hospital, Bangladesh. *Patient Care, 10*(3), 94-102. https://doi.org/10.5923/j.phr.20201003.02

Tsaras, K., Papathanasiou, I. V., Vus, V., Panagiotopoulou, A., Katsou, M. A., Kelesi, M., & Fradelos, E. C. (2018). Predicting factors of depression and anxiety in mental health nurses: A quantitative cross-sectional study. *Medical Archives, 72*(1), 62-67. https://dx.doi.org/10.5455%2Fmedarh.2017.72.62-67

Vakili, M. M., & Jahangiri, N. (2018). Content validity and reliability of the measurement tools in educational, behavioral, and health sciences research. *Journal of Medical Education Development, 10*(28), 106-118. http://dx.doi.org/10.29252/edcj.10.28.106

Walker, J. L., Slavish, D. C., Dolan, M., Dietch, J. R., Wardle-Pinkston, S., Messman, B., . . . Kelly, K. (2021). Age-dependent associations among insomnia, depression, and inflammation in nurses. *Psychology & Health, 36*(8), 967-984. https://doi.org/10.1080/08870446.2020.1805450

Wang, W., Kong, A. W. M., & Chair, S. Y. (2011). Relationship between job stress level and coping strategies used by Hong Kong nurses working in an acute surgical unit. *Applied Nursing Research, 24*(4), 238-243. https://doi.org/10.1016/j.apnr.2009.09.003

World Health Organization. (2017). Number of people with depression increases. Retrieved from http://www.searo.who.int/bangladesh/enbandepressionglobal/

World Health Organization. (2020). The Global health observatory: Bangladesh national health accounts, an overview on the public and private expenditures in health sectors. Retrieved from https://www.who.int/bangladesh

Yuwanich, N., Akhavan, S., Nantsupawat, W., Martin, L., Elfström, M. L., & Sandborgh, M. (2018). Development and psychometric properties of the stressor scale for emergency nurses. *International Emergency Nursing, 39*, 77-88. https://doi.org/10.1016/j.ienj.2018.01.005

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Original Research

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Aesthetics in nursing practice as experienced by nurses in Indonesia: A phenomenological study

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Abstract

Background: While aesthetics in nursing practice brings out the beauty in nursing, studies regarding how aesthetics are implemented in practice are lacking.
Objective: To describe the meanings of aesthetics in nursing practice experienced by nurses in Indonesia.
Methods: This qualitative study employed a hermeneutic phenomenological approach based on Gadamerian philosophy. Thirteen nurses were asked to reflect on their experiences of providing aesthetics in their practice through drawing, followed by individual face-to-face interviews. Data were collected in a public hospital in West Sumatra, Indonesia. The interview transcripts and the pictures were analysed following van Manen's approach.
Results: Five thematic categories were revealed: 1) Engaging in caring for persons; 2) Full of compassion; 3) Sympathetic place of care; 4) A joyful time of care; and 5) Distracting the inconvenience in care.
Conclusion: Aesthetics in nursing practice is understood and experienced by Indonesian nurses in various ways, not only limited to the visual beauty, cleanness or tidiness of nursing intervention, but are expressed in other ways within caring, including providing care with compassion, applying the art of communication, relieving the pain, and applying innovation in care. These findings can be used to inform nurses in practising aesthetic nursing for enhancing the quality of care.

Keywords

aesthetics in nursing practice; hermeneutics; nursing; phenomenology; Indonesia

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Background

Nursing knowledge is applied in the ways of nurses practice nursing. This is initiated on the ways that they know the patients as the focus of their professional care. The aesthetic way of knowing in nursing is one of the fundamental patterns of knowing (Carper, 1978). The other ways of knowing are empirical, personal, and ethical knowing. To appreciate these fundamental patterns of knowing in nursing, Carper (1978) emphasised 'empathy' as the essential component in understanding and practising the aesthetic way of knowing—the capacity of nurses to understand others as persons. Understanding the situation of the person being nursed is essential for nurses in order to foster their nursing care and facilitate quality health outcomes for patients.

The aesthetic way of knowing is also described as the art of nursing (Carper, 1978). The art of nursing does not only refer to the physical appearance of the result or effect of nursing care but also the involvement of the wholeness of nursing care. Aesthetic knowing in nursing can include an engaging dimension where nurses are required to engage at the moment and interpret the situation and needs of the patients (Bender & Elias, 2017). In doing so, nurses become involved in the nursing experience in terms of nurses' ability to understand and perceive the situation of others.

Aesthetics in nursing practice has been examined in several studies (Dahal & Kongsuwan, 2021; Radmehr et al., 2015). Dahal and Kongsuwan (2021) described the meanings of aesthetics in nursing practice from the lived experiences of sixteen nurses in a cancer hospital in Nepal. This study found that aesthetics in nursing practice for patients with cancer included nurses' actions of knowing persons as a whole, creating a pleasant healing environment, and creatively best-using resources for palliation. The goal of the practice was nurturing hope, and the outcome gained was rewarding the self. Another study in Iran by Radmehr et al. (2015) described nursing care aesthetics from the experiences of twelve patients and fourteen nurses. Their study revealed that nursing care aesthetics were described as what reflects holistic nursing with the emphasis on nursing skill and spirituality (Radmehr et al., 2015). In addition, aesthetics was used in nursing research in the form of aesthetic expressions through artworks in hermeneutic phenomenological study to

understand the deep meanings of the lived experiences. For example, Galvez et al. (2021) examined the use of aesthetic expressions through a draw-and-write method in researching the lived experience among children with advanced cancer in the Philippines. Their study found that aesthetic expression was a well-suited method to understand the children' life-worlds. Another study by Kongsuwan et al. (2021) investigated aesthetic expressions of caring in nursing among Japanese undergraduate nursing students. In their research, data were art-based graphic expressions, such as drawings and written reflections on the drawings to represent the meanings of caring in nursing from the nursing students' understandings.

Nonetheless, studies regarding Indonesian nurses` understanding of aesthetics in nursing practice were limited. A literature search regarding aesthetics in nursing practice in Indonesia yielded only one review article (Ibrahim, 2017), which aimed to explore and discuss the cultural perspectives on aesthetics in nursing practice and education in the context of Indonesian nursing. The knowledge in the review article suggested that culturally appropriate care and individual approach should be provided to implement aesthetics in nursing practice in Indonesia (Ibrahim, 2017). However, no study was found to date which addresses how aesthetics in nursing was practised among nurses in Indonesia.

Examining aesthetics in nursing practice from the experiences of nurses is essential in order to contribute to nursing knowledge based on the illuminations of aesthetics in nursing practice. Furthermore, since aesthetic knowing is necessary for illuminating caring in nursing, understanding aesthetics in nursing practice as experienced by nurses is important to enhance the quality of nursing care.

The Theory of Aesthetic Nursing Practice (AesNURP) was developed by Kongsuwan (2020). This theory informed aesthetic nursing practice as a deliberate practice of nursing for persons during the caring encounters through co-creating processes between nurses and the nursed in which oneness is facilitated and realised. AesNURP theory consists of five assumptions as follows (Kongsuwan, 2020): 1) Persons are caring by virtue of their humanness (Boykin & Schoenhofer, 2001), 2) Ideal of wholeness is a perspective of oneness (Locsin, 2005), 3) Persons co-create aesthetic expressions in nursing, 4) Persons mutually interact with the environment, and 5) Aesthetics in nursing is within aesthetic nursing environment.

In addition, AesNURP theory provides The Practice Processes of Aesthetics in Nursing (*PraPan*), involving the dynamic, continuous, and multiple phases of encountering, co-creating caring relationships, and meaningful engaging within the aesthetic environment (Kongsuwan, 2020). AesNURP theory was used in the explanation of the findings of this study. This study aimed to describe the meanings of aesthetics in nursing practice as experienced by nurses in Indonesia.

Methods

Study Design

This study followed a qualitative research design based on hermeneutic phenomenology (van Manen, 2014). Gadamer's philosophy was used as a conceptual framework.

As a tradition of phenomenology, Gadamer believed that art provided human experiences with a new way to understand the world (van Manen, 2014). Once the experience is formed into an aesthetic expression, the truth of the lived meaning of human experience will become deeper. When the relationship of art with the human context is seen clearly, the aesthetics will provide humans with the experience of the truth. Thus, art is considered a source of lived experience (van Manen, 2014).

In this study, nurse participants were asked about their experiences of aesthetics in their practice. To help the nurses describe and express their understanding of aesthetics in nursing practice, they were requested to draw a picture as an aesthetic expression that reflected their experience, which was considered one of the data, followed by individual semi-structured interviews.

Participants and Setting

Thirteen nurses participated in this study. These participants were selected by a purposive sampling technique based on the following inclusion criteria: (1) being a registered nurse with experiences providing beautiful/ pleasurable/ compassionate/ appreciative/ inspirational/ satisfying nursing care in the clinical field for at least two years. Being a registered nurse for at least two years allow them to have adequate experience providing care for many patients with various conditions in different wards.

This study was conducted in a public hospital in West Sumatra Province, Indonesia. This hospital is a referral hospital in the province where patients from various regions with various diseases were referred. With these conditions, nurses in the hospital setting were exposed to different patients' conditions, thus allowing them to deliver nursing care based on each nursing situation. Furthermore, data were collected from three wards (pediatric ward, respiratory ward, and cardiovascular ward) to allow researchers to obtain different experiences among nurses from other wards.

Data Collection

The researchers contacted and submitted a permission letter to the hospital to access the participants. After obtaining the permission, the researchers explained the information about the study and inclusion criteria for the participants to the head nurses. The head nurses assisted the researchers in announcing and endorsing the study to their staff. After their eligible staff agreed to be contacted, the researchers made contact with the nurse who was willing to participate in the study.

Data were collected from early March to April 2019. Data collection was held in nurses meeting rooms, consultation rooms, and vacant cabin wards, which were booked with permission from the concerned authority before the interview. The rooms for the interview had adequate lighting, comfortable seating arrangement, and quiet, which helped maintain the privacy and confidentiality of the sessions. Each interview lasted for approximately 30-60 minutes. Two authors (first and third authors) interviewed one interviewee together at the same time using an interview guide. Both researchers have experience in conducting qualitative studies and have experience as clinical practice instructors for approximately seven years.

The data collection procedures include the drawing and interviews phase, as described below.

Drawing. Researchers did not have a prior relationship with the participants. However, before the interview, the researchers established rapport with the nurse participants by beginning with informal conversations, such as "*How was your day today? How do you feel?*" Afterwards, the researchers asked the participants to illustrate their experiences providing aesthetics in nursing practice through drawings. The participants were provided with a sheet of A4 blank paper, a few colour pencils, a sharpener, and an eraser. They were given time to draw. Once they finished drawing, the researchers continued with the interview. However, if they requested more time to draw, they were allowed to submit their drawings on the agreed date and time based on their submission feasibility. The nurse participants were informed that they must draw by themselves and could not request somebody else to draw for them. The interview was conducted after they submitted the drawing at the agreed time.

Interview. The researchers used the drawings and the semi-structured interview guide to describe their experience providing aesthetics in nursing practice. Researchers further asked questions based on the symbols found in the drawings and the colours they used in the drawings. Some of the questions of the semi-structured interview guide are presented in **Table 1**.

Probing questions were used when clarification was needed. No repeat interview was performed. Interviews were recorded by using two recorders. During data collection, researchers logged field notes to record significant events, including the date and place of the interview, the environmental conditions during the interview, the participants' expressions, and the researchers' reflections. The transcripts were not returned to participants for correction; however, the probing questions were used between questions when clarification was needed.

Table 1 Drawing and semi-structured interview guide

No.	Questions
1.	Would you please draw the reflection of beautiful/pleasurable/compassionate/appreciative/ satisfying/inspirational nursing care for your patient?
2.	Can you please describe the meaning of the picture you have drawn to me?
3.	Can you please tell me your experience of providing beautiful/pleasurable/compassionate/appreciative/satisfying/inspirational nursing care to your patient?
4.	What made you think it is beautiful/pleasurable/appreciative/satisfying/inspirational nursing care?
5.	What made you do practice nursing care this way?
6.	How did you feel after that?
7.	What were the reactions of the patients/family members and other health professionals?

Data Analysis

Data were analysed based on van Manen's approach (van Manen, 2014). Each interview was transcribed and reread line by line several times, together with examining the relevant drawings and reading field notes. This was done to get a comprehensive understanding of the data. The significant excerpts were highlighted and coded. Then, analysing the drawing, the researchers examined each drawing as a whole for any pattern, the colour used, and participants' excerpts about their drawing. Data were first coded in Bahasa Indonesia by the first and third authors, then were grouped into the same sub-themes and thematic categories. The essential excerpts, sub-themes and thematic categories were translated into English by the first and third authors and audited by the second author. Essential themes were grouped based on existential themes of van Manen's life worlds, which were lived other, lived body, lived space, lived times, and lived things (van Manen, 2014). The emerging sub-themes and themes were discussed and agreed upon by the team.

Trustworthiness

The trustworthiness of this study was established through triangulation, member checking, and detailed transcription (Gunawan, 2015). Triangulation involved multiple data sources, including interviews, drawings, and field notes. Member checking was done at the end of each interview in which the researchers read the summary of the interview, and that was confirmed by the participants. The thick description of the study included explanations of the contexts and data collection procedures. An audit trail was confirmed to demonstrate the descriptions and meanings of aesthetics in nursing practice. All documents of this study and data analysis were kept and demonstrated among researchers to confirm the findings.

Ethical Considerations

This study was approved by The Social and Behavioral Sciences Institutional Review Board of Prince of Songkla University, Thailand (#2019 NL-QL 003). Before data collection, the researchers obtained permission to collect data from the Department of Education and Research of the hospital setting. This study did not pose any direct risk to the participants, both physically and psychologically. The information was given to participants before data were collected. If they agreed to participate, the participants were asked to sign an informed consent form. They were assured that their participation was voluntary. The participants were allowed to withdraw anytime without any penalty. Their information was collected under strict confidentiality. Their names were replaced by numbers in reporting this study. All the data were kept in the researchers' personal computer, secured with a password that only the researchers knew.

Results

From fifteen nurses who were contacted initially, thirteen participants participated in this study, while two nurses

dropped because they did not provide a drawing. All thirteen participants were women, whose ages range from 28 to 51 years (average = 39.8 years). Twelve of them were married, and one was single. Seven graduated from vocational schools, while six received a baccalaureate nursing degree. Their length of working experience ranges from 4 to 32 years (average = 17.13).

The findings revealed five major thematic categories reflecting the five-life worlds (van Manen, 2014) derived from the data. Those thematic categories are 1) Lived other: engaging in caring for persons; 2) Lived body: full of compassion; 3) Lived space: a sympathetic place of care; 4) Lived time: a joyful time of care; and 5) Lived things: distracting the inconvenience in care.

Lived other: **Engaging in caring for persons**

Engaging in caring for persons referred to the nurses' engagement with the patients and their families. This theme was constructed from two sub-themes: the art of communication in nursing care and appreciation of caring.

The art of communication in nursing care. Aesthetics in nursing was implemented through practising good communication. Participants noted that beautiful care was expressed by keeping up good communication with patients and family, applying therapeutic communication, delivering understandable explanations about the treatment and nursing care, active listening, overcoming conflict, asking about topics that interest the patients, greeting the patients and asking how they feel before performing a treatment. The way of practising good communication, or "the art of communication", was a kind of art in nursing care.

> *"I communicate with them (patient and family) therapeutically, I explained to them the patient's condition, which treatment, etc. ... I understand that nurses should communicate well."* (Participant 1)

> *"To make them (patients) comfortable, I asked how their children and families are doing, how many children they have, where their children are now, and so on. You know, sometimes the patients feel happy when we ask about their family. I did it while doing a nursing intervention, like when I inserted IV fluid, I made a conversation about the topic they like."* (Participant 3)

Appreciation of caring. Aesthetically nursing practice resulted in appreciation from patients and families for the nurses who cared for them. The participants noted that the patients expressed their recognition of them as respect, happiness, and trust, which enhanced their relationship with patients and families and their cooperative participation in care.

> *".. patient was happy. So, that's it, if the patient is happy with our care, he/she follows our instruction, I feel the relationship with patient and family becomes better."* (Participant 2)

> *"They are happy. When they trust us, it seems like they just want to be cared for by us. The patient trusts us."* (Participant 2)

The aesthetics in nursing practice in terms of engaging in caring was depicted by the following drawing of a nurse communicating with the patient (**Figure 1**). Participant 2, who drew the picture, explained that this picture showed a conversational situation between two nurses (on the right) and a patient (on the left). When the patient or family heard unclear information, they would ask the nurse. In the story recounted by Participant 2, a patient's family asked nurse A to clarify some information. However, the family did not understand nurse A's explanation. Afterwards, the family asked nurse B (Participant 2) the same question. Nurse B explained her answer to the family. The explanation was understandable, and the patient's family was satisfied with the response of nurse B.

Figure 1 Illustration of a conversational situation by Participant 2

Lived body: **Full of compassion**

The practice of aesthetics in nursing was described as providing care that was full of compassion. Participants described compassionate care as caring with a sincere heart. This theme was derived from two sub-themes: beauty in caring with a sincere heart and satisfaction after providing care.

Beauty in care with a sincere heart. Aesthetics in nursing practice was expressed in terms of providing beautiful things in their care, which came from a sincere heart that cared for patients, such as the feeling of happiness when caring for patients; or feeling comfort, peace, calmness, neatness, and beauty.

> *"… to do IV insertion neatly, beautifully…. when I did it neatly and beautifully, there was such a satisfaction for me that I felt, and I think it was also felt by the patient and family. You know, IV insertion should be done neatly, correctly, and not in a hurry."* (Participant 2)

> *".. pink (the colour the participant selected in the drawing) is identical with a lady with full of compassion … I think the nurse is identical with female instinct, compassion, like mother's care to patients. That's why I chose pink (in the drawing)."* (Participant 1)

Satisfaction after providing care. Because of providing care with a sincere heart, participants described satisfying feelings after giving care. They felt satisfied with their job caring for patients and after receiving gratitude from patients.

> *"I feel satisfied with my job. I also feel satisfied with my relationship with my patients and their family."* (Participant 2)

Providing care full of compassion was illustrated by the picture of peaceful scenery (**Figure 2**). Participant 4, who drew the picture, explained that beautiful nursing care was like the peaceful scenery with a peaceful and warm feeling. It was similar to the nurse's experience after fulfilling a patient's need by providing beautiful care.

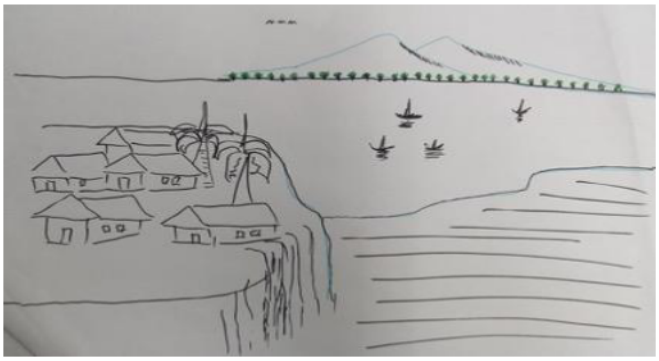

Figure 2 Illustration of a peaceful scenery by participant 4

Lived space: **Sympathetic place of care**

Within aesthetics in nursing care, the experienced space was a sympathetic place, giving comfort to both nurses and patients. Patients preferred to be cared for in certain units because of the beauty of the care received. On the other hand, the nurses also got the patients' acception.

Preferred place to receive care. Because of aesthetics in nursing care provided by nurses, some patients preferred to stay at the same unit where they were hospitalised firstly.

> *"That patient wanted to hospitalise in our unit; he said he liked the way that nurses in our unit cared for him."* (Participant 7)

Welcoming nurses to the room. Nurses felt acceptance from patients and families as they entered the patients' room.

> *"When I entered their room, they welcomed me with a smile, then they called me by my name. They even asked about my shift schedule and when I would be on my next duty. I felt like they waited for me to care for them."* (Participant 4)

Lived time: **A joyful time of care**

The joyful time of care was regarded as the pleasant time nurses spent during and after caring for patients. This theme was derived from two sub-themes: a long time in remembrance and an immediate response to patients.

A long time in remembrance. Practising aesthetically in nursing care resulted in patients remembering nurses for a long time even after being discharged from the hospital.

> *"The patients who already discharged still remembered me when they met me outside, even hugged me (of the hospital)."* (Participant 3)

> *"My impression was the patient who I took care has been discharged, they still remembered me, and they even called my name when we accidentally met outside the hospital."* (Participant 4)

Immediate response to patients. Aesthetics in nursing care is described as the immediate response to patients when nurses are doing procedures.

> *"I knew how it felt like to be in patient's position. When we were in pain, we needed immediate help, I directly helped the patients without delay or making them wait whenever."* (Participant 4)

Joyful time was illustrated in the below image of a smiling nurse (a woman). Participant 7 stated that she expressed beauty in caring as she cared for patients with a smile and happiness in her heart (**Figure 3**).

Figure 3 Illustration of a woman with smiling face by Participant 7

Lived things: **Distracting the inconvenience in care**

Aesthetics in nursing practice is also understood by participants as minimising discomfort during their care and applying innovation in care.

Applying innovation in care. Aesthetics in nursing practice can be expressed by applying innovation in care to enhance patients' outcomes and speed their recovery.

> *"Another example was when I offered wound care using honey. So here, the patient did not know about applying honey to the wound."* (Participant 2)

Minimising discomfort during care. According to participants, pain relief was required when delivering care to patients.

> *"I guided patients to relax and feel comfortable before inserting the IV fluid; I tried distracting them from their pain."* (Participant 13)

Additionally, according to participant 10, beautiful nursing care could be expressed by providing adequate equipment to patients, making them comfortable, relieving their pain, and preventing infection. The summary of life-worlds and each thematic category were presented in **Figure 4**.

Discussion

Aesthetics in nursing practice was understood and expressed by nurse participants through various aspects of their care. These included engaging in caring, being compassionate, providing a warm and caring space, allowing time for patients, and distracting them from the inconvenience of care.

From those findings, the most prominent theme was full of compassion. Being full of compassion was described as caring that came from a sincere heart, which resulted in nurses receiving appreciation for their care. Such care was represented by the beauty, calmness, and neatness of nursing care. The beauty or sublimity of nursing depends on the

feelings involved in the act of caring (Siles-Gonzalez & Solano-Ruiz, 2016). Beauty was perceived as something pleasant, such as the feeling of someone who was looking at a flower or tree (Kant, 2003). In this study, participants drew pictures of beautiful scenery with trees, water, and ships that expressed beautiful nursing care.

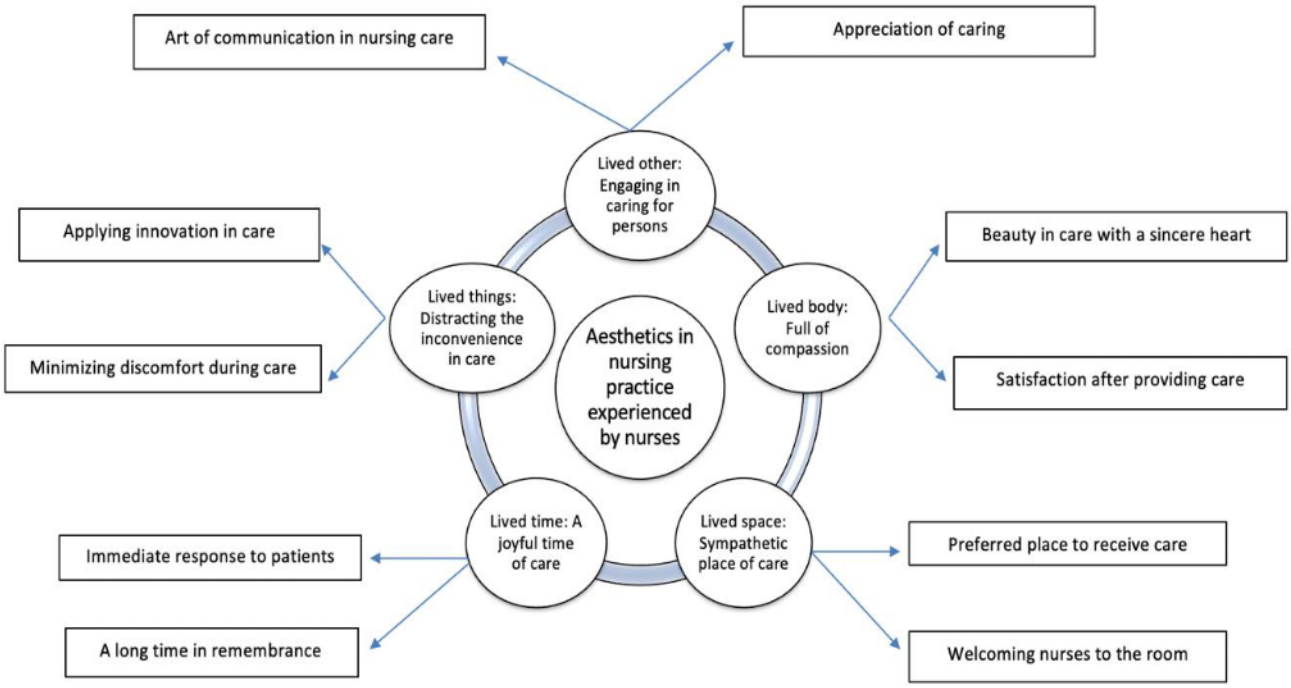

Figure 4 Life worlds and thematic categories of aesthetics in nursing practice experienced by the Indonesian nurses

The theme of "lived other" was experienced as engaging in caring. It meant nurses applied the art of communication in their care so that they could get appreciation from the patients. Nurses need the capability of delivering information to patients in various situations for patients and their families to understand the issue easily. Thus, the art of communication was essential in nursing practice. Good communication between nurses and patients was principal to achieve the successful outcome in nursing care (Kourkouta & Papathanasiou, 2014).

Furthermore, the art of communication in nursing was synthesised in different ways, such as treating patients with dignity and respect and calling them by how they preferred (Palos, 2014). Similar to a previous study (Palos, 2014), nurse participants shared their experience by talking to patients about topics they were interested in.

The theme "lived space" was experienced as a sympathetic place of care where nurses intentionally presented for the patients. Hence, patients wanted to receive care in the same unit, as well as they wanted to welcome nurses into the room. Oldland et al. (2020) reported that empathy and care, patient and family's comfort, and clean and tidy environment were factors enhancing the quality of healthcare.

Furthermore, beautiful moments in nursing care were identified through simple content of fulfilment of care and inspiring feelings because nurses were involved in the process of satisfying patients' needs (Siles-Gonzalez & Solano-Ruiz, 2016). In this study, lived time was experienced as a joyful time when patients remembered nurses even after their discharge. This joyful time was created as nurses fulfilled their patients' needs immediately. Similar to a previous study about patients' expectations regarding nurses and nursing care, an immediate response to the patient need was one of the critical expectations of patients (Najafi Kalyani et al., 2014).

Nurses' understanding of aesthetics in care reflected the process of aesthetic nursing practice described by Kongsuwan (2020) in her theory of Aesthetic Nursing Practice (AesNURP). AesNURP informed aesthetic nursing practice as a deliberate practice of nursing for persons during the caring encounters. Within AesNURP, the process of nursing consisted of *encountering, co-creating caring relationships, and meaningful engaging*.

Encountering allowed nurses to know the clients being cared for, especially on the question of "what" these persons were (Kongsuwan, 2020). In this study, *encountering* was reflected in "engaging in caring" and "full of compassion" themes. To know clients, nurses provide them with compassionate care and sustained good communication. *Co-creating a caring relationship* was defined as the relationship between the nurse and person being nursed to co-create caring practices (Kongsuwan, 2020). In this study, *co-creating a caring relationship* was seen through the theme of "distracting from the inconvenience in care." Nurse participants understood that patients suffered from the feeling of pain and discomfort. Therefore, they tried minimising the pain by applying innovative techniques to comfort the patients. *Meaningful engaging* was described as the interaction between nurses and clients in their relationship (Kongsuwan, 2020). In this study, the themes of "sympathetic place of care" and "joyful time" represented *meaningful engaging*. Their interaction was reflected in the nurses' immediate responses