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Review Article

The impact of emotional intelligence on nursing care in intensive care: an integrative literature

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Abstract

Background: emotional Intelligence in the clinical practice of intensive care nurses has an impact on their ability to regulate their own emotional responses and the critically ill.
Objective: understand the relationship between emotional intelligence and the impact on the performance of intensive care nurses, through an integrative literature review.
Methodology: an integrative literature review was conducted in the first half of 2022, in the databases: Web of Science, Scopus and PubMed, where a survey of national and international scientific productions was carried out, published in the period 2018-2022, on the chosen topic.
Results: the integrative review included the analysis of 3 articles selected from an initial pool of 52 identified. The proper management of the emotions of nurses and patients to whom they provide care has a positive impact on the care provided. Nurses' unrealistic optimism and high levels of frustration often lead to burnout conditions, with a significant negative impact on critical patient care. Emotional intelligence and mindfulness hold a protective role of burnout in nurses.
Conclusion: emotional intelligence and mindfulness can improve the individual well-being of nurses and staff in intensive care units.

Keywords: emotional intelligence; critical care; nursing care

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Introdution

Nursing in intensive care involves caring for patients with potentially life-threatening conditions and pathologies. These are described as complex and specific healthcare practices, conducted in a unique, technologically advanced environment (Santos et al., 2021). To provide care for vulnerable patients and support their families, nurses require a broad and specialized knowledge base, as well as strong decision-making skills to function effectively in such a high-pressure environment.

It is reasonable to assert that intensive care nurses experience a significant emotional burden due to the challenging and intense nature of their duties (Abedian, 2023). Fatigue, secondary traumatic stress, and the need to manage complex emotions—not only of the patients but also of their families—are common challenges that nurses must navigate. These challenges are inherent to their performance and add to the demands of managing their own emotions while providing care. Studies show that intensive care nurses are repeatedly exposed to traumatic situations and stressful events (Abedian, 2023). The quality of care for critically ill patients can be improved by nurses with emotional intelligence (EI) competencies, such as the ability to communicate effectively with patients and colleagues, understand them, be aware of their own emotions, use positive coping methods, and maintain well-being (Aitamaa et al., 2021). Therefore, emotional intelligence can and should be monitored in two dimensions: nurses' perception and understanding of their patients' emotions, and how nurses use these perceptions in the care they provide (Nagel et al., 2016). A nursing team with a high level of emotional intelligence facilitates decision-making, resilience, and builds trust—qualities that are essential for safe patient care and promoting innovation in quality improvement (Farhana, 2023).

This integrative review aims to analyse the scientific literature on the impact of emotional intelligence on nursing care in intensive care settings. An integrative review was chosen due to its ability to provide a comprehensive and synthesized view of this complex subject. It allows for the inclusion of various types of studies, including both qualitative and quantitative research, enabling a more complete and diversified analysis of the available evidence. Additionally, it facilitates the identification of gaps in the literature and the development of new perspectives and hypotheses on the subject, contributing significantly to clinical practice and future research in the field.

Background

Every human being is endowed with what we call intelligence, which is multifaceted: we benefit from physical intelligence (the ability to control skilled movements through brain and nervous system coordination), intellectual intelligence (the ability to solve problems and perform academic tasks), spiritual intelligence (through the control and management of beliefs/values), and emotional intelligence (allowing for the control and management of our own emotions and the emotions of others) (Bikmoradi et al., 2018).

Individuals with moderate intellectual intelligence and high emotional intelligence are more successful than those with high intellectual intelligence and low emotional intelligence (Bikmoradi et al., 2018). The concept of emotional intelligence has evolved over the past 25 years and has been widely applied in business and management, education, and nursing practice. Emotional intelligence (EI) can be described as the ability to manage one's own emotions and the emotions of others (Bikmoradi et al., 2018; Dugue et al., 2021; Mayer & Salovey, 1995). Research on EI emerged in the 1990s from studies on thoughts, emotions, and abilities (Raghubir, 2018). Following this, other authors, such as Reuven Bar-On and Daniel Goleman, in the same decade, developed other definitions of EI (Smith et al., 2009), but all shared a similar core, recognizing how emotions can impact others. After reviewing various EI models, it was acknowledged that Goleman's EI model aimed to converge the terminologies used to describe EI into four dimensions, which have been widely accepted in several fields, including Nursing (Raghubir, 2018): self-awareness (the ability to assess one's own emotions), self-management (the ability to use one's own emotions to reason and solve problems), social awareness (the ability to understand

others' emotions), and social/relationship management (the ability to effectively manage one's own and others' emotions for teamwork) (Codier & Codier, 2017). High EI is defined as the ability to accurately identify emotions in oneself and others, the ability to use emotions to facilitate reasoning, the ability to understand emotions, and the ability to manage emotions in oneself and in emotional situations (Bikmoradi et al., 2018; Lewis, 2019).

EI attributes can be grouped into two categories: personal and social attributes. Personal attributes include self-awareness and self-management. Self-awareness involves recognizing and understanding one's own emotions and motivations. Self-management is the ability to control or redirect emotions constructively. Social attributes consist of social awareness and relationship management. Social awareness is the ability to observe and understand others' emotions, needs, and concerns, to perceive emotional signals, and to consider things from other people's perspectives. Relationship management is the ability to manage relationships with others by using one's own and others' emotions to develop and maintain good relationships, communicate clearly, inspire, and influence others (Raghubir, 2018).

Nursing is an art that touches the lives of others: nurses are responsible for bringing well-being to patients. However, Nursing is considered a highly stressful and complex profession because it requires the simultaneous application of various skills (knowledge, motor skills, and affect) (Ernawati & Bratajaya, 2021). Human relationships and emotions are integral to Nursing care and contribute to its quality. When nurses understand, identify, and learn to manage their own emotions and those of their patients, patient satisfaction with their care experience improves (Dugue et al., 2021). As such, EI enables nurses to make better decisions, improve relationships, and enhance the quality of care provided to patients and their families (Renaud et al., 2012).

In clinical practice, EI improves nurses' ability to regulate their emotional responses to prevent negative impacts on cognition and behaviour, while also responding appropriately to patient needs and expressing empathy—both essential aspects of the nursing profession (Dugue et al., 2021; Lewis, 2019). The ability to combine intellectual reasoning with emotional regulation leads to better personal, workplace, and relational outcomes.

Research Question

What is the impact of emotional intelligence on the nursing care provided in intensive care units?

Methodology

Review articles, as well as other scientific articles, require an in-depth literature search using bibliographic sources to obtain previously documented results by other authors, which support and answer the initially proposed objective (Ercole et al., 2014; Sousa et al., 2018).

The integrative literature review (ILR) is a research methodology aimed at comprehensively synthesizing existing knowledge on a specific research problem. It stands out as an approach that allows the inclusion of various types of studies (Ercole et al., 2014). This method not only contributes to the consolidation of existing knowledge but also helps to identify gaps in the literature and generate new hypotheses and research directions. Therefore, its application is crucial for professionals seeking to base clinical practice on the best available evidence.

To address the challenges faced daily in nursing, specifically in the field of intensive care, and to identify the best evidence on the relationship between emotional intelligence and its impact on nurse performance in care delivery, an ILR was chosen. This review was conducted in the first half of 2022. The purpose of the ILR is to collect and synthesize the results obtained from bibliographic research on a pre-defined topic/question in a broad, systematic, and organized manner. It is called integrative because it brings together

more comprehensive information on a specific topic, thereby creating a body of knowledge. This review followed six steps: identifying the topic, selecting the research question, establishing inclusion and exclusion criteria, categorizing the selected studies, analysing and interpreting the results, and presenting the knowledge synthesis review (Ercole et al., 2014).

All reviews produced must be as rigorous as possible, extremely organized, and carefully crafted. The relevance and success of the research always depend on the quality of the research question formulated (Cunha, 2021a; Ercole et al., 2014; Sousa et al., 2018). This question was formulated based on the PCC methodology/acronym—P (Population), C (Concept), and C (Context) (Sousa et al., 2018).

The research question formulated was: What is the impact of emotional intelligence on the nursing care provided in intensive care units?

To answer this question, databases such as Web of Science, Scopus, and PubMed were consulted using the descriptors confirmed in DeCS/MeSH: Emotional Intelligence, Intensive Care, and Nursing Care; combined using the Boolean operator AND. The priority was given to articles published in indexed scientific journals, ensuring the quality and validity of the analysed studies, which resulted in the exclusion of grey literature.

Keyword limitations were applied, with a prior selection of "review studies and indexed qualitative/quantitative studies, available in full"; restricted to the period 2018–2022; and with a linguistic filter to include only information in Portuguese, Spanish, and English, from primary sources. The selection and search process can be verified in Table 1. The time limit of 2018–2022 was established to focus on recent studies that reflect current practices and trends in the application of emotional intelligence in intensive care, ensuring that the conclusions of this review are based on up-to-date evidence relevant to contemporary clinical practice.

Inclusion criteria applied: studies involving nurses and conducted in intensive care units. Exclusion criteria: studies involving other healthcare professionals or nursing students, and those from other hospital departments.

Table 1 Search and selection process of the analysed studies

Combined Descriptors	**Databases**	**Article Exclusion Process (2 reviewers)**	**Total Studies Selected for the Review**
Emotional intelligence AND nursing care AND critical care	Web of Science=14 Scopus=19 PubMed= 19 n= 52	Using *Endnote* reference manager: -Duplicates: 6 - Title: 26 - Abstract: 17 n= 49	n= 3

After consulting the Web of Science, Scopus, and PubMed databases, a total of fifty-two articles were retrieved. A title and abstract analysis of the articles was conducted to exclude duplicates and titles that did not fit the purpose of the review. The verified articles were filtered in accordance with the previously established inclusion criteria and by thoroughly reading the full texts of the available articles. Three articles were selected and organized according to article identification; title and authors; year, country, and language; objectives and methods; main results and conclusions; and level of evidence (Table 2).

This research was conducted and analysed by two independent reviewers with academic, scientific, and professional experience in the subject matter, who used standardized review methods, including double-

checking the inclusion and exclusion criteria, resolving discrepancies by consensus, and applying critical appraisal tools to ensure the validity and quality of the included studies.

The development of this ILR is based on all ethical-legal values and principles, following the assumptions of the Declaration of Helsinki. All articles used will be referenced and cited in accordance with academic integrity, with full respect for the work developed by their authors.

Results

There are several instruments available to assess the methodological quality of the research, allowing investigators to determine the strength/level of evidence for each extracted article, which will contribute to the review. By assigning a level of evidence based on the study design, it is possible to make an initial judgment and critically assess the rigor and methodological quality of the study (Cunha, 2021; Ercole et al., 2014; Institute, 2014).

To test the eligibility and credibility of the resulting articles (Table 2), three distinct instruments were applied. First, the Joanna Briggs Institute (JBI) Levels of Evidence for Effectiveness classification was used, resulting in three articles being classified as level 4.b. Following this, the articles were evaluated using the Critical Appraisal Tools, where all achieved results higher than 75%. Finally, the JBI Grades of Recommendation table was applied, and all articles received a grade A (strong) recommendation (Cunha, 2021; Institute, 2013, 2014, 2022).

Table 2 Synoptic table of articles included in this review

Article Identification	**Title and Authors**	**Country, Language, and Year**	**Objectives and Methods**	**Main Results and Conclusions**	**Level of Evidence**
A1	Emotional intelligence of intensive care nurses in a tertiary hospital Ordoñez-Rufat, P. Polit-Martínez, M. V. Martínez-Estalella, G. Videla-Ces, S.	Spain; English; 2021.	Analyse the emotional intelligence of the nursing team in the critical care area. Descriptive, cross-sectional study.	- Proper management of emotions, both the nurses' and those of critically ill patients, positively impacts care outcomes and patient health. - Emotional intelligence was assessed using the Trait Meta-Mood Scale-24 (TMMS-24); a deficit was highlighted in the ability of nurses to feel and express emotions adequately. - Emotional attention was found to be more appropriate in male nurses, but emotional clarity posed greater challenges for males. In the domain of emotional repair, more than 65% of the sample maintained adequate emotional regulation.	4.b
A2	Caring behaviors, moral sensitivity, and emotional intelligence in intensive care nurses: A	Turkey; English; 2021;	Evaluate the relationship between caring behaviours, moral sensitivity, emotional intelligence, and descriptive	- The study concluded that higher education, shift work, and higher scores on emotional evaluation, autonomy, benevolence expression, and conduct subscales were predictors of higher caring behaviours.	4.b

	descriptive study. Taylan, Seçil Özkan, İlknur Şahin, Günnaz		characteristics in intensive care nurses. Descriptive study.	- Nurses who can assess their own emotions and those of their patients tend to establish more positive relationships with patients. - Caring behaviours decreased with increased optimism and feelings of help. This unexpected correlation suggested that increased optimism might reduce caring behaviours due to unrealistic optimism and subsequent frustration over the awareness of insufficient care provided to intensive care patients. - Caring behaviours of intensive care nurses were related to their education level, work style, emotional intelligence, and moral sensitivity.	
A3	Mindfulness, emotional intelligence, and occupational burnout in intensive care nurses: A mediating effect model. Xie, Caixia Li, Xinyu Zeng, Yanli Hu, Xiuying	China; English; 2020	Construct structural equation models to test the mediating role of emotional intelligence between mindfulness and burnout. Descriptive, cross-sectional study.	- Three dimensions (Burnout, Mindfulness, and Emotional Intelligence) were evaluated using the Maslach Burnout Inventory, Mindful Attention Awareness Scale, and Emotional Intelligence Scale. - The correlation study of these three dimensions revealed that mindfulness affects occupational burnout both directly and indirectly, reducing emotional exhaustion and depersonalization while increasing personal accomplishment through emotional intelligence. - Mindfulness is crucial in minimizing burnout in intensive care nurses. - Emotional intelligence enhances the positive impact of mindfulness in reducing burnout among intensive care nurses.	4.b

The results emerge from the content analysis of the three articles obtained, leading to the identification of two dimensions: I – Emotional intelligence in the art of caregiving, and II – The importance of emotional management in providing care to critically ill patients: the power of emotions in the intensive care context, with a special focus on burnout and mindfulness.

Discussion

Emotional intelligence (EI) encourages nurses to use empathy as a resource for understanding situations based on professional reflection and moral judgments related to decision-making. Life-threatening situations, such as cardiopulmonary resuscitation (CPR), do not depend solely on healthcare professionals' technical skills but also on non-technical skills, such as leadership, task and procedure management, communication skills, situational awareness, and emotional intelligence. Training in these non-technical skills has been implemented in the fields of Anaesthesia, Emergency Medicine, and Surgery, involving high-risk situations. Previous studies (Kelm et al., 2018; Green et al., 2016) indicate that for professionals working in

Intensive Care Units (ICUs), mastering non-technical skills, such as situational awareness, can enhance their ability to perform high-risk and complex tasks and procedures.

These results align with the existing literature, which shows that training in non-technical competencies, such as self-awareness and emotional control, significantly improves behaviour, communication, and team training, resulting in reduced errors and mortality rates among critically ill patients (McCulloch et al., 2009; Machado et al., 2021). While many traditional CPR training programs primarily emphasize technical skills, there is a growing incorporation of non-technical skills, given their importance in team performance during critical situations (Kelm et al., 2018). This trend reflects a consensus in the literature that non-technical skills, such as self-awareness, are crucial, although difficult to teach, assess, and maintain.

While technical skills in procedures such as CPR will always be important, a greater and better understanding of healthcare professionals' emotional control and intelligence, leadership, and team management is necessary to maximize performance and outcomes in critically ill patients. This situation is particularly relevant in healthcare, especially in ICUs, where the demand for concentration and the specificities of the context can lead professionals to a level of emotional exhaustion that inevitably culminates in burnout. As previously mentioned, this syndrome induces symptoms such as emotional exhaustion, depersonalization, and reduced personal accomplishment, potentially affecting up to 86% of nurses. It occurs when an individual's self-expectations differ from the organization's expectations (Costa & Moss, 2018). Intensive care nurses report higher rates of burnout compared to general care nurses. Some studies suggest that the prevalence of burnout among healthcare professionals in ICUs can reach up to 70% (van Mol et al., 2015), negatively affecting patient care and satisfaction (Vahey et al., 2004). Long-term burnout in nurses severely affects their physical and mental health, as well as their professional performance, ultimately leading to a reduction in the quality of care (Poghosyan et al., 2010).

It has been reported that mindfulness is closely linked to EI, which, in turn, is strongly associated with reducing burnout (Xie et al., 2021). Mindfulness involves intentionally engaging with present emotions without judgment (Keng et al., 2011; Sauer et al., 2013). Mindfulness is not just a psychological state but also an individual coping ability (Hunter, 2017).

Studies have demonstrated that mindfulness and EI are predictive and protective factors against burnout (Galaiya et al., 2020), though few studies specifically evaluate the relationships between mindfulness, EI, and burnout in intensive care nurses. However, it is well established that EI plays a significant mediating role between mindfulness and anxiety, depression, as well as between job characteristics and burnout (Foster et al., 2018). In this context, certain identifiable characteristics in nurses allow for the identification of individuals at higher risk of developing burnout syndrome. These characteristics include having a high level of idealism and/or perfectionism, being highly committed to work, and struggling to establish a balance and boundaries between work and personal life. Recommended performance behaviours—such as self-care practices focused on the body, mind, and spirit—can help mitigate the effects of burnout syndrome. While important and essential, these measures should be supplemented with interventions that instil a sense of accomplishment in nurses (Costa & Moss, 2018).

In their mixed-methods study "Mindfulness Meditation and Interprofessional Cardiopulmonary Resuscitation: A Mixed-Methods Pilot Study," Kelm et al. (2018) concluded that mindfulness meditation, with proper training, has the potential to improve the well-being of healthcare professionals and reduce stress in individuals involved in resuscitation teams. This could lead to better team communication and care provision under stress. The qualitative results of the study showed that mindfulness meditation changed how participants responded to work-related stress, including stress in life-threatening situations for patients. Team performance, task management, and overall performance significantly improved after mindfulness meditation training.

This ILR highlights the need to integrate EI and mindfulness as regular interventions in the workplace to reduce stress and improve team performance, something that, despite being suggested by Xie et al. (2021), is not yet widely applied in clinical practice. The interconnection between EI, mindfulness, and burnout reduction, as evidenced in this review, suggests that ongoing development programs for these skills could profoundly impact the quality of care and the well-being of healthcare professionals. They could improve individual well-being and team functioning in high-stress and high-risk clinical environments, such as ICUs.

Despite the results, we acknowledge the limitations of this review. The analysis was based on an ILR limited to three articles, which restricts the generalizability of the findings. Furthermore, the exclusion of grey literature and the temporal limitation of 2018-2022 may have narrowed the scope of the evidence analysed. These limitations suggest that future studies, with a broader database and including different types of publications, would be beneficial to confirm and expand the findings and their discussion.

Conclusion

Emotional intelligence and mindfulness can enhance the individual well-being of nurses and teams in high-stress and high-risk clinical environments, such as intensive care units, by acting as protective factors against burnout. Exploring these relationships could help to amplify the positive effects of emotional intelligence and mindfulness on burnout and contribute to the development of intervention strategies for intensive care nurses.

Implications for future practice

The findings of this review highlight the crucial need to implement continuous training programs focused on the development of emotional intelligence and mindfulness as an effective strategy for mitigating burnout among intensive care nurses. Healthcare institutions, by fostering these competencies in their professional development programs with the aim of strengthening workplace resilience, could significantly improve both safety and quality of care. Additionally, future studies could explore specific interventions aimed at increasing nurses' emotional intelligence to evaluate the direct impact of these interventions on both the well-being of professionals and the quality of care provided in intensive care units.

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