

Emotional Intelligence as an Invisible Neurocognitive Shield for Resilience and Performance in Healthcare Professionals

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How to cite this paper: Lourenço, A., Valente, S., & Paiva, M. O. (2026). Emotional Intelligence as an Invisible Neurocognitive Shield for Resilience and Performance in Healthcare Professionals. *Psychology*, 17, 968-994.
<https://doi.org/10.4236/psych.2026.1710048>

Received: September 2, 2026

Accepted: October 10, 2026

Published: October 13, 2026

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Abstract

Healthcare professionals face unprecedented levels of burnout, compromising patient safety, quality of care, and the sustainability of health systems worldwide. In the post-pandemic context, this crisis has intensified, underscoring the urgent need for effective emotional regulation and resilience mechanisms. Emotional intelligence has emerged as a critical, although still underutilized, factor in adapting to high-pressure clinical environments. An interpretive critical review integrated 28 seminal studies published between 2019 and 2025, including recent research available online ahead of print. A critical thematic analysis framework was applied, prioritizing longitudinal and mixed-methods studies with high empirical rigor and transcultural relevance. Neurocognitive findings were integrated as a central analytical axis, focusing on amygdala-prefrontal functional connectivity as a proposed pathway for emotional regulation under stress. EI predicts resilience, moderates the effects of emotional labor, and is associated with lower burnout across professional roles. Neurocognitive evidence offers a complementary framework, but does not directly link amygdala-prefrontal connectivity with EI, burnout, and clinical performance in the same healthcare samples. Based on an interpretive synthesis of separate professional-specific literatures—rather than direct cross-professional comparative studies—distinct patterns are proposed: physicians appear to benefit particularly from cognitive mastery of EI; nurses from empathic responsiveness under pressure; and support and administrative staff from emotional-regulation training. These profiles should be considered exploratory hypotheses pending direct comparative validation. Consistent findings across the United States, Europe, Asia, and Latin America reinforce the transcultural relevance of these associations. Neuroscientific findings further support the amygdala-prefrontal

cortex circuit as a fundamental basis of emotional regulation under stress. EI can be conceptualized as an “Invisible Neurocognitive Shield”, representing essential resilience infrastructure within health systems. The EI-Resilience-Performance model integrates biological, psychological, and organizational dimensions and offers direct clinical applicability. Evidence-based micro-interventions may help mitigate burnout and promote the long-term sustainability of the healthcare workforce.

Keywords

Emotional Intelligence, Burnout in Healthcare Professionals, Psychological Resilience, Emotional Regulation, Healthcare Workforce, Amygdala-Prefrontal Cortex

1. Introduction

Health systems are currently facing an unprecedented escalation of burnout among professionals, threatening patient safety, organizational sustainability, and workforce stability. Traditionally characterized by emotional exhaustion, depersonalization, and reduced professional fulfilment (Maslach & Leiter, 2016), burnout was later recognized by the World Health Organization (WHO, 2019) as a global occupational condition. Recent studies and institutional analyses show that high levels of burnout persist across healthcare systems (Dzau et al., 2020; Shanafelt et al., 2022).

The consequences of burnout affect not only professionals but also clinical outcomes and care quality. The literature links burnout to medical errors, reduced patient safety, diminished quality of care (De Hert, 2020; Jun et al., 2021; Lima et al., 2025; Tawfik et al., 2019), as well as absenteeism, turnover, and intent to leave the profession (Dyrbye et al., 2017; Sinsky et al., 2021). Recent reports further reinforce this systemic pressure (National Academy of Medicine, 2024).

In this context, emotional intelligence (EI) has emerged as a relevant mechanism for mitigating occupational stress. Defined as the ability to perceive, understand, regulate, and use emotions adaptively, EI influences how professionals respond to emotional demands and maintain performance in complex contexts (Mayer & Salovey, 1997; Valente et al., 2025). Higher EI is associated with lower burnout, greater resilience, and better psychological adaptation among healthcare professionals (Galanis et al., 2024; He et al., 2026), as well as improved performance under pressure through more effective emotion regulation and decision-making (King et al., 2026; Mayer et al., 2016).

The present article conceptualizes EI as an “Invisible Neurocognitive Shield”, a dynamic system of emotional regulation sustained by neurobiological mechanisms. Affective neuroscience shows that emotional regulation depends on the interaction between the amygdala, which detects threat and emotional reactivity, and the prefrontal cortex, which supports executive control and modulation of

emotional responses (Berboth & Morawetz, 2021; Morawetz & Basten, 2024; Ochsner & Gross, 2005). Evidence also indicates that the efficiency of this connectivity is associated with better stress adaptation and cognitive functioning in demanding contexts (Holz et al., 2023; Kraaijenvanger et al., 2023; Sacu et al., 2025). In clinical settings, this circuit offers a plausible mechanism through which EI supports resilience, cognitive focus, and effective performance under pressure.

Despite the growing evidence on emotional regulation competencies, these are still insufficiently integrated within health systems, which continue to prioritize structural factors such as workload and service organization over individual competences that can be applied in real time (Shanafelt & Noseworthy, 2017; West et al., 2020). The literature also remains fragmented across professional groups and specific contexts, lacking an integrative synthesis of the neurocognitive, psychological, and organizational dimensions of EI in global contexts.

Accordingly, the present study aims to critically synthesize the literature on emotional intelligence among healthcare professionals working in high-pressure clinical settings, focusing on its relationship with resilience, burnout, and professional performance. Specifically, it seeks to answer the following research questions:

Q1. In what way does EI act as a neurocognitive mechanism of resilience in health contexts?

Q2. How does it moderate the impact of emotional labor across different professional roles?

Q3. What evidence supports the relationship between EI, reduction of burnout and improvement of performance in different cultural contexts?

Q4. How can these contributions be translated into practical interventions applicable to health systems?

To answer these questions, the manuscript adopts a critical interpretive review approach. The methodological procedures supporting this review are presented in the dedicated Methods section that follows. By articulating theoretical, neurocognitive, and applied dimensions, this review seeks to contribute to a more integrated understanding of emotional intelligence as a key infrastructure of resilience in contemporary health systems. Unlike recent comparable reviews, which have tended to address emotional intelligence or burnout from narrower disciplinary or outcome-specific perspectives, this article offers an integrative interpretation of emotional intelligence as an adaptive neurocognitive system, connecting theoretical, psychological, and organizational levels with evidence from healthcare professionals across cultural contexts, and translating these findings into actionable strategies for practice.

2. Methods

A critical interpretive review design was selected because the aim of this study was to integrate heterogeneous empirical and theoretical evidence across psychological, neurocognitive, and organizational domains, rather than to assess a narrowly defined intervention or effect size as in a systematic review. The review focused

on empirical studies published between 2019 and 2025, including articles made available online ahead of print, and privileged seminal contributions with greater empirical robustness, particularly longitudinal and mixed-methods studies.

Two separate search strategies were used to capture, respectively, evidence on EI-related outcomes in healthcare contexts and neurocognitive evidence on emotional regulation, given that requiring both sets of terms within the same record would have excluded relevant studies from each literature. Strategy 1 (EI outcomes in healthcare): (“emotional intelligence” OR EI) AND (burnout OR “emotional exhaustion” OR resilience OR “emotion regulation”) AND (“healthcare professionals” OR nurses OR physicians OR “healthcare workers”). Strategy 2 (neurocognitive evidence): (amygdala OR “prefrontal cortex” OR neurocognitive OR “functional connectivity”) AND (“emotion regulation” OR “emotional regulation” OR stress). Results from both strategies were integrated narratively during thematic analysis, rather than restricted to records satisfying both sets of terms simultaneously. The databases searched were PubMed, Scopus, PsycINFO, ERIC, and Web of Science. Foundational works predating 2019 were identified through backward citation tracking and used solely for theoretical framing, while the 2019 cutoff was chosen to prioritize the most recent empirical evidence while maintaining conceptual grounding in seminal literature.

This starting point was further reinforced by the fact that 2019 marks the year in which burnout was formally classified as an occupational phenomenon by the World Health Organization (WHO, 2019), and immediately precedes the onset of the COVID-19 pandemic, allowing the review to capture empirical evidence spanning both pre-pandemic and post-pandemic periods and thereby aligning the search window with the post-pandemic context introduced in the Abstract.

The studies were selected according to their relevance to the review questions, methodological robustness, and transcultural applicability. Methodological robustness was operationalized as the presence of a clearly described study design, transparent sampling procedures, explicit data collection methods, and an analytical strategy appropriate to the research question. Evidence capable of supporting a critical thematic analysis of convergent and divergent patterns across professional groups and clinical contexts was prioritized.

Inclusion criteria were applied to studies directly relevant to the review questions, with preference given to longitudinal and mixed-methods designs. Exclusion criteria included duplicate records, studies outside the defined time frame, and studies with limited thematic relevance or weak empirical support, defined as insufficient methodological description, very small or poorly justified samples, conclusions not supported by the reported data, or findings too limited to sustain critical interpretation.

Neurocognitive evidence was integrated as the central axis of the analysis, with particular attention to functional connectivity between the amygdala and the prefrontal cortex as a mechanism of emotional regulation and adaptation to stress.

The analysis therefore combined thematic synthesis and interpretive comparison, enabling a coherent conceptual reading of the psychological, neurocognitive, and organizational dimensions of emotional intelligence. **Table 1** summarizes the main methodological elements of the review.

Table 1. Summary of the review methodology.

Component	Description
Study design	Narrative literature review of a critical and interpretive nature.
Aim	To examine the role of emotional intelligence in health professionals under pressure, integrating neurocognitive, psychological, and organizational contributions.
Search period	2019-2025, including articles available online ahead of print.
Search strategy	Two separate search strategies were used—one for EI-related outcomes in healthcare contexts, and one for neurocognitive evidence on emotional regulation—to avoid excluding relevant studies by requiring both term sets in the same record. Results were integrated narratively during analysis.
Sources of information	Relevant academic databases in psychology, health, and neuroscience, with particular attention to recent literature and seminal studies.
Inclusion criteria	Studies directly relevant to the review questions, with methodological robustness, a preference for longitudinal and mixed-methods designs, and applicability across cultural contexts.
Exclusion criteria	Studies with limited thematic relevance, weak empirical support, duplicates, or those outside the defined time frame.
Final corpus	28 studies.
Analytical procedure	Critical thematic analysis, supported by interpretive comparison and the integration of neurocognitive evidence, with particular focus on functional connectivity between the amygdala and the prefrontal cortex.

To further enhance transparency regarding the evidence base underlying the interpretive synthesis, **Table 2** presents the 28 studies considered in the review. For each study, the table specifies the context, profession or sample, study design, emotional-intelligence model or instrument where applicable, main finding, and rationale for inclusion. The studies are presented irrespective of methodological design, as the review adopts an interpretive critical approach rather than a systematic-review framework restricted to a homogeneous set of empirical studies.

The included sources comprise empirical studies, reviews, theoretical contributions, neurocognitive evidence, and policy or institutional documents. Their inclusion reflects their relevance to the interpretive framework of the review rather than methodological homogeneity or eligibility for quantitative synthesis.

3. Theoretical and Neurocognitive Foundations

Understanding EI as a mechanism of adaptation in high-demand contexts requires an integrative approach that brings together conceptual, psychological, and neurobiological levels. Rather than a unitary construct, EI can be understood as a functional regulatory system emerging from the interaction between cognitive processes, emotions, and environmental contexts. This chapter moves from

Table 2. Characteristics and rationale for inclusion of the 28 studies underpinning the interpretive synthesis.

Reference	Context/ Country	Profession/Sample	Study design	EI model/ instrument	Main result	Reason for inclusion
Arnsten et al. (2023)	Neurocog. review	N/A	Narrative review	N/A	PFC-cingulate pathways regulate emotion under stress	Neurocognitive mechanism basis
Battaglini et al. (2022)	Canada	General population	Daily-diary study	N/A (ER flexibility)	ER flexibility ↑ → affect regulation ↑	ER plasticity evidence
Berboth & Morawetz (2021)	Neuroimaging meta-analysis	N/A	Meta-analysis	N/A	Amygdala-PFC connectivity ↔ ER	Amygdala-PFC basis
Bonanno et al. (2024)	Conceptual (disaster)	N/A	Theoretical review	N/A	Flexible-adaptation resilience model	Resilience definition
Castro-Paniagua et al. (2023)	Peru	Univ. teachers (n = 75)	Cross-sectional	Bar-On ICE: NA	EI + performance; EI – negative emotions	EI-performance evidence
Rendell (2025)	Not confirmed —see note	Nurses	Not confirmed —see note	Not specified	EI training → ↓ stress, ↑ care	EI trainability
D’Amico & Geraci (2023)	Conceptual	N/A	Theoretical article	N/A (meta-EI)	Proposes meta-EI construct	EI construct debate
De Hert (2020)	Europe	Healthcare workers	Editorial	N/A	Burnout = structural phenomenon	European burnout framing
Dzau et al. (2020)	United States	Clinicians	Perspective article	N/A	National strategy for clinician well-being	Policy framing
Fonseca et al. (2025)	WHO Europe	Health systems	Perspective/vision	N/A	Vision for quality of care	Cultural/org. context
Galanis et al. (2024)	Greece	Nurses (n = 992)	Cross-sectional	TEIQue-SF	EI – quiet quitting, turnover, burnout	Direct EI-protective evidence
Holz et al. (2023)	Neurodevelopmental review	N/A	Review	N/A	Early adversity → connectivity/mental health	Neural plasticity evidence
Iodice et al. (2022)	Not fully confirmed	Top managers	Intervention (neurofeedback)	N/A	Self-reg. training ↑ decisions under stress	Self-reg. trainability (analogy)
Jun et al. (2021)	Systematic review	Nurses	Systematic review	N/A	Burnout → worse care/safety	Organizational consequences
Kraaijenvanger et al. (2023)	Neuroimaging meta-analysis	N/A	Meta-analysis	N/A	Early adversity → amygdala connectivity	Complementary neuro evidence
Lima et al. (2025)	Brazil	Nursing professionals	Literature review	N/A	Burnout affects care quality	Occupational burnout framing
Morawetz et al. (2020)	Neuroimaging review	N/A	Systematic review	N/A	Multiple neural networks underlie ER	Network-model basis

Continued

Sacu et al. (2025)	Not fully confirmed	N/A (neuroimaging)	Longitudinal study	N/A	Dev. stress → long-term connectivity change	Longitudinal neuro evidence
Seeley (2019)	Neuroscience viewpoint	N/A	Viewpoint	N/A	Salience network = homeostatic detector	Salience-network basis
Shanafelt et al. (2022)	United States	Physicians vs. gen. pop.	Repeated cross-sectional	N/A	Physician burnout worsened over decade	Burnout trajectory evidence
Sinsky et al. (2021)	US, COVID-19	Healthcare workers	Cross-sectional	N/A	COVID stress → ↓ work intentions	Pandemic burden evidence
Tawfik et al. (2019)	Systematic review/meta-analysis	Healthcare providers	SR + meta-analysis	N/A	Burnout → poorer care quality	Reference SR; anchors 2019 window
Telaska & Minho (2022)	Brazil (presumed)	Not specific	Systematic review	N/A	Synthesizes EI perspectives	Conceptual heterogeneity
Troy et al. (2023)	Theoretical	N/A	Theoretical review	N/A	Affect-regulation resilience framework	EI-ER-resilience link
Valente et al. (2025)	Portugal	Teachers	Psychometric validation	WLEIS	Confirms WLEIS psychometrics	Instrument validation
West et al. (2020)	United States	Physicians vs. gen. pop.	Cross-sectional	N/A	Resilience/EI traits protective	Protective-role evidence
WHO (2019)	Int'l classification	N/A	Policy document	N/A	Burnout classified (ICD-11)	Anchors 2019-2025 window
National Academy of Medicine (2024)	United States	Health workforce	Institutional report	N/A	National well-being plan	US policy framing

theoretical models of EI to emotional regulation and its neurocognitive basis, establishing a framework for application in complex systems such as healthcare.

3.1. Conceptual Models of Emotional Intelligence

EI has been conceptualized through different theoretical models with distinct views on emotional competencies and their role in human adaptation. The ability model proposed by Mayer and Salovey (1997), defines EI as a set of cognitive capacities for processing emotional information, including the perception, facilitation, understanding, and regulation of emotions. From this perspective, EI is a form of functional intelligence that can be measured through performance tasks.

In contrast, trait models view EI as a set of stable emotional dispositions closer to personality, reflecting consistent tendencies in emotional perception and response over time. Mixed models integrate emotional competences with motivational, social, and behavioral factors, including empathy, adaptability, and interpersonal skills (Lourenço et al., 2026; Mayer et al., 2016).

Despite these conceptual differences, contemporary literature points to a gradual

convergence: EI is increasingly seen not only as an individual characteristic but as a functional system of adaptation relevant in complex contexts with high emotional and cognitive demands (D'Amico & Geraci, 2023; Ochsner & Gross, 2005).

3.2. Emotional Regulation as a Core Mechanism

The link between EI and psychological adaptation is particularly evident in emotional regulation. Resilience, understood as the capacity to maintain or restore adaptive functioning in the face of adversity, depends on how individuals regulate emotional states under stress.

Recent meta-analytic evidence shows a robust association between EI and resilience among healthcare professionals and students (He et al., 2026), suggesting that EI functions as an active mechanism of adaptation in high-demand contexts.

According to Ochsner and Gross (2005), emotional regulation involves modulating which emotions individuals experience, when they occur, and how they are expressed. Strategies such as cognitive reappraisal have been consistently associated with better psychological outcomes, greater emotional stability, and lower vulnerability to burnout. Thus, emotional regulation is the central mechanism of EI through which emotional abilities are translated into adaptive responses.

3.3. Neurocognitive Mechanisms and Functional Integration

The proposed neurocognitive basis of EI involves the interaction between brain systems involved in the detection, evaluation, and regulation of emotional stimuli.

The amygdala plays a central role in detecting emotionally salient stimuli, especially those linked to threat or uncertainty, and is a key marker of automatic emotional response and stress sensitivity (Kraaijenvanger et al., 2023). In contrast, the prefrontal cortex, particularly the dorsolateral and ventromedial regions, supports executive control, decision-making, and top-down regulation of emotion, thereby modulating amygdala activity and promoting more adaptive responses.

The effectiveness of this modulation depends on functional interactions between subcortical and cortical regions. Berboth and Morawetz (2021) show that effective emotional regulation is associated with amygdala-prefrontal connectivity. This finding is relevant to the present framework because emotional regulation constitutes a central component of EI; however, it should not be interpreted as direct neurobiological evidence of EI in healthcare professionals. Rather, amygdala-prefrontal connectivity is considered here as a plausible explanatory pathway through which emotion-regulation processes associated with EI may support adaptation to stress.

Evidence on early adversity further illustrates the sensitivity and plasticity of these corticolimbic circuits. Gee et al. (2013) showed that early maternal deprivation was associated with altered developmental patterns of amygdala-prefrontal connectivity, while more recent evidence has linked early social adversity to alterations in functional connectivity involving the amygdala and prefrontal regulatory networks (Holz et al., 2023; Kraaijenvanger et al., 2023). These findings concern

adversity and neural development rather than EI itself, but they provide complementary neurocognitive context for understanding how emotional-regulation systems may be shaped by experience and subsequently contribute to adaptation under stress.

Beyond these structures, emotional regulation involves large-scale brain networks, including the Salience Network (SN), the Central Executive Network (CEN), and the Default Mode Network (DMN) (Barrett & Satpute, 2013; Menon, 2011; Seeley, 2019). The SN detects relevant stimuli and supports transitions between cognitive states, while the CEN supports cognitive control and emotional reappraisal. Their interaction allows flexible adaptation to complex and emotionally demanding contexts.

Recent literature highlights the role of neural plasticity in these systems. Early stress can alter functional connectivity between limbic and prefrontal regions, with lasting effects on emotional regulation. Holz et al. (2023) and Kraaijenvanger et al. (2023) show that early adversity is associated with changes in emotional and executive network connectivity, reflecting both vulnerability and capacity for functional reorganization across development.

Interventions focused on emotional competencies provide additional evidence of this plasticity. A study by King et al. (2026) indicates that EI training can improve stress regulation and performance in high-demand contexts. Complementarily, Rendell (2025) shows that EI interventions in nursing professionals are associated with reduced stress and improved quality of care.

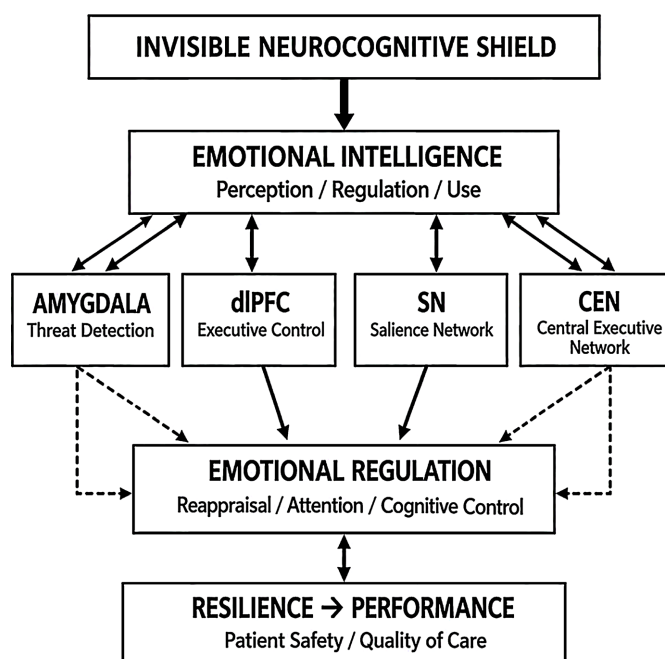
The integration of these levels of analysis allows EI to be conceptualized as an adaptive regulatory system operating at the intersection of biological, cognitive, and behavioral processes. This can be understood as an “Invisible Neurocognitive Shield”, in which EI does not eliminate stress but modulates its processing through underlying neurocognitive circuits.

At the biological level, the model incorporates amygdala-prefrontal connectivity and network flexibility as proposed neurocognitive pathways relevant to emotional regulation, rather than as established neural markers of EI. At the psychological level, EI-related processes appear as emotional awareness, cognitive reappraisal, and attentional control. At the behavioral level, these processes may support performance and adaptation under pressure.

This conceptualization is particularly relevant in high-demand contexts such as health systems. Burnout, recognized by WHO (2019) as an occupational phenomenon, has been widely documented among health professionals and is associated with poorer quality of care (Jun et al., 2021; Maslach & Leiter, 2016; Tawfik et al., 2019). Although organizational factors play a decisive role, individual emotional regulation also shapes how stress is experienced and managed, reflecting an interaction between structural conditions and psychological mechanisms (Shanafelt & Noseworthy, 2017; West et al., 2020). More recently, Galanis et al. (2024) showed that higher EI is associated with lower burnout and lower intention to leave, reinforcing its protective role in clinical contexts.

In summary, EI should be understood as an integrated neurocognitive system linking biology, cognition, and behaviour through emotional regulation. Operationalized in the “Invisible Neurocognitive Shield” model, this framework provides the theoretical basis for the empirical analysis developed in the following chapters. Its relevance lies in its manifestation in real contexts, especially in complex organizational environments such as health systems, where emotional demands are continuous and contextually determined.

Figure 1 presents a conceptual model that integrates evidence from distinct literatures. The amygdala-prefrontal pathway represents a proposed neurocognitive explanation for emotional regulation rather than a directly demonstrated pathway linking EI to burnout or clinical performance.



Source: Conceptual diagram created by the authors.

Figure 1. Invisible Neurocognitive Shield model: proposed pathways linking EI-related emotional regulation, neurocognitive processes, resilience, and performance.

4. Critical Analysis

Building on the neurocognitive and theoretical foundations presented in the previous chapter, this section examines how these mechanisms operate in real healthcare contexts, where emotional demands are continuous and highly heterogeneous. Although EI as an “Invisible Neurocognitive Shield” provides a coherent framework at the biological and cognitive levels, its practical relevance depends on how it functions under sustained emotional labor.

In healthcare systems, emotional regulation is a daily requirement embedded in professional roles, institutional cultures, and interactions with patients. This shift from theory to application allows a more critical analysis of how EI shapes occupational experience, resilience, and performance across professional groups.

The following section explores emotional labor across healthcare roles, highlighting how differing emotional demands shape both the expression and protective function of EI in clinical and non-clinical contexts.

4.1. Emotional Labor across Healthcare Roles

Emotional labor constitutes a structural and cross-cutting dimension of healthcare systems, although it often remains invisible within traditional metrics of organizational performance. Since Hochschild's classic formulation (Hochschild, 1983), emotional labor has been understood as the process through which individuals regulate and adjust emotional expression to comply with implicit or explicit institutional rules. In the health sector, this requirement is continuous and embedded in the delivery of care.

For physicians, emotional labor is closely linked to managing clinical uncertainty, communicating adverse diagnoses, and making decisions under high ethical and cognitive pressure. This combination of decisional load and emotional demand creates a stress profile strongly associated with burnout, a phenomenon widely documented in the contemporary literature (De Hert, 2020; Maslach & Leiter, 2016). Evidence from Shanafelt and Noseworthy (2017) reinforces that physicians' well-being is shaped not only by individual factors but also by the interaction between systemic demands and working conditions, with implications for adaptation and emotional regulation.

For nurses, emotional labor is continuous, relational, and intensive. Prolonged contact with suffering, pain, and human vulnerability requires real-time emotional regulation, often without adequate recovery periods. This is the group in which the literature most consistently links higher EI with better occupational outcomes. Recent studies show that higher EI is associated with lower burnout, lower intention to leave, and higher perceived quality of care (Galanis et al., 2024; Rendell, 2025). These findings suggest that EI functions as a factor of emotional stabilization in high-affective-exposure contexts.

For operational assistants and support workers, emotional labor is often less recognized, but it is equally intense. This group is frequently exposed to extreme suffering, patients' physical dependence, and direct interaction with family members in critical emotional states. The lack of formal recognition of this labor contributes to its institutional undervaluation, despite its cumulative psychological impact, aligning with literature on the implicit devaluation of emotionally demanding roles in organizations (Grandey & Gabriel, 2015; Hochschild, 1983).

For administrative and institutional support professionals, emotional labor is expressed through conflict management, mediation between users and the healthcare system, and continuous exposure to organizational frustration. Although less visible, this type of emotional regulation is highly relevant to service functioning and to organizational dynamics that shape institutional communication and the overall care experience (Dyrbye et al., 2017; Sinsky et al., 2021).

The integrated analysis of these different professional profiles suggests that

emotional labor is unevenly distributed within healthcare systems. It is important to note that this professional differentiation is derived from narrative synthesis of separate bodies of literature addressing each occupational group independently, rather than from studies employing a common EI measure across physicians, nurses, support staff, and administrative personnel within the same sample. As such, these profiles constitute working hypotheses grounded in emotional-labor theory (Hochschild, 1983) rather than empirically confirmed comparative findings, and they warrant direct testing in future multi-group designs. A further note on the evidentiary basis: a systematic review by Louwen et al. (2023), synthesizing EI-related evidence across multiple healthcare professions, reported both similarities and differences across occupational groups, but also identified substantial heterogeneity in the underlying evidence—with comparative data more consistently available for physicians and nurses than for support and administrative personnel. This variability implies that EI cannot be seen as a generic competence, but rather as an adaptive system that responds to different profiles of emotional demand, in line with approaches that integrate individual and contextual factors in understanding burnout and professional well-being (Maslach & Leiter, 2016; Shanafelt & Noseworthy, 2017). This functional heterogeneity constitutes the starting point for the analysis of the global evidence patterns presented in the following section.

From a psycho-pedagogical and organizational perspective, this heterogeneity reinforces the importance of continuous development of emotional competencies. Recent evidence from (Lourenço et al., 2026; Valente et al., 2025) suggests that self-regulation, volitional control, and cognitive-emotional management are associated with performance in high-demand contexts, highlighting a relevant link between academic training and professional functioning.

Furthermore, the literature on burnout in healthcare professionals shows that stress not only affects the individual but also directly compromises the quality of the care system. Jun et al., (2021) show that high levels of burnout are associated with poorer quality of care, higher risk of clinical error, and lower patient safety, reinforcing the systemic nature of the problem.

Within this framework, EI emerges not only as an individual competence but as an organizational mechanism for regulating emotional labor (Grandey & Gabriel, 2015; Hochschild, 1983). Its relevance becomes particularly evident when integrated with the neurocognitive models discussed in the previous chapter, in which emotional regulation functions as a mediator between environmental stimuli and adaptive behavioral response.

Thus, emotional labor should be understood as the point of contact between organizational structure, emotional demand, and individual neurocognitive capacity, constituting the first level of application of the conceptual model of EI as an integrated regulatory system, whose expression in different contexts will be analyzed in the following section.

Table 3 summarizes the thematic organization of the evidence discussed in this

Table 3. Thematic synthesis of the literature.

Thematic axis	Authors and years	Main contribution	Critical implication
Burnout as an occupational and systemic problem	De Hert (2020); Dzau et al. (2020); Jun et al. (2021); Lima et al. (2025); National Academy of Medicine (2024); Shanafelt et al. (2022); Sinsky et al. (2021); Tawfik et al. (2019); WHO (2019)	Frames burnout as a workplace and health-system phenomenon with consequences for clinician well-being, care quality, and workforce sustainability.	Burnout should be treated as an organizational and policy problem, not only as an individual coping failure.
Emotional intelligence as a conceptual and measurable construct	D'Amico & Geraci (2023); Valente et al. (2025)	Highlights ongoing debates about EI's scope, definition, and measurement.	EI remains analytically useful, but its interpretation must account for model heterogeneity and psychometric limits.
EI, resilience, and adaptive functioning	Battaglini et al. (2022); Bonanno et al. (2024); Galanis et al. (2024); Shanafelt et al. (2022); Troy et al. (2023); West et al. (2020)	Shows that EI-related capacities are associated with resilience, lower burnout, and better adaptation under stress.	EI appears to function as a protective resource in high-demand work settings.
Emotion regulation and neurocognitive mechanisms	Arnsten et al. (2023); Berboth & Morawetz (2021); Morawetz & Basten (2024); Seeley (2019)	Explains how emotion regulation depends on brain connectivity, large-scale networks, and top-down control.	EI is better understood as a dynamic regulatory system than as a static trait.
Brain networks, plasticity, and adversity	Holz et al. (2023); Kraaijenvanger et al. (2023); Sacu et al. (2025)	Links adversity, functional connectivity, and neuroplasticity to emotion-regulation capacity.	Emotional self-regulation is shaped by brain plasticity and life experience, reinforcing developmental and contextual interpretation.
Emotional labor across healthcare roles	Rendell (2025); Fonseca et al. (2025)	Describes emotional labor as a structural feature of healthcare work that differs across roles and organizational contexts.	EI may function as a contextual capacity that helps healthcare professionals manage emotionally demanding aspects of their work although this role-specific differentiation is inferred from separate literatures rather than from direct cross-role comparison.
Professional outcomes and quality of care	Castro-Paniagua et al. (2023); Rendell (2025); Galanis et al. (2024); Jun et al. (2021); Tawfik et al. (2019)	Connects EI and burnout-related processes to patient safety, quality of care, turnover intention, and professional performance.	The relevance of EI extends beyond individual well-being to institutional effectiveness and care quality.
Interventions and trainability	Rendell (2025); Iodice et al. (2022)	Suggests that emotional competencies can be strengthened through training, self-regulation, and applied interventions.	EI should be treated as a developable capability rather than a fixed attribute.
Cultural and contextual variation	Fonseca et al. (2025)	Highlights that emotional expression, regulation norms, and care pressures vary across systems and contexts.	EI is not culturally neutral and must be interpreted in relation to organizational and social context.

Continued

Emotional intelligence beyond the classic model	Telaska & Minho (2022)	Broadens EI toward applied and integrative perspectives.	The field is expanding, but this also increases conceptual heterogeneity and interpretive complexity.
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Note: Thematic axes summarize separate, profession- or topic-specific bodies of literature; entries do not represent findings from studies that directly compare groups (e.g., professional roles) within the same design.

section, highlighting how emotional labor, burnout, resilience, and performance intersect across healthcare roles.

4.2. Global Evidence and Neurocognitive Convergence

Empirical evidence on EI in healthcare contexts reveals a consistent pattern of convergence across different geographical regions, despite the structural, cultural, and organizational diversity of health systems. This suggests that EI is not merely a culturally conditioned construct, but a functional mechanism of adaptation with a relatively universal expression in high-emotional-demand contexts (Galanis et al., 2024; Maslach & Leiter, 2016).

In the United States, longitudinal studies by Shanafelt et al. (2022) show a progressive worsening of burnout among healthcare professionals over the last decade, linked to organizational pressures and persistent emotional overload. Complementarily, West et al. (2020) show that resilience and EI-related competences act as protective factors, partially mitigating occupational stress and improving adaptive capacity in complex environments.

In the European context, the literature shows similar trends. De Hert (2020) identifies burnout as a structural occupational phenomenon with a direct impact on the sustainability of health systems, while systematic reviews such as Tawfik et al. (2019) show a consistent association between professional burnout and poorer quality of care. These findings reinforce that emotional management is not merely an individual variable, but a systemic determinant of clinical performance.

In Asian contexts and in health systems in transition, this pattern is also observed, although shaped by cultural variables such as institutional hierarchy, norms of emotional expression, and power distance. In these settings, EI appears to play an important role as a mechanism of cultural adaptation, allowing emotional expression to be adjusted to social norms without compromising relational or clinical effectiveness (Galanis et al., 2024; He et al., 2026).

In Latin American countries and the Global South, despite the structural limitations of health systems, the evidence points in the same direction: high emotional demand coexists with greater vulnerability to burnout, but also with protective effects associated with emotional regulation and EI. This consistency suggests the existence of shared underlying mechanisms (He et al., 2026; Jun et al., 2021; Tawfik et al., 2019).

From a neurocognitive perspective, this convergence can be explained by the functional universality of the circuits involved in emotional regulation. The inter-

action between the amygdala and the prefrontal cortex is central to stress-response modulation and is widely replicated across populations and cultural contexts (Arnsten et al., 2023; Ochsner & Gross, 2005; West et al., 2020). Effective emotion regulation is consistently associated with functional connectivity patterns reflecting efficient amygdala-prefrontal modulation (Barrett & Satpute, 2013).

This pattern is complemented by large-scale brain network models, in which the salience network and the central executive network play key roles in detecting relevant stimuli and supporting cognitive control. Berboth and Morawetz (2021) propose that these networks operate as integrated dynamic systems involved in the construction of emotional meaning, while Seeley (2019) highlights the role of the salience network in detecting salient stimuli and coordinating transitions between cognitive states.

Taken together, these neurocognitive findings and the broader evidence on EI and occupational outcomes provide a plausible explanatory pathway for understanding how EI-related regulatory processes may operate under stress (Berboth & Morawetz, 2021). However, these neurocognitive findings should be interpreted as complementary evidence rather than as direct evidence that EI, burnout, resilience, and professional performance are mediated by amygdala-prefrontal connectivity in healthcare professionals. The cited neuroscience literature primarily addresses emotional regulation, stress, or adversity, whereas the evidence concerning EI and occupational outcomes derives from separate healthcare studies.

The integration of these two bodies of evidence therefore supports a proposed explanatory pathway rather than an established neurobiological mechanism: EI-related emotional-regulation capacities may contribute to adaptive responses under pressure, while amygdala-prefrontal regulatory processes provide a plausible neurocognitive substrate for such regulation (Berboth & Morawetz, 2021; Pessoa, 2017). This interpretation preserves the multilevel nature of the “Invisible Neurocognitive Shield” model while avoiding the assumption that the neural, psychological, and occupational variables have been demonstrated jointly within the same empirical samples.

Thus, the global convergence of the evidence not only supports the relevance of EI in healthcare settings but also points to a functionally conserved neurocognitive architecture underlying emotional regulation, modulated by cultural and organizational factors without being fundamentally determined by them.

4.3. Pathways Linking Emotional Intelligence, Resilience and Performance

The relationship between EI, psychological resilience, and professional performance is a central theme in contemporary healthcare literature, reflecting a shift from descriptive approaches to explanatory and mechanistic models. Rather than an isolated trait, EI can be understood as a functional system that may contribute to the regulation of environmental stress and support emotional regulation and behavioral adaptation.

Psychological resilience, defined as the capacity to maintain or regain adaptive functioning in the face of adversity (Bonanno et al., 2024), is consistently identified as one of the main outcomes associated with EI. He et al. (2026) provide robust evidence of a positive association between EI and resilience in health professionals and students, suggesting that EI not only correlates with adaptation but also contributes to its functional development over time.

This effect can be interpreted in light of the neurocognitive framework presented in the previous chapter, in which efficient emotional regulation depends on interactions between amygdala reactivity and top-down prefrontal control (Arnsten et al., 2023; Ochsner & Gross, 2005). Within the present review, this relationship is proposed as an explanatory pathway rather than as an empirically established neural mechanism of EI. Evidence on amygdala-prefrontal connectivity indicates that these circuits are involved in emotional regulation and adaptation to stress (Berboth & Morawetz, 2021; Pessoa, 2017), whereas evidence linking EI to resilience and occupational outcomes comes from separate studies of healthcare professionals. Accordingly, higher EI may plausibly support more effective emotional regulation, but the available literature does not establish that this association is directly mediated by amygdala-prefrontal connectivity in the same clinical samples.

In the domain of burnout, the evidence is especially consistent. Galanis et al. (2024) show that higher EI is associated with lower burnout, lower intention to leave, and greater emotional stability in nursing professionals. These findings align with Maslach and Leiter (2016), who conceptualize burnout as a multidimensional phenomenon arising from the interaction between chronic work demands and available psychological resources, with EI representing an important resource for mitigating these effects.

From an organizational perspective, Jun et al. (2021) show that burnout is not merely an individual phenomenon, but a systemic factor that directly affects quality of care, patient safety, and institutional efficiency. In this sense, EI can be conceived as a psychological resource operating not only at the individual level but also as an indirect moderator of organizational outcomes.

The relationship between EI and professional performance may involve several interconnected mechanisms. First, effective emotion regulation reduces the cognitive load associated with stress (Castro-Paniagua et al., 2023; Matthews et al., 2006), freeing executive resources for complex clinical tasks (Ochsner & Gross, 2005; Pessoa, 2017). Second, it promotes affective stability in uncertain contexts, improving decision-making under pressure (Iodice et al., 2022; Prasad & Nag, 2026). Third, it facilitates the quality of interpersonal interactions, which is especially relevant in multidisciplinary teams (Goleman, 1998; Seeley, 2019).

Experimental and applied evidence reinforces these mechanisms. King et al. (2026) report that EI training interventions can significantly improve stress regulation and performance in high-demand contexts, suggesting that these processes are at least partly trainable and may involve neuroplasticity mechanisms. Like-

wise, [Rendell \(2025\)](#) reports that EI development programs in nursing are associated with reduced perceived stress and improved quality of care.

These results are particularly relevant when integrated into the “Invisible Neurocognitive Shield” model presented in the previous chapter. Within this framework, EI is conceptualized as a regulatory system that may contribute to stress adaptation and help explain the relationship between resilience and performance ([Gross, 2015](#); [Pessoa, 2017](#)).

It is also important to emphasize that these pathways are dynamic and bidirectional rather than linear. Repeated practice in emotional regulation may be associated with adaptive changes in neurocognitive systems involved in executive control, potentially supporting more efficient responses to future stress; this possibility is consistent with evidence on neural plasticity in emotional regulation systems ([Nahum et al., 2013](#); [Ochsner & Gross, 2005](#)).

In summary, EI can be conceptualized as a central psychological resource linking stress, resilience, and performance across multiple levels of analysis, including neurobiological, psychological, and organizational. This reinforces its relevance not only as a theoretical construct, but also as a critical variable for the sustainability of contemporary healthcare systems ([Galanis et al., 2024](#); [Maslach & Leiter, 2016](#); [Troy et al., 2023](#)).

4.4. Moderators and Limitations

Although the accumulated evidence supports a robust association between EI, resilience, and adaptive functioning in healthcare contexts, this relationship is neither uniform nor universal. Its expression depends on moderating variables that shape how EI is developed, expressed, and translated into occupational outcomes.

One of the most consistent moderators is cultural context. EI is not culturally neutral, as it is influenced by social norms governing emotional expression, interpersonal communication, and professional behaviour ([Matsumoto & Hwang, 2013](#); [Mesquita & Boiger, 2014](#)). In collectivist cultures, emotional modulation may be valued as a sign of self-control and discipline, whereas in individualistic contexts, emotional expressiveness is often linked to authenticity and relational competence.

Gender is another relevant moderating factor. The literature on emotional labor shows that social expectations shape how men and women regulate and express emotions in professional settings, and healthcare professions, which are highly feminized in several regions, often involve a greater structural emotional load ([Grandey & Gabriel, 2015](#); [Hochschild, 1983](#)). These differences have been linked to variation in career trajectories, access to leadership roles, and levels of emotional exhaustion.

Professional experience and seniority also shape the relationship between EI and outcomes. More experienced professionals tend to use more efficient emotion regulation strategies, which may reflect experiential learning and neurocognitive adaptation over time. This pattern is consistent with the literature on plasticity

and functional adaptation (Kraaijenvanger et al., 2023; Holz et al., 2023), as well as with models of emotion regulation based on learning and automatization throughout professional development (Ochsner & Gross, 2005).

At the organizational level, structural conditions play a decisive role. Factors such as workload, leadership, institutional resources, and organizational culture can amplify or weaken the protective effects of EI. In high-pressure care systems, even high EI may not be enough to prevent burnout, which reinforces the need for multisystemic approaches (De Hert, 2020; Dyrbye et al., 2017; Dzau et al., 2020; Maslach & Leiter, 2016; Shanafelt & Noseworthy, 2017).

From a methodological perspective, it is important to acknowledge substantial limitations in the existing literature. Many studies rely on cross-sectional designs, which restrict causal inference, and on self-report EI measures, which may introduce social desirability bias and inflate associations. Moreover, conceptual heterogeneity across trait, ability, and mixed EI models makes comparisons between studies difficult and contributes to variability in empirical findings. The distinction between trait and ability EI, alongside this broader conceptual fragmentation, is well documented in the literature (Mayer & Salovey, 1997; Telaska & Minho, 2022) and underscores the need for longitudinal, multimethod research.

A further limitation concerns the profession-specific EI profiles proposed in this review (Section 4.1): these were inferred from separate, profession-specific literatures rather than from studies directly comparing physicians, nurses, support staff, and administrative personnel using standardized EI measures within the same design. Future research should prioritize multi-group comparative studies—ideally longitudinal and using common EI instruments—to empirically test whether these differentiated profiles hold.

Finally, the geographical representativeness of the evidence remains uneven, with a predominance of studies in Western contexts, which limits the global generalizability of current models (Matsumoto & Hwang, 2013; Mesquita & Boiger, 2014).

Taken together, these limitations do not invalidate the main findings of the literature, but they do highlight the need for longitudinal, cross-cultural, and multimethod research. Within this framework, EI cannot be understood as an isolated trait or static competence, but rather as a dynamic adaptive system whose effectiveness depends on the interaction between neurocognitive mechanisms, emotional demands, and contextual conditions. Only through integrated approaches that connect individual and organizational levels will it be possible to understand more precisely how EI operates as a complex system. This perspective provides the basis for the theoretical and applied implications discussed in the following chapter.

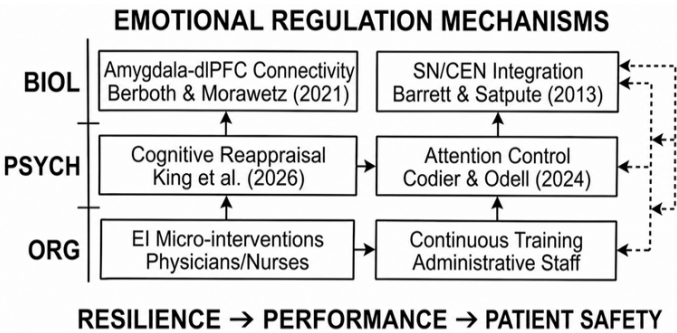
5. Practical Applications and Global Model

The analysis developed in the previous chapter shows that EI does not operate in isolation, but as a dynamic system shaped by the interaction between emotional

demands, neurocognitive mechanisms, and contextual conditions. Building on this, the chapter shifts from analysis to application, proposing an integrated model for EI that articulates individual, organizational, and cultural levels, with direct implications for practice in health systems.

5.1. The Invisible Shield Framework

Figure 2 operationalizes the “Invisible Neurocognitive Shield” across healthcare roles (physicians, nurses, support staff).



Source: Conceptual diagram created by the authors.

Figure 2. EI-Resilience-Performance operational matrix: evidence-based micro-interventions by biological, psychological, and organizational levels.

Based on the evidence discussed above, the “Invisible Neurocognitive Shield” model can be formalized as a functional architecture that conceptualizes EI as an adaptive regulatory system. This model is organized around a dynamic chain of processes, EI, emotional regulation, resilience, and performance—which should be understood not as a linear sequence, but as a recursive system of continuous adaptation.

EI represents the entry point to this regulatory system, integrating the perception, understanding, and management of emotional information. In the Mayer and Salovey (1997). model, these competencies are conceptualized as cognitive abilities for processing emotional information, hierarchically structured across emotional perception, facilitation, understanding, and management. By contrast, applied approaches such as that of Goleman (1998) emphasize how these abilities translate into observable behavioral competencies in organizational contexts, particularly in professional performance and relational effectiveness.

Emotional regulation is the central mechanism through which EI competences are translated into adaptive action. In Gross (2015) process model, strategies such as cognitive reappraisal and attentional control modulate the intensity and duration of emotional responses, shaping real-time reactions to stressful stimuli. Within the present framework, amygdala-prefrontal interactions are incorporated as a proposed neurocognitive pathway relevant to emotional regulation, rather than as an established neural marker of EI (Ochsner & Gross, 2005; Pessoa, 2017).

Resilience emerges as the functional consequence of effective regulation, reflect-

ing the capacity to maintain psychological stability and recover after stress exposure. This does not mean the absence of emotional response, but rather its efficient management over time, preserving adaptive functioning even in adverse contexts.

Performance is the operational dimension of the model, reflected in indicators such as quality of care, decision-making under pressure, and relational effectiveness in clinical settings. Empirical evidence suggests that professionals with stronger emotion-regulation capacity show better occupational adaptation and a lower impact of chronic stress (Shanafelt & Noseworthy, 2017; West et al., 2020), reinforcing EI as a functional factor in sustaining clinical effectiveness in highly demanding environments.

This model incorporates feedback mechanisms in which repeated practice in emotional regulation may contribute to adaptive changes in neurocognitive systems involved in executive control, potentially supporting more efficient responses to subsequent stress. This interpretation is consistent with evidence on neural plasticity in learning and adaptation (Battaglini et al., 2022), but does not imply that such neuroplastic changes have been directly demonstrated as a consequence of EI in healthcare professionals. Accordingly, the model treats neuroplasticity as a plausible process through which emotional-regulation capacities may develop over time, rather than as an established neurobiological mechanism of EI.

Thus, the “Invisible Neurocognitive Shield” is not merely a set of competences, but an integrated system linking biological, psychological, and organizational levels, providing a solid conceptual basis for applied interventions in health contexts.

5.2. Cross-Regional Application Matrix

The operationalization of EI in healthcare systems requires adaptation to the cultural and organizational specificities of each context. Although the neurocognitive mechanisms underlying emotional regulation share a broadly common functional basis, their expression is shaped by social norms, institutional structures, and cultural values (Matsumoto & Hwang, 2013; Mesquita & Boiger, 2014).

In this sense, an application matrix can be conceptualized that aligns EI strategies with regional characteristics:

United States and Western contexts

Characterized by high professional autonomy and a strong emphasis on individual performance, these contexts benefit from interventions centred on emotional self-regulation, emotional leadership, and burnout prevention. The evidence also suggests that institutional programs have been increasingly integrating emotional competencies as a core component of professional well-being strategies (Shanafelt & Noseworthy, 2017).

Europe

In European systems, there is greater integration between health policies and occupational well-being. EI strategies are often incorporated into broader organizational approaches, including work-life balance and institutional culture (De

Hert, 2020).

Asia

In Asian contexts, characterized by stronger institutional hierarchy and more restrictive norms of emotional expression, EI may play a particularly adaptive role by helping professionals adjust emotional display to social expectations without compromising effectiveness. This pattern is consistent with the literature on cultural norms and “display rules”, which highlights the role of culture in shaping emotional experience and expression (Matsumoto & Hwang, 2013; Mesquita & Boiger, 2014).

Latin America and the Global South

In these contexts, the high emotional load linked to structural limitations in healthcare systems coexists with greater vulnerability to burnout, as well as with the protective role of emotion-regulation strategies and resilience. The available evidence suggests that EI is especially important for adaptation in settings with high care pressure and limited resources (He et al., 2026; Jun et al., 2021; Tawfik et al., 2019).

Globally, the matrix suggests that EI is universal in its neurocognitive basis yet culturally situated in its expression and application, requiring adaptive and context-sensitive approaches.

5.3. Micro-Interventions: 60-Second Protocols

In high-pressure clinical contexts, brief emotional-regulation strategies may be useful when they can be integrated into routine workflow with minimal disruption. The following micro-interventions are presented as illustrative, theory-informed practices rather than as standardized 60-second protocols with demonstrated effects on healthcare workforce or clinical outcomes. Their proposed mechanisms draw on broader evidence on emotion regulation, including regulated breathing, affect labelling, cognitive reappraisal, attentional pauses, and grounding.

These techniques are grounded in neurocognitive evidence showing that the prefrontal cortex can modulate amygdala activity, reducing emotional reactivity and supporting greater cognitive control and behavioural flexibility (Ochsner & Gross, 2005). Short interventions, sometimes implemented in brief periods of around 60 seconds, may engage these regulatory processes to support rapid emotional regulation in high-demand settings.

This timeframe does not imply that a 60-second duration has been empirically validated for each intervention or healthcare context. Future intervention studies should assess the feasibility, optimal duration, implementation conditions, and effects of these strategies on stress, burnout, professional well-being, decision-making, and quality of care among healthcare professionals (Table 4).

Taken together, these interventions constitute a low-latency set of strategies designed to modulate emotional responses in real time through different neurocognitive and behavioral pathways. However, their effectiveness and sustainability are

Table 4. Illustrative micro-interventions for emotional regulation in high-pressure clinical contexts.

Micro-intervention	Psychological mechanism	Neurocognitive basis	Clinical application	Primary objective
Regulated breathing	Regulation of physiological arousal through slow, controlled breathing patterns	Activation of the parasympathetic nervous system and reduction of sympathetic stress response	Acute anxiety, emotional overload, or immediate stress situations	Reduction of physiological arousal and emotional stabilisation
Affect labelling	Verbal identification of emotional states	Increased prefrontal activation and inhibition of amygdala reactivity (Ochsner & Gross, 2005)	High emotional intensity or affective confusion	Reduction of emotional reactivity and enhancement of cognitive control
Cognitive reappraisal	Reframing the meaning of a situation	Top-down modulation of emotional responses (Gross, 2015)	Situations perceived as threatening or frustrating	Alteration of emotional response through cognitive restructuring
Attentional pause	Deliberate interruption of automatic response patterns	Reorientation of attention and engagement of prefrontal executive networks	High-pressure decision-making or impulsive reactions	Promotion of more adaptive and reflective responses
Grounding	Focus on immediate and concrete sensory stimuli	Reduction of rumination-related neural activity and stress-related cognitive loops	Acute stress episodes or emotional dysregulation	Emotional stabilisation and attentional anchoring

Source: Author's own elaboration based on the theoretical framework presented in the text.

substantially greater when they are embedded within broader, system-level strategies for implementing EI.

5.4. Implementation in Healthcare Systems

The implementation of EI in healthcare systems requires a multisystemic approach that goes beyond individual intervention, integrating organizational, relational, and structural dimensions.

At the individual level, EI training programs have been shown to improve emotion regulation and reduce stress. The literature also suggests positive associations between structured interventions, clinical performance, and quality of care (King et al., 2026; Matthews et al., 2006; Rendell, 2025).

At the team level, integrating EI into leadership and communication practices strengthens cohesion and operational effectiveness. Conceptual and empirical studies suggest that leaders with high emotional competence tend to foster more stable, collaborative, and psychologically safe work environments (Goleman, 1998).

At the organizational level, it is essential to align EI strategies with institutional policies and structural working conditions. Evidence suggests that interventions focused solely on the individual have limited impact unless accompanied by consistent organizational changes, particularly in leadership, institutional culture, and the conditions of clinical practice (Shanafelt & Noseworthy, 2017; West et al., 2020).

From an economic and operational point of view, the implementation of EI-

based programs offers important advantages, including high scalability, relatively low cost, and cross-cutting effects on multiple indicators of performance and professional well-being, consistent with recent systemic approaches to quality of care in health (Fonseca et al 2025; Shanafelt et al., 2022).

In addition, integrating micro-interventions into everyday clinical practice supports a continuous and sustainable approach to emotional regulation, reducing reliance on more reactive and complex structured interventions.

In this context, EI can be conceptualized as a strategic, structuring resource for healthcare systems, with simultaneous effects on professionals' well-being, the quality of care delivered, and organizational sustainability (Goleman, 1998; Shanafelt et al., 2022).

6. Conclusion

In summary, this review addressed four central questions concerning the role of emotional intelligence in health professionals under pressure. First, the evidence suggests that emotional intelligence functions as a neurocognitive mechanism of resilience by supporting emotional regulation, adaptive coping, and the maintenance of cognitive control in demanding contexts. Second, it appears to moderate the impact of emotional labor by helping professionals manage emotionally intense interactions more effectively across different roles. Third, the literature supports its association with lower levels of burnout and better performance, although the strength of this relationship varies across professional and cultural contexts.

Fourth, these findings indicate that emotional intelligence can inform practical interventions in health systems, especially when combined with organizational measures that reduce structural stressors and promote workforce well-being. In practical terms, these results have implications at the individual, team, and organizational levels, with possible operational and economic repercussions, insofar as more effective management of stress and burnout may influence performance, quality of care, and the sustainability of health systems. Still, these conclusions should be interpreted with caution, given the heterogeneity of the included studies and the limitations inherent in a narrative synthesis.

Future research should further examine these mechanisms across different professional and cultural contexts, as well as evaluate concrete interventions that integrate individual competencies with organizational change. In this framework, emotional intelligence emerges as a silent yet decisive force in preserving humanity, resilience, and the quality of care in health care.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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