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titleInvestigating the Relationship Between Emotional Regulation and Decision-Making Under Pressure in Nursing Practice
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sectionIntroduction

The nursing profession represents a unique intersection of technical expertise, interpersonal skill, and emotional labor, where practitioners routinely navigate high-stakes decisions amid intense emotional circumstances. While substantial research has examined clinical decision-making processes and emotional intelligence separately, the specific mechanisms through which emotional regulation strategies influence decision-making accuracy in nursing practice remain inadequately understood. This study addresses this critical gap by investigating how different emotional regulation approaches affect clinical judgment during pressure-intensive scenarios.

Nursing practice inherently involves frequent exposure to emotionally charged situations, including patient emergencies, family distress, and organizational pressures. The conventional emphasis on technical competence and evidence-based practice, while essential, has often overshadowed the crucial role of emotional processes in clinical effectiveness. Previous investigations have typically treated emotional regulation as a unitary construct or focused primarily on burnout prevention rather than examining its direct impact on decision-making quality.

Our research introduces several novel contributions to the literature. First, we differentiate between antecedent-focused and response-focused emotional regulation strategies specifically within nursing contexts, examining how each approach distinctly influences clinical decision pathways. Second, we develop and validate a multi-method assessment protocol that captures real-time interactions between emotional states and decision processes during simulated clinical emergencies. Third, we identify and characterize an optimal emotional regulation zone that maximizes decision-making accuracy while avoiding the cognitive costs of both under-regulation and over-regulation.

The theoretical framework integrates elements from affective science, cognitive psychology, and clinical nursing practice to create a comprehensive model of

emotion-cognition interactions in healthcare decision-making. We propose that effective emotional regulation in nursing represents not merely the suppression or control of emotions, but rather the strategic deployment of emotional resources to enhance clinical judgment and patient care outcomes.

This investigation addresses three primary research questions: How do different emotional regulation strategies influence diagnostic accuracy and treatment decision-making in high-pressure nursing scenarios? What are the cognitive mechanisms through which emotional regulation affects clinical judgment? Is there an optimal level of emotional regulation that maximizes decision-making performance while maintaining emotional well-being?

sectionMethodology

subsectionParticipants and Setting

We recruited 187 registered nurses from three major healthcare institutions, representing diverse clinical specialties including emergency care, intensive care, medical-surgical units, and oncology. Participants ranged in experience from novice nurses (less than 2 years) to expert practitioners (over 15 years), with a mean age of 34.7 years and 78

subsectionExperimental Design

We employed a mixed-methods approach combining quantitative measures of decision performance with qualitative assessment of emotional regulation processes. The core experimental protocol involved a series of high-fidelity clinical simulations designed to replicate the emotional and cognitive demands of actual nursing practice. Each simulation presented progressively complex patient scenarios requiring rapid assessment, diagnosis, and intervention decisions.

Physiological monitoring included continuous measurement of heart rate variability, galvanic skin response, and cortisol levels to provide objective indicators of stress response and emotional arousal. Participants also completed standardized emotional regulation assessments and cognitive load measurements before, during, and after each simulation scenario.

subsectionEmotional Regulation Assessment

We developed a novel Nursing Emotional Regulation Scale (NERS) that specifically captures the emotional regulation strategies most relevant to clinical nursing practice. The scale distinguishes between four primary regulation approaches: situation selection, attentional deployment, cognitive reappraisal, and response modulation. Each approach was measured through both self-report instruments and behavioral coding of simulation performances.

Cognitive assessment focused on working memory capacity, attentional control, and decision-making heuristics under varying emotional conditions. We employed a dual-task paradigm to examine how emotional regulation demands compete with clinical reasoning resources.

subsectionData Analysis

Quantitative analysis utilized hierarchical linear modeling to account for nested data structures and repeated measures. Qualitative data underwent thematic analysis using a grounded theory approach to identify emergent patterns in emotional regulation strategies and their relationship to decision processes. Integration of quantitative and qualitative findings followed a convergent parallel design, with triangulation of results to enhance validity and depth of understanding.

sectionResults

subsectionEmotional Regulation Strategies and Decision Accuracy

Our findings reveal significant differences in decision-making accuracy based on emotional regulation approaches. Nurses employing antecedent-focused strategies, particularly cognitive reappraisal and attentional deployment, demonstrated 27

The relationship between emotional regulation and decision accuracy followed an inverted U-shaped curve, supporting our hypothesis of an optimal regulation zone. Both insufficient regulation (characterized by emotional overwhelm) and excessive regulation (manifesting as emotional suppression or cognitive avoidance) were associated with decreased clinical judgment quality. The optimal zone varied individually but generally corresponded to moderate levels of emotional awareness coupled with flexible regulation capacity.

subsectionCognitive Mechanisms

Analysis of cognitive process data revealed that effective emotional regulation preserves working memory resources and enhances situation awareness. Nurses demonstrating high decision accuracy under pressure showed superior attentional allocation, with more efficient shifting between relevant clinical cues and reduced distraction by emotionally salient but clinically irrelevant information.

We identified a previously undocumented phenomenon termed 'emotional tunneling,' wherein ineffective regulators become fixated on specific emotional aspects of clinical situations at the expense of comprehensive assessment. This tunneling effect was associated with both premature closure in diagnostic reasoning and failure to recognize changing patient conditions.

subsectionExperience and Regulation Development

Expert nurses demonstrated more sophisticated and context-appropriate emotional regulation compared to novices. However, experience alone did not guarantee effective regulation; some experienced nurses exhibited rigid regulation patterns that impaired adaptability. The most effective regulators across experience levels shared characteristics of emotional granularity (ability to differentiate subtle emotional states) and regulation flexibility (capacity to adjust strategies based on situational demands).

subsectionPhysiological Correlates

Physiological measures provided convergent evidence for the cognitive findings. Effective regulators maintained more stable heart rate variability patterns during high-pressure scenarios, indicating better autonomic regulation. Cortisol responses followed a similar pattern to decision accuracy, with both blunted and exaggerated responses associated with poorer clinical judgment.

sectionConclusion

This study makes several original contributions to understanding the relationship between emotional regulation and decision-making in nursing practice. We have demonstrated that emotional regulation is not merely a peripheral concern but a core component of clinical competence that directly influences patient care quality. The identification of specific regulation strategies that enhance versus impair decision-making provides actionable insights for nursing education and professional development.

The concept of adaptive emotional flexibility represents a significant advancement beyond traditional views of emotional intelligence in healthcare. Rather than advocating for uniform regulation approaches, our findings support the development of context-sensitive regulation repertoires that can be strategically deployed based on clinical demands and individual strengths.

Practical implications include the need to incorporate emotional regulation training into nursing curricula and continuing education programs. Healthcare organizations should consider emotional regulation capacity when designing work environments and support systems, particularly in high-acuity settings. The assessment tools and framework developed in this study provide foundations for evaluating and enhancing emotional regulation in clinical practice.

Future research should explore the longitudinal development of emotional regulation expertise across nursing careers and investigate organizational factors that support versus undermine effective regulation. Additionally, intervention studies examining specific training approaches for enhancing adaptive emotional flexibility would advance both theoretical understanding and practical application.

This investigation establishes emotional regulation as a critical mediator between clinical expertise and decision-making performance, offering new perspectives on how nurses can optimize their emotional resources to provide exceptional patient care even under the most challenging circumstances.

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