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Motivation and resilience in emergency medicine: from burnout to work–life balance

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Abstract

A multidisciplinary narrative analysis of the scientific literature was conducted to examine the factors influencing motivation among active emergency physicians and medical students considering a career in emergency medicine. Drawing from psychology, sociology, neuroscience, medical education, and healthcare organization, this analysis synthesizes findings across disciplines to identify intrinsic and extrinsic determinants of motivation. Scientific literature consistently highlights that intrinsic drivers (such as vocation, competence, and professional fulfilment) and structured training enhance motivation, whereas overcrowding, chaotic work conditions, and limited support systems reduce it. The paper organizes these findings into clear thematic categories and outlines recurrent patterns emerging across studies. Understanding these motivational mechanisms is essential for improving workforce sustainability, professional well-being and quality of emergency care.

Introduction

Emergency Medicine (EM) is a demanding clinical environment characterized by high cognitive load, emotional intensity, and time-critical decision-making. In such a context, understanding what sustains professional motivation is essential for ensuring both high-quality patient care and the long-term well-being of healthcare workers.

The aim of this paper is to provide a multidisciplinary analysis of the factors that influence motivation among emergency physicians and medical students who consider EM as their future specialty. Rather than focusing on country-specific operational challenges, the article adopts a broader perspective that reflects recurring international issues in emergency care, such as overcrowding, workforce shortages, increasing patient complexity, and heightened medicolegal pressures. These conditions make maintaining motivation a central challenge for healthcare systems.

Interdisciplinary perspectives

A multidisciplinary analysis integrates complementary disciplinary viewpoints that inform the conceptual understanding of motivation in EM.

Psychology

Motivation arises from the interaction between intrinsic factors (needs, values, emotions) and extrinsic factors (environmental conditions, recognition, organizational support). Lewin's Field Theory[1] conceptualizes behaviour as a function of Personal characteristics (P) and Environmental pressures (E), providing a foundation for improving physician well-being through the management of individual (clinical competencies, physical/psychological state, emotions and ethical values) and organizational factors (emergency department conditions, organizational structure, teamwork and patient/family interactions). Self-Determination Theory[2] identifies autonomy, competence, and relatedness as pillars of intrinsic motivation.

Sociology

From a sociological perspective, motivation is also shaped by cultural and structural elements. The perceived prestige of the profession, societal expectations, the physician's role within the community, and power dynamics within the hospital all influence what is defined as professional "engagement." This construct is described as a positive psychological state that fosters motivation, energy, and involvement, and is typically distinguished into *work engagement* (the relationship between the employee and the work itself) and *employee engagement* (the relationship between the worker and the organization). Factors such as autonomy, constructive feedback, organizational support, and perceived justice are critical in promoting engagement.

Neuroscience

Neurobiological research shows that both reward circuits and stress-response systems shape motivational processes. Acute stress and adrenaline can temporarily enhance performance, whereas chronic stress exposure may erode long-term motivation and cognitive function.

Medical education

Educational strategies, such as simulation, problem-based learning, supervised clinical exposure, and mentorship, play a decisive role in shaping motivational attitudes in both trainees and practicing clinicians.

Healthcare organization

The effective management of healthcare professionals requires a careful balance between granting autonomy and ensuring adherence to established guidelines and protocols, thereby safeguarding both the quality and sustainability of care delivery.[3] These principles are particularly vital in the high-pressure environment of EM. Motivation functions as a powerful intrinsic driver, directing actions toward the attainment of both individual and organizational goals. While financial incentives may influence behaviour in the short term, they rarely sustain motivation over time. Lasting motivation is

more often fostered by intellectually stimulating work, opportunities for continuous personal and professional development, access to advanced technologies, collaboration with highly competent colleagues, and organizational cultures that promote innovation and progressively challenging responsibilities.

Temporary doctors (locums) can provide short-term relief during staffing shortages, but, as highlighted in recent research, their use does not address underlying organizational issues and may pose challenges to the quality of care and team integration if not managed effectively.[4]

Motivation also plays a pivotal role in shaping the occupational health of healthcare workers. Professionals with elevated levels of autonomous motivation tend to be more engaged, resilient, and passionate about their work, thereby enhancing both psychological and physical well-being. Consequently, motivation operates as both a driver and an outcome of high performance: motivated professionals deliver high-quality care, which in turn reinforces their motivation, creating a self-sustaining positive feedback loop.

Occupational medicine

From an occupational medicine perspective, professional motivation and long-term sustainability in EM cannot be fully understood without considering the physiological and health-related consequences of high-intensity clinical schedules. Emergency physicians are routinely exposed to rotating shifts, night work, extended duty hours, and unpredictable workloads that disrupt circadian rhythms and interfere with sleep architecture.

Occupational health research consistently demonstrates that chronic circadian misalignment and sleep deprivation negatively affect cognitive performance, vigilance, emotional regulation, and decision-making capacity.[5,6] Over time, cumulative fatigue may impair clinical judgment and increase the risk of burnout. Moreover, sustained exposure to irregular shift work has been associated with long-term adverse health outcomes, including metabolic dysregulation, cardiovascular disease, mood disorders, and increased overall morbidity.[5,7] These physiological and psychological stressors may progressively erode professional engagement and intrinsic motivation if not adequately addressed.

Fatigue management strategies and evidence-based scheduling models, therefore, represent critical components of workforce sustainability. Interventions such as forward-rotating shifts, adequate

recovery periods between duties, limitation of consecutive night shifts, and structured fatigue risk management systems have been shown to mitigate circadian disruption and reduce health-related risks.[8] From this standpoint, occupational medicine does not merely address workplace safety but contributes directly to preserving motivation, resilience, and professional longevity.

By integrating work–life balance considerations with physiological protection and preventive health strategies, the occupational medicine perspective reinforces the need for organizational models that align clinical demands with human biological limits. In high-intensity environments such as emergency departments, protecting physicians' physical and psychological health becomes a prerequisite for maintaining long-term motivation and ensuring the sustainability of emergency care systems.

Motivational constructs in the literature

This section systematically summarizes key variables influencing motivation in EM, as reported in the scientific literature, without interpretation.

Vocation

Vocation refers to an intrinsic commitment to caring for patients in critical conditions. The literature consistently identifies vocation as a primary source of motivation among emergency physicians, as it fosters a strong sense of meaning and professional purpose closely linked to acute care practice and life-saving interventions. Physicians frequently report a deep sense of fulfilment derived from contributing to positive patient outcomes,[9] particularly in high-stakes clinical situations. From a motivational standpoint, vocation is robustly associated with sustained professional motivation and long-term persistence in EM.

Training and professional preparation

Training and professional preparation refer to exposure to structured, EM–specific educational programs. The literature indicates that advanced emergency training—such as Advanced Cardiac Life Support (ACLS) and Advanced Life Support (ALS)—is positively associated with higher motivation,

enhanced self-confidence, and a stronger commitment to EM practice. Conversely, insufficient or inadequate training is consistently linked to reduced job satisfaction and a lower intention to remain in the field. Empirical evidence further suggests that younger physicians with extensive exposure to emergency-focused curricula report greater motivation for continuous professional development. Overall, higher levels of emergency-specific training are associated with increased professional motivation.[10]

Job satisfaction

Job satisfaction refers to the extent to which professionals perceive their work as rewarding, sustainable, and manageable. The literature identifies several key determinants of job satisfaction, including autonomy and control over work processes, availability of organizational resources, quality of communication, workload structure, and levels of social support.[11] When these factors are favorable, professional motivation tends to increase; conversely, their deterioration is associated with a decline in motivation. Overall, supportive and well-structured working conditions are positively associated with enhanced professional motivation.

Professional fulfilment

Professional fulfilment refers to the perception of attaining meaningful professional growth, personal development, and recognition within one's clinical role. The literature frequently identifies professional fulfilment as a core motivational driver, emphasizing the importance of opportunities for autonomy, career development, and formal or informal recognition in sustaining motivation. Empirical findings indicate that physicians who report higher levels of professional fulfilment also express stronger intentions to remain in the profession. Overall, professional fulfilment is consistently associated with sustained long-term motivation and workforce retention.[12]

Medical students' choice of EM

This construct refers to the set of factors influencing medical students' specialty choices prior to entering the workforce. The literature highlights several key motivators for choosing EM, including the dynamic nature of clinical work, early exposure to emergency department settings, effective

mentorship, and opportunities for rapid skill acquisition. Conversely, deterrents frequently reported include high workload intensity, emotional strain, irregular or disruptive shift patterns, and limited access to structured mentorship.[13] Empirical evidence indicates that students who experience structured pre-graduation exposure to EM environments demonstrate a higher likelihood of pursuing a career in the field. Overall, mentorship and early clinical exposure emerge as critical drivers in motivating medical students to choose EM.[14]

Recurrent patterns

Overall, the recurrent patterns (Table 1) identified across studies emphasize the multifactorial nature of motivation in EM, encompassing educational, organizational, and career-related dimensions. The consistent influence of training, work environment, and early professional exposure highlights key leverage points for sustaining motivation, while the negative effects of overcrowding underscore critical organizational challenges. These findings set the stage for the following discussion on practical and policy-oriented implications.

Discussion and Conclusions

Motivational dynamics in EM emerge from the interplay between individual factors (such as vocation, personal values, and self-efficacy) and organizational conditions (such as workload, leadership style, and team support). High-stress environments characterized by unpredictable workloads and intense emotional demands place emergency physicians at increased risk of burnout, making adaptive coping strategies and organizational support essential.

Coping models from the literature,[15-19] including task-focused coping, problem-focused coping, and social support, provide useful frameworks for understanding how clinicians respond to stressors inherent to emergency settings. These models underline that structured psychological support, effective teamwork, and sustainable work schedules can help maintain long-term motivation.

From an organizational perspective, policies that promote autonomy, mentorship, competence development, and work–life balance contribute to workforce retention. For medical students, early exposure to high-quality EM training environments and accessible mentorship play a decisive role in shaping specialty choice.

The inclusion of an occupational medicine perspective further reinforces the importance of sustainable scheduling models and fatigue mitigation strategies in maintaining long-term motivation and workforce retention.

Concluding remarks

This paper synthesizes multidisciplinary evidence into a unified framework for understanding motivation in EM, identifying key intrinsic and extrinsic factors affecting both clinicians and medical students. The consistent patterns emerging across studies highlight important implications for education, workforce planning, and organizational policy. Maintaining motivation in EM is critical to clinician well-being and to the sustainability of emergency care systems. Targeted training, supportive work environments, and opportunities for professional development are essential to fostering a resilient and motivated workforce capable of meeting the growing demands of acute care.

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Table 1. Recurrent motivational patterns

Domain	**Key Pattern Identified**	**Motivational Impact**	**Practical Implications**
Training and education	Increased exposure to emergency-specific training	Enhanced professional motivation	Investment in structured emergency medicine training programs
Work environment	Supportive and well-resourced working conditions	Higher job satisfaction and motivation	Improvement of organizational support, staffing, and communication
Organizational context	Overcrowding and chaotic work conditions	Reduced motivation and professional engagement	Implementation of workload management and patient flow strategies
Career development	Early clinical exposure and effective mentorship	Increased interest in emergency medicine careers	Development of mentorship programs and early exposure initiatives

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