



UNDER PRESSURE: NAVIGATING THE CHALLENGES CONFRONTING MEDICAL STAFF AND NURSES IN CLINIC SETTINGS

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Abstract:

In the dynamic realm of healthcare, clinic-based medical staff and nurses encounter a spectrum of challenges that compromise their ability to deliver high-quality patient care and maintain their well-being. This article delves into the multifaceted issues faced by these professionals, including overwhelming clinical workloads, staffing shortages, emotional and psychological strains, administrative and bureaucratic hurdles, adaptation to technological advancements, and the complexities of interpersonal dynamics within the workplace. By employing a comprehensive review of current literature and integrating real-life case studies, the paper offers an in-depth analysis of the pressures exerted on medical staff and nurses in clinic settings. Furthermore, it explores the ramifications of these challenges on patient care and the mental health of healthcare workers. The article concludes by proposing actionable strategies aimed at alleviating these pressures, highlighting the critical need for systemic changes within healthcare institutions and policy reforms to support the workforce at the heart of patient care. Through this exploration, the article underscores the importance of creating a sustainable work environment that fosters the well-being of medical staff and nurses, thereby ensuring the delivery of optimal patient care.

Keywords: Healthcare challenges, Medical staff, Nurses, Clinic settings, Workload, Staffing shortages, Emotional strain, Administrative burdens, Technological adaptation, Interpersonal dynamics, Patient care, Mental health, Systemic changes, Policy reforms.

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1. Introduction

In the intricate ecosystem of healthcare, medical staff and nurses in clinic settings play an indispensable role in delivering patient care. Their responsibilities extend beyond clinical duties; they are the linchpins in patient experience, healthcare delivery, and the operational efficiency of medical clinics. However, the rapidly evolving healthcare landscape presents a myriad of challenges that significantly impact their work life and overall well-being.

The demand for healthcare services is on an upward trajectory, fueled by an aging population and the prevalence of chronic diseases. According to the World Health Organization, the global population aged 60 years and older is expected to total 2 billion by 2050, up from 900 million in 2015 [1]. This demographic shift significantly increases the workload on healthcare providers, including those in clinic settings. The burden is compounded by the global shortage of healthcare workers, with a projected shortfall of 18 million health workers by 2030, primarily in low- and lower-middle-income countries [2].

Clinic-based medical staff and nurses are not immune to the pressures of high patient volumes and complex care demands. The American Nurses Association highlights the issue of nurse staffing as critical to ensuring safe patient care and promoting the well-being of nurses [3]. Insufficient staffing levels in clinics not only jeopardize patient safety but also contribute to job dissatisfaction and burnout among healthcare professionals.

Moreover, the psychological toll on medical staff and nurses cannot be overstated. The nature of their job, which often involves dealing with life-and-death situations, exposes them to significant emotional and psychological stress. A study published in the *Journal of Clinical Nursing* found that nurses working in high-pressure environments, including clinics, experience high levels of stress, leading to burnout and even mental health issues like depression and anxiety [4].

Administrative burdens further exacerbate the challenges faced by clinic staff. A study in the *Annals of Internal Medicine* reported that for every hour of clinical face-time with patients, nearly two additional hours are spent on electronic health records and desk work within the clinic setting [5]. This imbalance detracts from patient care and contributes to the dissatisfaction and burnout experienced by medical staff.

The introduction of new technologies in healthcare, intended to streamline operations and improve patient outcomes, also presents a double-edged sword. While beneficial, the rapid pace of technological advancement requires continuous

learning and adaptation by medical staff, which can be overwhelming and lead to resistance or additional stress [6].

This article aims to delve into these challenges in detail, offering a comprehensive analysis of the pressures faced by medical staff and nurses in clinics. By understanding the multifaceted nature of these challenges, stakeholders in the healthcare sector can develop targeted strategies to support these vital professionals, ensuring the sustainability of high-quality patient care in clinic settings.

2. Clinical Workload and Staffing Issues

The clinical workload and staffing shortages in medical clinics present significant challenges for healthcare professionals, affecting both the quality of patient care and the well-being of medical staff and nurses. This section delves into the nature of these challenges, their impact on healthcare delivery, and potential strategies for addressing them.

2.1 Clinical Workload

The increasing clinical workload in healthcare settings is a multifaceted issue, driven by factors such as the growing prevalence of chronic diseases, an aging population, and heightened expectations for comprehensive care. The World Health Organization (WHO) reports that chronic diseases are on the rise globally, necessitating more frequent and complex patient care [7]. Additionally, the aging population is expected to nearly double by 2050, further straining healthcare resources [8].

The impact of these factors is compounded by the evolving nature of healthcare, where advancements in medical knowledge and technology continuously expand the scope of clinical practice. This expansion necessitates ongoing education and adaptation by medical staff, adding to their workload. A study in the *Journal of General Internal Medicine* highlights the challenge of keeping pace with medical advancements, noting that it contributes to the workload and stress experienced by healthcare professionals [9].

2.3 Staffing Shortages

Staffing shortages exacerbate the issue of increased workload, creating a cycle where the demands on existing staff are intensified, leading to burnout and further shortages. The American Nurses Association (ANA) has raised concerns about the nursing shortage in the United States, emphasizing its impact on patient care and nurse well-being [10]. The shortage is attributed to factors such as an aging workforce, insufficient capacity in nursing education programs, and the physical and

emotional toll of the job, which can deter new entrants into the profession.

The implications of staffing shortages are significant, with research indicating that higher patient-to-nurse ratios are associated with increased patient mortality, infections, and complications [11]. This not only impacts patient outcomes but also places additional stress on staff, leading to job dissatisfaction and a higher likelihood of turnover.

2.4 Impact on Healthcare Delivery

The combined effects of increased clinical workload and staffing shortages have a direct impact on the quality of healthcare delivery. With more patients to see and less time per patient, healthcare professionals may be forced to rush consultations, potentially overlooking critical information or failing to provide comprehensive care. This situation can lead to increased rates of medical errors, decreased patient satisfaction, and higher levels of stress and burnout among staff.

2.5 Strategies for Addressing Workload and Staffing Issues

- Optimizing Staffing Levels

One approach to mitigating workload and staffing issues is to optimize staffing levels based on patient care needs. Implementing staffing models that consider the complexity of patient cases, rather than a one-size-fits-all ratio, can help ensure that staffing levels are adequate to meet patient demands without overwhelming staff.

- Leveraging Technology

Technology can also play a role in easing the clinical workload. For example, telemedicine can reduce the need for in-person visits for certain types of consultations, electronic health records can streamline documentation, and decision support systems can aid in clinical decision-making, reducing the cognitive load on healthcare professionals.

- Supporting Staff Well-being

Addressing the well-being of medical staff and nurses is crucial in managing workload and staffing challenges. Initiatives such as providing access to mental health resources, ensuring adequate rest periods, and fostering a supportive workplace culture can help mitigate the effects of high workloads and prevent burnout.

- Policy and Education

At a systemic level, policies aimed at increasing the supply of healthcare professionals, such as funding for nursing education and incentives for entering and remaining in the healthcare profession, are essential. Additionally, continuing education programs that help healthcare professionals

manage their workload more effectively and stay abreast of medical advancements can also play a vital role.

The challenges of clinical workload and staffing shortages in medical clinics are intertwined, with each exacerbating the other. Addressing these challenges requires a multifaceted approach that includes optimizing staffing levels, leveraging technology, supporting staff well-being, and implementing supportive policies and education programs. By tackling these issues, healthcare organizations can improve the quality of patient care and create a more sustainable and satisfying work environment for healthcare professionals.

3. Emotional and Psychological Strains

Emotional and psychological strains are significant challenges for medical staff and nurses in clinical settings, impacting their mental health and job performance. These strains arise from the high-stress environment of healthcare, where professionals routinely face life-and-death decisions, suffer from the emotional toll of patient care, and grapple with the pressures of maintaining high standards of service amidst resource constraints.

3.1 Nature of Emotional and Psychological Strains

Healthcare professionals often bear witness to human suffering, illness, and death, which can take a significant emotional toll. The concept of "compassion fatigue," first described by Joinson in 1992, highlights the emotional burden that comes from caring for those in distress [12]. Additionally, the high demands and fast-paced environment contribute to chronic stress, which, if left unmanaged, can lead to burnout. Burnout among healthcare workers, characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment, has been well-documented, with studies indicating its prevalence across various healthcare settings [13].

3.2 Impact on Healthcare Professionals

The emotional and psychological strains experienced by medical staff and nurses can have profound effects on their mental health and job performance. Research has shown that high levels of stress and burnout are associated with increased rates of job dissatisfaction, absenteeism, and higher turnover intentions [14]. Moreover, the psychological impact can extend beyond the professional realm, affecting personal relationships and overall life satisfaction. The connection between healthcare professional well-being and patient care quality is also significant; stressed and

burnt-out staff are more likely to make errors, have lower patient satisfaction scores, and exhibit less empathy towards patients [15].

3.3 Sources of Emotional and Psychological Strains

Several factors contribute to the emotional and psychological strains experienced by healthcare professionals. The emotional labor involved in caring for patients, especially those with poor prognoses, can be draining. Ethical dilemmas and moral distress, where professionals might feel constrained by institutional policies or resource limitations in providing the care they deem necessary, also contribute to psychological strain. Additionally, the culture of healthcare, which often stigmatizes admitting vulnerability or seeking help, can exacerbate these issues, making it difficult for professionals to address their mental health needs [16].

3.4 Mitigation Strategies

- Organizational Interventions

Healthcare organizations can play a crucial role in mitigating emotional and psychological strains by fostering a supportive work environment. Initiatives such as resilience training programs, stress management workshops, and the provision of mental health resources, including counseling and peer support groups, can be beneficial. Ensuring adequate staffing and manageable workloads can also help reduce stress levels among staff [17].

- Professional Support and Development

Ongoing professional development opportunities that include training in coping strategies, emotional intelligence, and communication skills can empower healthcare professionals to manage the emotional aspects of their work more effectively. Mentorship programs can also provide valuable support, offering a platform for sharing experiences and coping strategies.

- Promoting a Culture of Wellness

Creating a culture that prioritizes wellness and encourages open discussions about mental health challenges can help destigmatize seeking help. Leadership plays a crucial role in this aspect by modeling healthy behaviors, showing vulnerability, and supporting staff in their mental health journeys.

- Policy and Advocacy

At a systemic level, policies that address the root causes of stress and burnout in healthcare are needed. This includes advocating for healthcare reform that ensures better working conditions, adequate staffing, and access to mental health resources for healthcare professionals.

The emotional and psychological strains faced by medical staff and nurses are critical issues that demand attention and action. Addressing these challenges requires a multifaceted approach involving organizational interventions, professional support, a culture shift towards wellness, and systemic policy changes. By acknowledging and addressing the emotional and psychological needs of healthcare professionals, the healthcare system can not only improve the well-being of its workforce but also enhance the quality of care provided to patients.

4. Administrative and Bureaucratic Challenges

The administrative and bureaucratic challenges faced by medical staff and nurses in clinic settings significantly impact their efficiency, job satisfaction, and ultimately, patient care. This section examines the nature of these challenges, their effects on healthcare professionals, and potential strategies for mitigation.

4.1 Nature of Administrative Challenges

Healthcare professionals often grapple with extensive paperwork, electronic health record (EHR) management, insurance claim processes, and compliance with ever-changing healthcare regulations. A study published in the *Annals of Internal Medicine* found that for every hour clinicians spend in direct patient care, nearly two additional hours are consumed by paperwork and EHR tasks [18]. The administrative workload not only detracts from patient care but also contributes to the cognitive burden on healthcare professionals.

4.2 Impact on Healthcare Professionals

The excessive administrative tasks lead to what is often termed "bureaucratic burnout," characterized by frustration and fatigue from dealing with administrative responsibilities. A survey by the American Medical Association (AMA) revealed that more than half of the physicians consider the excessive bureaucratic demands as a leading cause of work-related stress [19]. This bureaucratic burnout can decrease job satisfaction, increase the likelihood of burnout, and, in some cases, push professionals out of clinical practice.

Moreover, the complexity of insurance processes and regulatory compliance can create barriers to providing patient care, leading to delays in treatment and reduced access to necessary services. The intricate and often inefficient insurance authorization processes can be particularly challenging, with a study in the *Journal of the American Board of Family Medicine* highlighting the significant time spent by clinics on insurance-related tasks [20].

4.3 Mitigation Strategies

- Streamlining Administrative Processes

Adopting lean management principles and process improvement methodologies can streamline administrative tasks, reducing the burden on medical staff and nurses. For instance, simplifying documentation requirements and optimizing EHR systems for user-friendliness can significantly cut down the time spent on paperwork.

- Leveraging Technology

Technological solutions, such as advanced EHR systems with better user interfaces and automation tools for routine administrative tasks, can alleviate the workload. Implementing AI-driven tools for administrative tasks like coding and billing can also enhance efficiency and accuracy [21].

- Policy and Regulatory Reforms

Engaging in advocacy for policy and regulatory reforms that reduce unnecessary administrative burdens is crucial. Simplifying healthcare regulations and creating more transparent and streamlined insurance processes can significantly alleviate the administrative challenges faced by healthcare professionals.

- Training and Support

Providing staff with adequate training on administrative processes and EHR systems can improve efficiency and reduce frustration. Additionally, allocating dedicated administrative support staff to assist with bureaucratic tasks can allow medical professionals to focus more on patient care.

The administrative and bureaucratic challenges in clinic settings pose significant obstacles to healthcare professionals, detracting from their primary role of patient care and contributing to job dissatisfaction and burnout. Addressing these challenges requires a multifaceted approach that includes streamlining processes, leveraging technology, advocating for policy reforms, and providing adequate support and training to healthcare staff. By mitigating these administrative burdens, clinics can enhance the work environment for medical staff and nurses, leading to improved patient care and professional satisfaction.

5. Technological Advances and Adaptation Struggles

The integration of technological advances in clinic settings promises to enhance patient care and operational efficiency. However, the rapid pace of technological change also presents significant adaptation challenges for medical staff and nurses. This section explores the nature of these technological advances, the struggles associated with their adaptation, and potential strategies to ease the transition.

5.1 Nature of Technological Advances

Technological innovations in healthcare range from advanced electronic health records (EHR) systems and telemedicine platforms to wearable health devices and AI-driven diagnostic tools. These technologies aim to improve patient outcomes, streamline workflows, and facilitate better data management and analysis. For instance, telemedicine has expanded access to care, allowing patients to consult with their healthcare providers remotely, a trend that saw exponential growth during the COVID-19 pandemic [22].

5.2 Adaptation Struggles

Despite the potential benefits, the rapid introduction of new technologies can overwhelm healthcare professionals, leading to resistance and frustration. A study in the *Journal of Medical Internet Research* highlighted the challenges faced by medical staff in adapting to new EHR systems, including usability issues and the perceived disruption to patient-provider interactions [23]. Additionally, the need for continuous learning and upskilling to keep pace with technological advancements can be daunting for many healthcare workers, contributing to stress and job dissatisfaction.

The digital divide further exacerbates adaptation struggles. Differences in technological proficiency among staff can lead to disparities in the adoption and effective use of new tools, potentially impacting the quality of care and operational efficiency. Moreover, concerns about data privacy and security, particularly with the increasing use of digital health records and telemedicine platforms, add another layer of complexity to the technological adaptation process.

5.3 Impact on Healthcare Professionals

The struggle to adapt to new technologies can lead to a phenomenon known as "technostress," characterized by stress or discomfort experienced by individuals when using new technologies [24]. Technostress can diminish job satisfaction, increase burnout rates, and even affect the quality of patient care. A study published in the *International Journal of Nursing Studies* found that nurses experiencing high levels of technostress reported lower job satisfaction and higher intentions to leave their job [25].

5.4 Mitigation Strategies

Tailored Training Programs

Implementing comprehensive, ongoing training programs tailored to the varying skill levels of healthcare professionals can facilitate smoother adaptation to new technologies. Training should

focus not only on the technical aspects of new tools but also on how they integrate into clinical workflows to enhance patient care.

- User-Centered Design

Involving healthcare professionals in the design and selection of new technologies can ensure that these tools meet the actual needs of end-users. User-centered design approaches can improve the usability and acceptance of new technologies, reducing resistance and enhancing adaptation [26].

- Supportive Organizational Culture

Fostering a supportive organizational culture that encourages innovation and experimentation can ease the adaptation process. Creating a safe environment for staff to express concerns, share experiences, and learn from mistakes without fear of retribution is crucial for successful technological integration.

- Addressing the Digital Divide

Bridging the digital divide within healthcare teams through targeted support and resources can ensure equitable adaptation to new technologies. This may include providing additional training for less tech-savvy staff and ensuring that all team members have access to the necessary technological tools and infrastructure.

While technological advances hold great promise for improving healthcare delivery, the adaptation struggles faced by medical staff and nurses cannot be overlooked. Addressing these challenges requires a comprehensive approach that includes tailored training, user-centered design, supportive organizational cultures, and strategies to bridge the digital divide. By taking these steps, healthcare organizations can harness the full potential of technological innovations to enhance patient care and support their staff in navigating the digital transformation of healthcare.

6. Interpersonal Dynamics and Workplace Environment

Interpersonal dynamics and the workplace environment significantly influence the well-being and effectiveness of medical staff and nurses in clinic settings. Positive interactions among team members and a supportive work environment can enhance job satisfaction and patient care quality, whereas negative dynamics can lead to stress, conflict, and reduced job performance.

6.1 The Role of Interpersonal Dynamics

Interpersonal dynamics within healthcare teams encompass the relationships, communication patterns, and collaborative practices among medical staff, nurses, and administrative personnel. Effective teamwork and communication are critical in the fast-paced, high-stakes environment

of healthcare, where the cost of miscommunication can be patients' health or lives. A study in the *Journal of Healthcare Leadership* highlights the positive correlation between effective team communication and improved patient outcomes [27].

Conversely, poor interpersonal dynamics, characterized by conflict, lack of respect, or ineffective communication, can lead to a toxic work environment. Such environments not only decrease job satisfaction and morale but also increase the risk of burnout. Research in the *Journal of Advanced Nursing* has shown that interpersonal conflicts and poor team cohesion are significant predictors of job stress and burnout among nurses [28].

6.2 Impact of Workplace Environment

The workplace environment extends beyond interpersonal relationships to include organizational culture, leadership styles, physical work conditions, and available resources. A supportive workplace environment that values staff well-being, promotes professional development, and provides adequate resources can mitigate stress and enhance job satisfaction.

Leadership plays a pivotal role in shaping the workplace environment. Effective leaders who demonstrate empathy, support, and clear communication can foster a positive culture that empowers staff and encourages teamwork. A study published in the *American Journal of Critical Care* found that leadership quality significantly affects nurses' job satisfaction and intentions to remain in their positions [29].

Conversely, a negative workplace environment with unsupportive leadership, inadequate staffing, and insufficient resources can exacerbate stress, leading to higher turnover rates and impacting the quality of patient care. Research in the *International Journal of Environmental Research and Public Health* indicates that organizational factors, including poor management and lack of support, are key contributors to occupational stress in healthcare settings [30].

6.3 Strategies for Enhancing Interpersonal Dynamics and Workplace Environment

- Fostering Team Cohesion

Promoting team-building activities and regular team meetings can enhance cohesion and communication among staff members. Encouraging interdisciplinary collaboration and respecting each team member's contributions can also strengthen team dynamics.

- Leadership Development

Investing in leadership development programs to equip healthcare managers with the skills to lead effectively, communicate clearly, and support their teams can have a profound impact on the workplace environment. Transformational leadership styles, which focus on inspiring and motivating team members, have been shown to positively influence job satisfaction and team performance [31].

- Addressing Conflict

Implementing conflict resolution strategies and providing training on conflict management can help prevent and address interpersonal issues before they escalate into more significant problems. Creating an open and safe environment where staff feel comfortable voicing concerns and grievances is crucial.

- Enhancing Work Conditions

Improving physical work conditions and ensuring that staff have the necessary resources and support to perform their duties effectively can reduce stress and increase job satisfaction. This includes adequate staffing levels, ergonomic workspaces, and access to rest areas.

Interpersonal dynamics and the workplace environment are critical factors that influence the well-being and effectiveness of medical staff and nurses in clinic settings. Positive team dynamics and a supportive workplace can enhance job satisfaction, reduce stress, and improve patient care. Conversely, negative interpersonal relationships and a poor work environment can lead to increased stress, job dissatisfaction, and turnover. Addressing these factors through team cohesion efforts, leadership development, conflict resolution, and enhancements to work conditions can create a more positive and productive work environment for healthcare professionals.

Conclusion

In conclusion, the challenges faced by medical staff and nurses in clinic settings are profound and multifaceted, encompassing clinical workloads, staffing shortages, emotional and psychological strains, administrative burdens, technological adaptation struggles, and the complexities of interpersonal dynamics and workplace environments. Each of these challenges presents unique obstacles that can impact the quality of patient care, as well as the well-being and job satisfaction of healthcare professionals.

The issue of clinical workload and staffing shortages highlights the critical need for adequate human resources in healthcare settings to ensure both patient safety and staff well-being. Emotional and psychological strains underscore the importance of recognizing and addressing the

mental health needs of healthcare workers, who are routinely exposed to high-stress environments. Administrative and bureaucratic challenges call for streamlined processes and reduced paperwork to allow medical staff more time for patient care. The struggle with technological advances points to the need for ongoing training and support to help staff adapt to new tools that can enhance patient care if used effectively.

Interpersonal dynamics and workplace environment issues reveal the significant impact of organizational culture, leadership, and team cohesion on healthcare professionals' performance and job satisfaction. Positive work environments and effective communication can mitigate stress and improve care quality, whereas negative dynamics can lead to dissatisfaction and turnover. Addressing these challenges requires a concerted effort from healthcare organizations, policymakers, and the healthcare workforce. Strategies such as optimizing staffing levels, providing mental health support, simplifying administrative procedures, facilitating technological training, promoting positive workplace cultures, and fostering effective leadership can collectively contribute to a more supportive and efficient healthcare environment.

Ultimately, the goal is to create a healthcare system that not only prioritizes patient care but also values and supports the professionals who deliver that care. By acknowledging and addressing the complex challenges faced by medical staff and nurses, we can pave the way for a more resilient, satisfied, and effective healthcare workforce, capable of meeting the demands of modern medicine and delivering the high-quality care that patients deserve.

References:

1. World Health Organization. (2018). Ageing and Health. [Online] Available at: <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>
2. World Health Organization. (2016). Global Strategy on Human Resources for Health: Workforce 2030. [Online] Available at: <https://www.who.int/hrh/resources/globstrathrh-2030/en/>
3. American Nurses Association. (n.d.). Nurse Staffing. [Online] Available at: <https://www.nursingworld.org/practice-policy/work-environment/nurse-staffing/>
4. Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Causes and consequences of occupational stress in emergency nurses, a longitudinal study. *Journal of Nursing Management*, 23(3), 346-358.

5. Sinsky, C., Colligan, L., Li, L., Prgomet, M., Reynolds, S., Goeders, L., Westbrook, J., Tutty, M., & Blike, G. (2016). Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. *Annals of Internal Medicine*, 165(11), 753-760.
6. Terry, K. (2019). Doctors and Tech: Love at First Sight or a Shotgun Marriage? *Medscape*. [Online] Available at: <https://www.medscape.com/viewarticle/912781>
7. World Health Organization. (2021). Chronic diseases and health promotion. [Online] Available at: <https://www.who.int/health-topics/chronic-diseases>
8. United Nations. (2019). World Population Ageing 2019. [Online] Available at: <https://www.un.org/en/global-issues/ageing>
9. Alpert, J.S. (2017). The challenge of keeping up with medical knowledge. *Journal of General Internal Medicine*, 32(11), 1239-1240.
10. American Nurses Association. (2020). Nursing Shortage. [Online] Available at: <https://www.nursingworld.org/practice-policy/workforce/nursing-shortage/>
11. Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J., Silber, J.H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*, 288(16), 1987-1993.
12. Joinson, C. (1992). Coping with compassion fatigue. *Nursing*, 22(4), 116, 118-119.
13. Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.
14. Shanafelt, T.D., et al. (2012). Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Archives of Internal Medicine*, 172(18), 1377-1385.
15. Hall, L.H., et al. (2016). Healthcare staff wellbeing, burnout, and patient safety: A systematic review. *PLOS ONE*, 11(7), e0159015.
16. Austin, W., et al. (2005). Moral distress in healthcare practice: The situation of nurses. *Hec Forum*, 17(1), 33-48.
17. West, C.P., Dyrbye, L.N., & Shanafelt, T.D. (2018). Physician burnout: Contributors, consequences and solutions. *Journal of Internal Medicine*, 283(6), 516-529.
18. Sinsky, C., Colligan, L., Li, L., Prgomet, M., Reynolds, S., Goeders, L., Westbrook, J., Tutty, M., & Blike, G. (2016). Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. *Annals of Internal Medicine*, 165(11), 753-760.
19. American Medical Association (AMA). (2018). 2018 AMA Physician Work-life Survey. [Online] Available at: <https://www.ama-assn.org/about/research/2018-ama-physician-work-life-survey>
20. Morley, C. P., Badolato, D. J., Hickner, J., & Epling, J. W. (2017). The Impact of Prior Authorization Requirements on Primary Care Physicians' Offices: Report of Two Parallel Network Studies. *Journal of the American Board of Family Medicine*, 30(1), 7-15.
21. Blease, C., Bernstein, M. H., Gaab, J., Kaptchuk, T. J., Kossowsky, J., Mandl, K. D., Davis, R. B., & DesRoches, C. M. (2019). Computerization and the future of primary care: A survey of general practitioners in the UK. *PLOS ONE*, 14(12), e0225046.
22. Hollander, J.E., Carr, B.G. (2020). Virtually Perfect? Telemedicine for Covid-19. *New England Journal of Medicine*, 382, 1679-1681.
23. Bhattacharjee, A., Hikmet, N. (2007). Physicians' resistance toward healthcare information technology: a theoretical model and empirical test. *Journal of Medical Internet Research*, 9(3), e8.
24. Tarafdar, M., Pullins, E.B., Ragu-Nathan, T.S. (2015). Technostress: negative effect on performance and possible mitigations. *Information Systems Journal*, 25(2), 103-132.
25. Gimpel, H., Lanzl, J., Regal, C., Urbach, N. (2021). Technostress in healthcare: A systematic review of determinants and effects of technostress in healthcare. *International Journal of Nursing Studies*, 115, 103842.
26. Vredenburg, K., Mao, J.Y., Smith, P.W., Carey, T. (2002). A survey of user-centered design practice. *Proceedings of the SIGCHI conference on Human factors in computing systems*, 471-478.
27. Mickan, S. M. (2005). Evaluating the effectiveness of health care teams. *Australian Health Review*, 29(2), 211-217.
28. Almost, J. (2006). Conflict within nursing work environments: Concept analysis. *Journal of Advanced Nursing*, 53(4), 444-453.
29. Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., Muise, M., & Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, 47(3), 363-385.
30. Leka, S., Jain, A., Iavicoli, S., & Di Tecco, C. (2015). An evaluation of the policy context on

psychosocial risks and mental health in the workplace in the European Union: achievements, challenges, and the future. *International Journal of Environmental Research and Public Health*, 12(11), 14020-14034.

31. Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60, 421-449.