



The Ripple Effect of Overburdened Workforces: A Review of Workload and Missed Care in Healthcare Settings

¹Dr. Abeer Habib Almousa, ²Dr. Dananeer Habib Almousa, ³Manal Abdullah Aljedaani, ⁴Marwa Saleh Alsafwan, ⁵Ameera Ahmed Alkardos, ⁶Lulwah Hadi Qaysi, ⁷Amnah Ali Zurban, ⁸Hanan Ahmad Ali Alraja, ⁹Mashel Khalid Baali, ¹⁰Shurooq Khalid Baali, ¹¹Faris Ali Hamad Alfaisal, ¹²Turkey Saud Sayah Alsamrani

¹ Dentist, King Fahad Specialist Hospital-B

² Dentist, Al-Mulaida - Phc

³ Nursing Specialist, King Abdullah Medical Complex-Jeddah

⁴ General Dentist, Department Of Health Centers In Qatif - Mahdoud Health Center

⁵ Health Assistant, Lowincome Health Center

⁶ Nursing Specialist , King Abdullah Medical Complex

⁷ Nursing Specialist , King Abdullah Medical Complex

⁸ Nursing Technician, Comprehensive Examination Center In Dammam

⁹ Nursing , .King Fahad General Hospital

¹⁰Nursing , .King Fahad General Hospital

¹¹Medical Services – Moi, Technician-Health Informatics

¹²Medical Services – Moi, Specialist-Laboratory

Received: 13 october 2023

Revised: 27 November 2023

Accepted: 11 December 2023

Chapter 1: Understanding the Burden: Defining Workload and Missed Care in Healthcare

1. Overview of Workload in Healthcare Professions

Healthcare professionals often face demanding workloads due to the nature of their roles, the complexity of cases, and resource limitations. Workload can be categorized into physical, cognitive, and emotional dimensions, each contributing to stress and fatigue among workers. Increased patient demands, coupled with staff shortages, exacerbate the pressure, affecting the ability of professionals to deliver optimal care. Studies indicate that excessive workload significantly impacts decision-making, prioritization, and patient outcomes (Acedo et al., 2020). Furthermore, a robust safety culture (PSC) ensures teamwork and accountability, helping alleviate workload-related challenges by addressing systemic inefficiencies (Eliyana et al., 2020).

2. Defining Missed Care in Healthcare Settings

Missed care refers to any aspect of patient care that is delayed, omitted, or incomplete, primarily due to constraints like staffing shortages or high workloads. This can include activities such as medication administration, patient education, or emotional support. Missed care is a critical indicator of healthcare quality and reflects systemic issues rather than individual negligence (Querstret et al., 2020). Embedding a PSC into organizational frameworks can mitigate missed care by fostering open communication and addressing the root causes of such lapses (Newman et al., 2020).

3. Theoretical Frameworks Linking Workload and Missed Care

Several theoretical models explore the link between workload and missed care, including the Swiss Cheese Model and the Systems Engineering Initiative for Patient Safety (SEIPS). These frameworks highlight how individual errors are often a result of systemic flaws and workload pressures. For instance, when safety measures align with PSC principles, healthcare organizations can proactively identify and address risks

(Darling-Hammond et al., 2020). Additionally, fostering resilience and error detection within teams minimizes the domino effect of workload-induced missed care (Reynolds et al., 2022).

4. **The Impact of Physical Workload**

Physical workload, encompassing prolonged shifts, standing for hours, and manual handling of patients, has a direct effect on healthcare workers' well-being and care quality. Over time, this can lead to burnout, injuries, and reduced attention to detail, increasing the risk of missed care. By integrating PSC principles, institutions can implement ergonomic practices and reduce physical strain, ensuring that workers can deliver consistent and safe care (Shin & Shin, 2020). Addressing physical workload also improves patient outcomes by allowing workers to maintain focus and energy throughout their shifts (Jerg-Bretzke et al., 2020).

5. **Cognitive and Emotional Workload**

The cognitive and emotional demands of healthcare include decision-making under pressure, managing high-stakes situations, and supporting patients emotionally. High cognitive loads often result in errors of omission or delays in care. Emotional burdens, such as dealing with patient suffering or deaths, can further impact focus and morale. A strong PSC encourages open forums for staff to discuss these challenges and find collective solutions, reducing the likelihood of missed care (Nyanyiwa et al., 2022). The development of supportive teams can also alleviate the emotional toll of healthcare work (Tajalli et al., 2021).

6. **Systemic Barriers to Care Delivery**

Workload challenges in healthcare are often rooted in systemic inefficiencies, including understaffing, outdated workflows, and resource limitations. These barriers increase the risk of missed care as healthcare workers prioritize urgent tasks over less immediate needs. Implementing quality improvement initiatives and standardizing protocols can enhance care delivery and reduce these gaps (Uwannah et al., 2021). A culture of safety further enables staff to report inefficiencies without fear of retribution, leading to systemic reforms (Kim & Sim, 2020).

7. **The Role of Leadership in Managing Workload**

Leadership plays a critical role in mitigating workload-induced challenges by setting realistic expectations, allocating resources, and fostering a supportive work environment. Effective leaders model transparency and prioritize safety goals, aligning with PSC principles (Xing et al., 2021). Regular safety briefings and feedback forums enable teams to address workload concerns collaboratively, ensuring patient care is not compromised (Spagnoli et al., 2020).

8. **The Influence of Organizational Culture**

An organization's culture significantly affects how workloads are managed and how missed care incidents are addressed. Institutions with a blame-free culture encourage error reporting and focus on systemic improvements rather than individual fault-finding. This aligns with PSC principles, which emphasize collaboration and accountability (Zarrin et al., 2020). Promoting inclusivity and teamwork within the organization ensures that workers feel supported, even during periods of high demand (Yun et al., 2020).

Chapter 2: Mapping the Causes: Factors Contributing to Excessive Workloads in Healthcare

1. The Role of Staffing Shortages in Healthcare Workloads

Staffing shortages are a primary driver of excessive workloads in healthcare settings. With insufficient personnel, healthcare workers are forced to manage a greater number of patients and perform additional responsibilities, leading to fatigue and burnout. This situation not only compromises care quality but also increases the likelihood of errors. Research highlights that transformational leadership can alleviate staffing pressures by fostering engagement and motivation among teams (Siyal et al., 2020). Leaders who prioritize adequate staffing allocation and resource management demonstrate commitment to a safer work environment, which is essential for reducing workload stress (World Alliance for Patient Safety, 2021).

2. Resource Limitations and Their Impact on Workload

Beyond staffing shortages, limited resources, such as inadequate equipment or outdated technology, exacerbate workload pressures. Resource constraints force healthcare workers to spend additional time on manual processes or improvised solutions, detracting from patient care. Open communication about these limitations is critical for addressing resource gaps and ensuring patient safety (Yuniati & Sitinjak, 2022). Leadership accountability also plays a crucial role in allocating and managing resources effectively to minimize their impact on workloads (Adel et al., 2021).

3. Organizational Inefficiencies and Workflows

Organizational inefficiencies, such as poorly designed workflows or unclear policies, contribute significantly to excessive workloads. Workers often face redundant tasks or time-consuming administrative duties that detract from direct patient care. Addressing these inefficiencies requires leadership-driven process improvements, such as implementing structured tools like SBAR for communication clarity (Yuniati & Sitinjak, 2022). Moreover, fostering teamwork within a PSC framework ensures smoother coordination and reduces the burden of inefficiencies on individual workers (Brown, Kraimer & Bratton, 2019).

4. The Influence of Poor Communication

Breakdowns in communication between teams or departments often result in increased workloads as staff must compensate for errors or incomplete handoffs. Effective communication frameworks, such as regular safety huddles, enable timely exchange of critical information, reducing errors and improving workflow efficiency (Adel et al., 2021). Training staff in assertive communication and promoting a non-hierarchical culture further addresses communication barriers, enabling teams to function more cohesively under high-pressure situations (Ramos et al., 2020).

5. Systemic Barriers to Care Delivery

Systemic issues, such as fragmented healthcare systems or policy misalignments, create significant barriers to efficient care delivery. These barriers lead to duplication of tasks, delayed processes, and additional workloads for staff. A shift from a blame culture to a learning culture is critical in addressing these systemic issues. This approach encourages staff to report inefficiencies without fear, enabling organizations to identify and address root causes of workload challenges (Holland, 2019).

6. The Role of External Policies in Shaping Workload

Healthcare policies, often created without input from frontline workers, can inadvertently increase workloads by imposing unrealistic documentation or compliance requirements. Leaders must advocate for staff-centered policy adjustments that align with on-the-ground realities (Siyal et al., 2020). Furthermore, transparent communication about policy changes ensures staff preparedness and minimizes confusion, fostering a more supportive work environment (World Alliance for Patient Safety, 2021).

7. Rising Patient Demands and Expectations

Increasing patient demands, driven by factors such as aging populations and chronic disease prevalence, amplify workloads in healthcare settings. Healthcare workers must juggle competing priorities, often at the expense of thorough patient interactions. Teamwork and interprofessional collaboration are crucial in distributing these demands effectively, ensuring no single worker is overwhelmed (Brown, Kraimer & Bratton, 2019). Simulation-based training prepares teams to handle these pressures while maintaining high-quality care (Ramos et al., 2020).

8. The Burden of Societal Expectations

Societal expectations for healthcare workers to deliver flawless care, often under constrained conditions, contribute to psychological stress and workload. This burden is compounded by public scrutiny following adverse events. Building a culture of transparency, where errors are discussed openly and ethically, strengthens trust and reduces the stigma associated with mistakes (Khosravi, Ghiasi & Ganjali, 2021).

Supporting healthcare workers through leadership-driven initiatives fosters resilience against these external pressures (Syahrina & Mutya, 2023).

9. The Impact of Hierarchical Structures

Hierarchical structures in healthcare can create additional workload by hindering communication and decision-making processes. Workers at lower levels may face delays in obtaining approvals or resolving issues, resulting in inefficiencies. Leadership that emphasizes inclusivity and values contributions from all levels of staff is vital for reducing these bottlenecks (Adel et al., 2021). Training leaders to model open communication practices improves workflow and team dynamics (Yuniati & Sitinjak, 2022).

10. Challenges with Accountability Systems

Accountability systems that focus excessively on individual performance, rather than systemic issues, increase workload by fostering fear of reprisal. A balanced approach that emphasizes shared accountability within teams reduces this burden and encourages collaborative problem-solving (Fernández-Salineró & Topa, 2020). Such systems, when integrated with regular performance reviews and supportive feedback, align with PSC principles and enhance overall care quality (Zurman, Hoffmann & Ruff-Stahl, 2019).

11. Addressing Workforce Fatigue

Fatigue among healthcare workers, resulting from excessive workloads and long hours, reduces their capacity to deliver safe care. Organizations must prioritize policies that limit extended shifts and provide adequate recovery time. Leadership must actively monitor fatigue levels within teams and offer support mechanisms, such as flexible scheduling or mental health resources, to prevent burnout (Siyal et al., 2020; World Alliance for Patient Safety, 2021).

12. Fostering a Learning Environment

A learning environment that prioritizes continuous improvement through the analysis of errors and near misses can address workload challenges effectively. Encouraging staff to share innovative solutions and participate in safety training workshops enhances efficiency and reduces stress (Zwedberg, Alnervik & Barimani, 2021). By embedding learning initiatives into organizational culture, healthcare leaders can cultivate a workforce better equipped to manage workloads (Segev, 2019).

13. Promoting Psychological Safety

Psychological safety, where staff feel secure raising concerns or suggesting improvements, is integral to addressing workload issues. Leaders must model supportive behaviors and actively engage in safety initiatives to foster such an environment (Siyal et al., 2020). Regular team debriefings provide a platform for discussing workload concerns, ensuring that solutions are developed collaboratively (Adel et al., 2021).

14. The Interconnection of Leadership and Workload Management

Leadership remains the cornerstone of addressing excessive workloads in healthcare. By prioritizing safety culture, allocating resources, and addressing systemic inefficiencies, leaders set the tone for a supportive and efficient work environment (Kim, Jilapali & Boyd, 2021). When leadership practices align with PSC principles, staff are empowered to focus on high-quality care, reducing the burden of workload-related stress (Chang et al., 2020).

Chapter 3: The Domino Effect: Implications of Missed Care on Patient Safety and Healthcare Outcomes

1. Impact of Missed Care on Patient Outcomes

Missed care directly compromises patient outcomes by delaying essential interventions and increasing the risk of complications. For instance, failing to administer medications on time or delaying critical procedures can lead to deteriorations in patient health. This highlights the need for a strong Patient Safety Culture (PSC), which encourages timely reporting of such incidents to prevent recurrence (Afota, Robert &

Vandenberghe, 2021). PSC promotes proactive measures, such as standardized care protocols, that ensure patients receive necessary care, thus reducing adverse events and improving health outcomes (Even, 2020).

2. Quality of Care and Its Vulnerability to Missed Care

Missed care undermines the quality of healthcare by creating gaps in patient management and continuity. For example, omitted patient education or incomplete discharge planning can result in poor adherence to treatment plans. Effective PSC frameworks emphasize systematic improvements, such as workflow redesign, to address these gaps and enhance care quality (Jiang et al., 2019). By focusing on root causes rather than individual blame, healthcare organizations can implement evidence-based practices that strengthen quality and safety (Baris, Intepeler & Unal, 2023).

3. Psychological Consequences for Healthcare Workers

Healthcare workers often experience guilt, anxiety, and stress when they are unable to provide complete care due to workload pressures or systemic inefficiencies. This emotional toll can lead to burnout, negatively impacting their ability to perform effectively. Non-punitive reporting systems, a cornerstone of PSC, help mitigate these psychological effects by fostering a supportive environment where workers feel safe addressing concerns (Moghadari-Koosha et al., 2020). By shifting from punitive responses to learning-based approaches, organizations reduce stress and enhance staff morale (Ismail, 2021).

4. Professional Repercussions for Staff

Missed care incidents can damage the professional reputation of healthcare workers, affecting their confidence and career progression. Errors often stem from systemic issues, yet the blame frequently falls on individuals. PSC principles emphasize addressing systemic root causes and providing training to staff, ensuring that errors are seen as opportunities for improvement rather than professional failures (Liu et al., 2019). This approach supports professional growth and reinforces a culture of accountability (Cherkasov et al., 2019).

5. Impact on Patient Trust and Perception

Missed care erodes patient trust in healthcare systems, particularly when errors result in visible harm or negative outcomes. Patients who perceive lapses in their care are less likely to trust their providers or adhere to treatment plans. Transparent communication about errors and corrective actions, as advocated by PSC, helps rebuild this trust and demonstrates organizational commitment to safety (Dedahanov, Bozorov & Sung, 2019). Tools like SBAR improve patient-provider interactions, further enhancing trust and satisfaction (Cinar, 2019).

6. Long-Term Impact on Public Confidence

On a broader scale, repeated incidents of missed care diminish public confidence in healthcare systems, leading to reputational damage and reduced patient engagement. Organizations with strong PSC actively track and address trends in errors, ensuring systemic changes that restore public trust (Ghafouri et al., 2022). Leadership involvement in safety initiatives, such as regular safety rounds, further reinforces the organization's dedication to quality care (Gupta, Shaheen & Das, 2019).

7. Financial Costs of Missed Care

Missed care leads to financial losses for healthcare institutions due to extended hospital stays, legal liabilities, and readmissions. Preventing such costs requires investments in PSC strategies, including staff training and process improvements (Abd El Rahman et al., 2022). Studies show that facilities prioritizing safety protocols, such as infection prevention checklists, experience fewer complications and reduced financial burdens (Mauro, 2022).

8. Contribution to Hospital Readmission Rates

Missed care contributes significantly to hospital readmission rates, particularly when patients receive inadequate discharge planning or follow-up care. PSC emphasizes effective communication and

collaboration across teams to ensure seamless care transitions, reducing the likelihood of readmissions (Khalid et al., 2021). For instance, detailed medication instructions and proper patient education are crucial for avoiding preventable complications post-discharge (Aklil et al., 2021).

9. Increased Mortality Rates

Missed care can result in preventable deaths, especially in cases involving delays in critical interventions or medication errors. Hospitals with strong PSC implement early warning systems and evidence-based practices to reduce mortality rates (Yoon et al., 2020). Open communication and staff empowerment further ensure timely responses to patient deterioration, saving lives (Gawad, 2022).

10. Effect on Patient Satisfaction

Patient satisfaction declines in environments where missed care incidents occur, as these lapses impact perceived safety and quality. Transparent communication, involvement in care decisions, and prompt issue resolution are key elements of PSC that enhance patient satisfaction (Raeissi et al., 2019). Institutions prioritizing safety-oriented practices consistently receive higher satisfaction scores and recommendations (Hiver & Al-Hoorie, 2020).

11. Impact on Staff Morale

Missed care incidents negatively affect staff morale, creating a culture of fear and dissatisfaction. Non-punitive environments, supported by PSC, encourage healthcare workers to report and learn from errors, reducing stress and fostering professional growth (Al-Turfi & Al-Jubouri, 2022). Recognition programs and regular training sessions further boost morale, enhancing teamwork and overall job satisfaction (Faisal, 2022).

12. Staff Turnover and Retention

High rates of missed care contribute to staff burnout and turnover, resulting in workforce instability. Healthcare organizations with robust PSC report lower turnover rates, as they prioritize employee well-being and professional development (Spilg et al., 2022). Adequate staffing levels and supportive leadership are critical for retaining experienced staff and maintaining care continuity (Crafter, Maunder & Soulsby, 2019).

13. Long-Term Effects on Healthcare Systems

Over time, missed care incidents weaken healthcare systems by straining resources, increasing costs, and reducing efficiency. PSC fosters a culture of continuous improvement, addressing systemic weaknesses and ensuring sustainable operations (Talebian et al., 2022). Organizations that prioritize safety achieve better outcomes and set benchmarks for quality care (Abe & Chikoko, 2020).

14. Erosion of Institutional Trust

Frequent missed care incidents damage the reputation of healthcare institutions, reducing patient confidence and community trust. Transparent practices, such as open discussions about errors and corrective measures, help rebuild trust and demonstrate accountability (Ko & Kang, 2019). A strong PSC fosters ethical practices that strengthen relationships between healthcare providers and their communities (Eslamlou, Karatepe & Uner, 2021).

15. Patient Advocacy and Feedback

Missed care incidents often prompt patients to advocate for better safety standards, leading to increased scrutiny of healthcare practices. Organizations with strong PSC actively involve patients in safety initiatives, such as providing feedback on care experiences, to drive improvements (Yuniati & Sitinjak, 2022). Engaging patients as partners in safety enhances mutual trust and care outcomes (Adel et al., 2021).

16. The Cycle of Continuous Improvement

A strong PSC creates a feedback loop where missed care is used as a learning opportunity to improve systems and processes. By prioritizing safety, organizations achieve better patient outcomes, higher staff satisfaction, and enhanced public trust, fostering a culture of excellence (Talebian et al., 2022). This cycle ensures that safety becomes ingrained in every aspect of healthcare delivery, benefiting all stakeholders (Abe & Chikoko, 2020).

Chapter 4: Breaking the Cycle: Strategies for Mitigating Workload and Reducing Missed Care

1. Evidence-Based Interventions to Balance Workloads

Healthcare organizations must adopt evidence-based interventions to balance workloads and improve efficiency. Strategies such as task delegation, streamlined workflows, and adequate staffing levels ensure that care is delivered without overburdening healthcare workers. For instance, allocating non-clinical tasks to support staff frees up clinicians to focus on patient care (Badawy, 2021). Leadership must also prioritize data-driven approaches, using workload analytics to identify bottlenecks and redistribute responsibilities accordingly. Regular workload assessments, supported by feedback from frontline workers, enhance care delivery and reduce missed care (Yu, Guan & Zhang, 2019).

2. Optimizing Staff Allocation

Staffing models based on patient acuity and workload complexity play a critical role in preventing burnout and reducing errors. Evidence shows that increasing nurse-to-patient ratios reduces missed care and improves patient outcomes (Canu, 2023). Policies that ensure adequate shift coverage, including the use of float pools and flexible scheduling, further support equitable workload distribution. Leaders who prioritize resource allocation foster a culture of teamwork and collaboration, ensuring that staff feel supported and capable of managing their responsibilities (Vikstrom & Johansson, 2019).

3. Role of Simulation-Based Training

Simulation-based training equips healthcare teams with the skills necessary to manage high-pressure situations effectively. By recreating real-world scenarios, such as managing complex patient cases or responding to emergencies, teams can practice collaboration and decision-making under controlled conditions (Faisal, Naushad & Faridi, 2020). This training reduces errors and enhances confidence among staff, particularly when handling heavy workloads. Organizations that invest in such programs demonstrate a commitment to safety and professional development, reinforcing a culture of continuous learning (Nanjundeswaraswamy, 2021).

4. Leveraging Technology for Workflow Efficiency

Technology and automation play a pivotal role in optimizing workflows and reducing healthcare worker fatigue. Electronic Health Records (EHRs), for example, centralize patient data, streamlining access and minimizing duplication of efforts (Sengul & Seyfi, 2020). Integrating task automation tools, such as scheduling software or automated reminders, ensures smoother operations and allows healthcare providers to focus on patient-centered care. Continuous feedback and training are necessary to maximize the benefits of such systems while addressing challenges like alert fatigue (Vasconcelos et al., 2019).

5. Predictive Analytics to Anticipate Workload Needs

Predictive analytics harness the power of data to anticipate staffing and resource needs based on patient acuity, seasonal trends, and historical patterns. These tools help healthcare organizations proactively adjust workloads to meet demand, reducing the likelihood of missed care (Huang et al., 2020). For example, predictive models can identify high-risk patients, enabling care teams to prioritize interventions and allocate resources effectively. Collaboration between clinical and technical teams ensures the successful implementation of predictive tools, fostering proactive care delivery (Twidwell, Dial & Fehr, 2022).

6. Enhancing Leadership Engagement

Strong leadership is critical for mitigating workload challenges and fostering a safety-first environment. Leaders who actively participate in safety initiatives, such as safety rounds and staff meetings, build trust and transparency among their teams (Badawy, 2021). By allocating resources and advocating for staff well-being, leaders create an environment where healthcare workers feel supported and motivated to deliver high-quality care (Yu, Guan & Zhang, 2019).

7. Building Resilient Team Dynamics

Team cohesion plays a vital role in managing workload effectively and ensuring high standards of care. Training programs focused on interdisciplinary collaboration and communication frameworks, such as SBAR (Situation-Background-Assessment-Recommendation), strengthen team dynamics (Fentaw, Moges & Ismail, 2022). Simulation exercises designed for multidisciplinary teams improve coordination during high-pressure scenarios, fostering a collaborative culture that reduces missed care (Parizad et al., 2021).

8. Policy Reforms to Address Systemic Issues

Policy reforms targeting systemic inefficiencies, such as excessive administrative burdens and fragmented workflows, are essential for reducing workloads. Streamlined documentation systems and standardized protocols enhance efficiency, allowing healthcare workers to devote more time to patient care (Canu, 2023). Leaders must ensure that these policies are regularly reviewed and updated to reflect the changing needs of staff and patients (Vikstrom & Johansson, 2019).

9. Feedback Systems to Drive Improvement

Effective feedback mechanisms encourage healthcare workers to report workload challenges and propose solutions. Anonymous reporting systems ensure that staff feel safe sharing their concerns, fostering transparency and trust (King, 2021). Regular debriefing sessions and performance reviews highlight trends and guide targeted interventions, ensuring that feedback translates into actionable improvements (Mahran, Abd Al & Saleh, 2022).

10. Communication Technology for Team Coordination

Communication technologies, such as secure messaging platforms and telehealth systems, improve team coordination and reduce delays in care delivery. Centralized communication tools integrated with EHRs allow care teams to share critical updates and make informed decisions in real-time (Gillet et al., 2021). By reducing inefficiencies associated with traditional methods, such as pagers or handwritten notes, these technologies streamline workflows and enhance patient safety (Balducci, Avanzi & Fraccaroli, 2020).

11. Empowering Staff Through Continuing Education

Ongoing training programs empower healthcare workers to adapt to workload challenges while maintaining high standards of care. Workshops on time management, error prevention, and stress reduction equip staff with practical skills to navigate demanding environments (Faisal, Naushad & Faridi, 2020). Organizations that prioritize education foster a culture of growth and resilience, ensuring that workers feel equipped to handle their responsibilities (Nanjundeswaraswamy, 2021).

12. Cross-Disciplinary Training for Cohesion

Interdisciplinary training programs bring together professionals from different fields to improve coordination and teamwork. For example, team-based simulation exercises allow staff to practice collaboration during high-stakes events, such as code blue scenarios (Fentaw, Moges & Ismail, 2022). These programs break down silos and foster mutual understanding, ensuring seamless care delivery even under heavy workloads (Parizad et al., 2021).

13. Non-Punitive Reporting Systems for Errors

Non-punitive environments encourage staff to report errors and near-misses, providing valuable insights into workload challenges. Anonymous reporting mechanisms and transparent discussions about incidents

drive continuous improvement and accountability (King, 2021). By addressing systemic root causes rather than assigning blame, organizations foster a culture where safety and efficiency are prioritized (Mahran, Abd Al & Saleh, 2022).

14. Investing in Resilient Healthcare Infrastructure

Resilient healthcare infrastructure, such as updated equipment and well-designed facilities, plays a crucial role in reducing workloads. Investments in ergonomic designs and technology-enhanced workspaces minimize physical strain and improve workflow efficiency (Sengul & Seyfi, 2020). Leaders who prioritize infrastructure upgrades demonstrate their commitment to staff well-being, ensuring that workers have the tools they need to succeed (Vasconcelos et al., 2019).

Chapter 5: A Call to Action: Building Resilient Workforces and Sustainable Healthcare Systems

1. Lessons Learned from Global Case Studies

Global case studies have provided valuable insights into fostering resilience within healthcare systems. For example, successful interventions in high-pressure settings such as intensive care units highlight the importance of teamwork and communication in reducing errors. Tools like the Hospital Survey on Patient Safety Culture (HSOPSC) have been instrumental in evaluating and strengthening these efforts (Svartdal et al., 2020). By using these tools, organizations can identify areas requiring improvement and adapt best practices. Additionally, international examples underscore the need for leadership-driven initiatives that prioritize safety, transparency, and continuous monitoring (Nomany, 2022).

2. Learning from High-Performing Systems

Countries with robust healthcare systems demonstrate that resilience stems from a commitment to safety culture and sustained staff engagement. Regular safety assessments and actionable feedback loops, as seen in these systems, foster accountability and transparency. Safety committees that review patient safety data, combined with electronic monitoring systems, help maintain alignment with safety goals (Ohnishi et al., 2019). Such practices highlight the value of technology and leadership in creating adaptive healthcare environments (Ramírez Molina et al., 2019).

3. Recommendations for Healthcare Organizations

Healthcare organizations must embed patient safety culture (PSC) as a core value to build resilience. This involves adopting tools like HSOPSC and Safety Attitudes Questionnaires to monitor and assess safety metrics, such as error rates and staff satisfaction (Svartdal et al., 2020). Moreover, establishing interdisciplinary safety committees ensures that safety initiatives are reviewed regularly and adapted to emerging challenges. Leadership must also prioritize non-punitive error reporting systems to foster openness and trust (Nomany, 2022).

4. Enhancing Leadership Involvement

Leadership plays a critical role in mitigating systemic challenges and driving safety-focused reforms. Leaders must model safety-oriented behaviors, such as participating in safety rounds and providing consistent feedback on safety metrics (Badawy, 2021). Additionally, ensuring frontline staff are equipped with necessary resources and training strengthens resilience. By integrating leadership into every aspect of safety initiatives, organizations can create a unified and proactive approach to patient safety (Yu, Guan & Zhang, 2019).

5. Technology and Automation in Safety Culture

Technology offers transformative potential in monitoring and enhancing PSC. Digital platforms that integrate with electronic health records (EHRs) enable real-time tracking of key performance indicators (KPIs) such as medication errors and near-misses (Abdillah et al., 2022). Dashboards and mobile applications simplify error reporting, while artificial intelligence (AI) provides predictive insights to prevent adverse events. These innovations reduce workload, improve safety, and support proactive decision-making when balanced with human oversight (Kachaturoff et al., 2020).

6. Policy Recommendations for Policymakers

Policymakers must prioritize funding and regulations that support safety initiatives. Allocating resources to enhance safety infrastructure, such as training programs and real-time monitoring systems, ensures sustainable improvements (Fortes et al., 2022). Additionally, mandates for regular PSC assessments using tools like MaPSaF or HSOPSC encourage accountability and continuous progress. By aligning policies with organizational safety goals, governments can help build a more resilient healthcare system (Sein Myint, Kunaviktikul & Stark, 2021).

7. Future Directions for Research

Further research is needed to understand how emerging technologies and dynamic healthcare environments impact PSC. Studies should evaluate the effectiveness of AI-driven predictive analytics in preventing errors and improving staff decision-making (Kachaturoff et al., 2020). Additionally, exploring the role of virtual care and telemedicine in maintaining safety culture can provide actionable insights for evolving healthcare models (Jalili et al., 2021). Evidence from such research can guide the implementation of innovative strategies to enhance resilience.

8. Adapting Safety Culture to Organizational Changes

Healthcare systems constantly face shifts in policy, staffing, and technology, requiring adaptive safety culture strategies. Regular evaluations using tools like HSOPSC ensure that safety initiatives remain relevant to these changes (Svardal et al., 2020). Leadership must also involve staff in the decision-making process, fostering collaboration and trust during periods of transition. By maintaining flexibility and resilience, organizations can sustain strong safety cultures even in challenging environments (Clark, Smith & Haynes, 2020).

9. Integrating Continuous Monitoring Systems

Continuous monitoring systems, such as electronic dashboards, are essential for identifying real-time challenges and successes in PSC implementation. These systems track trends in patient safety metrics, such as hospital-acquired infection rates and error reporting, providing actionable insights for leaders (Ohnishi et al., 2019). Feedback loops, where staff are informed about improvements and next steps, encourage engagement and transparency, ensuring sustainable safety practices (Ramírez Molina et al., 2019).

10. Building Sustainable Healthcare Workforces

A resilient healthcare system requires a workforce that is supported through training, balanced workloads, and psychological safety. Regular use of tools like the Safety Attitudes Questionnaire provides insights into staff perceptions of safety and identifies areas for intervention (Nomany, 2022). Investing in ongoing education and fostering a culture of continuous learning empowers healthcare workers to adapt to evolving challenges and contribute to a safer care environment (Sein Myint, Kunaviktikul & Stark, 2021).

References

1. Adel, E., Lofmark, A., Pålsson, Y., Mårtensson, G., Engstrom, M., Lindberg, M., 2021: Health-promoting and impeding aspects of using peer-learning during clinical practice education: a qualitative study. *Nurse Educ. Pract.* 55, 103169.
2. Afota, M. C., Robert, V., & Vandenberghe, C. (2021): The interactive effect of leader-member exchange and psychological climate for overwork on subordinate workaholism and job strain. *European Journal of Work and Organizational Psychology*, 30(4), 495-509.
3. Akinbadewa, B. O., & Sofowora, O. A. (2020): The effectiveness of multimedia instructional learning packages in enhancing secondary school students' attitudes toward Biology. *International Journal on Studies in Education*, 2(2), 119-133.
4. Aklil, M., Perizade, B., Hanafi, A., & Bemby, B. (2021): The Effect of Resonant Leadership on Work Engagement through Ethnic Culture in Pangkalpinang City Civil Servants. *Italienisch*, 11(2), 358-371.
5. Al-Turfi, M. K. & Al-Jubouri, M. B. (2022): "Effect of moral distress on decision making among nurses in intensive care units," *Pakistan Journal of Medical and Health Sciences*, vol. 16, no. 3, pp. 915-918.

6. Badawy, A.A. (2021): Relationship between organizational justice and work engagement among staff nurses, unpublished master thesis, Faculty of Nursing, Ain Shams University.
7. Balducci, C., Avanzi, L., & Fraccaroli, F. (2020): The individual “costs” of workaholism: An analysis based on multisource and prospective data. *Journal of Management*, 44(7), 2961-2986.
8. • Baris, V. K., Intepeler, S. S., & Unal, A. (2023): Development and psychometric validation of the Sickness Absence Presenteeism Scale-Nurse. *International Journal of Nursing Practice*, e13168.
9. Brown, M., Kraimer, M. L., & Bratton, V. K. (2019): The influence of employee performance appraisal cynicism on intent to quit and sportsmanship. *Personnel Review*.
10. Canu, Z. (2023): The Relationship Between Family-Work Conflict and Work-Family Conflict Among Special Education Teachers. *Jurnal Multidisiplin Madani*, 3(4), 811-816.
11. Chang, Y., et al. (2020): Work Ability and Quality of Life in Patients with Work- Related Musculoskeletal Disorders. P.p.20-40.
12. Cherkasov, A., Bratanovskii, S. N., Koroleva, L. A., & Zimovets, L. G. (2019): Development of the School Education System in the Province of Vologda (1725-1917). Part 2. *European Journal of Contemporary Education*, 8(2), 418-424.
13. Cinar, E. (2019): The effect of person-organization fit on the organizational identification: The mediating role of organizational attractiveness. *Eurasian Journal of Business and Management*, 7(1), 74-84.
14. Çingöl N., Karakaş M., Zengin S., and Çelebi E. (2020): The effect of psychiatric nursing students' internships on their beliefs about and attitudes toward mental health problems; a single-group experimental study. *Nurse Educ Today*. 2020;84:104243.
15. Clark, M. A., Smith, R. W., & Haynes, N. J. (2020): The Multidimensional Workaholism Scale: Linking the conceptualization and measurement of workaholism. *Journal of Applied Psychology*, 105(11), 1281.
16. Crafter, S., Maunder, R., & Soulsby, L. (2019): *Developmental transitions: Exploring stability and change through the lifespan*. Routledge.
17. Darling-Hammond L., Flook L., Cook-Harvey C., Barron B., and Osher D. (2020): Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97-140.
18. Dedahanov. A.T, Bozorov. F and Sung S. (2019): Paternalistic Leadership and Innovative Behavior: Psychological Empowerment as a Mediator. *Sustainability*. 11(6) 1-14.
19. Durrah, O., Chaudhary, M., & Gharib, M. (2019): Organizational cynicism and its impact on organizational pride in industrial organizations. *International journal of environmental research and public health*, 16(7), 1203.
20. Echebiri, C., Amundsen, S., & Engen, M. (2020): Linking Structural Empowerment to Employee-Driven Innovation: the Mediating Role of Psychological Empowerment. *MDPI*, 10(42).
21. Eliyana, A., Rohmatul, S., Rohmatul, S., Sridadi, A. R., Razaq, A., & Gunawan, D. R. (2020): The role of motivation on attitudes and entrepreneur achievement. *Systematic Reviews in Pharmacy*, 11(8), 335-343.
22. • Eslamlou, A., Karatepe, O. M., & Uner, M. M. (2021): Does job Embeddedness mediate the effect of resilience on cabin attendants' career satisfaction and creative performance? *Sustainability*, 13(9), 5104.
23. Even, A. (2020): *The Evolution of Work: Best Practices for Avoiding Social and Organizational Isolation in Telework Employees*. SSRN2020.
24. Faisal .S. (2022): Job embeddedness and its connection with person organization fit among Saudi Arabian employees. *Problems and Perspectives in Management*, 20(2), 348- 360. doi:10.21511/ppm.20(2).2022.29.
25. • Faisal, S., Naushad, M., & Faridi, M. (2020): A study on the level and relationship of job embeddedness and turnover intentions among Saudi Arabian working- class. *Management Science Letters*, 10(13), 3167- 3172. <https://doi.org/10.5267/j.msl.2020.5.005>
26. Fentaw, Y., Moges, B. T., & Ismail, S. M. (2022): Academic procrastination behavior among public university students. *Education Research International*, 2022.

27. Fernández-Salineró, S.& Topa, G. (2020): Intergroup Discrimination as a Predictor of Conflict within the Same Organization. The Role of Organizational Identity. *Eur. J. Invest. Health Psychol. Educ.* 2020, 10, 1.
28. Ferri, P., Stifani, S., Morotti, E., Nuvoletta, M., Bonetti, L., Rovesti, S., Cutino, A., & Di Lorenzo, R. (2020): Perceptions of Caring Behavior Among Undergraduate Nursing Students: A Three-Cohort Observational Study. *Psychology research and behavior management*, 13, 1311-1322.
29. Fortes, K., Latham, C.L., Vaughn, S., Preston, K., 2022: The influence of social determinants of education on nursing student persistence and professional values. *J. Prof. Nurs.* 39, 41–53.
30. Gawad, S.A., (2022): Work Place Incivility and its Effect on Quality of Work Life among Staff Nurses. *Egyptian Journal of Health Care*, 13(3), 809-821. doi: 10.21608/ejhc.2022.255400.
31. Ghafouri R , Bajestani S.I , Nasiri M , Ohnishi K and Foroozan A.S (2022): Psychometrics of the moral distress scale in Iranian mental health nurses. *BMC Nursing* (2021) 20:166 <https://doi.org/10.1186/s12912-021-00674-4>
32. Gillet, N., Austin, S., Fernet, C., Sandrin, E., Lorho, F., Brault, S., ... & Aubouin Bonnaventure, J. (2021): Workaholism, presenteeism, work–family conflicts and personal and work outcomes: Testing a moderated mediation model. *Journal of Clinical Nursing*, 30(19-20), 2842-2853.
33. Gupta, M., Shaheen, M., & Das, M. (2019): Engaging employees for quality of life: mediation by psychological capital. *The Service Industries Journal*, 39(5-6), 403-419.
34. Hiver, P., & Al-Hoorie, A. H. (2020): Reexamining the role of vision in second language motivation: A preregistered conceptual replication of You, Dörnyei, and Csizér (2016). *Language Learning*, 70(1), 48-102. Malinauskas, R. K., & Pozeriene, J. (2020). Academic motivation among traditional and online university students. *European journal of contemporary education*, 9(3), 584-591
35. Holland, K. (2019): Does the Market Subvert Health Care Reform? An Examination of Recent Attempts to Cut Costs and increase Accessibility to Health Care by Harnessing the Market (Doctoral dissertation, State University of New York at Stony Brook).
36. Huang, et al. (2020): Self-reported confidence in patient safety competencies among Chinese nursing students: a multi-site cross-sectional survey. *BMC Medical Education* (2020) 20:32.
37. Ismail, E. (2021): The relationship between Ethical work climate and Organizational commitment among staff nurses p7.
38. Jalili, M., Niroomand, M., Hadavand, F., Zeinali, K., & Fotouhi, A. (2021) : Burnout among healthcare professionals during COVID-19 pandemic: a cross-sectional study. *International Archives of occupational and Environmental Health*, 1-8.
39. Jansen, T. L. Hem, M. H. Dambolt, L. J. and Hanssen, I. .(2020): “Moral distress in acute psychiatric nursing: multifaceted dilemmas and demands,” *Nursing ethics.*, vol. 27, no. 5, pp. 1315–1326.
40. Jerg-Bretzke, L., Limbrecht-Ecklundt, K., Walter, S., Spohrs, J., & Beschoner, P. (2020): Correlations of the “Work–Family Conflict” with occupational stress—a cross-sectional study among university employees. *Frontiers in psychiatry*, 11, 134.
41. Jiang, Z., Hu, X., Wang, Z., & Jiang, X. (2019): Knowledge hiding as a barrier to thriving: The mediating role of psychological safety and moderating role of organizational cynicism. *Journal of Organizational Behavior*, 40(7), 800-818.
42. Kachaturoff, M., Caboral-Stevens, M., Gee, M., Lan, V.M., 2020: Effects of peermentoring on stress and anxiety levels of undergraduate nursing students: an integrative review. *J. Prof. Nurs.* 36, 223–228.
43. Khalid, U., Mushtaq, T., Khan, A. Z., & Mahmood, F. (2021): Probing the impact of transformational leadership on job embeddedness: the moderating role of job characteristics. *Management Research Review*, 44(8), 1139-1156.
44. • Khosravi, M., Ghiasi, Z., & Ganjali, A. (2021): Burnout in hospital medical staff during the COVID-19 pandemic: Diagnosis, treatment, and prevention. *Journal of Natural Remedies*, 21(12 (1)), 3644.
45. Kim, A.Y., Sim, I.O., 2020: Communication skills, problem-solving ability, understanding of patients' conditions, and nurse's perception of professionalism among clinical nurses: a structural equation model analysis. *Int. J. Environ. Res. Public Health* 17, 4896.
46. Kim, J., & Gatling, A. (2019): Impact of employees' job, organizational and technology fit on engagement and organizational citizenship behavior. *Journal of Hospitality and Tourism Technology*.

47. Kim, S.C., Jillapali, R., Boyd, S., 2021: Impacts of peer tutoring on academic performance of first-year baccalaureate nursing students: a quasi-experimental study. *Nurse Educ. Today* 96, 104658.
48. King, J. L. (2021): Research review: work-family/family-work conflict. *International Journal of Leadership Studies*, 1(1), 102-105.
49. • Ko, W., & Kang, H. (2019): Effect of leadership style and organizational climate on employees' food safety and hygiene behaviors in the institutional food service of schools. *Food Science & Nutrition* published by Wiley Periodicals, Inc.; 7 (6): 2131-2143.
50. Lee, S.E., Lee, M.H., Peters, A.B. and Gwon, S.H., (2020): Assessment of Patient Safety and Cultural Competencies among Senior Baccalaureate Nursing Students. *nt. J. Environ. Res. Public Health*,17, 4225.
51. Liu, F., Chow, I. H.-S., Zhang, J.-C., & Huang, M. (2019): Organizational innovation climate and individual innovative behavior: exploring the moderating effects of psychological ownership and psychological empowerment. *Rev. Manag. Sci.* 13, 771–789.
52. Macedo, L.L., Silva, A.M.R., Silva, J.F., Mdcfl, H., & Giroto, E. (2020): The cultureregarding the safety of the patient in primary health care: distinctions among professional categories. *Trab Educ Saúde Rio de Janeiro*. 2020;18(1).
53. Mahmoud, S.R., 2019: Nursing students' attitudes toward nursing profession and its relation to study adjustment. *Int. J. Nurs. Didact.* 9 (7), 9–16.
54. Mahran, H. M., Abd Al, M. A. A. H., & Saleh, N. M. (2022): Relationship between ethical leadership and workaholism among nursing supervisors as perceived by staff nurses. *Egyptian Nursing Journal*, 19(2), 79.
55. Mauro, L. B. (2022): Exploring Moral Distress, Ethical Climate, and Psychological Empowerment among New Registered Nurses (Doctoral dissertation, Walden University)
56. Moghadari-Koosha, M., Moghadasi-Amiri, M., Cheraghi, F., Mozafari, H., Imani, B., & Zandieh, M. (2020): Self-efficacy, self-regulated learning, and motivation as factors influencing academic achievement among paramedical students: A correlation study. *Journal of allied health*, 49(3), 145E-152E.
57. Molazem, Z., Bagheri, L., & Najafi Kalyani, M. (2022): Evaluation of the Moral Distress Intensity and Its Relationship with the Quality of Work Life among Nurses Working in Oncology Wards in Shiraz, Southwest of Iran. *BioMed Research International*, 2022.
58. • Mostafa, B. A., El-Borsaly, A. A. E., Hafez, E. A. E., & Hassan, S. A. (2021): The Mediating Effect of Person-Organization Value Fit on the Relationship Between University branding and Academic Staff Citizenship Behavior. *Academic Journal of Interdisciplinary Studies*, 10(1), 313-313.
59. Nanjundeswaraswamy T. (2021): Nurses quality of work life: scaled development and validation. *Journal of Economic and Administrative Sciences*, DOI 10.1108/JEAS-09-2020-0154.
60. Newman, A., Round, H., Wang, S. L., & Mount, M. (2020): Innovation climate: a systematic review of the literature and agenda for future research. *J. Occup. Organ. Psychol.* 93, 73–109.
61. Nomany, N.F. (2022): Perceived Nursing Supervisor Support and Its Influence on Job Embeddedness among Staff Nurses, unpublished master thesis, faculty of nursing, Ain Shams University, p 148- 150.
62. Nyanyiwa, S., Peters, K., & Murphy, G. (2022): A scoping review: Treatment attitudes and adherence for adults with schizophrenia. *Journal of clinical nursing*.
63. Ohnishi, K., Kitaoka, K., Nakahara, J., Välimäki, M., Kontio, R., & Anttila, M. (2019): Impact of moral sensitivity on moral distress among psychiatric nurses. *Nursing ethics*, 26(5), 1473-1483.
64. Olatunji, O. A., Idemudia, E. S., & Owoseni, O. O. (2020): Investigating the role of emotional intelligence and role conflict on job burnout among special education teachers. *Journal of Intellectual Disability–Diagnosis and Treatment*, 9(1), 128-136.
65. Pålsson, Y., Engstrom, M., Swenne, C.L., Mårtensson, G., 2022: A peer learning intervention in workplace introduction-managers' and new graduates' perspectives. *BMC Nurs.* 21 (12), 1–13.
66. Parizad, N., Lopez, V., Jasemi, M., Gharaaghaji Asl, R., Taylor, A., & Taghinejad, R. (2021): Job stress and its relationship with nurses' autonomy and nurse–physician collaboration in intensive care unit. *Journal of Nursing Management*. 22-24.

67. Querstret, D., O'Brien, K., Skene, D. J., & Maben, J. (2020): Improving fatigue risk management in healthcare: A systematic scoping review of sleep-related/fatigue-management interventions for nurses and midwives. *International journal of nursingstudies*, 106, 103513.
68. Raeissi, P., Rajabi, M. R., Ahmadizadeh, E., Rajabkhah, K., & Kakemam, E. (2019): Quality of work life and factors associated with it among nurses in public hospitals, Iran. *Journal of the Egyptian Public Health Association*, 94(1), 1-8
69. Ramírez Molina, R. J., del Valle Marcano, M., Ramírez Molina, R. I., Lay Raby, N. D., & Herrera Tapias, B. A. (2019): Relationship Between social intelligence and resonant leadership in public health Institutions.
70. Ramos, F. R., Barth, P. O Brehmer, L. C., Dalmolin, G. D fargas, M. A. and Schneider, D. G .(2020): "Intensity and frequency of moral distress in Brazilian nurses," *Revista da Escola de Enfermagem da USP.*, vol. 54.
71. Razmerita, L., Kirchner, K., Hockerts, K., & Tan, C. W. (2020): Modeling collaborative intentions and behavior in Digital Environments: The case of a Massive Open Online Course (MOOC). *Academy of Management Learning & Education*, 19(4), 469-502.
72. Reynolds, P. O. F., Dias, B. M., Flores, C. A. D. S., Balsanelli, A. P., Gabriel, C. S., & Bernardes, A. (2022): Resonant leadership practices of nurse managers in the hospital setting: a cross-sectional study. *Texto & Contexto-Enfermagem*, 31.
73. Segev, E. (2019): "Volume and control: the transition from information to power". *Journal of Multicultural Discourses*. 14 (3): 240–257. doi:10.1080/17447143.2019.1662028. ISSN 1744-7143.
74. Sein Myint, N. N., Kunaviktikul, W., & Stark, A. (2021): A contemporary understanding of organizational climate in healthcare setting: A concept analysis. *Nursing Forum*, 56(1), 172–180.
75. Sengul, M., & Seyfi, R. O. (2020): Investigation of the relationship between academic procrastination behaviours and academic selfefficacy of Turkish language teacher candidates. *Cumhuriyet International Journal of Education*, 9(3), 755-773.
76. Sheta, S. S., & Hammouda, M. A. (2022): Risk for Workaholism among Working Physicians of Zagazig University Hospitals: A Massage for Achieving Productive Work and Balanced Life. *The Egyptian Journal of Hospital Medicine*, 89(1), 4402-4409.
77. Shin, J., & Shin, H. (2020): Impact of job insecurity on hotel workers' workaholism and work-family conflict in korea. *International Journal of Environmental Research and Public Health*, 17(21), 7783.
78. Siyal, S., Xin, C., Peng, X., Siyal, A. W., & Ahmed, W. (2020): role of person-organization fit mechanism. *Sage Open*, 10(3), 2158244020947424.
79. Spagnoli, P., Haynes, N. J., Kovalchuk, L. S., Clark, M. A., Buono, C., & Balducci, C. (2020): Workload, workaholism, and job performance: Uncovering their complex relationship. *International Journal of Environmental Research and Public Health*, 17(18), 6536.
80. Spilg, E. G., Rushton, C. H., Phillips, J. L., Kendzerska, T., Saad, M., Gifford, W., Gautam, M., Bhatla, R., Edwards, J. D., Quilty, L., Leveille, C., & Robillard, R. (2022): The new frontline: Exploring the links between moral distress, moral resilience and mental health in healthcare workers during the COVID-19 pandemic. *BMC Psychiatry*, 22(1), 19-19. <https://psycnet.apa.org/doi/10.1186/s12888-021-03637-w>
81. Svartdal, F., Klingsieck, K. B., Steel, P., & Gamst-Klaussen, T. (2020): Measuring implemental delay in procrastination: Separating onset and sustained goal striving. *Personality and Individual Differences*, 156, 109762.
82. Syahrina, I. A., & Mutya, M. T. (2023): Academic Self-Efficacy and Academic Procrastination: The Mediating Role of Academic Motivation. In *International Conference of Psychology* (Vol. 2, No. 1, pp. 122-129).
83. Tajalli, S. Rostamli, S. Dezvaree, N. Shariat, M. and Kadivar, M..(2021): "Moral distress among Iranian neonatal intensive care units'health care providers: a multi-center cross sectional study,"*Journal of Medical Ethics and History of Medicine.*, p. 14.
84. Talebian, F., Hesamzadeh, A., Hosseinnataj, A., & AzimiLolaty, H. (2022): Relationship between academic procrastination and perceived competence, self-esteem and general self-efficacy of nursing students. *Journal of Nursing and Midwifery Sciences*, 9(4), 310-316.

85. Twidwell, J., Dial, D., Fehr, C., 2022: Gender, career choice confidence, and perceived faculty support in baccalaureate nursing students. *J. Prof. Nurs.* 39, 96–100.
86. Uwannah, N.C., Onyekachi, C.N., & Filade, B.A. (2021): Hardiness, Supervisor Support and Work Engagement: Empirical Evidence from Tertiary Institutions in Ogun State, Nigeria. *American Journal of Applied Psychology*, 9(1), 8-14.
87. Vasconcelos PF, de Freitas CHA, Jorge MSB, et al. (2019): Safety attributes in primary care: understanding the needs of patients, health professionals, and managers. *Public Health*. 2019;171:31–40.
88. Vikstrom, S., Johansson, K., 2019: Professional pride: a qualitative descriptive study of nursing home staff's experiences of how a quality development project influenced their work. *J. Clin. Nurs.* 28, 2760–2768.
89. World Alliance for Patient Safety. (2021): WHO cubiculum guide for medical schools addressed to WHO Press, at the above address (fax: +41 22 791 4806).
90. Xing, L., Sun, J.M. and Jepsen, D. (2021): "Feeling shame in the workplace: examining negative feedback as an antecedent and performance and well-being as consequences", *Journal of Organizational Behavior*, (42).9.1244-1260.
91. Yoon, S. K., Kim, J. H., Park, J. E., Kim, C. J., & Song, J. H. (2020): Creativity and knowledge creation: the moderated mediating effect of perceived organizational support on psychological ownership. *Eur. J. Train. Dev.* 44, 743–760.
92. Yu, H., Guan, X. & Zhang, X. (2019): Paternalistic Leadership Creates Work Performance, Servant Leadership Delivers Job Satisfaction: Integration of Two Types of Leadership Behaviors. *Science of Science and Management of S. & T.*, 35 (06), 172-180.
93. Yun, L. (2019): The relation between academic motivation and academic procrastination among university students. Faculty Of Social Science And Humanities Tunku Abdul Rahman University College Kuala Lumpur.
94. Yun, M. R., Lim, E. J., Yu, B., & Choi, S. (2020): Effects of Academic Motivation on Clinical Practice-Related Post-Traumatic Growth among Nursing Students in South Korea: Mediating Effect of Resilience. *International journal of environmental research and public health*, 17(13), 4901.
95. Yuniati, R., & Sitinjak, C. (2022): Upward Comparison at the Workplace: A Review. *East Asian Journal of Multidisciplinary Research*, 1(7), 1377-1394.
96. Yurtseven, N., & Dogan, S. (2019): Structural Relationships among Academic Procrastination, Academic Motivation, and Problem-Solving Skill in Prep Class College Students. *Pegem Journal of Education and Instruction*, 9(3), 849-876.
97. Zarrin, S. A., Gracia, E., & Paixão, M. P. (2020): Prediction of academic procrastination by fear of failure and self-regulation. *Educational Sciences: Theory & Practice*, 20(3), 34-43.
98. Zurman C., Hoffmann H. O., and Ruff-Stahl H. K. (2019): Difference in attitudes toward Crew Resource Management based on nationality. *International Journal of Aviation, Aeronautics, and Aerospace*, 6(4).
99. Zwedberg, S., Alnervik, M., Barimani, M., 2021: Student midwives' perception of peer learning during their clinical practice in an obstetric unit: a qualitative study. *Nurse Educ. Today* 99, 104785.
100. Abd El Rahman, S., Ali, H., Ali, R., Mohamed, A. (2022): Effect of Organizational Cynicism on Quality of Work Life and Employee Effectiveness among Nursing Staff. *Minia Scientific Nursing Journal*. 11 (1), 2785-9797.
101. Abd El-Salam, A. I., Metwally, F. G., & Abdeen, M. A. (2022): Academic Procrastination and Self-control of Faculty Nursing Students. *Zagazig Nursing Journal*, 18(2), 15-29.
102. Abdillah, H. Z., Rahman, F., Husna, M., Sitinjak, C., Hidayah, N., & Mujidin, M. (2022): School well-being in terms of self-determination and patience in vocational high school students. *International Journal of Islamic Educational Psychology*, 3(1), 19-34.
103. Abe, E. N., & Chikoko, V. (2020): Exploring the factors that influence the career decision of STEM students at a university in South Africa. *International Journal of STEM Education*, 7(1), 1-14.