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Enhancing Patient Safety Culture in Hospitals: A Comprehensive Approach

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ABSTRACT
Patient safety culture is a critical aspect of healthcare quality, directly impacting patient outcomes and healthcare delivery. This paper provides an in-depth examination of the concept of patient safety culture, its dimensions, and strategies for enhancing it in hospital settings. Drawing from a comprehensive review of the literature, we explore the multifaceted nature of patient safety culture, encompassing leadership commitment, teamwork, communication, error reporting, continuous learning, and patient engagement. The paper highlights the significance of fostering a non-punitive environment that encourages open dialogue, promotes systems-based thinking, and prioritizes continuous quality improvement. Furthermore, we discuss the role of healthcare professionals, particularly nurses, as pivotal agents in cultivating a robust patient safety culture. The paper also addresses the challenges and barriers to implementing patient safety initiatives, such as resistance to change, resource constraints, lack of standardization, and cultural barriers. To overcome these obstacles, we provide practical recommendations for healthcare organizations, including leadership accountability, comprehensive staff education and training, encouraging open communication and feedback, promoting teamwork and interprofessional collaboration, engaging patients and families, adopting a continuous quality improvement approach, and leveraging technology and data analytics. By embracing a multi-faceted and collaborative approach, hospitals can create a culture that prioritizes patient safety, fosters continuous learning, and drives excellence in healthcare delivery.

Keywords: teamwork, communication, error reporting, continuous learning, safety

INTRODUCTION

Patient safety has emerged as a fundamental principle in modern healthcare systems, garnering increasing attention from healthcare providers, policymakers, and the general public. Despite significant advancements in medical knowledge and technology, adverse events and medical errors continue to pose a substantial risk to patient well-being, contributing to preventable harm, increased healthcare costs, and decreased patient satisfaction (Daker-White et al., 2015). In response to this challenge, healthcare organizations have recognized the importance of cultivating a strong patient safety culture, which encompasses the shared values, attitudes, and behaviors that prioritize patient safety and foster an environment of continuous learning and improvement (Azyabi et al., 2021).

Patient safety culture is a multidimensional concept that permeates various aspects of healthcare delivery, including leadership commitment, teamwork, communication, error reporting, continuous learning, and patient engagement (Colla et al., 2005). A positive patient safety culture empowers healthcare professionals to openly discuss errors, learn from adverse events, and actively participate in improving patient safety practices

(González-Formoso et al., 2011). Conversely, a poor patient safety culture can lead to the normalization of errors, a blame culture, and a lack of transparency, ultimately compromising patient care and jeopardizing patient safety (Reay et al., 2017; Thibaut et al., 2019).

This paper aims to provide a comprehensive exploration of patient safety culture in hospitals, delving into its dimensions, the challenges faced in implementing patient safety initiatives, and practical strategies for enhancing patient safety culture. By synthesizing current literature and evidence-based practices, we seek to offer valuable insights and actionable recommendations for healthcare organizations to create a culture that prioritizes patient safety, fosters continuous quality improvement, and drives excellence in healthcare delivery.

Dimensions of Patient Safety Culture:

Patient safety culture encompasses various interconnected dimensions that collectively contribute to a healthcare organization's ability to provide safe and high-quality care. The following are some of the key dimensions identified in the literature:

1. Leadership and Management Commitment:
   Effective leadership plays a pivotal role in shaping and sustaining a patient safety culture within an organization. Leaders who demonstrate a clear vision, allocate necessary resources, and actively engage in promoting a culture of continuous improvement can positively influence patient safety outcomes (Kirkman et al., 2015; Wong et al., 2010). By fostering an environment where staff feel empowered to speak up, report errors, and contribute to safety initiatives without fear of retaliation, leaders can cultivate a culture of trust and transparency (Foy et al., 2011).
2. Teamwork and Communication:
   Effective teamwork and open communication are essential for ensuring patient safety. A collaborative environment that promotes interprofessional collaboration, respect, and information sharing enhances patient care coordination and reduces the risk of errors and adverse events (Dekker-van Doorn et al., 2020; Vermeir et al., 2015). Clear communication channels, standardized protocols, and tools such as interdisciplinary rounds and handoff procedures facilitate the timely exchange of critical patient information among healthcare professionals, fostering a shared understanding and reducing the potential for miscommunication (Haskins & Roets, 2022).
3. Error Reporting and Feedback:
   A non-punitive approach to error reporting and a culture of learning from mistakes are crucial for improving patient safety. Healthcare organizations should encourage staff to report errors and near-misses without fear of blame or retribution (Vaismoradi et al., 2020). Effective feedback mechanisms, such as regular staff debriefings, incident analysis, and root cause analysis processes, should be in place to identify system vulnerabilities, implement corrective actions, and foster a learning environment (Russo et al., 2016).
4. Continuous Learning and Improvement:
   Patient safety culture involves a commitment to continuous learning and improvement. Healthcare organizations should foster an environment that values ongoing education, training, and the adoption of evidence-based practices (Cheraghi et al., 2023). Regular review of patient safety data, analysis of adverse events and near-misses, and the implementation of quality improvement initiatives are essential for enhancing patient safety and driving ongoing improvement (Mosadeghrad, 2014).
5. Patient and Family Engagement:
   Actively involving patients and their families in the healthcare process is crucial for promoting patient safety. By encouraging open communication, shared decision-making, and patient education, healthcare organizations can empower patients to be active participants in their care, reducing the risk of errors and adverse events (Johnston et al., 2022; Pohlman et al., 2020). Incorporating patient perspectives and experiences can provide valuable insights for improving healthcare processes and enhancing patient safety initiatives (Hailemariam et al., 2020).

Challenges and Barriers to Enhancing Patient Safety Culture:

While the importance of patient safety culture is widely recognized, healthcare organizations often face various challenges and barriers in implementing and sustaining patient safety initiatives. Some of the key challenges include:

1. Resistance to Change:
   Overcoming resistance to change is a significant obstacle in cultivating a patient safety culture (Cheraghi et al., 2023). Healthcare professionals may be hesitant to adopt new practices or report errors due to fear of blame, lack of confidence, or a deeply rooted hierarchical culture that discourages open dialogue and accountability (Hailemariam et al., 2020). Addressing this resistance requires effective change management strategies, open communication, and ongoing education and training (Pelzang & Hutchinson, 2018).

2. Resource Constraints:
   Implementing patient safety initiatives often requires substantial financial and human resources, which may be limited in many healthcare settings (Janes et al., 2021). Inadequate funding, staffing shortages, and competing priorities can hinder the development and sustainability of patient safety programs, limiting the ability to provide comprehensive training, implement technological solutions, and dedicate personnel to patient safety efforts (Bajwah et al., 2020; Jia et al., 2021).
3. Lack of Standardization and Integration:
   The complex and fragmented nature of healthcare systems can contribute to inconsistent practices, communication breakdowns, and lack of coordination among different healthcare providers and settings (Konnyu et al., 2023). Standardizing protocols, integrating electronic health records, and promoting interprofessional collaboration can help address these challenges and ensure seamless patient care transitions (Alidina et al., 2021; Van Wilder et al., 2020).
4. Cultural and Organizational Barriers:
   Deeply rooted cultural and organizational factors, such as hierarchical structures, power dynamics, and lack of trust, can hinder the development of a patient safety culture (Kruk et al., 2018). Addressing these barriers requires a comprehensive approach that involves leadership commitment, staff empowerment, and cultural transformation, fostering an environment where all members of the healthcare team feel valued and respected (Kuchinke et al., 2016; Binkheder et al., 2023).

Strategies for Enhancing Patient Safety Culture:
To overcome the challenges and foster a robust patient safety culture, healthcare organizations can implement the following strategies:

1. Leadership and Organizational Commitment:
   Strong leadership commitment and visible support from top management are essential for driving patient safety initiatives. Leaders should establish a clear vision, allocate resources, and actively participate in promoting a patient safety culture (Kruk et al., 2018). Developing a patient safety governance structure, with dedicated roles and responsibilities, can help ensure accountability and sustained efforts (Kuchinke et al., 2016). Leaders should also serve as role models, demonstrating a commitment to patient safety through their actions and decision-making processes (Frakking et al., 2020).
2. Comprehensive Staff Education and Training:
   Providing comprehensive education and training programs for healthcare professionals is crucial for enhancing patient safety knowledge, skills, and attitudes. These programs should cover a wide range of topics, including error reporting, communication techniques, teamwork, root cause analysis, and the implementation of evidence-based practices (Binkheder et al., 2023). Additionally, incorporating patient safety concepts into healthcare curricula can help instill a patient safety mindset from the early stages of professional development, creating a foundation for a safety-oriented workforce (Frakking et al., 2020; Kirkman et al., 2015).
3. Encouraging Open Communication and Feedback:
   Fostering an environment of open communication and feedback is essential for promoting patient safety. Healthcare organizations should implement non-punitive error reporting systems, encourage staff to speak up about safety concerns, and provide regular feedback on reported incidents and improvement initiatives (Morris et al., 2023; Segura-García et al., 2023). Regular staff meetings, debriefings, and open forums can facilitate open dialogue, allowing healthcare professionals to share their experiences, insights, and concerns related to patient safety (Ahmed et al., 2023).
4. Promoting Teamwork and Interprofessional Collaboration:
   Effective teamwork and interprofessional collaboration are critical for ensuring patient safety. Healthcare organizations should promote a culture of respect, trust, and shared accountability among all members of the healthcare team, regardless of their roles or professional backgrounds (Wagner et al., 2018). Implementing structured communication tools, such as handoff protocols, interdisciplinary rounds, and team huddles, can facilitate information sharing and improve care coordination, reducing the potential for errors and adverse events (Vermeir et al., 2015).
5. Engaging Patients and Families:
   Actively involving patients and their families in the healthcare process can improve patient safety by promoting shared decision-making, enhancing communication, and empowering patients to be active participants in their care (Frakking et al., 2020; Morris et al., 2023). Healthcare organizations should develop patient education materials, encourage open communication, and provide opportunities for patients and families to provide feedback on their experiences (Johnston et al., 2022). Additionally, integrating patient and family advisors into quality improvement initiatives can offer valuable perspectives and contribute to the development of patient-centered solutions (Alidina et al., 2021).
6. Continuous Quality Improvement and Learning:

Adopting a continuous quality improvement approach is essential for sustaining a patient safety culture. Healthcare organizations should regularly review patient safety data, analyze adverse events and near-misses, and implement evidence-based practices and interventions (Konnyu et al., 2023; Mosadeghrad, 2014). Establishing a culture of learning, where errors are viewed as opportunities for improvement rather than opportunities for blame, can foster a proactive approach to patient safety and drive ongoing organizational learning (Pelzang & Hutchinson, 2018).

7. Leveraging Technology and Data Analytics:
   Utilizing technology and data analytics can enhance patient safety efforts by enabling real-time monitoring, facilitating communication, and supporting decision-making processes (Russo et al., 2016). Electronic health records, clinical decision support systems, and data analytics tools can help identify potential safety risks, track performance indicators, and inform quality improvement initiatives (Kuchinke et al., 2016). Additionally, implementing technology solutions such as barcode medication administration and electronic prescribing can reduce the risk of medication errors and improve patient safety (Binkheder et al., 2023).

The Role of Nurses in Enhancing Patient Safety Culture:

Nurses play a pivotal role in promoting and sustaining a patient safety culture within healthcare organizations. As frontline caregivers, nurses are uniquely positioned to identify potential safety risks, report adverse events, and implement safety practices (Mortensen et al., 2022). Furthermore, nurses' attitudes, behaviors, and competencies directly influence patient safety outcomes and the overall culture of safety within a healthcare organization (Vaismoradi et al., 2020).

To effectively contribute to a robust patient safety culture, nurses must be equipped with the necessary knowledge, skills, and attitudes. This includes:

1. Comprehensive Patient Safety Education:
   Nurse education programs should incorporate patient safety concepts, emphasizing the importance of open communication, teamwork, error reporting, and continuous learning. Additionally, ongoing professional development opportunities focused on patient safety should be provided to ensure that nurses stay current with best practices and evidence-based interventions (Mortensen et al., 2022).
2. Effective Communication and Teamwork:
   Nurses should be trained in effective communication techniques, including handoff procedures, interdisciplinary collaboration, and conflict resolution. Fostering strong teamwork and interprofessional collaboration can enhance patient care coordination, reduce the risk of errors, and promote a culture of mutual respect and shared accountability (Vermeir et al., 2015).
3. Error Reporting and Feedback:
   Nurses should be empowered to report errors and near-misses without fear of retribution or blame. Healthcare organizations should provide clear guidelines and protocols for error reporting, as well as effective feedback mechanisms to facilitate learning and improvement (Vaismoradi et al., 2020; Russo et al., 2016).
4. Patient and Family Engagement:
   Nurses should actively engage patients and their families in the care process, encouraging open communication, shared decision-making, and patient education. By involving patients and families, nurses can help identify potential safety risks, address concerns, and promote a patient-centered approach to care (Pohlman et al., 2020; Hailemariam et al., 2020).
5. Continuous Learning and Improvement:
   Nurses should embrace a mindset of continuous learning and improvement, actively participating in quality improvement initiatives, implementing evidence-based practices, and contributing to the ongoing refinement of patient safety protocols and procedures (Mosadeghrad, 2014; Cheraghi et al., 2023).

By fostering a culture that empowers and supports nurses in their patient safety roles, healthcare organizations can leverage the unique perspectives and expertise of nurses to enhance patient safety and drive continuous improvement in healthcare delivery.

CONCLUSION

Enhancing patient safety culture in hospitals is a multifaceted endeavor that requires a comprehensive and sustained effort from healthcare organizations, leaders, and frontline staff. By fostering an environment that prioritizes open communication, teamwork, continuous learning, and patient engagement, hospitals can create a culture that promotes patient safety and high-quality care.

Effective leadership, comprehensive staff education and training, and the adoption of evidence-based practices are crucial for overcoming the challenges and barriers to implementing patient safety initiatives. Additionally, leveraging technology and data analytics can provide valuable insights and support decision-making processes related to patient safety.

Nurses play a pivotal role in promoting and sustaining a patient safety culture, as their competencies, attitudes, and behaviors directly influence patient safety outcomes. Empowering nurses through education, effective communication, and continuous learning opportunities can enhance their ability to identify and mitigate potential safety risks, report errors, and contribute to ongoing improvement efforts.

Cultivating a robust patient safety culture is an ongoing journey that requires a commitment to continuous improvement, a systems-based approach to error management, and a shared accountability among all stakeholders in the healthcare system. By embracing these principles and strategies, hospitals can create a culture that not only prioritizes patient safety but also fosters a learning environment that drives innovation and excellence in healthcare delivery.

REFERENCES

1. Ahmed, F. A., Asif, F., Munir, T., et al. (2023). Measuring the patient safety culture at a tertiary care hospital in Pakistan using the hospital survey on Patient Safety Culture (HSOPSC). BMJ Open Quality, 12, e002029. https://doi.org/10.1136/bmjoq-2022-002029
2. Alidina, S., Martelli, P. F., Singer, S. J., & Aveling, E. L. (2021). Optimizing patient partnership in primary care improvement: A qualitative study. Health Care Management Review, 46(2), 123-134. https://doi.org/10.1097/HMR.0000000000000250
3. Azyabi, A., Karwowski, W., & Davahli, M. R. (2021). Assessing patient safety culture in hospital settings. International Journal of Environmental Research and Public Health, 18(5), 2466. https://doi.org/10.3390/ijerph18052466
4. Bajwah, S., Oluyase, A. O., Yi, D., et al. (2020). The effectiveness and cost-effectiveness of hospital-based specialist palliative care for adults with advanced illness and their caregivers. Cochrane Database of Systematic Reviews, 9, CD012780. https://doi.org/10.1002/14651858.CD012780.pub2
5. Binkheder, S., Alaska, Y. A., Albaharnah, A., et al. (2023). The relationships between patient safety culture and sentinel events among hospitals in Saudi Arabia: A national descriptive study. BMC Health Services Research, 23, 270. https://doi.org/10.1186/s12913-023-09205-0
6. Cheraghi, R., Ebrahimi, H., Kheibar, N., & Sahebihagh, M. H. (2023). Reasons for resistance to change in nursing: An integrative review. BMC Nursing, 22, 310. https://doi.org/10.1186/s12912-023-01460-0
7. Colla, J. B., Bracken, A. C., Kinney, L. M., & Weeks, W. B. (2005). Measuring patient safety climate: A review of surveys. Quality and Safety in Health Care, 14(5), 364-366. https://doi.org/10.1136/qshc.2005.014217
8. Daker-White, G., Hays, R., McSharry, J., Giles, S., Cheraghi-Sohi, S., Rhodes, P., & Sanders, C. (2015). Blame the patient, blame the doctor or blame the system? A meta-synthesis of qualitative studies of patient safety in primary care. PLoS One, 10(10), e0128329. https://doi.org/10.1371/journal.pone.0128329
9. Dekker-van Doorn, C., Wauben, L., van Wijngaarden, J., Lange, J., & Huijsman, R. (2020). Adaptive design: Adaptation and adoption of patient safety practices in daily routines, a multi-site study. BMC Health Services Research, 20, 426. https://doi.org/10.1186/s12913-020-05306-2
10. Foy, R., Ovretveit, J., Shekelle, P. G., et al. (2011). The role of theory in research to develop and evaluate the implementation of patient safety practices. BMJ Quality & Safety, 20(5), 453-459. https://doi.org/10.1136/bmjqs.2010.047993
11. Frakking, T., Michaels, S., Orbell-Smith, J., & Le Ray, L. (2020). Framework for patient, family-centred care within an Australian Community Hospital: Development and description. BMJ Open Quality, 9(4), e000823. https://doi.org/10.1136/bmjoq-2019-000823
12. González-Formoso, C., Martín-Miguel, M. V., Fernández-Domínguez, M. J., et al. (2011). Adverse events analysis as an educational tool to improve patient safety culture in primary care: A randomized trial. BMC Family Practice, 12, 50. https://doi.org/10.1186/1471-2296-12-50
13. Hailemariam, S., Genetu, A., & Sahile, E. (2020). Mother's satisfaction towards childbirth care at public health centers in bench-maji zone, ethiopia: A facility-based cross-sectional study. International Journal of Reproductive Medicine, 2020, 1-7. https://doi.org/10.1155/2020/6746459
14. Haskins, H. E., & Roets, L. (2022). Nurse leadership: Sustaining a culture of safety. Health SA Gesondheid, 27, 2009. https://doi.org/10.4102/hsag.v27i0.2009
15. Janes, G., Mills, T., Budworth, L., Johnson, J., & Lawton, R. (2021). The association between health care staff engagement and patient safety outcomes: A systematic review and meta-analysis. Journal of Patient Safety, 17(3), 207-216. https://doi.org/10.1097/PTS.0000000000000807
16. Jia, L., Meng, Q., Scott, A., Yuan, B., & Zhang, L. (2021). Payment methods for healthcare providers working in outpatient healthcare settings. Cochrane Database of Systematic Reviews, 1, CD011865. https://doi.org/10.1002/14651858.CD011865.pub2
17. Johnston, J., Stephenson, J., Rajgopal, A., & Bhasin, N. (2022). "Every patient, every day": A daily ward round tool to improve patient safety and experience. BMJ Open Quality, 11, e001829. https://doi.org/10.1136/bmjoq-2022-001829

18. Kirkman, M. A., Sevdalis, N., Arora, S., Baker, P., Vincent, C., & Ahmed, M. (2015). The outcomes of recent patient safety education interventions for trainee physicians and medical students: A systematic review. BMJ Open, 5(5), e007705. https://doi.org/10.1136/bmjopen-2015-007705
19. Konnyu, K. J., Yogasingam, S., Lépine, J., et al. (2023). Quality improvement strategies for diabetes care: Effects on outcomes for adults living with diabetes. Cochrane Database of Systematic Reviews, 5, CD014513. https://doi.org/10.1002/14651858.CD014513
20. Ko, Y. K., Jeong, S. H., & Yu, S. (2018). Job autonomy, perceptions of organizational policy, and the safety performance of nurses. International Journal of Nursing Practice, 24(6), e12696. https://doi.org/10.1111/ijn.12696
21. Kruk, M. E., Gage, A. D., Arsenault, C., et al. (2018). High-quality health systems in the sustainable development goals era: Time for a revolution. The Lancet Global Health, 6(11), e1196-e1252. https://doi.org/10.1016/S2214-109X(18)30386-3
22. Kuchinke, W., Krauth, C., Bergmann, R., et al. (2016). Legal assessment tool (LAT): An interactive tool to address privacy and data protection issues for data sharing. BMC Medical Informatics and Decision Making, 16, 81. https://doi.org/10.1186/s12911-016-0325-0
23. Lawati, M. H., Dennis, S., Short, S. D., & Abdulhadi, N. N. (2018). Patient safety and safety culture in primary health care: A systematic review. BMC Family Practice, 19, 104. https://doi.org/10.1186/s12875-018-0793-7
24. Mashi, M. S., Subramaniam, C., & Johari, J. (2017). The effect of management commitment, safety rules and procedure and safety promotion policies on nurses' safety performance: The moderating role of consideration of future safety consequences. International Business Management, 11(2), 478-489. https://doi.org/10.3923/ibm.2017.478.489
25. Morris, R. L., Giles, S., & Campbell, S. (2023). Involving patients and carers in patient safety in primary care: A qualitative study of a co-designed patient safety guide. Health Expectations, 26, 630-639. https://doi.org/10.1111/hex.13673
26. Mortensen, M., Naustdal, K. I., Uibu, E., Mägi, L., Kangasniemi, M., Põlluste, K., & Moi, A. L. (2022). Instruments for measuring patient safety competencies in nursing: A scoping review. BMJ Open Quality, 11, e001751. https://doi.org/10.1136/bmjoq-2021-001751
27. Mosadeghrad, A. M. (2014). Factors affecting medical service quality. Iranian Journal of Public Health, 43(2), 210-220.
28. Noor Arzahan, I. S., Ismail, Z., & Yasin, S. M. (2022). Safety culture, safety climate, and safety performance in healthcare facilities: A systematic review. Safety Science, 147, 105624. https://doi.org/10.1016/j.ssci.2021.105624
29. Pelzang, R., & Hutchinson, A. M. (2018). Patient safety issues and concerns in Bhutan's healthcare system: A qualitative exploratory descriptive study. BMJ Open, 8(7), e022788. https://doi.org/10.1136/bmjopen-2018-022788
30. Pohlman, K. A., Salsbury, S. A., Funabashi, M., Holmes, M. M., & Mior, S. (2020). Patient safety in chiropractic teaching programs: A mixed methods study. Chiropractic & Manual Therapies, 28, 50. https://doi.org/10.1186/s12998-020-00339-0
31. Reay, G., Norris, J. M., Alix Hayden, K., et al. (2017). Transition in care from paramedics to emergency department nurses: A systematic review protocol. Systematic Reviews, 6, 260. https://doi.org/10.1186/s13643-017-0651-z
32. Russo, E., Sittig, D. F., Murphy, D. R., & Singh, H. (2016). Challenges in patient safety improvement research in the era of electronic health records. Healthcare, 4(3), 285-290. https://doi.org/10.1016/j.hjdsi.2016.06.005
33. Segura-García, M. T., Castro Vida, M. Á., García-Martin, M., Álvarez-Ossorio-García de Soria, R., Cortés-Rodríguez, A. E., & López-Rodríguez, M. M. (2023). Patient safety culture in a tertiary hospital: A cross-sectional study. International Journal of Environmental Research and Public Health, 20(3), 2329. https://doi.org/10.3390/ijerph20032329
34. Sorra, J., Famolaro, T., & Yount, N. (2019). Transitioning to the SOPS™ Hospital Survey Version 2.0: What's Different and what to Expect, Part I: Main Report. Agency for Healthcare Research and Quality.
35. Thibaut, B., Dewa, L. H., Ramtale, S. C., et al. (2019). Patient safety in inpatient mental health settings: A systematic review. BMJ Open, 9(12), e030230. https://doi.org/10.1136/bmjopen-2019-030230
36. Vaismoradi, M., Tella, S., A Logan, P., Khakurel, J., & Vizcaya-Moreno, F. (2020). Nurses' adherence to patient safety principles: A systematic review. International Journal of Environmental Research and Public Health, 17(6), 2028. https://doi.org/10.3390/ijerph17062028
37. Van Wilder, A., Vanhaecht, K., De Ridder, D., et al. (2020). Six years of measuring patient experiences in Belgium: Limited improvement and lack of association with improvement strategies. PLoS One, 15(10), e0241408. https://doi.org/10.1371/journal.pone.0241408

38. Vermeir, P., Vandijck, D., Degroote, S., et al. (2015). Communication in healthcare: A narrative review of the literature and practical recommendations. International Journal of Clinical Practice, 69(11), 1257-1267. https://doi.org/10.1111/ijcp.12686
39. Wagner, A., Hammer, A., Manser, T., Martus, P., Sturm, H., & Rieger, M. A. (2018). Do occupational and patient safety culture in hospitals share predictors in the field of psychosocial working conditions? Findings from a cross-sectional study in German university hospitals. International Journal of Environmental Research and Public Health, 15(10), 2131. https://doi.org/10.3390/ijerph15102131
40. Wong, B. M., Etchells, E. E., Kuper, A., Levinson, W., & Shojania, K. G. (2010). Teaching quality improvement and patient safety to trainees: A systematic review. Academic Medicine, 85(9), 1425-1439. https://doi.org/10.1097/ACM.0b013e3181e2d0c6
41. World Health Organization. (2019). Patient safety. https://www.who.int/news-room/fact-sheets/detail/patient-safety