



Exploring the Interplay of Role Clarity, Teamwork, and Patient Safety Culture Among Nursing Professionals: A Comprehensive Review

¹Bushra Mohammed Mazwi Al-Saadi , ²Sarah Obaid Mijlad Aljameeli , ³Maha Awad Sughayyir Alshammari , ⁴Noor Jurays Tumayshan Alhazmi , ⁵Ibtihaj Awad Sughayyir Alshammari , ⁶Amira Obaid Mijlad Aljameeli

1. Nursing Technician
2. Nursing Technician
3. Nursing Specialist
4. Nursing Technician
5. Nursing Technician
6. Nursing Technician

Abstract

The growing complexity of healthcare systems and the increasing emphasis on patient safety have underscored the critical importance of role clarity, effective teamwork, and a robust patient safety culture among nursing professionals. This comprehensive review explores the interplay of these three key factors, drawing upon a systematic literature review, comparative studies, and qualitative and quantitative data to develop a holistic understanding of their impact on nursing practice and patient outcomes. The analysis integrates findings from diverse research methodologies, focusing on the challenges, opportunities, and best practices for fostering role clarity, promoting collaborative teamwork, and cultivating a patient safety culture within nursing teams. Key themes explored include the influence of organizational structures and leadership on role delineation, the impact of interprofessional collaboration on patient safety, and the role of nursing education and training in developing essential teamwork and safety competencies. The findings highlight the need for strategic interventions to address role ambiguity, enhance communication and coordination, and promote a shared commitment to patient safety among nursing professionals. The conclusion emphasizes the importance of a multidimensional approach to optimizing nursing practice environments, encompassing organizational policies, leadership development, interprofessional education, and continuous quality improvement initiatives. By harnessing the synergistic potential of role clarity, teamwork, and patient safety culture, healthcare organizations can empower nursing professionals to deliver high-quality, patient-centered care and contribute to the achievement of optimal health outcomes.

Received: 07 October 2024

Revised: 18 November 2024

Accepted: 02 December 2024

Introduction

The provision of safe, effective, and patient-centered care is a fundamental goal of healthcare systems worldwide, and nursing professionals play a pivotal role in achieving this objective (Glarcher & Vaismoradi, 2024). As the healthcare landscape becomes increasingly complex and multifaceted, the importance of role clarity, effective teamwork, and a robust patient safety culture among nursing professionals has come to the forefront of research and practice (Campbell et al., 2020).

Role clarity, defined as the extent to which nursing professionals have a clear understanding of their responsibilities, expectations, and scope of practice, is essential for the efficient and effective delivery of care (Lankshear et al., 2016). Ambiguity or confusion regarding roles can lead to duplication of efforts, gaps in care provision, and increased risk of errors, ultimately compromising patient safety and outcomes (O'Donovan et al., 2019).

Effective teamwork, characterized by collaboration, communication, and coordination among nursing professionals and other healthcare providers, is another critical component of high-quality care (Kohanová et al., 2024). Teamwork enables the sharing of knowledge, skills, and expertise, facilitates problem-solving and decision-making, and promotes a shared understanding of patient needs and care plans (Welp & Manser, 2016).

The cultivation of a patient safety culture, in which the prevention and mitigation of harm to patients is a core value and shared responsibility, is similarly essential for the delivery of safe and effective care (Cho & Choi, 2018). A strong patient safety culture fosters open communication, encourages the reporting of errors and near misses, and promotes continuous learning and improvement (Vinagre & Marques, 2018).

Despite the recognized importance of role clarity, teamwork, and patient safety culture, the interplay of these factors in nursing practice remains an area of ongoing research and exploration. Nursing professionals often face challenges in navigating complex organizational structures, interprofessional dynamics, and competing priorities, which can impact their ability to fulfill their roles effectively, collaborate with colleagues, and prioritize patient safety (Lee & Jang, 2023).

This comprehensive review aims to explore the interplay of role clarity, teamwork, and patient safety culture among nursing professionals, drawing upon a diverse range of research methodologies and data sources to develop a holistic understanding of the challenges, opportunities, and best practices in this critical area of nursing practice. By integrating findings from a systematic literature review, comparative studies, and qualitative and quantitative data, the review seeks to identify key themes, synthesize evidence-based recommendations, and inform future research and practice initiatives.

The insights generated through this review will contribute to the ongoing efforts to optimize nursing practice environments, enhance the quality and safety of patient care, and support the professional development and well-being of nursing professionals. By harnessing the synergistic potential of role clarity, teamwork, and patient safety culture, healthcare organizations can empower nursing professionals to deliver the highest standard of care and contribute to the achievement of optimal health outcomes for patients and communities.

Literature Review

The literature review process employed a systematic approach to identify, evaluate, and synthesize relevant research on the interplay of role clarity, teamwork, and patient safety culture among nursing professionals. The review encompassed a diverse range of research methodologies, including quantitative, qualitative, and mixed-methods studies, as well as systematic reviews and meta-analyses.

Role Clarity and Nursing Practice

Several studies have explored the impact of role clarity on nursing practice and patient outcomes. Lankshear et al. (2016) conducted a qualitative study to examine the importance of role clarity for practical nurses, highlighting the need for leadership support in delineating roles and responsibilities. The study emphasized the potential consequences of role ambiguity, including increased workload, job dissatisfaction, and compromised patient care.

Da Silva Batalha et al. (2024) investigated the association between patient safety culture and professional quality of life among nursing professionals, identifying role clarity as a key factor influencing both outcomes. The study underscored the importance of clear role expectations and effective communication in promoting a positive safety culture and enhancing the well-being of nursing professionals.

Other studies have focused on the organizational and contextual factors that impact role clarity in nursing practice. Alrabae et al. (2021) explored the association between self-reported workload and perceptions of patient safety culture among intensive care unit nurses, highlighting the potential of role ambiguity to exacerbate workload pressures and compromise patient safety.

Teamwork and Collaborative Practice

The literature review also identified a substantial body of research on the importance of teamwork and collaborative practice in nursing. Dinius et al. (2020) conducted a cross-sectional study to investigate the association between inter-professional teamwork and patient safety in German hospitals, emphasizing the critical role of effective collaboration in preventing adverse events and promoting positive patient outcomes.

Campbell et al. (2021) explored the relational quality of registered nurses and nursing assistants, examining its influence on patient safety culture. The study highlighted the importance of trust, respect, and open communication in fostering effective teamwork and creating a positive safety culture within nursing teams.

Several studies have focused on the strategies and interventions to promote teamwork and collaboration among nursing professionals. Goh et al. (2020) conducted a mixed-methods study to explore nursing teamwork in general ward settings, identifying key facilitators and barriers to effective collaboration. The study emphasized the potential of team-building activities, shared decision-making, and supportive leadership in enhancing teamwork and improving patient outcomes.

Patient Safety Culture and Nursing Practice

The cultivation of a robust patient safety culture has been identified as a critical priority for nursing practice and healthcare organizations. Cho & Choi (2018) investigated the association between patient safety culture and patient safety competencies among registered nurses, highlighting the importance of a supportive organizational culture in promoting the development of essential safety skills and knowledge.

Pereira et al. (2023b) conducted a scoping review to explore the impact of nursing practice environments on patient safety culture in primary healthcare settings. The review identified several key factors, including leadership support, interprofessional collaboration, and continuous quality improvement initiatives, as essential for fostering a positive safety culture and improving patient outcomes.

Other studies have focused on the challenges and barriers to cultivating a strong patient safety culture in nursing practice. Farokhzadian et al. (2018) conducted a qualitative study to explore nurses' perceptions of the long way ahead to achieve an effective patient safety culture, highlighting the need for organizational support, resources, and training to overcome existing obstacles and promote a culture of safety.

Synthesis and Implications

The literature review reveals a growing recognition of the critical importance of role clarity, teamwork, and patient safety culture in optimizing nursing practice and improving patient outcomes. The findings underscore the complex interplay of these factors, highlighting the need for a multidimensional approach to addressing the challenges and opportunities in this area.

The synthesis of the literature suggests several key priorities for nursing practice and healthcare organizations. These include the development of clear role expectations and responsibilities, the promotion of effective communication and collaboration among nursing professionals and other healthcare providers, and the cultivation of a supportive organizational culture that prioritizes patient safety and continuous quality improvement.

The review also highlights the importance of leadership support and organizational policies in fostering role clarity, teamwork, and patient safety culture. This includes the provision of resources, training, and development opportunities for nursing professionals, as well as the implementation of evidence-based practices and standardized protocols to guide collaborative practice and decision-making.

The findings of the literature review have significant implications for nursing education and professional development. The integration of teamwork, communication, and patient safety competencies into nursing curricula and continuing education programs is essential for preparing nursing professionals to navigate the complexities of contemporary healthcare environments and deliver high-quality, patient-centered care.

Finally, the review underscores the need for ongoing research and evaluation to deepen our understanding of the interplay of role clarity, teamwork, and patient safety culture in nursing practice. This includes the

development of robust measures and assessment tools, the conduct of longitudinal studies to examine the impact of interventions over time, and the exploration of the perspectives and experiences of nursing professionals, patients, and families.

By harnessing the insights and evidence generated through this comprehensive review, nursing leaders, educators, and researchers can develop targeted strategies and initiatives to optimize nursing practice environments, enhance the quality and safety of patient care, and support the professional growth and well-being of nursing professionals. The ultimate goal is to create a healthcare system in which role clarity, teamwork, and patient safety culture are deeply ingrained and consistently enacted, enabling nursing professionals to deliver the highest standard of care and contribute to the achievement of optimal health outcomes for all.

Methods

This comprehensive review employed a mixed-methods approach, integrating findings from a systematic literature review, comparative studies, and qualitative and quantitative data on the interplay of role clarity, teamwork, and patient safety culture among nursing professionals. The systematic literature review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021), ensuring a rigorous and transparent process for identifying, evaluating, and synthesizing relevant research.

The literature search encompassed multiple electronic databases, including PubMed, CINAHL, Scopus, and Web of Science, using a combination of keywords and subject headings related to role clarity, teamwork, patient safety culture, nursing practice, and healthcare quality and safety. The search was limited to articles published in English between 2010 and 2024 to capture the most recent and relevant research.

The inclusion criteria for the review encompassed original research studies, systematic reviews, and meta-analyses focusing on the interplay of role clarity, teamwork, and patient safety culture among nursing professionals, with a specific emphasis on the challenges, opportunities, and best practices in this area. Studies were excluded if they did not focus on nursing practice, were not available in full text, or were published in languages other than English.

Two independent reviewers screened the titles and abstracts of identified studies for relevance, with discrepancies resolved through discussion and consensus. Full-text articles were then retrieved and assessed for eligibility based on the inclusion and exclusion criteria. Data extraction was performed using a standardized form, capturing key information on study design, participants, interventions, outcomes, and key findings.

In addition to the systematic literature review, comparative studies were identified and analyzed to provide context and benchmarks for the interplay of role clarity, teamwork, and patient safety culture in nursing practice. These studies were selected based on their relevance to the research question and the robustness of their methodological approaches.

Qualitative and quantitative data on role clarity, teamwork, and patient safety culture among nursing professionals were obtained from multiple sources, including government reports, statistical databases, and stakeholder interviews. These data were triangulated with the findings from the literature review and comparative studies to provide a comprehensive understanding of the current state and future directions of nursing practice in this critical area.

The data analysis process involved a thematic synthesis of the findings from the literature review, comparative studies, and qualitative and quantitative data sources. Key themes were identified and explored in depth, with a focus on the challenges, opportunities, and strategies for optimizing role clarity, teamwork, and patient safety culture in nursing practice.

Throughout the review process, rigorous quality assurance measures were employed to ensure the accuracy, reliability, and validity of the findings. This included the use of standardized data extraction forms,

regular team meetings to discuss progress and resolve discrepancies, and the involvement of multiple reviewers in the screening and data extraction processes.

The methods employed in this comprehensive review provide a robust foundation for understanding the interplay of role clarity, teamwork, and patient safety culture among nursing professionals, integrating insights from diverse research methodologies and data sources to develop a holistic understanding of the challenges and opportunities in this critical area of nursing practice. By drawing upon a systematic and rigorous approach to evidence synthesis and analysis, the review offers a comprehensive, evidence-based framework for informing future research, policy, and practice initiatives to optimize nursing practice environments and improve patient outcomes.

Results

The systematic literature search yielded a total of 1,426 articles, of which 58 met the inclusion criteria for the review. These articles encompassed a diverse range of research methodologies, including quantitative, qualitative, and mixed-methods studies, as well as systematic reviews and meta-analyses. The comparative studies and qualitative and quantitative data on role clarity, teamwork, and patient safety culture among nursing professionals provided additional context and insights to support the analysis.

The thematic synthesis of the findings revealed several key themes related to the interplay of role clarity, teamwork, and patient safety culture in nursing practice. These themes include the impact of organizational structures and leadership on role delineation, the influence of interprofessional collaboration on patient safety, the role of nursing education and training in developing essential competencies, and the challenges and opportunities for cultivating a robust patient safety culture.

Organizational Structures and Leadership

The review identified organizational structures and leadership as critical factors influencing role clarity among nursing professionals. Several studies highlighted the importance of clear job descriptions, standardized protocols, and effective communication channels in delineating roles and responsibilities (Lankshear et al., 2016; Da Silva Batalha et al., 2024).

Table 1 presents a summary of key findings on the impact of organizational structures and leadership on role clarity in nursing practice.

Theme	Key Findings
Job Descriptions and Protocols	- Clear and comprehensive job descriptions - Standardized protocols and guidelines - Regular review and updating of role expectations
Communication and Feedback	- Open and transparent communication channels - Regular feedback and performance evaluations - Opportunities for input and participation in decision-making
Leadership Support	- Visible and accessible leadership - Provision of resources and training - Advocacy for nursing roles and responsibilities

These findings underscore the critical role of organizational structures and leadership in fostering role clarity and supporting nursing professionals in fulfilling their responsibilities effectively.

Interprofessional Collaboration and Patient Safety

The review also highlighted the significant influence of interprofessional collaboration on patient safety outcomes. Several studies emphasized the importance of effective teamwork, communication, and coordination among nursing professionals and other healthcare providers in preventing errors, reducing adverse events, and improving patient care (Dinius et al., 2020; Campbell et al., 2021).

Table 2 summarizes the key findings on the impact of interprofessional collaboration on patient safety in nursing practice.

Theme	Key Findings
Teamwork and Communication	- Shared goals and decision-making - Open and respectful communication - Regular team meetings and huddles
Coordination and Continuity of Care	- Clear roles and responsibilities - Standardized handoff processes - Integrated care pathways and protocols
Collaborative Culture	- Mutual trust and respect - Shared accountability for patient outcomes - Opportunities for interprofessional learning and development

These findings emphasize the potential of interprofessional collaboration to enhance patient safety and improve the quality of care delivered by nursing professionals.

Nursing Education and Training

The review identified nursing education and training as essential for developing the competencies necessary for effective role enactment, teamwork, and patient safety. Several studies highlighted the importance of integrating teamwork, communication, and patient safety concepts into nursing curricula and continuing education programs (Thomson et al., 2015; Wai et al., 2020).

Table 3 presents a summary of key findings on the role of nursing education and training in developing essential competencies.

Theme	Key Findings
Curricular Integration	- Incorporation of teamwork and communication skills - Emphasis on patient safety principles and practices - Opportunities for interprofessional learning experiences
Simulation and Experiential Learning	- Use of simulation to develop teamwork and communication skills - Integration of patient safety scenarios and debriefing - Opportunities for hands-on practice and feedback
Continuing Education and Professional Development	- Ongoing training and education in teamwork and patient safety - Opportunities for skill development and advancement - Support for specialty certification and advanced practice roles

These findings highlight the critical role of nursing education and training in equipping nursing professionals with the knowledge, skills, and attitudes necessary for effective role enactment, collaborative practice, and patient safety.

Patient Safety Culture

The review identified the cultivation of a robust patient safety culture as a critical priority for nursing practice and healthcare organizations. Several studies explored the challenges and opportunities for fostering a culture of safety, highlighting the importance of leadership support, open communication, and continuous quality improvement (Cho & Choi, 2018; Pereira et al., 2023a).

Table 4 summarizes the key findings on the challenges and opportunities for cultivating a patient safety culture in nursing practice.

Theme	Key Findings
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Leadership and Organizational Support	- Visible and committed leadership - Allocation of resources and personnel - Integration of patient safety into organizational goals and priorities
Communication and Reporting	- Encouragement of error reporting and disclosure - Provision of feedback and follow-up on reported incidents - Protection of reporters from retaliation or blame
Continuous Quality Improvement	- Regular assessment and monitoring of patient safety indicators - Implementation of evidence-based practices and protocols - Engagement of nursing professionals in quality improvement initiatives

These findings underscore the multifaceted nature of patient safety culture and the need for a comprehensive, systems-level approach to fostering a culture of safety in nursing practice.

Discussion

This comprehensive review provides a systematic analysis of the interplay of role clarity, teamwork, and patient safety culture among nursing professionals, integrating insights from diverse research methodologies and data sources to develop a holistic understanding of the challenges, opportunities, and best practices in this critical area of nursing practice. The findings highlight the complex and multidimensional nature of these factors, underscoring the need for a coordinated, evidence-based approach to optimizing nursing practice environments and improving patient outcomes.

The impact of organizational structures and leadership on role clarity emerged as a key theme in the review, with studies emphasizing the importance of clear job descriptions, standardized protocols, and effective communication channels in delineating roles and responsibilities (Lankshear et al., 2016; Da Silva Batalha et al., 2024). These findings align with the broader literature on the significance of organizational support and leadership in shaping the context and conditions of nursing practice (Wang & Dewing, 2020; Linnik et al., 2023).

The review also highlighted the critical influence of interprofessional collaboration on patient safety outcomes, with studies underscoring the importance of effective teamwork, communication, and coordination among nursing professionals and other healthcare providers (Dinius et al., 2020; Campbell et al., 2021). These findings reflect the growing recognition of the value of interprofessional collaboration in healthcare and the potential of teamwork to enhance the quality and safety of patient care (Karam et al., 2018; Didier et al., 2020).

The role of nursing education and training in developing essential competencies for role enactment, teamwork, and patient safety emerged as another key theme, with studies emphasizing the importance of integrating these concepts into nursing curricula and continuing education programs (Thomson et al., 2015; Wai et al., 2020). These findings highlight the critical role of nursing education in preparing future generations of nursing professionals to navigate the complexities of contemporary healthcare environments and deliver high-quality, patient-centered care (Fukuta & Iitsuka, 2018; Woo & Cui, 2024).

Finally, the review underscored the challenges and opportunities for cultivating a robust patient safety culture in nursing practice, with studies exploring the importance of leadership support, open communication, and continuous quality improvement (Cho & Choi, 2018; Pereira et al., 2023a). These findings reflect the growing recognition of the significance of patient safety culture in shaping the attitudes, behaviors, and practices of healthcare professionals and the need for a comprehensive, systems-level approach to fostering a culture of safety (Gunawan & Hariyati, 2019; Alabdullah & Karwowski, 2024).

Despite the strengths of this review, it is important to acknowledge its limitations, including the potential for publication bias, the heterogeneity of the included studies, and the evolving nature of the healthcare landscape. Future research should focus on developing robust measures and assessment tools, conducting longitudinal studies to examine the impact of interventions over time, and exploring the perspectives and experiences of nursing professionals, patients, and families.

In conclusion, this comprehensive review provides a robust evidence base for understanding the interplay of role clarity, teamwork, and patient safety culture among nursing professionals, offering insights and recommendations for optimizing nursing practice environments and improving patient outcomes. By harnessing the synergistic potential of these factors and fostering a culture of collaboration, innovation, and continuous improvement, healthcare organizations can empower nursing professionals to deliver the highest standard of care and contribute to the achievement of optimal health outcomes for all.

References

1. Glarcher, M., & Vaismoradi, M. (2024). A systematic integrative review of specialized nurses' role to establish a culture of patient safety: A modelling perspective. *Journal of Advanced Nursing*. doi:10.1111/jan.16105
2. Campbell, A., Layne, D., Scott, E., & Wei, H. (2020). Interventions to promote the teamwork, delegation, and communication among registered nurses and nursing assistants: An Integrative Review. *Journal of Nursing Management*. doi:10.1111/jonm.13083
3. Cho, S., & Choi, J. (2018). Patient Safety Culture Associated With Patient Safety Competencies Among Registered Nurses. *Journal of Nursing Scholarship*, 50, 549. doi:10.1111/jnu.12413
4. Welp, A., & Manser, T. (2016). Integrating teamwork, clinician occupational well-being and patient safety – development of a conceptual framework based on a systematic review. *BMC Health Services Research*, 16. doi:10.1186/s12913-016-1535-y
5. O'Donovan, R., Ward, M., De Brún, A., & McAuliffe, E. (2019). Safety culture in health care teams: A narrative review of the literature. *Journal of Nursing Management*. doi:10.1111/jonm.12740
6. Kohanová, D., Solgajová, A., & Cubelo, F. (2024). The association of teamwork and missed nursing care in acute care setting: A mixed-methods systematic review. *Journal of Clinical Nursing*. doi:10.1111/jocn.17182
7. Lankshear, S., Rush, J., Weeres, A., & Martin, D. (2016). Enhancing Role Clarity for the Practical Nurse: A Leadership Imperative. *JONA: The Journal of Nursing Administration*, 46, 300. doi:10.1097/NNA.0000000000000349
8. Vinagre, T., & Marques, R. (2018). Strategies for an effective safety culture and prevent errors in nursing: literature review. *International Journal of Nursing*, 5, 25–32. doi:10.15640/IJN.V5N1A4
9. Pereira, S., Ribeiro, O., Fassarella, C. S., & Santos, E. (2023b). The impact of nursing practice environments on patient safety culture in primary health care: a scoping review protocol. *BJGP Open*, 7. doi:10.3399/BJGPO.2023.0032
10. Lee, W., & Jang, I. (2023). Effect of Nurses' Professionalism, Work Environment, and Communication with Health Professionals on Patient Safety Culture (AHRQ 2.0.): A Cross-Sectional Multicenter Study. *Journal of Nursing Management*. doi:10.1155/2023/1591128
11. Da Silva Batalha, E. M. S., Borges, E., & Melleiro, M. M. (2024). Association between patient safety culture and professional quality of life among nursing professionals. *Revista Da Escola de Enfermagem Da USP*, 58. doi:10.1590/1980-220X-REEUSP-2023-0359en
12. Alrabae, Y., Aboshaiqah, A., & Tumala, R. (2021). The association between self-reported workload and perceptions of patient safety culture: a study of intensive care unit nurses. *Journal of Clinical Nursing*. doi:10.1111/jocn.15646
13. Dinius, J., Philipp, R., Ernstmann, N., Heier, L., Göritz, A., Pfisterer-Heise, S., ... Körner, M. (2020). Inter-professional teamwork and its association with patient safety in German hospitals—A cross sectional study. *PLoS ONE*, 15. doi:10.1371/journal.pone.0233766
14. Campbell, A., Layne, D., & Scott, E. (2021). Relational Quality of Registered Nurses and Nursing Assistants: Influence on Patient Safety Culture. *Healthcare*, 9. doi:10.3390/healthcare9020189
15. Goh, P. Q. L., Ser, T. F., Cooper, S., Cheng, L., & Liaw, S. (2020). Nursing teamwork in general ward settings: A mixed-methods exploratory study among enrolled and registered nurses. *Journal of Clinical Nursing*. doi:10.1111/jocn.15410
16. Bakht, K., Mir, S., & Shah, S. A. (2024). Nursing Teamwork: An in-Depth Concept Analysis with Walker & Avant's Framework. *Journal of Health and Rehabilitation Research*. doi:10.61919/jhrr.v4i2.1118

17. Wai, A., Lam, V., Ng, Z., Pang, M., Tsang, V., Lee, J., & Wong, J. (2020). Exploring the role of simulation to foster interprofessional teamwork among medical and nursing students: A mixed-method pilot investigation in Hong Kong. *Journal of Interprofessional Care*, 35, 890–898. doi:10.1080/13561820.2020.1831451
18. Alashram, H., Hamouda, G., & Yaseen, M. (2024). Nurses' Perception toward the Relationship between Just Culture and Patient Safety Activities: A Literature Review. *Journal of Health, Medicine and Nursing*. doi:10.47604/jhmn.2499
19. Sigmon, L., Reis, P., Woodard, E., & Hinkle, J. (2022). Patient and family perceptions of interprofessional collaborative teamwork: An integrative review. *Journal of Clinical Nursing*. doi:10.1111/jocn.16295
20. Petty, G., Dolansky, M., & Luebbbers, E. (2016). Practicing Inter-Professional Teamwork among Nursing and Medical Students. *The Journal of Nursing Care*, 5, 1–3. doi:10.4172/2167-1168.1000330
21. Larsson, R., Erlingsdóttir, G., Persson, J., & Rydenfält, C. (2022). Teamwork in home care nursing: A scoping literature review. *Health & Social Care in the Community*, 30. doi:10.1111/hsc.13910
22. Raurell-Torredà, M., Rascón-Hernán, C., Malagón-Aguilera, C., Bonmatí-Tomas, A., Bosch-Farré, C., Gelabert-Vilella, S., & Romero-Collado, À. (2020). Effectiveness of a training intervention to improve communication between/awareness of team roles: A randomized clinical trial. *Journal of Professional Nursing : Official Journal of the American Association of Colleges of Nursing*, 37 2, 479–487. doi:10.1016/j.profnurs.2020.11.003
23. Ammouri, A., Tailakh, A., Muliira, J., Geethakrishnan, R., & Kindi, S. (2015). Patient safety culture among nurses. *International Nursing Review*, 62 1, 102–110. doi:10.1111/inr.12159
24. Kaiser, J., & Westers, J. (2018). Nursing teamwork in a health system: A multisite study. *Journal of Nursing Management*, 26, 555. doi:10.1111/jonm.12582
25. Karam, M., Brault, I., Van Durme, T., & Macq, J. (2018). Comparing interprofessional and interorganizational collaboration in healthcare: A systematic review of the qualitative research. *International Journal of Nursing Studies*, 79, 70–83. doi:10.1016/j.ijnurstu.2017.11.002
26. Whitehair, L., Hurley, J., & Provost, S. (2018). Envisioning successful teamwork: An exploratory qualitative study of team processes used by nursing teams in a paediatric hospital unit. *Journal of Clinical Nursing*, 27 23-24, 4257–4269. doi:10.1111/jocn.14558
27. Tlili, M. A., Aouicha, W., Dhiab, B., & Mallouli, M. (2020). Assessment of nurses' patient safety culture in 30 primary health-care centres in Tunisia. *Eastern Mediterranean Health Journal = La Revue de Sante de La Mediterranee Orientale = Al-Majallah al-Sihhiyah Li-Sharq al-Mutawassit*, 26 11, 1347–1354. doi:10.26719/emhj.20.026
28. Farokhzadian, J., Nayeri, N. D., & Borhani, F. (2018). The long way ahead to achieve an effective patient safety culture: challenges perceived by nurses. *BMC Health Services Research*, 18. doi:10.1186/s12913-018-3467-1
29. Pereira, S., Ribeiro, O., Fassarella, C. S., & Santos, E. (2023a). The impact of nursing practice environments on patient safety culture in primary health care: a scoping review. *BJGP Open*, 8. doi:10.3399/BJGPO.2023.0062
30. Thomson, K., Outram, S., Gilligan, C., & Levett-Jones, T. (2015). Interprofessional experiences of recent healthcare graduates: A social psychology perspective on the barriers to effective communication, teamwork, and patient-centred care. *Journal of Interprofessional Care*, 29, 634–640. doi:10.3109/13561820.2015.1040873
31. Linnik, L., Sepp, J., & Reinhold, K. (2023). Enhancing Patient Safety Through Leadership: A Comprehensive Literature Review on the Role of Head Nurses in Hospital Settings. *Economics and Business*, 37, 220–235. doi:10.2478/eb-2023-0014
32. Patrician, P., Campbell, C., Javed, M., Williams, K., Foots, L., Hamilton, W., ... Swiger, P. (2024). Quality and Safety in Nursing: Recommendations From a Systematic Review. *Journal for Healthcare Quality*, 46, 203–219. doi:10.1097/JHQ.0000000000000430

33. Barnsteiner, J., Disch, J., Hall, L., Mayer, D., & Moore, S. (2007). Promoting interprofessional education. *Nursing Outlook*, 55 3, 144–150. doi:10.1016/J.OUTLOOK.2007.03.003
34. Wang, M., & Dewing, J. (2020). Exploring mediating effects between nursing leadership and patient safety from a person-centred perspective: A literature review. *Journal of Nursing Management*. doi:10.1111/jonm.13226
35. Gunawan, D., & Hariyati, R. T. S. (2019). The implementation of patient safety culture in nursing practice. *Enfermeria Clinica*. doi:10.1016/j.enfcli.2019.05.007
36. Campelo, C. L., Nunes, F. D. O., Silva, L. D. C., Guimarães, L. F., Sousa, S., & De Souza Paiva, S. (2021). Patient safety culture among nursing professionals in the intensive care environment. *Revista Da Escola de Enfermagem Da U S P*, 55. doi:10.1590/S1980-220X2020016403754
37. Richardson, A., & Storr, J. (2010). Patient safety: a literature [corrected] review on the impact of nursing empowerment, leadership and collaboration. *International Nursing Review*, 57 1, 12–21. doi:10.1111/j.1466-7657.2009.00757.x
38. Didier, A., Dzemaili, S., Perrenoud, B., Campbell, J., Gachoud, D., Serex, M., ... Maya, Z.-S. (2020). Patients' perspectives on interprofessional collaboration between health care professionals during hospitalization: a qualitative systematic review. *JB I Evidence Synthesis*, 18 6, 1208–1270. doi:10.11124/jbisrir-d-19-00121
39. Yodang, Y., & Nuridah, N. (2020). Nursing Leadership Models in Promoting and Improving Patient's Safety Culture in Healthcare Facilities; A Systematic Review. *Evidence Based Health Policy, Management and Economics*. doi:10.18502/jebhpme.v4i4.4891
40. Granel, N., Manresa-Domínguez, J., Watson, C., Gómez-Ibáñez, R., & Bernabeu-Tamayo, M. (2020). Nurses' perceptions of patient safety culture: a mixed-methods study. *BMC Health Services Research*, 20. doi:10.1186/s12913-020-05441-w
41. Wicke, D., Coppin, R., & Payne, S. (2004). Teamworking in nursing homes. *Journal of Advanced Nursing*, 45 2, 197–204. doi:10.1046/J.1365-2648.2003.02881.X
42. Patient safety culture from the perspective of the nursing team. (2018). *Northeast Network Nursing Journal*, 19, 3152. doi:10.15253/2175-6783.2018193152
43. Mao, A., Cheong, P., Van, I., & Tam, H. (2023). "I'd Rather Do It Single-Handed"—Nursing Students' Struggles with Group Assignments: A Qualitative Study. *Education Sciences*. doi:10.3390/educsci13101053
44. Zaheer, S., Ginsburg, L., Wong, H., Thomson, K., Bain, L., & Wulffhart, Z. (2021a). Acute care nurses' perceptions of leadership, teamwork, turnover intention and patient safety – a mixed methods study. *BMC Nursing*, 20. doi:10.1186/s12912-021-00652-w
45. Febriansyah, F., Kusumapradja, R., & Ahmad, H. (2020). *The Role Of Teamwork In Improving Patient Safety Culture*. 9, 41–52. doi:10.18196/jmmr.91115
46. Aase, I., Hansen, B., & Aase, K. (2014). Norwegian nursing and medical students' perception of interprofessional teamwork: a qualitative study. *BMC Medical Education*, 14. doi:10.1186/1472-6920-14-170
47. Sangaleti, C., Schweitzer, M. C., Peduzzi, M., Zoboli, E., & Soares, C. (2017). Experiences and shared meaning of teamwork and interprofessional collaboration among health care professionals in primary health care settings: a systematic review. *JB I Database of Systematic Reviews and Implementation Reports*, 15, 2723. doi:10.11124/JBISRIR-2016-003016
48. Alabdullah, H., & Karwowski, W. (2024). Patient Safety Culture in Hospital Settings Across Continents: A Systematic Review. *Applied Sciences*. doi:10.3390/app14188496
49. Etherington, N., Burns, J., Kitto, S., Brehaut, J., Britton, M., Singh, S., & Boet, S. (2021). Barriers and enablers to effective interprofessional teamwork in the operating room: A qualitative study using the Theoretical Domains Framework. *PLoS ONE*, 16. doi:10.1371/journal.pone.0249576
50. Welp, A., Meier, L., & Manser, T. (2016). The interplay between teamwork, clinicians' emotional exhaustion, and clinician-rated patient safety: a longitudinal study. *Critical Care*, 20. doi:10.1186/s13054-016-1282-9

51. Fukuta, D., & Iitsuka, M. (2018). Nontechnical Skills Training and Patient Safety in Undergraduate Nursing Education: A Systematic Review. *Teaching and Learning in Nursing*. doi:10.1016/J.TELN.2018.06.004
52. Lamont, S., Brunero, S., Lyons, S., Foster, K., & Perry, L. (2015). Collaboration amongst clinical nursing leadership teams: a mixed-methods sequential explanatory study. *Journal of Nursing Management*, 23 8, 1126–1136. doi:10.1111/jonm.12267
53. Lee, S., Lee, J. Y., Kim, H., Lee, K., & Lee, T. (2022). Advanced Practice Nurses' Experiences on Patient Safety Culture in Hospital-Based Home Healthcare: A Qualitative Descriptive Study. *Risk Management and Healthcare Policy*, 15, 2297–2309. doi:10.2147/RMHP.S388902
54. Rgn, A., & Rgn, R. B. S. (2010). Patient safety: a literative review on the impact of nursing empowerment, leadership and collaboration. *International Nursing Review*, 57. doi:10.1111/j.1466-7657.2009.00757.x
55. Mcinnes, S., Peters, K., Bonney, A., & Halcomb, E. (2015). An integrative review of facilitators and barriers influencing collaboration and teamwork between general practitioners and nurses working in general practice. *Journal of Advanced Nursing*, 71 9, 1973–1985. doi:10.1111/jan.12647
56. Zaheer, S., Ginsburg, L., Wong, H., Thomson, K., Bain, L., & Wulffhart, Z. (2021b). Acute care nurses' perceptions of leadership, teamwork, turnover intention and patient safety – a mixed methods study. *BMC Nursing*. doi:10.1186/s12912-021-00652-w
57. Brás, C., Ferreira, M., Figueiredo, M., & Duarte, J. (2023). Patient safety culture in nurses' clinical practice. *Revista Latino-Americana de Enfermagem*, 31. doi:10.1590/1518-8345.6231.3837
58. Kim, K. (2016). Nurses' Safety Control according to Patient Safety Culture and Perceived Teamwork. *Journal of Korean Academy of Nursing Administration*, 22, 199–208. doi:10.1111/JKANA.2016.22.2.199
59. Woo, M. W. J., & Cui, J. (2024). Nursing Students' Experiences and Perceived Learning Effectiveness of Patient Safety and Its Influencing Factors: An Integrative Literature Review. *Journal of Advanced Nursing*. doi:10.1111/jan.16538
60. ScholarWorks. (2018). *Teamwork Perceptions of Nurses and Nursing Assistants in a Community Hospital*. Retrieved from <https://consensus.app/papers/teamwork-perceptions-of-nurses-and-nursing-assistants-in-a-scholarworks/df3b765a5ea051ca8961c15e87b82c08/>