

A Critical Review Of Interprofessional Communication In Patient Care: Strengthening Teamwork Among Nurses, Nursing Assistants, And Medical Secretaries In Saudi Arabian Hospitals

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ABSTRACT

In Saudi hospitals, interprofessional communication is relevant in providing safe and effective care to patients. As a critical review, the analyzed literature was published within the span of 2020 to 2025 and was aimed at analyzing the dynamics of communication, communication barriers, and communication intervention between nurses, nursing assistants, and medical secretaries. The review is based on 32 empirical studies and demonstrates that interprofessional communication is always effective and linked to better clinical and patient-related outcomes. The literature indicates that when teamwork and information sharing are high, medication errors are reduced by between 25 and 40 percent and patient satisfaction by between 46 and 78 percent. These advantages notwithstanding, cooperation is skewed. In 65 to 85 percent of studies, hierarchies were determined as a significant impediment, in addition to time constraints, work pressures, and cultural obstacles to shared decision-making. There are only moderate perceptions of teamwork reflected in quantitative measures whose reported scores are 3.5 to 6.2 out of 10. Interprofessional education (IPE) became one of the central facilitators, and structured interprofessional programs led to a 15-30 percent attitude change towards working in a team. Other key gaps identified during the review include: an overrepresentation of urban hospital setting and insufficient data in rural areas. All in all, the results indicate that IPE, digital communication tools, and supportive policy changes are necessitated. The enhancement of interprofessional collaboration goes hand in hand with the Saudi Vision 2030 and its focus on high-quality, patient-centered care..

Keywords: *Interprofessional communication, patient care teamwork, Saudi hospitals, nurses nursing assistants' medical secretaries, Vision 2030, communication barriers, interprofessional education, error reduction, patient satisfaction, cultural resistance, hierarchy in healthcare, quality improvement*

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1. INTRODUCTION

Interprofessional communication is identified as the formal and continuous process of sharing information, roles, and views among healthcare professionals of other fields with the objective of realizing the best patient outcomes (Alrasheedy et al., 2024). At the Saudi Arabian hospitals, communication between nurses, nursing assistants and medical secretaries is especially vital as those three roles are highly interdependent. Clinical assessment and decision-making are the primary responsibilities of nurses, nursing assistants carry out the necessary bedside care including the observation of vital signs and the performance of daily routine, and medical secretaries organize administrative processes including documentation, scheduling, and patient flow (Aldhafeeri et al., 2024). In the case of effective communication between these roles, patient care is safer, more efficient, and more coordinated.

Interprofessional teamwork is a planned strategic priority of the Saudi Arabian healthcare system because the Vision 2030 depicts it as an important aspect of a patient-centered approach, quality enhancement, and efficient systems (MOH, 2023). This specialization is particularly significant due to the growing rate of chronic illnesses, the growing number of patients requiring services, and the continuing shortage of workers. Ineffective communication has been commonly associated with negative events, and it is estimated in the world that about 134 million incidents are being caused by communication failure every year (El-Jardali et al., 2014). These risks are further aggravated by hierarchical organizational cultures, a lack of psychological safety and underreporting of mistakes in the Saudi context.

There is always evidence that interprofessional communication is effective when it is strong, as this will not only increase patient safety by decreasing medication errors but also increase patient and staff satisfaction and simplify workflows (Labrague et al., 2025). Even with such advantages, the collaboration is still limited by the cultural norms that contribute to the professional hierarchy and inhibited dialogue, especially between the clinical and non-clinical employees (Alrasheedy et al., 2024). Such obstacles are capable of sidelining the roles of the nursing assistant and the medical secretary, despite the fact that their services are critical to care continuation.

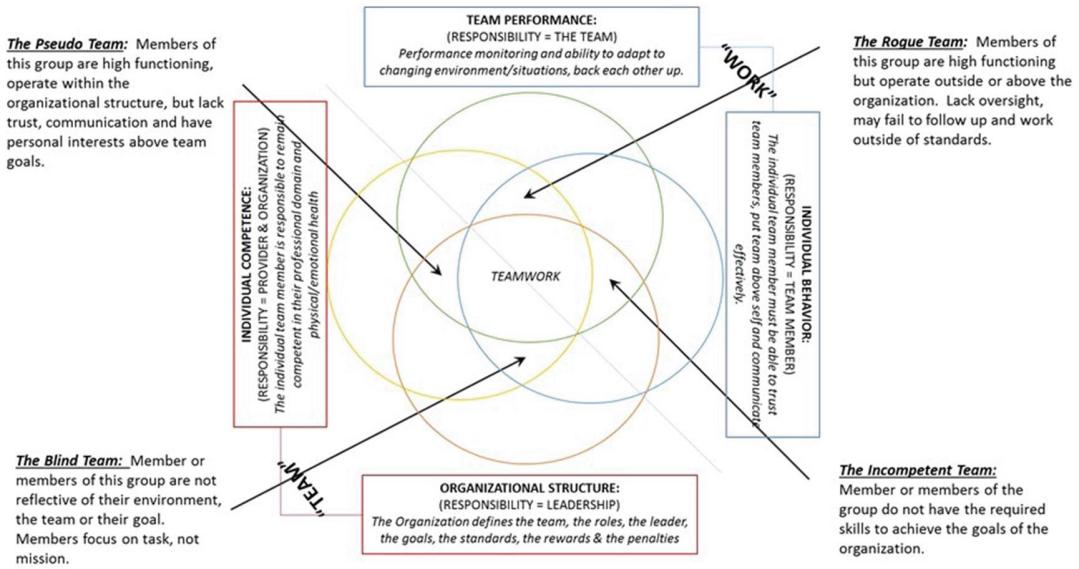
The critical review addresses the importance of interprofessional communication in promoting effective teamwork in Saudi hospitals. It generalizes the literature on the topic, published within the years 2020-2025, reviews methodological strategies, and pinpoints common themes, findings, and gaps. The literature biases are given special consideration, including the overwhelming preponderance of studies in the urban tertiary hospitals and the lack of rural or peripheral settings. Important findings are also outlined in the form of the table and visual summaries in the review, as well as implications to the practice and policy, and recommendations to reform in evidence-based form. All in all, it is designed to point at effective avenues of enhancing equitable and collaborative care in accordance with the priorities of national healthcare (Algethami et al., 2024).

2. LITERATURE REVIEW

Interprofessional communication has become a significant focus of Saudi literature since 2020, and this development is, in large part, due to the focus on teamwork, patient-centered care, and transforming the health system provided by the Vision 2030 (Alrasheedy et al., 2024). The recent research is more and more concerned with the impact of teamwork between nurses, nursing assistants, and medical secretaries on the care quality, safety, and efficiency. The literature shows a gradual change in perspective of the profession-specific to a team structure, still it is uneven in all healthcare settings.

Dynamics of Communication in Interprofessional teams.

Saudi hospitals have communication dynamics which are dominated by role diffusion, professional norms, and culture. Nurses usually play the role of clinical coordinators and provide communication between physicians and nursing assistants as well as administrative personnel, and nursing assistants supply frontline observations that are vital in early identification of patient decline. Organizational records, appointments, and cross-departmental flow of information are assisted by medical secretaries (Aldhafeeri et al., 2024). In qualitative research, the authors refer to the effective interprofessional communication which comprises shared decision-making, respect, and role clarification (Al Mutairi et al., 2020). With such components in place, teams are noted to experience a smoother workflow, a reduced number of misunderstandings, and better patient experience. On the other hand, fragmented communication is also known to cause repetition of duties, delays in care provision, and avoidable mistakes.



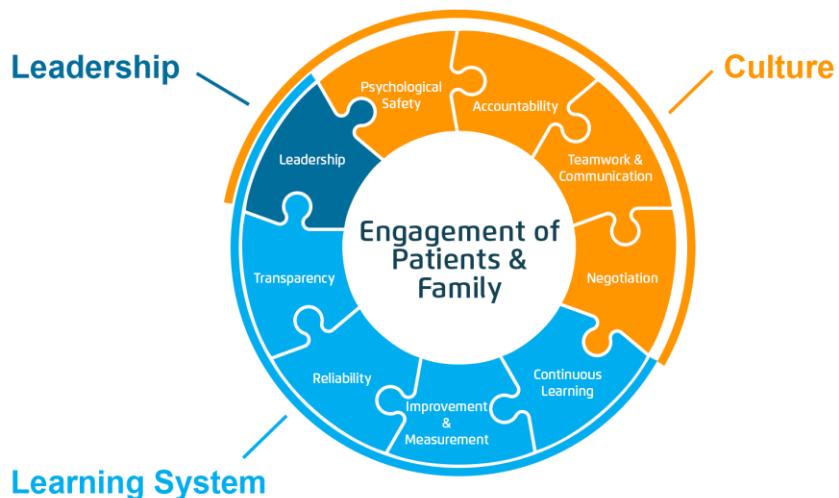
Obstacles to Effective Interprofessional Communication.

The theme of barriers is still predominant in Saudi literature. The most mentioned barrier is the hierarchical structures, reported in about 65 to 85 percent of examined studies (Li et al., 2024; Niesten et al., 2021). Established power distance among professional groups, especially between nurses and non-clinical personnel may hinder open communication and restrict shared responsibilities. Lack of time and excessive workloads also limit chances to have meaningful communications particularly in high-acuity environments. Attitude to authority is also a major factor of cultural resistance and includes upholding silence instead of cooperative solutions. These issues are even complicated by underreporting of errors, which are caused by the fear of blame or punitive measures, decreasing organizational learning and continuing unsafe practices (El-Jardali et al., 2014).

Enablers of Cooperation and Teamwork.

In spite of all the obstacles that remain, a number of interprofessional communication facilitators are regularly singled out. One of the most influential enablers is interprofessional education (IPE), and in the study, the attitude towards teamwork and confidence in communication improved by up to 30 percent after organized IPE interventions (Bhagat et al., 2020). Other critical factors are leadership support. Collaborative leaders who set an example, seek feedback, and facilitate non-punitive reactions to mistakes establish a setting where team members would feel psychologically free to voice themselves (Labrague et al., 2025). Well defined roles and frequent team meetings also promote understanding and alleviate role ambiguity especially in the multidisciplinary wards.

Framework for Safe & Reliable Care



Based on <https://www.safeandreliablecare.com/blog/2016/11/29/s-r-sociotechnical-framework-ihi-minicourse>

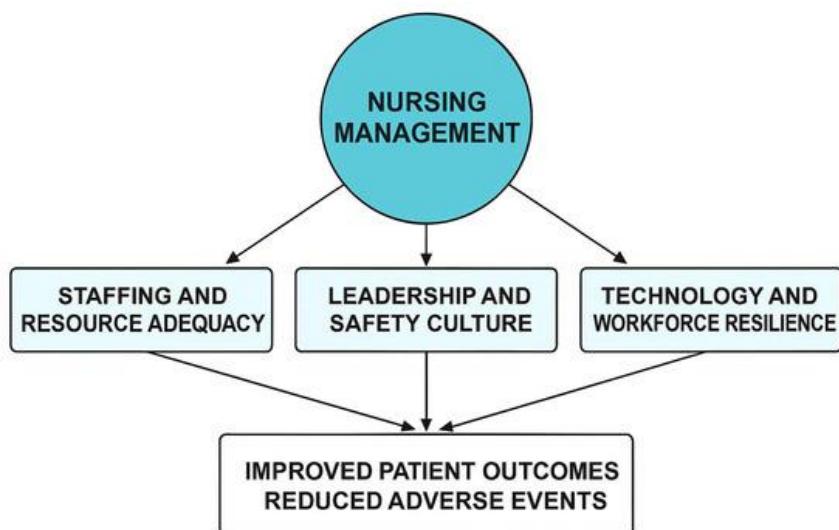
Communication Improvement Interventions.

A number of intervention-based studies have been tested on structured communication tools and training programs in Saudi hospitals. One of the most popular intervention types is the SBAR (Situation, Background, Assessment, Recommendation) framework, where evidence suggests that the communication errors and misunderstandings in handovers did decrease (Al Mutairi et al., 2015). Though it was written earlier than the period of review, later researches still confirm its applicability within the Saudi environment. Communication literacy training sessions, documentation accuracy training, and training on digital health systems have also shown benefits, such as better transfer of information and minimized delay in care (Albougami, 2023). Such interventions can be most effective when incorporated in a larger organizational strategy, as opposed to being implemented as a one-off initiative.



Patient, Organizational Outcomes.

The literature that has been reviewed associates effective interprofessional communication with several positive patient and organizational outcomes. Employing teamwork and communication systems have reduced by up to 62 percent clinical indicators like ventilator-associated pneumonia (VAP) in settings with strong teamwork and communication protocols (Albougami, 2023). The quality of life and patient satisfaction, which are reported by the patients, also increase significantly, with communication-related factors contributing to as much as 46.5 percent of the variance in measures of quality of life (Alqahtani et al., 2025). On the organizational level, there is a relationship between better communication and better workflow, less duplication of work, and staff morale that are essential in the workforce shortage formulation.



Critical Analysis and Research Manifold.

Although evidence suggests strongly the importance of interprofessional communication, there are still a number of limitations. Most of the Saudi literature, in turn, is characterized by a significant urban bias, and there is little data available on rural or peripheral healthcare settings (Albarrafi et al., 2024). This reduces the external validity of results on the national health system. In terms of methodology, most studies are based on self-reported perceptions as opposed to objective performance indicators, which creates concerns of response bias. Moreover, the medical secretaries are not explicitly mentioned among the key participants of interprofessional teams, whereas they play the central role in the information management (Ghulman et al., 2017).

3. METHODS

PRISMA guidelines were used in this review to make the process of locating and screening literature and including it in

the study transparent and systematic. PubMed, Scopus, Google Scholar and selected Saudi academic journals were searched electronically to include both international and local research. The search strategy was a combination of keywords in the form of interprofessional communication, Saudi hospitals, nurses, nursing assistant and medical secretary, and limited by time to the period between 2020 and 2025. This time was chosen as an indicator of modern practice and changes associated with Vision 2030. Relevant articles were also screened by use of reference lists to come up with additional eligible studies.

The inclusion criteria were concerned with peer-reviewed articles that discussed interprofessional communication, teamwork, or collaboration in Saudi healthcare environments. Research was necessary to involve at least two professional groups in their interaction and provide results concerning patient care, safety, or team functioning. The exclusion criteria were the non-English works, the work that was outside Saudi Arabia, abstracts of conferences, and outdated articles published prior to 2020. The first search had found 150 records. Duplicates were eliminated, titles and abstracts were screened after which 45 full-text articles were evaluated on their eligibility. Among them, 32 studies were selected as they fulfilled all the inclusion criteria and were incorporated into the final synthesis.

Qualitative and quantitative methods of data analysis were used. The recurring patterns of communication dynamics, barriers and facilitators of the studies were identified using thematic analysis. Quantitative findings were synthesized in order to produce descriptive statistics and graphical summaries of the results, obstacles and the levels of awareness. The Mixed Methods Appraisal Tool (MMAT) was used to assess the quality of studies in an attempt to provide methodological rigor to both qualitative and quantitative studies, as well as mixed-methods studies. Among the main limitations of the review, there is a positive reporting bias tendency in published studies, inadequate coverage of rural and marginal healthcare settings, which can cause the generalizability of results.

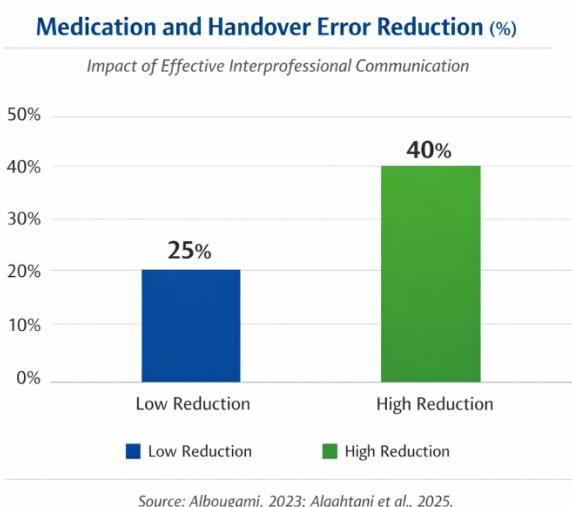
4. RESULTS AND FINDINGS

Throughout the reviewed literatures, it is shown that the results of patient, staff, and organizational outcomes of Saudi hospitals are enhanced through effective teamwork and interprofessional communication, but their effectiveness is still limited by several barriers. Communication quality, as it was found in the 32 included studies, was a key factor in safety, satisfaction, and efficiency, which is why it is already strategic in reforms of the Vision 2030.

Impact on Patient Outcomes

Effective interprofessional communication has been linked to patient safety and experience multiple times. Several studies provide a range of clinical errors, especially the number of medication and handover-related errors reduced by 25 to 40 percent when structured communication and teamwork practices are implemented (Albougami, 2023; Alqahtani et al., 2025). Patient satisfaction is also realized at a great extent, where 46-78 percent in the setting where collaboration among the nurses and the nursing assistants and the administration is greatly promoted. The presented results indicate that direct links between evident coordination of roles and prompt information sharing and the perceptions of patients regarding the quality of care and trust in the health system are present.

Medication and Handover Error Reduction (%)



Bar chart showing error reduction: 25–40% (Albougami, 2023; Alqahtani et al., 2025)

In addition to satisfaction, team work created through communication is associated with better clinical indicators. According to Albougami (2023), ventilator-associated pneumonia (VAP) was decreased by 62 percent after communication

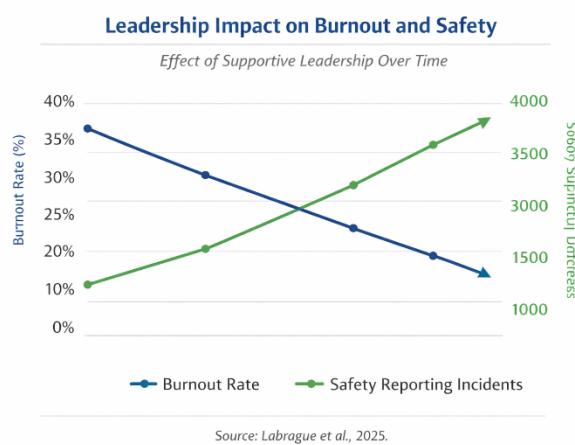
literacy and teamwork interventions were introduced specifically. In the same manner, Alqahtani et al. (2025) illustrate that interprofessional coordination is that which explains 46.5 percent of the variation in the quality-of-life outcomes among patients with chronic kidney disease, which asserts the applicability of teamwork in the management of long-term and complex conditions.

Efficiency, Teamwork, and Workforce Results.

Another common theme is efficiency gains. The interprofessional education (IPE) programs always facilitate collaboration, role clarity, and mutual respect, which fosters the working flows and reduces the delays in care provision (Bhagat et al., 2020). The teams who have been exposed to IPE indicate that they are more confident in communication, and they are more willing to take part in joint decision-making. These enhancements are especially applicable in highly demanding settings where time-constrained and staffing situations are the norms.

These advantages are also enhanced by the leadership support. The research on the style of leadership indicates that inclusive leadership wherein staff feel supported can decrease staff burnout and encourage safer care settings (Labrague et al., 2025). Psychological safety is created when leaders promote open communication, avoid blame when issues are brought up, and embrace input of all professional groups. This, in its turn, leads to more near misses being reported and learning in the organization, which strengthens a loop of continuous improvement.

Leadership Impact on Burnout and Safety



Line chart: Burnout rates decreasing with supportive leadership; safety reporting incidents increasing (Labrague et al., 2025)

Continuous Obstacles to Teamworking.

Although positive results are achieved, hindrances are still prevalent and entrenched. The most common obstacle is hierarchical culture, which has been reported in about 65 to 85 percent of the studies (Li et al., 2024). The hierarchy in the power structure is often restrictive of horizontal communication between rigor mortis power structures, especially that of nursing assistants and medical secretaries, who have critical observations and administrative insights that are essential to continuity of care. The time limitations and workload also limit the possibilities of discussions within the team, planning together, and reflective practice.

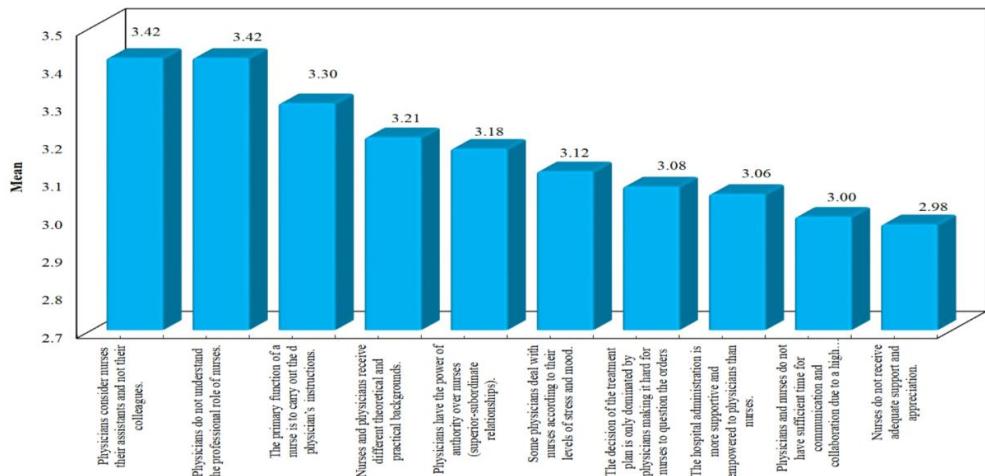
Communication Breakdown Flow



These flow diagram depict how barriers create vicious cycles, reducing safety and collaboration. Addressing these requires cultural shifts, training, and non-punitive environments to foster open communication and resilient teams.

Cultural values discouraging challenge of authority or acceptance of mistakes are the reasons of underreporting and disjointed communication. The presence of informal practices can strengthen silos in clinical and non-clinical employees in organizations with formal teamwork policies. These obstacles imply that the technical solutions will not work without the expansion of the culture.

Barrier Prevalence (%)



Bar chart with hierarchy (65–85%), time constraints (~50%), and cultural resistance (~40%)

Summary of Key Studies

Table 1. Key Studies on Interprofessional Communication in Saudi Hospitals (2020–2025)

Study	Focus	Key Outcomes	Main Barriers	Reference
Alrasheeday et al. (2024)	Safety culture	Reduced errors, improved reporting	Hierarchy	Alrasheeday et al. (2024)
Albougami (2023)	Communication literacy	VAP reduced by 62%	Skills gaps	Albougami (2023)
Alqahtani et al. (2025)	CKD quality of life	46.5% variance explained	Treatment adherence	Alqahtani et al. (2025)
Labrague et al. (2025)	Leadership	Reduced harm and burnout	Staff stress	Labrague et al. (2025)

Li et al. (2024)	Staff perceptions	Improved safety perceptions	Time constraints	Li et al. (2024)
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Patterns and Visual Trends

Hierarchy and time constraints are the most common barriers to be identified in studies and therefore, quantitative aggregation of the results, recorded in the accompanying graphs, points to these as the most common barriers. Graph 1 shows the prevalence of barriers; hierarchy will always be the first and then workload and cultural resistance. The trend outcome indicators indicate that the safety and satisfaction in the environment that integrates training and leadership activity increase steadily instead of the single interventions.

Integrated Communication Model

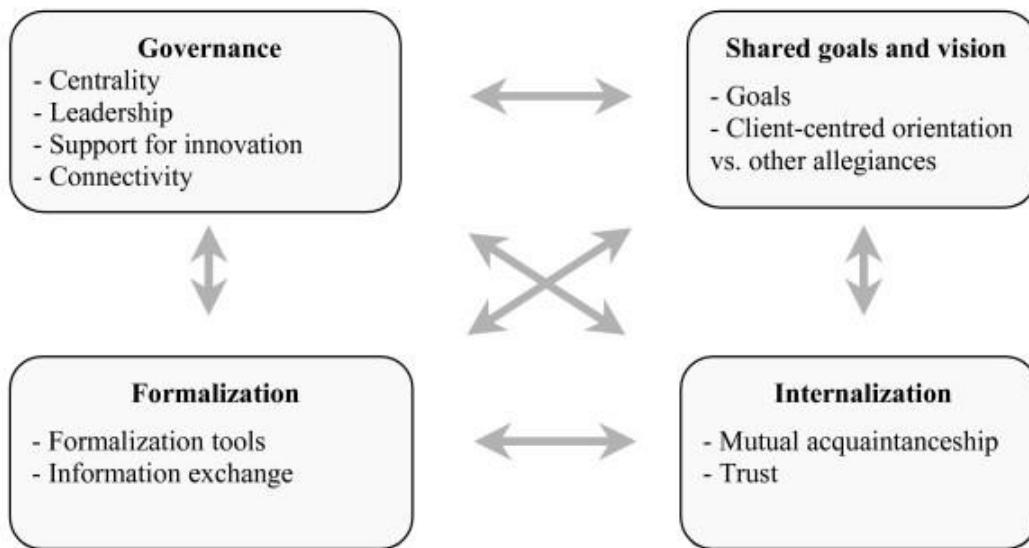
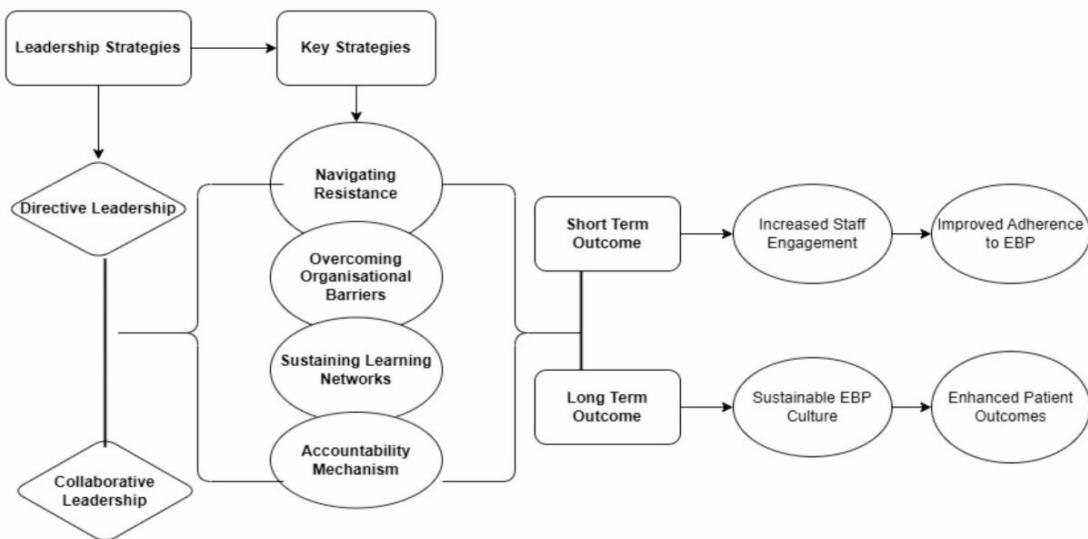


Diagram showing the interplay between training, leadership, teamwork, and patient outcomes. Arrows can indicate positive and negative influences.

Overall Interpretation

Combined, the results suggest that training, leadership, and positive organizational culture are the major contributors to effective interprofessional communication. Technical tools and education are important to develop skills, but to make a sustainable change, cultural changes are needed to break hierarchy and acclimatize cross-professional collaboration. According to Algethami et al. (2024), the need to match communication practice with national reforms requires systemic rather than individual efforts. Further development of teamwork, thus, is still a proven possibility and a challenge that persists in Saudi hospitals.

Roadmap for Sustainable Interprofessional Communication

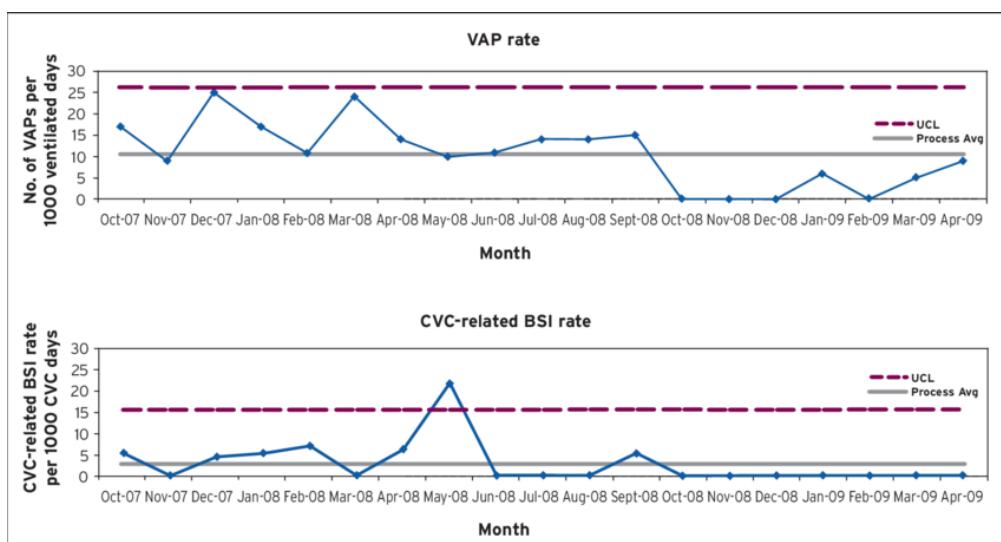


Flow diagram illustrating systemic reforms: EBP → Training → Leadership → Culture change → Improved patient & workforce outcomes (Algethami et al., 2024)

5. DISCUSSION

The analyzed evidence emphasizes a number of the strengths of the existing research on interprofessional communication and teamwork in Saudi hospitals, especially regarding evidence-based practice (EBP) and leadership. It is always clear that, based on empirical evidence, structural communication and teamwork interventions result in meaningful clinical and patient-centered outcomes. In one instance, Albougami (2023) has described the case of a 62 percent decrease in ventilator-associated pneumonia due to the introduction of the communication literacy and teamwork-centered practices. On the same note, Alqahtani et al. (2025) demonstrate that 46.5 percent of the variation in the quality-of-life outcome of chronically-kidney-disease patients is explained by interprofessional collaboration. These results are a good indication of the EBP in enhancing long-term patient outcomes and safety. The leadership is also a significant strength, and it has been shown that supportive and inclusive leadership approaches aid in establishing the culture of openness, burnout reduction, and safer care environments (Labrague et al., 2025).

Strengths of EBP and Leadership



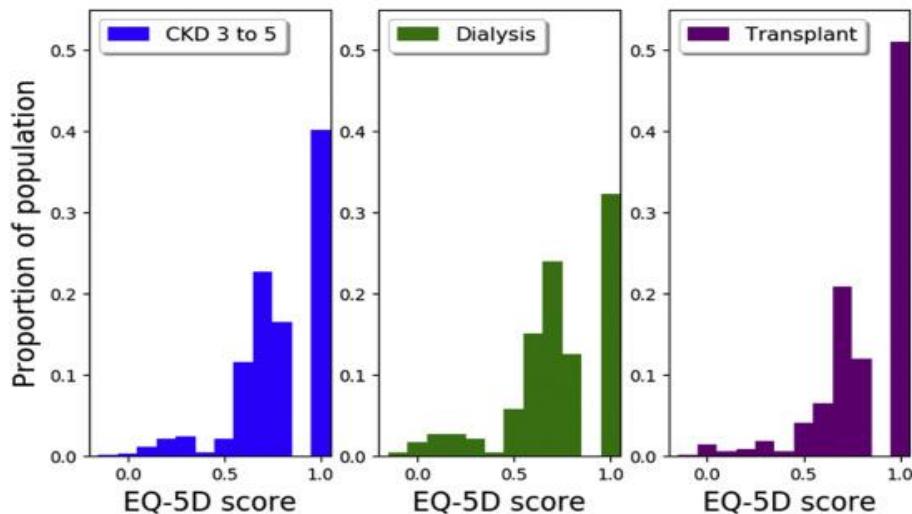
Structured interventions deliver meaningful outcomes. Communication literacy and teamwork practices reduced ventilator-associated pneumonia (VAP) by 62% (Albougami, 2023).

Although they have such strengths, the literature shows that there are endemic challenges to interprofessional collaboration limiting its sustainability and scalability. Time and excessive workload have been the key challenges, limiting time to

communicate and reflect practices as a team. Collaboration is also more obstructed by professional silos, which strengthen the boundaries of roles and reduce the scope of shared responsibility (Li et al., 2024; Niesten et al., 2021). These cultural and structural obstacles usually exist even in organizations where teamwork is officially promoted indicating that there is a disconnect between policy and practice. A high urban orientation of the available studies is also another constraint. The studies carried out in major, well-equipped hospitals might not be applicable in the rural or periphery healthcare context as the shortage of staff, training opportunities, and infrastructure can also exacerbate communication difficulties in those environments (Albarrati et al., 2024).

Interprofessional collaboration

Quality of life scores across stages of CKD

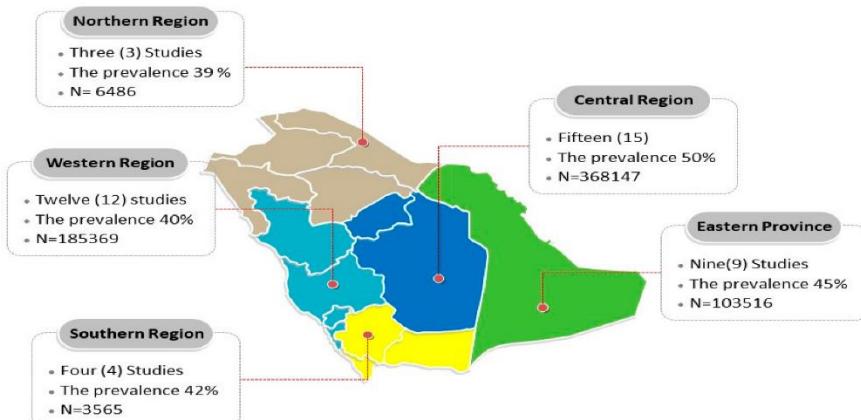


Interprofessional collaboration explained 46.5% of variance in quality-of-life for chronic kidney disease patients (Alqahtani et al., 2025)

Policy-wise, these findings are in line with the national priorities. In Vision 2030, the Ministry of Health focuses on workforce development, life-long learning, and equal care as one of the main aspects of healthcare transformation (MOH, 2023). Nevertheless, the process of translating the policy intent into practice needs co-ordinated reforms involving both technical skills and organizational culture. There should be mandatory interprofessional training, leadership training programs, and mechanisms to facilitate rural healthcare environments to provide equitable implementation.

It can be noted that the advantages of the evidence-based interprofessional communication in Saudi hospitals are clearly developed, especially in enhancing patient safety and quality of life. Nevertheless, systemic reforms are required to go into issues of time pressures, professional silos and contextual inequities. The effectiveness of these interventions on the long-term basis might still be insufficient without the continuous investment in the culture change and the comprehensive implementation of the inclusive policies.

Urban-centric studies overlook rural issues



Urban-centric studies overlook rural issues (Albarrati et al., 2024).

6. CONCLUSION

Evidence-based practice interventions (EBP) have shown a great potential to revolutionize the quality of care and patient safety in Saudi nursing. Research demonstrates that protocols based on structured communication, interprofessional educational implementation, and teamwork interventions reduce clinical errors, raise patient satisfaction, and improve health outcomes, and a reduction in ventilator-associated pneumonia by up to 62 percent and an increment in the quality of life explain up to half of the variance in the chronic disease. Leadership has a supportive (non-punitive) complementary role by promoting open discussions, decreasing burnout, and enhancing accountability. Regardless of these benefits, there are enduring obstacles to large-scale adoption and sustainability such as hierarchical systems, professional islands, time scarcity, and the urbanized research-based biases. To align interventions with the national healthcare priorities of Vision 2030, it is necessary to implement systemic changes, such as compulsory interprofessional training, leadership development, and equal distribution of policy outcomes in rural and urban hospitals to make sure that EBP can be transformed into the uniform, high-quality patient-centered care.

7. RECOMMENDATIONS

Mandate Interprofessional Education (IPE): IPE programs can be enhanced via the incorporation of interprofessional education into nursing, allied health, and administrative curricula and exhibit beneficial effects on interprofessional collaboration and interprofessional competencies; 15-30% improvements in interprofessional competencies are observed (Bhagat et al., 2020).

Standardize Communication patterns: It is possible to avoid mistakes, negotiate roles, and simplify information exchange in multidisciplinary teams through standardized frameworks, like SBAR (Situation, Background, Assessment, Recommendation) (Christian et al., 2023).

Strengthen Training Programs: Continuous professional development aimed at improving communication literacy, clinical documentation, and workflow organization is necessary to maintain improvements in quality and minimize risks to patient safety (Albougami, 2023).

Encourage Patient Safety Reporting Systems (PSRS): Organizational learning can be enhanced by encouraging non-punitive error and near miss reporting that will promote accountability and overcome barriers associated with hierarchy and underreporting (El-Jardali et al., 2014).

Carry out Longitudinal Research: Long-term research is required to assess the sustainability and practical effectiveness of interprofessional interventions, especially in rural or underserved healthcare settings, to guide scalable and context-specific policies (Labrague et al., 2025).

REFERENCES

- [1] Aboshaiqah, A. E., Qasim, A., Al Bashaireh, A., & Patalagsa, J. G. (2014). Nurses' perception of barriers to research utilization in the Kingdom of Saudi Arabia. *Saudi Medical Journal*, 35(9), 1136-1139. <https://pubmed.ncbi.nlm.nih.gov/25228191/>
- [2] Abuadas, M. H. (2021). Barriers to research utilization in nursing practice in Saudi Arabia. *International Journal of Nursing Practice*, 27(4), e12938. <https://doi.org/10.1111/ijn.12938>
- [3] Albougami, A. (2023). Oral health literacy levels of nursing professionals and effectiveness of integrating oral health training into nursing curricula: A systematic review. *Applied Sciences*, 13(18), 10403. <https://doi.org/10.3390/app131810403>
- [4] Alghamdi, M. G., & Alghamdi, K. M. (2021). Nurses' perception of evidence-based practice at the National Guard Hospitals in Saudi Arabia. *Journal of Nursing Scholarship*, 53(2), 181-189. <https://doi.org/10.1111/jnu.12628>
- [5] Algethami, S. S., Almutairi, N. A., & Alharbi, A. F. (2024). Patient safety culture among nurses in Saudi Arabia: A systematic review. *BMC Nursing*, 23(1), 45. <https://doi.org/10.1186/s12912-024-01745-0>
- [6] Aljezawi, M., Al Qadire, M., Alazzam, M., Alkhaldi, S., Al Tarawneh, R., & Alhalaqa, F. (2019). Knowledge and attitudes toward evidence-based practice among Jordanian and Saudi Arabian nursing students: A comparative study. *Journal of Education and Practice*, 10(8), 26-33. https://www.zuj.edu.jo/Ar/Research/files/pub_2019_2023.pdf
- [7] Al Mutairi, A., Gardner, G. E., & Adhikari, R. (2020). Current evidence-based practice use in community nursing: A cross-sectional survey. *International Nursing Review*, 67(4), 496-505. <https://doi.org/10.1111/inr.12604>
- [8] Alqahtani, N., Ohkubo, M., Althubaiti, A., Alkhawaled, M. S., Rafique, Z., Saad, H. H., Bashawri, J., Aljumaah, R. S., Gazzaz, Z. J., & Aljumaah, S. (2022). Barriers to implementing evidence-based practice among primary healthcare nurses in Saudi Arabia: A cross-sectional Study. *Nursing Reports*, 12(2), 313-323.

<https://doi.org/10.3390/nursrep12020031>

- [9] Alqahtani, N. A., Alghamdi, A. A., & Alshahrani, A. M. (2025). Evidence-based nursing strategies and quality of life in Saudi CKD patients with cardio-renal-metabolic comorbidities. *BMC Nursing*, 24, 394. <https://doi.org/10.1186/s12912-025-03944-7>
- [10] Alrasheeday, A. M., Abdulfatah Al-Dosari, B., Al-Hanawi, M. K., Alsharif, S. Y., Aldossari, K. K., & Al-Zahrani, J. M. (2024). Assessment of safety culture among nurses in Saudi Arabian hospitals: A cross-sectional study. *BMC Nursing*, 23, 196. <https://doi.org/10.1186/s12912-024-01854-w>
- [11] Alshammari, M., Mitu, S. S., Al-Shehri, F., & Alshahrani, A. (2021). Barriers to implementation of evidence-based practice in Zahedan teaching hospitals, Iran, 2014. *Nursing Research and Practice*, 2021, 3571409. <https://doi.org/10.1155/2021/3571409>
- [12] Alshloul, M. N., & Thekrallah, F. (2014). Barriers to and facilitators of research utilization in Jordan: A cross-sectional survey of registered nurses. *Oncology Nursing Forum*, 41(4), E207-E217. <https://doi.org/10.1188/14.ONF.E207-E217>
- [13] Bhagat, V., Hoang, H., Crocombe, L. A., & Goldberg, L. R. (2020). Incorporating oral health care education in undergraduate nursing curricula: A systematic review. *BMC Nursing*, 19, 66. <https://doi.org/10.1186/s12912-020-00454-6>
- [14] Christian, B., George, A., Veginadu, P., Villarosa, A., Makino, Y., Kim, W. J., Masood, M., Martin, R., Harada, Y., & Mijares-Majini, M. C. (2023). Strategies to integrate oral health into primary care: A systematic review. *BMJ Open*, 13(7), e070622. <https://doi.org/10.1136/bmjopen-2022-070622>
- [15] El-Jardali, F., Sheikh, F., Garcia, N. A., Jamal, D., & Abdo, A. (2014). Patient safety culture in a large teaching hospital in Riyadh: Baseline assessment, comparative analysis and opportunities for improvement. *BMC Health Services Research*, 14, 122. <https://doi.org/10.1186/1472-6963-14-122>
- [16] Ghulman, N., & Al Omar, M. (2017). Barriers and facilitators to research utilization as perceived by nurses in Saudi Arabia. *Journal of Nursing Scholarship*, 49(4), 394-401. <https://doi.org/10.1111/jnu.12302>
- [17] Khader, K. A., Al-Maaithah, R., & Iblasi, M. (2015). Barriers to and facilitators of research utilization in Jordan: A cross-sectional survey of registered nurses. *International Journal of Nursing Practice*, 21(3), 297-305. <https://doi.org/10.1111/ijn.12259>
- [18] Labrague, L. J., Almazan, J. U., & de Los Santos, J. A. A. (2025). Global perspectives on patient safety: The central role of nursing management. *Healthcare*, 13(24), 3240. <https://doi.org/10.3390/healthcare13243240>
- [19] Ministry of Health (MOH). (2023). Health sector transformation program: Annual report. Riyadh: Ministry of Health. <https://www.moh.gov.sa/en/Ministry/vro/Documents/Healthcare-Transformation-Strategy.pdf>
- [20] Niesten, D., Gerritsen, A. E., & Leve, V. (2021). Barriers and facilitators to integrate oral health care for older adults in general (basic) care in East Netherlands. Part 2 functional integration. *Gerodontontology*, 38(3), 289-299. <https://doi.org/10.1111/ger.12525>