

Integrating Social Work, Nursing and paramedicine in Emergency situation: challenges and strategies

Mohammad Abdulaziz Al-Zahrani¹, Ahmad Abdullah Alzhrani², Sharifh Ayed Alanazi³, Boshra Omar Bayounis⁴, Abdulrahman Mohammed Bin Shalaan⁵,
Majed Metab Alshelwy⁶, Yazeed Ayed Alharthi⁷

^{1,3,4,5}Social Worker, Prince Sultan Military Medical City, Riyadh, KSA

²Sociology Specialist, Prince Sultan Military Medical City, Riyadh, KSA

^{6,7}Emergency Medical Specialist, Prince Sultan Military Medical City, Riyadh, KSA

ABSTRACT

The urgent and integrated actions are essential to meet the multidimensional medical and psychosocial needs that are inherent in emergency cases. The combination of the social work, nursing, and paramedicine is one of the key requirements of the delivery of the holistic and patient-centered emergency care. The paramedics provide immediate pre-hospital interventions, nurses provide continuous clinical care and the social workers provide psychosocial support, crisis intervention and continuum of care. The current review discusses the issues and plans that are relevant in interdisciplinary integration in emergency situations. The key issues include role ambiguity, lack of communication, organizational barriers, and insufficient interprofessional education, which more often than not leads to disjointed care. They include evidence-based measures, i.e., interprofessional training, the introduction of structured communication guidelines, development of supportive leadership, and incorporation of social workers in the emergency teams.

Keywords: Interdisciplinary care; Emergency healthcare; Social work; Nursing; Paramedicine; Interprofessional collaboration; Emergency response; Patient-centered care

INTRODUCTION

Situations of emergency are considered to be one of the most complicated and stressful settings in healthcare systems that require swift decision-making, organization, and communication between various healthcare providers [1]. In such environments, social work, nursing, and paramedicine are all used to provide timely, holistic, and patient-centered emergency care [2]. All of these fields make unique and complementary contributions to the expertise: paramedics can offer urgent pre-hospital assessment and life-saving intervention, nurses offer uninterrupted clinical care and coordination in the emergency department, and social workers meet psychosocial needs, crisis intervention, and continuity of care [3]. When well coordinated, these professions are able to contribute to a higher patient outcome, safety, and efficiency of the system when dealing with emergencies [4]. The increasing load of trauma, medical crises, mental health crises and calamities have influenced the need to collaborate with interdisciplinary approaches in emergency care [5]. Emergency patients usually have multifaceted medical and psychosocial requirements that need to be addressed beyond the state of clinical stabilization [6]. Socioeconomic status, mental health conditions, family relationships, and access to community resources are the factors that play an important role in recovery and long-term outcomes [7]. The social workers become very important in mitigating these non-medical determinants of health, assisting patients and families in crisis and helping them make proper referrals and follow-up care [8].

Their efforts, however, are the most effective when they are incorporated in a smooth flow with the clinical skills of the nurses and paramedics [9]. Although it is generally accepted that interdisciplinary collaboration is a necessary and valuable concept, the application of social work, nursing, and paramedicine together in emergency units is still full of challenges [10]. The existence of professional differences, such as differences in professional roles, scope of practice, training background and hierarchy can be a hindrance to effective teamwork [11]. The existing communication gaps, time limitations, large number of patients as well as the rapidity of emergency care complicate the collaborative efforts even more [12]. Furthermore, a lack of understanding of the roles of each of the professions, poor interprofessional training, and insufficient standardized procedures will often hinder unified practice [13]. Such barriers can cause disjointed care, redundancy, increased stress levels among the medical staff, and ineffective patient experience [14]. To address these issues, healthcare systems are paying an increasing focus to strategies on how to enhance interprofessional integration in the emergency care [15]. The promise of collaboration has been realized through structured communication tools, shared clinical pathways, interprofessional education and training and clearly defined roles and responsibilities [16]. Integrated

practice also requires leadership support, organizational policies that encourage teamwork, and social workers in the emergency response planning [17]. The development of technology, including electronic medical history and the availability of information in real time, contributes to the further facilitation of interdisciplinary care [18]. The purpose of the review article will be to identify the problems that are connected with the incorporation of social work, nursing, and paramedicine in the emergency context and to understand evidence-based techniques to improve the collaboration of interdisciplinary work [19]. Through the synthesis of literature in the field, the review aims to bring forth best practices, any gaps in prevailing models of care and also offer recommendations to enhance integrated emergency response [20]. Enhancing the cooperation between these professions is vital to providing comprehensive, effective, and patient-centered care in emergency and ensuring better health outcomes and strong healthcare systems [21].

REVIEW

1. The Social Work, Nursing and Paramedicine Roles in Emergency Care.

Emergency care provision requires the harmonious work of various healthcare professionals whose particular skills are used to provide fast and holistic patient care [21]. The pre-hospital care also includes rapid assessment, stabilization, and safe transportation of patients, this is the main area of interest of paramedicine [22]. The paramedics often form the first line of intervention during emergencies, which make important decisions that affect the survival and outcome of patients [23]. The nursing professionals play a key role in the emergency departments as they are involved in the provision of continuous clinical care, patient monitoring, administration of treatments, and organization of communication with physicians and other healthcare professionals. Patient advocacy is also another role of emergency nurses who put into place safety, effective communication, and continuity of care when patients have to transition between pre-hospital and in-hospital care. Social workers work on the psychosocial aspects of emergency treatment, such as emotional support, crisis intervention, communication with the family, the security of vulnerable populations, and the transition to community resources. It is especially important since they are involved in situations that can be related to mental health crises, substance abuse, domestic violence, homelessness, and trauma related to a disaster. When the three disciplines work together efficiently, emergency care will get a more holistic and patient-centred nature [24].

Table 1 : Table showing interdisciplinary roles in emergency healthcare delivery

Discipline	Primary Role in Emergency Care	Key Responsibilities
Paramedicine	Pre-hospital emergency care and first response	Rapid patient assessment, stabilization, life-saving interventions, safe transportation to healthcare facilities, and early decision-making that influences patient survival and outcomes
Nursing	Continuous clinical care in emergency departments	Ongoing patient monitoring, administration of treatments and medications, coordination with physicians and other healthcare professionals, ensuring patient safety, advocacy, effective communication, and continuity of care during transitions
Social Work	Psychosocial support and crisis management	Emotional support, crisis intervention, family communication, safeguarding vulnerable populations, addressing mental health crises, substance abuse, domestic violence, homelessness, disaster-related trauma, and linking patients to community resources
Interdisciplinary Collaboration	Holistic and patient-centred emergency care	Integration of medical, clinical, and psychosocial care to improve patient outcomes, enhance care coordination, and address both immediate and long-term patient needs

2. Significance of Interdisciplinary Integration during the Emergencies.

Interdisciplinary integration promotes quality, safety, and efficiency of emergency care. Emergencies often entail multiple interplay of medical, psychological, and social issues that cannot be properly resolved with the help of one profession. Close communication will aid in making decisions in time, less duplication of services, and enhanced coordination between care settings. Another way through which integrated practice enhances patient satisfaction and outcomes is that both the clinical and psychosocial needs are handled at a time. To give an example, social workers will help to save unnecessary hospitalizations, planning discharge, and overcrowded emergency departments by engaging in work early. Similarly, it has been observed that by maintaining continuity of care, smooth interaction between paramedics and nurses can be assured, between the pre-hospital and emergency setting [25].

Table 2 : Table highlights importance of interdisciplinary integration during emergencies

Aspect	Significance of Interdisciplinary Integration in Emergencies
Quality of Care	Enables comprehensive management of medical, psychological, and social issues that cannot be addressed by a single profession alone
Patient Safety	Improves timely decision-making and reduces errors through effective communication and shared responsibility
Efficiency of Services	Minimizes duplication of services, streamlines workflows, and improves coordination across care settings
Patient Outcomes	Enhances clinical and psychosocial outcomes by addressing multiple patient needs simultaneously
Patient Satisfaction	Promotes patient-centred care by integrating emotional, social, and medical support
Emergency Department Flow	Reduces unnecessary hospital admissions, supports early discharge planning, and helps prevent emergency department overcrowding
Continuity of Care	Ensures smooth transition between pre-hospital and in-hospital care through collaboration bet

3. Difficulties in the Intervention between Social Work, Nursing, and Paramedicine.

As much as interdisciplinary integration is associated with significant benefits in the context of emergency care, it is hampered by several challenges. Inadequate description of professional roles and responsibilities is one of the main challenges [26]. Differences in training, scope of practice and professional culture may bring about misunderstandings and reduce the collaborative efforts. Another significant challenge is communication barriers. Agency environments of emergency settings are inherently fast-paced and stressful, often reducing chances of effective exchange of information. Poor hand over systems between paramedics and nurses can lead to the loss of vital information about patients. Furthermore, the integration of social workers into the emergency care teams is not a consistent practice, and thus, this postpones psychosocial interventions that are necessary [27]. Systemic and organizational barriers also work against integration. They include the lack of staffing, excessive workloads, time, and the lack of institutional support of interprofessional collaboration. The hierarchical structures of healthcare systems can also predispose certain professional voices by marginalizing them even more, in particular, the voice of social workers. Lack of effective interprofessional education and training creates a poor conceptualization of collaborative practice [28].

Table 3 : Table highlights challenges in interdisciplinary emergency healthcare collaboration.

Challenge Area	Description of Difficulties in Interdisciplinary Intervention
Role Clarity	Poorly defined professional roles and responsibilities lead to confusion, overlap, and reduced collaborative effectiveness
Differences in Professional Training	Variations in education, scope of practice, and professional culture contribute to misunderstandings and weakened teamwork
Communication Barriers	Fast-paced and high-stress emergency environments limit effective information exchange among team members
Handover Issues	Inadequate transfer of patient information between paramedics and nurses increases the risk of information loss and compromised care
Limited Integration of Social Work	Inconsistent inclusion of social workers in emergency teams delays essential psychosocial assessment and interventions
Staffing and Workload Constraints	Short staffing, heavy workloads, and time pressures restrict opportunities for interdisciplinary collaboration
Organizational and Systemic Barriers	Lack of institutional support and formal policies for interprofessional practice hinders effective integration
Hierarchical Healthcare Structures	Power imbalances marginalize certain professional voices, particularly social workers, affecting collaborative decision-making
Insufficient Interprofessional Education	Lack of joint training and education limits understanding of collaborative practice and interdisciplinary roles

4. Plans to improve Interdisciplinary Cooperation.

A number of approaches have been stated to improve the incorporation of the social work, nursing, and paramedicine in the emergency settings. Interprofessional education and training programs cannot be ignored to develop mutual respect, define the roles, and sharpen the teamwork skills of healthcare professionals. Training through simulation and integration of emergency exercises can supplement preparedness and joint decision making. Information can be exchanged with the help

of structured communication systems, such as standardized handover procedures and checklists, which can help reduce errors [29]. By making sure that social workers are included in the emergency response teams and protocols, psychosocial assessment and intervention can be carried out in good time. Integration is dependent on leadership support and policies that promote collaborative practice in an organization [30]. The use of health information technology (shared electronic health records and real-time communication concepts) also helps in coordinated care. Besides, regular interdisciplinary meetings and post-event debriefs following emergency events can be used to address gaps, improve teamwork, and address staff welfare [31].

Table 4 : Table showing strategies enhancing interdisciplinary teamwork in emergency care.

Strategy	Description / Purpose
Interprofessional education and training	Develops mutual respect, clarifies professional roles, and strengthens teamwork skills among social workers, nurses, and paramedics
Simulation-based training and emergency drills	Enhances preparedness, joint decision-making, and coordinated response during emergency situations
Structured communication systems	Use of standardized handover tools and checklists to improve information exchange and reduce errors

5. Practice and Policy Implications.

Social work, nursing, and paramedicine integration has significant implications to the practice of emergency care as well as health policy. The health facilities should focus more on interdisciplinary care models and invest in collaborative roles [32]. Emergency response systems can be strengthened with policies which require interprofessional training as well as explicitly defining collaborative responsibilities. Future studies must be focused on the measurement of integrated care models, the identification of the best practices, and the quantification of their patient-related and system-related outcomes [33]. Interdisciplinary cooperation should be strengthened to develop resilient approaches to the emergency care system that will be capable of responding to growing healthcare needs [34].

Table 5 : Table showing practice and policy implications of interdisciplinary emergency care

Area	Practice and Policy Implications
Interdisciplinary Care Models	Health facilities should prioritize integrated teamwork among social workers, nurses, and paramedics in emergency care settings.
Workforce Development	Investment in collaborative roles and shared responsibilities enhances coordinated emergency service delivery.
Emergency Care Policies	Policies should mandate interprofessional training and clearly define collaborative roles in emergency response systems.
Research and Evaluation	Future research should evaluate integrated care models, identify best practices, and measure patient and system outcomes.
System Resilience	Strengthened interdisciplinary cooperation supports resilient emergency care systems capable of meeting growing healthcare demands.

DISCUSSION

The inclusion of social work, nursing, and paramedicine in an emergency situation is an essential element towards the delivery of patient-centred care [35]. As highlighted by this review, emergencies often involve very complex medical and psychosocial needs that cannot be adequately met by one discipline. Such practice between these professions improves care continuity, increases patient safety and contributes to better clinical and psychosocial outcomes [36]. The paramedics hold central role in the initial evaluation and life-saving intervention procedures that occur in pre-hospital settings whereas nurses undertake the long-term clinical management and coordination of the emergency department processes [37]. Social workers can help to alleviate emotional pain, promote communication within the family, consider concerns to do with safeguarding, and connect patients with community resources [38]. When all these roles are well incorporated, emergency care is more complete and responsive, especially to vulnerable groups [39]. Despite these benefits, there are a number of barriers that continue to limit successful interdisciplinary cooperation [40]. Fragmented care is often triggered by ambiguous role definitions, breakdown in communication when handing over patients, heavy workloads, and hierarchical healthcare organizations [41]. Especially social workers might not be used fully in the case of emergency settings leading to delayed psychosocial treatments. Moreover, the lack of interprofessional education restricts the knowledge of the scope of practice of each discipline, thus the lack of teamwork cohesiveness and trust. The review contains interprofessional education, structured communication tools, and supportive leadership as key initiatives towards promoting integration [42].

Team building exercises, exercises based on simulating and standard handover practices can also strengthen cooperation and reduce mistakes. The institutional policies that encourage inclusive decision-making and the official presence of social workers in the emergency response teams are essential elements [43]. Finally, building up the collaborative approach toward social work, nursing, and paramedicine requires various initiatives on both educational, organizational, and policy levels [44]. A combination of overcoming current obstacles, and implementing collaborative care models can positively influence quality and effectiveness of emergency care, and thus, provide better patient outcomes and stronger healthcare networks [45].

CONCLUSION

Social work, nursing, and paramedicine cannot be used without each other to accomplish effective patient-centred emergency care. Emergency cases are often associated with complex medical and psychosocial needs, which require interdisciplinary responses. Cooperation between these professionals allows enhancing continuity of care, patient safety, and overall outcomes. In spite of its importance, integration is faced with a number of challenges including role ambiguity, lack of communication, organisational barriers, and ineffective interprofessional training. It is essential to minimize these challenges to prevent disjointed care and ensure timely and holistic interventions. Solutions such as interprofessional training, formal communication systems, leadership that is supportive and formal integration of social workers into emergency team can significantly improve collaboration. To overcome the quality, efficiency, and resilience of emergency healthcare systems, there is a need to strengthen interdisciplinary integration by means of educational, clinical, and policy initiatives.

REFERENCES

- [1]. Charan GS, Kalia R, Dular SK, Kumar R, Kaur K. Challenges faced by doctors and nurses in the emergency department: An integrated review. *J Educ Health Promot.* 2025 Jan 31;14:2. doi: 10.4103/jehp.jehp_462_24. PMID: 40104379; PMCID: PMC11913184.
- [2]. Walsh A, Bodaghhani E, Etchegary H, Alcock L, Patey C, Senior D, Asghari S. Patient-centered care in the emergency department: a systematic review and meta-ethnographic synthesis. *Int J Emerg Med.* 2022 Aug 11;15(1):36. doi: 10.1186/s12245-022-00438-0. PMID: 35953783; PMCID: PMC9367087.
- [3]. Kamrujjaman MD, Demetriou C, Cuartas Álvarez T, Castro Delgado R. The Role of Social Work for Emergency Medical Services (EMS): A Systematic Review. *Prehosp Disaster Med.* 2023 Oct;38(5):628-635. doi: 10.1017/S1049023X23006143. Epub 2023 Aug 1. PMID: 37525489; PMCID: PMC10548022.
- [4]. Biswas PS, Jalaluddin M, Sarangi P, Bagchi S. Assessment of Overall Self-Care Among the East Indian Population: An Experimental, Observational, and Validated Study. *Oral Sphere J. Dent. Health Sci.* 2025;1(3):123-133. <https://doi.org/10.63150/osjdhs.2025.9>
- [5]. Heanoy EZ, Brown NR. Impact of Natural Disasters on Mental Health: Evidence and Implications. *Healthcare (Basel).* 2024 Sep 10;12(18):1812. doi: 10.3390/healthcare12181812. PMID: 39337153; PMCID: PMC11430943.
- [6]. Burch HB, Perros P, Bednarczyk T, Cooper DS, Dolman PJ, Leung AM, Mombaerts I, Salvi M, Stan MN. Management of Thyroid Eye Disease: A Consensus Statement by the American Thyroid Association and the European Thyroid Association. *Thyroid.* 2022 Dec;32(12):1439-1470. doi: 10.1089/thy.2022.0251. Epub 2022 Dec 8. PMID: 36480280; PMCID: PMC9807259.
- [7]. Benson OM, Whitson ML. The protective role of sense of community and access to resources on college student stress and COVID-19-related daily life disruptions. *J Community Psychol.* 2022 Aug;50(6):2746-2764. doi: 10.1002/jcop.22817. Epub 2022 Feb 10. PMID: 35142379; PMCID: PMC9088248.
- [8]. Mackintosh NJ, Davis RE, Easter A, Rayment-Jones H, Sevdalis N, Wilson S, Adams M, Sandall J. Interventions to increase patient and family involvement in escalation of care for acute life-threatening illness in community health and hospital settings. *Cochrane Database Syst Rev.* 2020 Dec 8;12(12):CD012829. doi: 10.1002/14651858.CD012829.pub2. PMID: 33285618; PMCID: PMC8406701.
- [9]. Jansson J, Larsson M, Nilsson J. Advanced paramedics and nurses can deliver safe and effective pre-hospital and in-hospital emergency care: An integrative review. *Nurs Open.* 2021 Sep;8(5):2385-2405. doi: 10.1002/nop.2.866. Epub 2021 May 6. PMID: 33955702; PMCID: PMC8363369.
- [10]. Eaton G. Addressing the challenges facing the paramedic profession in the United Kingdom. *Br Med Bull.* 2023 Dec 11;148(1):70-78. doi: 10.1093/bmb/ldad024. PMID: 37681285; PMCID: PMC10724452.
- [11]. Fosah R, Llahana S. Barriers and Enablers to Leadership in Advanced Practice Nursing: A Systematic Review. *Int Nurs Rev.* 2025 Jun;72(2):e70034. doi: 10.1111/inr.70034. PMID: 40401735; PMCID: PMC12096811.
- [12]. Samadbeik M, Staib A, Boyle J, Khanna S, Bosley E, Bodnar D, Lind J, Austin JA, Tanner S, Meshkat Y, de Courten B, Sullivan C. Patient flow in emergency departments: a comprehensive umbrella review of solutions and

- challenges across the health system. *BMC Health Serv Res.* 2024 Mar 5;24(1):274. doi: 10.1186/s12913-024-10725-6. PMID: 38443894; PMCID: PMC10913567.
- [13]. Stewart MA. Stuck in the middle: the impact of collaborative interprofessional communication on patient expectations. *Shoulder Elbow.* 2018 Jan;10(1):66-72. doi: 10.1177/1758573217735325. Epub 2017 Oct 25. PMID: 29276540; PMCID: PMC5734531.
 - [14]. Patil VC, Patil SV, Shah JN, Iyer SS. Stress Level and Its Determinants among Staff (Doctors and Nurses) Working in the Critical Care Unit. *Indian J Crit Care Med.* 2021 Aug;25(8):886-889. doi: 10.5005/jp-journals-10071-23949. PMID: 34733029; PMCID: PMC8559760.
 - [15]. Al-Salloum J, Thomas D, AlAni G, Singh B. Interprofessional Care of Emergency Department Doctors and Pharmacists: Crossing a Collaboration Chasm. *Innov Pharm.* 2020 Apr 30;11(2):10.24926/iip.v11i2.3259. doi: 10.24926/iip.v11i2.3259. PMID: 34007607; PMCID: PMC8051916.
 - [16]. Al-Qallaf AJ, Akhtar MU, Fouda MN, Alyas OA, Akram J, Mashal R, Atif N. Understanding pathways for effective interprofessional education: a thematic analysis of medical and nursing students' insights. *BMC Med Educ.* 2024 Dec 31;24(1):1564. doi: 10.1186/s12909-024-06489-6. PMID: 39741234; PMCID: PMC11689560.
 - [17]. Wennman I, Jacobson C, Carlström E, Hyltander A, Khorram-Manesh A. Organizational Changes Needed in Disasters and Public Health Emergencies: A Qualitative Study among Managers at a Major Hospital. *Int J Disaster Risk Sci.* 2022;13(4):481–94. doi: 10.1007/s13753-022-00423-4. Epub 2022 Aug 3. PMCID: PMC9361938.
 - [18]. Warren JL, Warren JS. The Case for Understanding Interdisciplinary Relationships in Health Care. *Ochsner J.* 2023 Summer;23(2):94-97. doi: 10.31486/toj.22.0111. PMID: 37323516; PMCID: PMC10262946.
 - [19]. Dietl JE, Derksen C, Keller FM, Lippke S. Interdisciplinary and interprofessional communication intervention: How psychological safety fosters communication and increases patient safety. *Front Psychol.* 2023 Jun 15;14:1164288. doi: 10.3389/fpsyg.2023.1164288. PMID: 37397302; PMCID: PMC10310961.
 - [20]. Sinha TP, Bhoi S, Sharma D, Chauhan S, Magan R, Sahu AK, Bhargava S, Nayar PD, Kannan V, Lodha R, Kacchawa G, Arora NK, Jini M, Sinha PK, Verma S, Goyal P, Viswanathan KV, Padu K, Boro P, Kumar Y, Gupta P, Damodaran S, Jubair N. Strengthening facility-based integrated emergency care services for time sensitive emergencies at all levels of healthcare in India: An implementation research study protocol. *Health Res Policy Syst.* 2024 Sep 9;22(1):125. doi: 10.1186/s12961-024-01183-x. PMID: 39252001; PMCID: PMC11382461.
 - [21]. Reynolds TA, Sawe H, Rubiano AM, et al. Strengthening Health Systems to Provide Emergency Care. In: Jamison DT, Gelband H, Horton S, et al., editors. *Disease Control Priorities: Improving Health and Reducing Poverty*. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 13. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK525279/> doi: 10.1596/978-1-4648-0527-1_ch13
 - [22]. Strandås M, Vizcaya-Moreno MF, Ingstad K, Sepp J, Linnik L, Vaismoradi M. An Integrative Systematic Review of Promoting Patient Safety Within Prehospital Emergency Medical Services by Paramedics: A Role Theory Perspective. *J Multidiscip Healthc.* 2024 Mar 26;17:1385-1400. doi: 10.2147/JMDH.S460194. PMID: 38560485; PMCID: PMC10981423.
 - [23]. Kobusingye OC, Hyder AA, Bishai D, et al. Emergency Medical Services. In: Jamison DT, Breman JG, Measham AR, et al., editors. *Disease Control Priorities in Developing Countries*. 2nd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2006. Chapter 68. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK11744/> Co-published by Oxford University Press, New York.
 - [24]. Pavedahl V, Muntlin Å, Von Thiele Schwarz U, Summer Meranien M, Holmström IK. Fundamental care in the emergency room: insights from patients with life-threatening conditions in the emergency room. *BMC Emerg Med.* 2024 Nov 17;24(1):217. doi: 10.1186/s12873-024-01133-4. PMID: 39551728; PMCID: PMC11571529.
 - [25]. National Guideline Centre (UK). Emergency and acute medical care in over 16s: service delivery and organisation. London: National Institute for Health and Care Excellence (NICE); 2018 Mar. (NICE Guideline, No. 94.) Chapter 41, Cost-effectiveness analyses. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK564937/>
 - [26]. Kozłowska O, Lumb A, Tan GD, Rea R. Barriers and facilitators to integrating primary and specialist healthcare in the United Kingdom: a narrative literature review. *Future Healthc J.* 2018 Feb;5(1):64-80. doi: 10.7861/futurehosp.5-1-64. PMID: 31098535; PMCID: PMC6510038.
 - [27]. Manias E, Geddes F, Watson B, Jones D, Della P. Communication failures during clinical handovers lead to a poor patient outcome: Lessons from a case report. *SAGE Open Med Case Rep.* 2015 Apr 29;3:2050313X15584859. doi: 10.1177/2050313X15584859. PMID: 27489689; PMCID: PMC4857297.
 - [28]. Titzer JL, Swenty CF, Mustata Wilson G. Interprofessional education: Lessons learned from conducting an electronic health record assignment. *J Interprof Care.* 2015;29(6):536-40. doi: 10.3109/13561820.2015.1021000. Epub 2015 May 8. PMID: 25955409.
 - [29]. Raeisi A, Rarani MA, Soltani F. Challenges of patient handover process in healthcare services: A systematic review. *J Educ Health Promot.* 2019 Sep 30;8:173. doi: 10.4103/jehp.jehp_460_18. PMID: 31867358; PMCID: PMC6796291.

- [30]. El-Awaisi A, Yakti OH, Elboshra AM, Jasim KH, AboAlward AF, Shalfawi RW, Awaisu A, Rainkie D, Al Mutawa N, Major S. Facilitators and barriers to interprofessional collaboration among health professionals in primary healthcare centers in Qatar: a qualitative exploration using the "Gears" model. *BMC Prim Care*. 2024 Aug 27;25(1):316. doi: 10.1186/s12875-024-02537-8. PMID: 39192182; PMCID: PMC11348528.
- [31]. Buljac-Samardzic M, Doekhie KD, van Wijngaarden JDH. Interventions to improve team effectiveness within health care: a systematic review of the past decade. *Hum Resour Health*. 2020 Jan 8;18(1):2. doi: 10.1186/s12960-019-0411-3. PMID: 31915007; PMCID: PMC6950792.
- [32]. Kongkar R, Ruksakulpiwat S, Phianhasin L, Benjasirisan C, Niyomyart A, Ahmed BH, Puwarawuttipanit W, Chuenkongkaew WL, Adams J. The Impact of Interdisciplinary Team-Based Care on the Care and Outcomes of Chronically Ill Patients: A Systematic Review. *J Multidiscip Healthc*. 2025 Jan 30;18:445-457. doi: 10.2147/JMDH.S497846. PMID: 39902192; PMCID: PMC11789502.
- [33]. Riplinger L, Piera-Jiménez J, Dooling JP. Patient Identification Techniques - Approaches, Implications, and Findings. *Yearb Med Inform*. 2020 Aug;29(1):81-86. doi: 10.1055/s-0040-1701984. Epub 2020 Aug 21. PMID: 32823300; PMCID: PMC7442501.
- [34]. Elamin A, Al Saad A, Wijayasingam G, Cho WS. Evaluating the Appropriateness of ENT Emergency Clinic Referrals to Enhance the Quality of Healthcare Provision in the National Health Service (NHS). *Cureus*. 2024 Jan 19;16(1):e52547. doi: 10.7759/cureus.52547. PMID: 38370987; PMCID: PMC10874492.
- [35]. Rising KL, Carr BG, Hess EP, Meisel ZF, Ranney ML, Vogel JA. Patient-centered Outcomes Research in Emergency Care: Opportunities, Challenges, and Future Directions. *Acad Emerg Med*. 2016 Apr;23(4):497-502. doi: 10.1111/acem.12944. Epub 2016 Mar 24. PMID: 26919027; PMCID: PMC5222628.
- [36]. Fukami T. Patient engagement with psychological safety. *Dialogues Health*. 2023 Sep 17;3:100153. doi: 10.1016/j.dialog.2023.100153. PMID: 38515810; PMCID: PMC10953965.
- [37]. Göransson KE, Drennan J, Mainz H, Fauerholdt Skov N, Amritzer M, Berg LM, Andersen KV, Lisby M. The scope of emergency nursing viewed through the lens of complex adaptive systems: A discussion paper. *Int J Nurs Stud Adv*. 2024 Nov 26;8:100270. doi: 10.1016/j.ijnsa.2024.100270. PMID: 39850634; PMCID: PMC11754812.
- [38]. Daro D, Dodge KA. Creating community responsibility for child protection: possibilities and challenges. *Future Child*. 2009 Fall;19(2):67-93. doi: 10.1353/foc.0.0030. PMID: 19719023; PMCID: PMC3730282.
- [39]. Munari SC, Wilson AN, Blow NJ, Homer CSE, Ward JE. Rethinking the use of 'vulnerable'. *Aust N Z J Public Health*. 2021 Jun;45(3):197-199. doi: 10.1111/1753-6405.13098. Epub 2021 Apr 5. PMID: 33818873; PMCID: PMC9968560.
- [40]. Institute of Medicine (US) Committee on Building Bridges in the Brain, Behavioral, and Clinical Sciences; Pellmar TC, Eisenberg L, editors. *Bridging Disciplines in the Brain, Behavioral, and Clinical Sciences*. Washington (DC): National Academies Press (US); 2000. 3, Barriers to Interdisciplinary Research and Training. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK44876/>
- [41]. Methangkool E, Tollinche L, Sparling J, Agarwala AV. Communication: Is There a Standard Handover Technique to Transfer Patient Care? *Int Anesthesiol Clin*. 2019 Summer;57(3):35-47. doi: 10.1097/AIA.0000000000000241. PMID: 31577236; PMCID: PMC6777853.
- [42]. Khusheim LH. Leveraging Digital Platforms and Leadership Inclusivity to Enhance Leadership Effectiveness and Patient Outcomes in Healthcare Organizations. *Healthcare (Basel)*. 2025 Jul 28;13(15):1833. doi: 10.3390/healthcare13151833. PMID: 40805866; PMCID: PMC12346165.
- [43]. Wu H, Karabanow J, Hoddinott T. Building Emergency Response Capacity: Multi-Career-Stage Social Workers' Engagement with Homeless Sector during the First Two Waves of COVID-19 in Halifax, Nova Scotia, Canada. *Int J Environ Res Public Health*. 2022 Oct 5;19(19):12713. doi: 10.3390/ijerph191912713. PMID: 36232013; PMCID: PMC9566631.
- [44]. Shakhman LM, Al Omari O, Arulappan J, Wynaden D. Interprofessional Education and Collaboration: Strategies for Implementation. *Oman Med J*. 2020 Jul 31;35(4):e160. doi: 10.5001/omj.2020.83. PMID: 32832104; PMCID: PMC7430136.
- [45]. Fernandes A, Ray J. Improving the safety and effectiveness of urgent and emergency care. *Future Healthc J*. 2023 Nov;10(3):195-204. doi: 10.7861/fhj.2023-0085. PMID: 38162221; PMCID: PMC10753205.