Open Access Emergency Medicine

Dovepress
Taylor & Francis Group

Open Access Full Text Article

ORIGINAL RESEARCH

Evaluating Quality of Care in Emergency Departments: Perspectives of Patients' and Health Professionals in Saudi Arabia

Mashael A Hobani[1], Abdullatif A Almarashi[2], Ali H Dammas[3], Lina H Khusheim[1], Ghassan A Murshid[3], Turki G Alahmadi[3], Waleed M Kattan[1], Khalid A Alasmari[4]

[1]Department of Health Services Administration and Hospitals, Faculty of Economic and Administration, King Abdulaziz University, Jeddah, 80201, Saudi Arabia; [2]Department of Research, Jeddah First Health Cluster, Jeddah, Saudi Arabia; [3]Emergency Department, Jeddah Second Health Cluster, Jeddah, Saudi Arabia; [4]Ministry of Health – Jeddah Branch, Jeddah, Saudi Arabia

Correspondence: Mashael A Hobani, Email Mahobani@kaue.edu.sa

Open Access Emergency Medicine downloaded from https://www.dovepress.com/
For personal use only.

Background: The emergency department (ED) plays a vital role in providing life-saving services in hospitals worldwide. In Jeddah province, Saudi Arabia, the Ministry of Health introduced the "Door to Disposition" key performance indicator (KPI) to enhance ED service quality by addressing overcrowding, limited bed capacity, delays in patient transfer, and complex logistical inefficiencies. However, little is known about how this initiative has affected the quality of ED care from the perspectives of patients and healthcare professionals.

Aim: To evaluate the quality of health services in the ED from the patients' and health professional's perspectives.

Methods: A qualitative design was employed using purposive sampling. Semi-structured interviews were conducted with 32 patients and 24 health professionals across 11 public hospitals (three rural and eight urban) in Jeddah between November 2023 and January 2024. Interviews were conducted face-to-face or by phone in Arabic or English, recorded with consent, and analyzed thematically.

Findings: Participants highlighted the importance of the "Door to Disposition" initiative and its valuable implementation. On the other hand, the primary reported barriers to emergency quality care provision are the absence of an effective triage system, shortage of medical practitioners, long waiting times, lack of dedicated urgent care centers, and lack of resources and logistical support. Thus, participants suggested improving emergency department services by focusing on primary and secondary care centers in terms of essential services and supplies, increasing the physical and human capacity of hospitals, establishing affiliated urgent care centers, providing effective and efficient means of communication between primary and secondary care centers, and finally, continually developing the healthcare providers capabilities.

Conclusion: The study helped to identify the barriers and facilitators encountered by patients and health professionals when accessing and utilizing emergency care in Jeddah.

Keywords: emergency care, quality of care, qualitative research, patient perspectives, barriers to care, management

Introduction

The quality of the emergency department is critical in supporting life-saving instances in hospitals worldwide. In the context of Jeddah Province in Saudi Arabia, a Door to Disposition Key Performance Indicator was implemented to improve the quality of services in the emergency department (ED).[1] This initiative addresses the problems of limited emergency beds, slow patient transfer processes, unreliable ambulance transport services, prolonged test results, and complex logistical inefficiencies.[2,3] Challenges impacting ED services result from rapid population growth and urbanization, which puts pressure on healthcare infrastructure.[4] According to the Ministry of Health, Saudi Arabia, proper resource allocation, patient engagement, specialization, smooth patient referral, better ambulance services, and legislation of new policies and procedures are aligned with improving ED challenges in the Jeddah province.[1] However, it needs to

Received: 17 June 2025
Accepted: 15 October 2025
Published: 26 October 2025

© 2025 Hobani et al. This work is published and licensed by Dove Medical Press Limited. The full terms of this license are available at https://www.dovepress.com/terms.php and incorporate the Creative Commons Attribution – Non Commercial (unported, v4.0) License (http://creativecommons.org/licenses/by-nc/4.0/). By accessing the work you hereby accept the Terms. Non-commercial uses of the work are permitted without any further permission from Dove Medical Press Limited, provided the work is properly attributed. For permission for commercial use of this work, please see paragraphs 4.2 and 5 of our Terms (https://www.dovepress.com/terms.php).

be clarified whether the strategies implemented by the Ministry of Health in Saudi Arabia have effectively addressed the province's evolving challenges. Prior assessments of ED quality in Saudi Arabia remain limited and have not fully evaluated provincial-level data or qualitative patient perspectives. This study seeks to assess the impact of the Door-to-Discharge Time as a critical KPI for improving the quality of ED services among healthcare facilities in Jeddah province.

Aims and Objectives of the Study

This study aimed to evaluate the quality of health services in the ED of Jeddah Province. It was influenced by the Door to Disposition initiative as a KPI to provide evidence-based practices for improvement. The three main objectives are as follows:

1. To explore patients' and health professionals' perspectives in the ED regarding the quality of care provided in the Jeddah Province.
2. To identify the barriers and facilitators encountered by patients and health professionals when accessing and utilizing emergency care in Jeddah Province.
3. To provide recommendations for improving emergency care in Jeddah Province.

Materials and Methods

Participants' Inclusion Criteria and Sample Size

The research included two types of participants. First, patients who received care in ER departments, were above the age of 18, able to speak Arabic or English, and had the mental capability to answer the interview questions. Second, health professionals who provide care in ER departments. The total number of participants was 56 (32 patients and 24 doctors). As this was a qualitative study, a formal statistical sample size calculation was not applicable. Purposive sampling was used to ensure representation across both rural and urban hospitals. Recruitment continued until thematic saturation was reached, which was achieved by the 56th interview, ensuring adequate sample size for qualitative analysis.

Contacts, Consent, and Ethical Statement

All information related to the study was provided to potential participants. Upon agreement, a consent form was signed by the participants, and face-to-face interviews were conducted in a convenient room in the hospital or by phone. Written informed consent was obtained from each participant prior to participation. Consent included agreement for the publication of anonymized responses and direct quotations. This study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Ethics Committee of King Abdulaziz University, Approval No. A01776.

Study Setting

This study was conducted in 11 public hospitals (three in rural areas and eight in urban areas) in Jeddah Province.

Design and Data Collection

This was a qualitative study in the form of semi-structured, individual interviews. Interviews took 30–60 minutes and were carried out in either Arabic or English and recorded with the permission of the participants. Each participant was interviewed once. The research was held in November 2023 – January 2024. The interview guide was formulated based on review of related literature, expert guidance and pilot testing. Examples of guiding questions were: "*How do you rate the quality of ED care you received/provided?"* and "*What barriers or facilitators did you experience when receiving or providing care?"* The guide was reviewed by two experts in qualitative methods to ensure face validity.

Analysis of Methodology

Thematic analysis was employed to analyze interview recordings, which were transcribed verbatim (Braun and Clarke, 2006). The analytic procedure involved becoming familiar with the data, developing initial codes, developing themes,

and interpreting. NVivo 12 software was used to support systematic coding and data management. The analysis was done by two independent coders, and differences were agreed upon via discussion. To reduce bias, the researcher kept records of assumptions and reflections during researcher reflexivity. Arabic interviews were coded, and themes were translated into English. The accuracy of the translated data was checked by forward translations and independent verification.

Results

Participant Demographics and Characteristics

Analysis of the demographic information shows a diversity of participants' functional roles occupied by the emergency department participants, including consultants, specialists, emergency physicians, residents, administrative department heads, deputy department directors, and duty managers. The participant's selection process is given in Table 1. Emergency department physicians have an average of four years of practical experience in such roles. Most of them had received specialized professional training in critical care provision, while a few had received specialized professional training in the "Door to Disposition" initiative. On the other hand, seventy-two percent of the participating patients were males, while the average age of all participants was approximately 30 years, and the majority were university graduates in terms of education (Table 2). Furthermore, sixty-nine percent of the participants were Saudi nationals, and sixty-five percent of the admitted patients had non-urgent/cold cases (Table 3). The following paragraphs summarize the participants' responses and corresponding quotations, mainly around the two extracted themes.

Table 1 Study Flow Diagram – Participant's Selection Process

Stage	Patients (n)	Health Professionals (n)	Total (n)
Screened for eligibility	45	35	80
Excluded	13	11	24
Did not meet inclusion criteria	9	6	15
Declined to participate	4	5	9
Eligible and provided consent	32	24	56
Completed interview	32	24	56

Table 2 Patient's Characteristics

ID	Gender	Age	Employment Status	Education	Nationality	Reason for Visit	Theme
ED-P-01	M	38	Employee	N/A	Saudi	Influenza	Quality and Access to ED Services
ED-P-06	M	41	Employee	Bachelor's degree	Saudi	Back Pain	Communication and Literacy
ED-P-07	F	23	Student	Bachelor's degree	Saudi	UTI	Quality and Access to ED Services
ED-P-11	F	39	Employee	Bachelor's degree	Saudi	Influenza	Quality and Access to ED Services
ED-P-12	M	20	Student	Diploma	Saudi	Influenza	Quality and Access to ED Services
ED-P-14	M	20	Student	Bachelor's degree	Saudi	Fistula Inflammation	Quality and Access to ED Services
ED-P-25	M	22	Student	Bachelor's degree	Saudi	Eye Injury	Communication and Literacy
ED-P-31	F	27	Employee	High School	Non-Saudi	Sore Throat	Communication and Literacy

Table 3 Physician's Characteristics

ID	Gender	Years of Experience	Current Role	Theme
ED-D-01	M	4	Emergency resident	Quality and Access to ED Services
ED-D-02	M	3	Administrative department head	Quality and Access to ED Services
ED-D-05	F	N/A	Emergency physician	Quality and Access to ED Services
ED-D-06	M	10	Emergency consultant	Quality and Access to ED Services
ED-D-09	M	1	Emergency resident	Quality and Access to ED Services
ED-D-10	M	15	Emergency consultant	Quality and Access to ED Services
ED-D-13	M	5	Duty manager	Quality and Access to ED Services
ED-D-20	M	8	Emergency specialist	Communication and Literacy

Thematic Analysis and Emerging Themes

Theme 1: Quality and Access to ED Services

There is almost a consensus among participating physicians that current emergency care services are much better than in earlier years, with some describing them as excellent.

> Undoubtedly, the current quality is better than what was provided before, and it is continuously improving yearly. [ED-D-06]

Most participating physicians highlighted the positive impact of implementing the "Door to Disposition" initiative on improving emergency services; however, only a few participants were unaware of it and believed that it overstressed emergency department practitioners and made them focus on reported statistics rather than the actual delivery service. This initiative prioritizes critical cases and offers treatment based on the patient's condition according to medical standards. Regarding the strengths of the emergency care system, participating doctors emphasized the highly qualified and experienced medical practitioners, supporting staff, and effective specialized operations of the emergency department. On the other hand, the majority highlighted the lack of initial triage as a significant weakness; thus, non-urgent or cold cases, such as influenza, accumulate and delay streamlined operations. Other reported drawbacks are a lack of resources, training, and development; inadequate community engagement; insufficient critical case management by resident doctors; clear standardizing regulations; and inefficient discharge and follow-up administrative systems.

> One of the strengths is that the doctors are graduates of the Saudi Board of Emergency Medicine program, a premier quality training in this field. [ED-D-02]

> In my opinion, the weakness lies in the presence of non-urgent/cold cases overcrowding the emergency departments. [ED-D-05]

The participating doctors also highlighted several obstacles hindering effective and timely emergency care provision. One is the lack of availability of primary and urgent care centers geographically close to patients' locations; therefore, essential services such as laboratory tests, imaging devices, and medications are insufficient. Thus, many non-urgent/cold cases are redirected to emergency departments in secondary care centers that lack proper initial triage services. One participant criticized the local Red Crescent's coordination of initial case screening, bringing many unnecessary non-urgent cases to the emergency department.

Moreover, there is a shortage of healthcare practitioners, beds, and equipment, and a lack of effective electronic systems. In addition, there is insufficient medical training, long working hours, and varied shifts in the medical field. Finally, a few participating doctors mentioned some patients' behavioral issues, such as frequent unnecessary visits to the emergency department seeking quick recovery, as well as the patients' families' interference in treatment plans, which leads to inefficient resource utilization.

> Of course, the emergency department is connected to all other departments in the hospital, including admission and critical care. This means the hospital operates as a unified system. If there is an adequate number of beds available, the flow in the emergency department would be smooth. The lack of beds is often an obstacle for emergency doctors to provide services in a timely manner. [ED-D-02]

On the other hand, less than ten percent of the participating patients criticized the long waiting queues due to the high volume of patients and lack of prioritization measures, leading to overcrowding of the emergency departments. In addition, a few patients noticed delays in responses to their requests and a lack of medical services and supplies, mainly wheelchairs, blankets, and other facility-related items, such as accessible locations and parking accessibility and availability. Moreover, there are insufficient registration processes, average treatment times, poor communication, and unsatisfactory patient attention. Most participating physicians highlighted the lack of patient distinction between the roles and responsibilities of primary and secondary care centers and the emergency department's role as a critical case treatment facility.

> In a visit to the emergency department, one of the doctors showed no sympathy and did not treat me or my sick son with humanity. He added that your son's condition does not warrant coming. [ED-P-11]

> As I told you, no one responds to me. They just ask me what is wrong, and I tell them my illness, and then they disappear. I feel like I am going to die from the intense pain. [ED-P-07]

> I believe the delay is due to the hospital's overcrowding and the priority given to certain cases. I see people with broken hands, broken legs, so definitely there are cases more urgent than a fever case, like mine. [ED-P-12]

> As we mentioned earlier, there is a lack of societal awareness regarding the emergency department, which specializes only in critical cases requiring urgent or direct medical intervention. [ED-D-10]

Furthermore, emergency department physicians observed that implementing the following practices improved patients' overall care experience.

1. Having an on-duty manager to ensure continuous oversight and management of the department around the clock.
2. Assigning a nursing team leader to facilitate patient visit management, coordination, and follow-up.
3. Regulating the process of responding to medical consultations from the emergency department: This includes ensuring that radiology reports are ready within an hour or less and responding to medical consultations within half an hour. Based on the response, patients are either admitted or discharged.
4. Enforcing the preliminary triage role to evaluate cases and filter out emergencies before sending them for immediate care to the emergency department.
5. Increasing the number of healthcare practitioners.
6. Rehabilitating the Emergency Department and scheduling tasks.
7. Establishing urgent care centers (UCCs) is essential.
8. Implementing a patient evaluation system to identify areas of improvement throughout the treatment process.
9. Implementing up-to-date technology to facilitate efficient communication and problem-solving among emergency department practitioners.
10. Establishing a patient experience department.

> The presence of the Patient Experience department has improved the assistance provided to patients with issues or delays. They listen, help, and explain things to patients. [ED-D-13]

> The presence of the Patient Experience department has alleviated our burden and has been very helpful to us. [ED-D-01]

Regarding suggestions to enhance overall emergency department care provision, most participating doctors suggested conducting interviews and distributing surveys among healthcare practitioners to listen to and understand challenges before implementing corrective action plans. Moreover, participants suggested improving the hospital's capacities,

expanding in highly populated areas, enhancing the hospital's internal and external environment and support services, operating more primary healthcare centers, providing more emergency medical practitioners, and adopting efficient administrative and communications systems between primary and secondary healthcare centers, especially in referral transactions.

> I propose electronic registration through mobile devices, where patients can enter their information digitally. It would eliminate the need for patients to wait in line for registration, which is especially beneficial for sick individuals and reduces the potential infection transmission. [ED-P-12]

Participants believed that a unified patient database would enhance cooperation between emergency departments and other healthcare facilities. They also suggested increasing the number of ICUs and inpatient beds, providing medical tools, tests, and supplies, enhancing the capabilities of the Red Crescent, and supervising resident doctors in managing critical cases.

> I believe that enhancing collaboration can be achieved by unifying the system for accessing patient information and enabling direct patient transfer from the emergency department to clinics. [ED-D-05]

> I see the necessity for resident doctors to cover critical areas such as Cardiopulmonary Resuscitation and not only rely on non-critical areas. [ED-D-09]

Finally, in terms of professional development opportunities, one participating physician emphasized facilitating entry into medical fellowship programs in emergency medicine managed by the Saudi Commission for Health Specialties, giving years of experience adequate weight in the admission process. Many other physicians suggested offering free beneficial training courses, such as ACLS, ATLS, PALS, NRP, BLS, NLP, IV Line Insertion, ECG, X-ray, Triage Skills, and others in leadership, teamwork, and effective communication.

Theme 2: Communication and Literacy

All participating physicians emphasized the importance of effective and efficient communication and its role in improving patient experience and quality of care provision. This helps deliver better and more efficient emergency healthcare services and reduces patient waiting times. Participants also noted that effective communication promotes teamwork and prevents misunderstandings and associated problems in the OR. Moreover, a few participants suggested means to enhance communication, such as developing electronic management systems and facilitating access and use of these systems. They also highlighted the need for unified leadership, connecting everyone, and coordinating.

> Our records show that ninety percent of the problems that arise are related to communication issues, between departments and doctors, doctors and nurses, or nurses themselves. [ED-D-20]

Furthermore, 50% of the emergency department practitioners mentioned that they had no difficulty communicating with patients, and language and cultural differences were rare. Some participants mentioned seeking assistance from healthcare practitioners who speak languages other than Arabic and English to communicate with non-Arabic- and English-speaking patients. Additionally, one participant mentioned relying on patient experience, the Social Service Department, the patient's embassy assistance on a few occasions, or gestures or technology for translation, communication, and more linguistic and cultural explanations for the patients. Regarding healthcare information and patient involvement in their treatment plans, most participating patients were satisfied with the information and explanations received about their health condition. They appreciated discussions with healthcare providers to further clarify the plan and available treatment options.

> All the information about my condition was given to me. Honestly, I became well-informed about my situation. [ED-P-25]

> Definitely, I discussed with the doctor the consequences of the illness, the preventive treatments, and the recovery duration. [ED-P-06]

Some participating patients claimed that emergency healthcare providers treated them with no empathy during their visits and attributed this to workload pressure and overcrowded emergency departments. Nevertheless, two-thirds of the patients confirmed receiving detailed discharge reports, explanations, and information on subsequent follow-up visits.

> Yes, they gave me a discharge report and the MRI report; they explained my medical condition and told me to come back if I felt tired or had any concerns. [ED-P-06]

Furthermore, all patients unequivocally confirmed that they did not receive follow-up calls from the hospital to check on them. Finally, some patients suggested developing better information and emotional support provision mechanisms, while others recommended offering adequate communication skills and emotional intelligence training and implementing efficient communication channels, such as WhatsApp or the "Sehhaty" application.

Discussion

This study evaluated the quality of emergency department (ED) services in Jeddah, focusing on improvements and ongoing challenges. Using qualitative data from patients and healthcare professionals, this study highlights the positive impact of the "Door to Disposition" initiative and identifies areas that require further attention. The discussion contextualizes these findings within the existing literature and healthcare policies, providing insights into resource and system challenges, patient experiences, and the importance of communication and professional development in enhancing ED service quality.

Improved in ED and Service Quality

The results of this study indicate a general consensus among healthcare professionals and patients regarding the improved quality of ED services in Jeddah Province, reflecting the positive impact of the "Door to Disposition" initiative. These findings align with the goals set by the Ministry of Health in Saudi Arabia to enhance ED services as part of the broader Vision 2030 objectives.[1] Both the process and structural improvements, such as a decrease in waiting time and more systematic care pathways, were mentioned by participants and could be observed throughout the patient and professional accounts.

Resource and System Challenges

The identified limitations, including the inadequacy of triage systems and resource shortages, reflect the challenges noted by Albalawi et al regarding the allocation of resources and equipment in healthcare.[5] These findings confirm the literature's identification of infrastructure pressures due to urbanization and population growth,[4] underscoring the need for continued investment in healthcare infrastructure and in personnel training.

Interestingly, the study's results also highlight the role of inter-professional collaboration and the need for continual professional development to address the growing and diverse needs of Jeddah's population. This is consistent with the findings of Ahmadpour et al and Philippon et al, who advocated teamwork and ongoing training as essential components for improving ED service quality.[6,7] Furthermore, the suggestion to enhance communication channels within the ED and between primary and secondary care centers mirrors the literature's emphasis on the critical role of effective communication in patient-centered care.[8–10]

Patient Experience and Satisfaction

The patients' positive experiences and high satisfaction levels with ED services in this study offer a more refined understanding than that in the literature. While Almass et al highlighted effective communication as pivotal for patient satisfaction, the current study adds that emotional support and provider empathy play crucial roles in enhancing the patient's experience, aspects that are less emphasized in the existing literature.[8] These findings indicate that patient-centered care extends beyond procedural efficiency to include relational and emotional components of care.

Communication and Literacy

Our findings highlight the crucial role of effective communication in enhancing the quality of patient care, aligning with Ahmadpour et al, who underscored its significance in fostering teamwork and improving patient outcomes in the ED settings.[6] The potential of digital tools to enhance communication suggests a promising approach to healthcare, facilitating more engaging and efficient interactions between patients and providers.[11–13]

While some patients reported satisfactory interactions, others felt excluded from their care plans, highlighting the need for comprehensive strategies ensure that all patients are actively engaged and informed about their treatment.[14–16]

Future Directions, Recommendations and Limitations

To improve ED care quality in Jeddah, a comprehensive strategy that includes establishing effective triage systems, expanding primary and urgent care networks, and enhancing healthcare professional training, is vital. Embracing digital technology could revolutionize communication practices and enhance patient engagement and care coordination. Continuous evaluation of the "Door to Disposition" initiative is essential to ensure that it effectively enhances care quality without compromising the patient's experience.

There are limitations to the study. The sample size is good, but interviews could be biased, which could restrict generalization of the results. Also, the views recorded represent a certain local area (Jeddah) and possibly do not well indicate other areas in Saudi Arabia, as well as other international ED environments. These limitations are important to acknowledge and put the findings into perspective.

In general, the results align with the goals of Saudi Vision 2030, and recommendations can be achieved in the prevailing conditions of healthcare, but proper planning and resource distribution is required on the way to the successful implementation.

Conclusion

Not only does the findings of the study complement but also expands the current literature on ED and service quality in Saudi Arabia by giving the study context-sensitive information on Jeddah and patient-centered considerations. The Door to Disposition initiative can be seen as an important step to enhance ED services due to the insights of the study, as well as to the overall policy goals. Although structural and procedural improvements are noticeable, the study focuses on the fact that patient satisfaction and quality equally rely on human factors including effective communication, empathy, and emotional support.

These results indicate that there are two complementary ways of further growth. To reinforce ED operations, first, systemic improvements, including the optimization of workflow, overcoming resource constraints, and the improvement of triage processes, are required. Second, the development of a culture of empathy, patient engagement, and effective communication is necessary to provide high-quality and patient-centered care. These factors create holistic experiences of patients and enhance ED outcomes.

Future studies need to take the long-term perspective of longitudinal analysis to assess the long-term effects of such initiatives as "Door to Disposition" and to find sustainable approaches to improve the quality of emergency care. This research can serve both to improve local practice in Jeddah and the broader discussion of healthcare quality in emergency care in similar health environments by integrating context-specific results with larger healthcare goals.

Acknowledgments

We would like to thank King Abdulaziz University for their valuable support and contributions to this study.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Ministry of Health, Saudi Arabia. Healthcare transformation strategy 2020; 2021. Available from: https://www.moh.gov.sa/en/Ministry/About/Pages/Healthcare-Transformation-Strategy. Accessed October 21, 2025.
2. Al-Wathinani AM, Aldawsari S, Alhallaf M, Alotaibi Y, Alrazeeni D. Assessment of emergency department satisfaction level in Saudi Arabia General Hospital. *Saudi J Anaesth*. 2022;16(1):4–9. doi:10.4103/sja.sja_285_21
3. Di Laura D, D'Angiolella L, Mantovani L, Squassabia G, Clemente F, Santalucia I. Efficiency measures of emergency departments: an Italian systematic literature review. *BMJ Open Qual*. 2021;10(3):e001058. doi:10.1136/bmjoq-2020-001058
4. Chen L, Chen T, Lan T, Chen C, Pan J. The contributions of population distribution, healthcare resourcing, and transportation infrastructure to spatial accessibility of health care. *Int J Health Care Organ Provides Finance*. 2023;62(4):469580221146041.
5. Albalawi A, Kidd L, Cowey E. A systematic review of factors contributing to the patient safety culture in Saudi Arabia. *BMJ Open*. 2020;10(10):e037875. doi:10.1136/bmjopen-2020-037875
6. Ahmadpour S, Bayramzadeh S, Aghaei P. Efficiency and teamwork in emergency departments: perception of staff on design interventions. *HERD Health Environ Res Des J*. 2021;14(4):310–323.
7. Philippon AL, Truchot J, De Suremain N, et al. Medical students' perception of simulation-based assessment in emergency and paediatric medicine: a focus group study. *BMC Med Educ*. 2021;21(1):586. doi:10.1186/s12909-021-02957-5
8. Almass A, Aljohani H, Alhaqbani R, Alromih A, Hadal S, Abozaid H. Patient satisfaction with quality of care at the Kingdom of Saudi Arabia. *Cureus*. 2022;14(12):e32102. doi:10.7759/cureus.32102
9. Abass G, Asery A, Al Badr A, AlMaghlouth A, AlOtaiby S, Heena H. Patient satisfaction with the emergency department services at an academic teaching hospital. *J Fam Med Prim Care*. 2021;10(4):1718–1725. doi:10.4103/jfmpc.jfmpc_8_20
10. Al-Qahtani MH, Yousef AA, Awary BH, Albuali WH, Al Ghamdi MA. Characteristics of visits and predictors of admission from a paediatric emergency room in Saudi Arabia. *BMC Emerg Med*. 2021;21(1):72. doi:10.1186/s12873-021-00467-7
11. Elhadi M, Elhadi A, Bouhuwaish A, et al. Telemedicine awareness, knowledge, attitude, and skills of health care workers in a low-resource country during the COVID-19 pandemic: cross-sectional study. *J Med Internet Res*. 2021;23(2):e20812. doi:10.2196/20812
12. Alharbi M. An analysis of the Saudi health-care system's readiness to change in the context of the Saudi National Health-care Plan in vision 2030. *Int J Health Sci*. 2018;12(3):83–91.
13. Al Owad A, Islam M, Samaranayake P, Karim A. Relationships between patient flow problems, health care services, and patient satisfaction: an empirical investigation of the emergency department. *Bus Process Manag J*. 2022;28(3):684–712. doi:10.1108/BPMJ-11-2020-0523
14. Sonis JD, White BA. Optimizing Patient Experience in the Emergency Department. *Emerg Med Clin North Am*. 2020;38(3):705–713. doi:10.1016/j.emc.2020.04.008
15. Al-Saidat HM, Malak MZ, Alnawafleh AH. Patients' perception of quality nursing care and services in emergency department in Jordan. *Hosp Top*. 2025;103(1):10–19. doi:10.1080/00185868.2022.2144577
16. Alnasser S, Alharbi M, AAlibrahim A, et al. Analysis of emergency department use by non-urgent patients and their visit characteristics at an academic center. *Int J Gen Med*. 2023;3(2):221–232. doi:10.2147/IJGM.S391126

Open Access Emergency Medicine

Dovepress
Taylor & Francis Group

Publish your work in this journal

The Open Access Emergency Medicine is an international, peer-reviewed, open access journal publishing original research, reports, editorials, reviews and commentaries on all aspects of emergency medicine. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

Submit your manuscript here: https://www.dovepress.com/open-access-emergency-medicine-journal