



Publisher: Scientific-Professional Society for Disaster Risk Management

International Journal of Disaster Risk Management



Article

The Impact of Political Variables on the Quality of Health Services in Governmental Hospitals - Case Study: Al-Shifa Medical Complex

Ahmad H. Al-Ramlawi¹, Jamil F. Al-Agha², Nizam M. El-Ashgar^{3*}¹ Department of Safety and Infection Control, Gaza Governorate Emergency Committee, Al-Shifa Medical Complex, Gaza Strip, Palestine; a7meed.ps1989@gmail.com.² Al Shifa Medical Complex, Gaza Strip, Palestine; jamil-agma@hotmail.com.³ Crisis and Disaster Management Program, Islamic University of Gaza, Palestine; nashgar@iugaza.edu.ps.

* Correspondence: nashgar@iugaza.edu.ps.

Received: 11 August 2025; Revised: 10 October 2025; Accepted: 7 November 2025; Published: 30 December 2025.

ABSTRACT

The Gaza Strip's hospitals and health centers face severe shortages of medical devices and essential equipment due to prolonged political instability. This study aimed to assess the impact of political variables on the quality of health services at Al-Shifa Medical Complex. A descriptive analytical approach was adopted. Data were collected through 15 field observation visits and five structured interviews with key healthcare stakeholders, including physicians, nurses, and administrators. Observations focused on equipment availability, staff adequacy, and service delivery efficiency. Findings revealed that the prolonged Israeli blockade and internal Palestinian political division have critically undermined healthcare quality, availability, and resilience at Al-Shifa Medical Complex. Key challenges include shortages of essential medicines, medical equipment, and trained personnel; frequent power outages; inadequate hospital infrastructure; and staff-to-patient ratios averaging 1:12 per shift, all of which delay treatments, reduce patient safety, and compromise specialized services such as dialysis and neonatal care. Political instability directly affects staff capacity and the efficiency of health services, underscoring the urgent need for strategic interventions to strengthen hospital resilience. Hospital administrators and policymakers should prioritize equipping departments with essential medical devices, ensuring reliable medication supplies, and maintaining adequate staffing levels. Strengthening professional development and staff incentives, along with creating a safe, sustainable healthcare environment, are essential to improving service quality and system resilience. These measures support the strategic objectives of the Palestinian Ministry of Health and help safeguard healthcare delivery under political instability.

KEYWORDS

Health services quality; governmental hospitals; Al-Shifa medical complex; Israeli blockade; Gaza Strip.



Copyright: © 2025 by the authors.

Al-Ramlawi, A. H., Al-Agha, J. F., & El-Ashgar, N. M. (2025). The Impact of Political Variables on the Quality of Health Services in Governmental Hospitals - Case Study: Al-Shifa Medical Complex. *International Journal of Disaster Risk Management*, 7(2), 517–528. Retrieved from <https://internationaljournalofdisasterriskmanagement.com/index.php/Vol1/article/view/210>

1. Introduction

The Gaza Strip has been enduring prolonged political instability, including the comprehensive blockade imposed after the Palestinian division in 2007, when Hamas assumed responsibility for administering the region. The blockade, enforced through systematic restrictions by successive Israeli governments, has severely constrained the movement of goods, services, and people, affecting citizens, merchants, travelers, and patients alike (Abu Hasira, 2019). These restrictions, compounded by repeated wars, have resulted in deaths, injuries, and the destruction of homes, factories, and vital infrastructure (Al-Ahmadi, 2006). The health sector, in particular, has been significantly impacted: hospitals suffer from shortages of essential medicines, including treatments for critical conditions such as cancer, and the operational capacity of healthcare facilities is further hampered by recurring power outages and fuel crises affecting the sole power plant in the Gaza Strip (Hansen et al., 2008; Al-Imam, 2003). Many patients are unable to access adequate care due to limited treatment capacity and a lack of advanced medical equipment.

Government hospitals in the Gaza Strip provide a broad range of specialized health services to residents, handling complex and severe cases that place considerable demands on healthcare providers. Figure 1 shows the health services provided by the major government hospitals in the Gaza Strip. Many operational challenges, including staff shortages, equipment deficits, and infrastructural limitations, directly affect the quality of health services. While previous studies have highlighted general healthcare difficulties in Gaza, there is limited research specifically examining how political variables influence hospital performance and the delivery of medical services. Similar institutional challenges were identified in Al-Shifa Medical Complex regarding evacuation and sheltering preparedness under crisis conditions (Al-Ramlawi, El-Mougher, & Al-Agha, 2021). Moreover, coordination between governmental and humanitarian organizations in Gaza during the May 2021 escalation was only partially effective, indicating governance and political fragmentation (El-Mougher, 2022).

This study aims to fill this gap by investigating the impact of political factors—including the blockade, internal political divisions, and resource limitations—on the quality and availability of healthcare services at Al-Shifa Medical Complex. The objectives are to identify the main political context-related obstacles, assess their effects on service delivery, and provide evidence-based recommendations to enhance the resilience and efficiency of the health system in Gaza. From a disaster-risk perspective, sustainable recovery of health services depends on resilience and institutional adaptation (Djordjević & Gačić, 2023). Furthermore, the quality of health services must be viewed through the lens of vulnerability, since social and gender factors often amplify health inequalities in crisis contexts (Akter, Roy, & Aktar, 2022).



Figure 1. Health services provided to patients inside Governmental Hospitals

The continued closure of all border crossings in the Gaza Strip with the Israeli side impedes their ability to travel to the West Bank or Israel. As well as the difficulty of accessing even Egyptian hospitals (United Nations - Office for the Coordination of Humanitarian Affairs, 2019). In addition, health centers suffer from a significant shortage of modern medical devices and equipment necessary to treat many incurable diseases or those required to detect diseases at an early stage. During the occupation period and during the Palestinian Intifada, the Gaza Strip suffered from an accumulation of health fragility. After the Palestinian Authority took over the Gaza Strip and the West Bank according to the Oslo agreement in 1993, it tried to restore the health situation, as there was a tangible recovery. However, the health services declined due to the Israeli blockade imposed on the Gaza Strip after 2007. The internal Palestinian division played a significant role in exacerbating the crisis of Health, where it devoted a primitive model of health treatment to the population of the Strip, based only on the provision of primary health care. In return, the population was forced to be treated in Israeli hospitals because there are insufficient medical capabilities to detect many diseases in Gaza Strip hospitals, especially blood diseases, and cancer, as well as the means of their treatment.

The dimensions of service quality are represented by several basic elements that ensure the provision of a safe health service to patients, which can be explained in Figure 2 (Al-Imam, 2003).

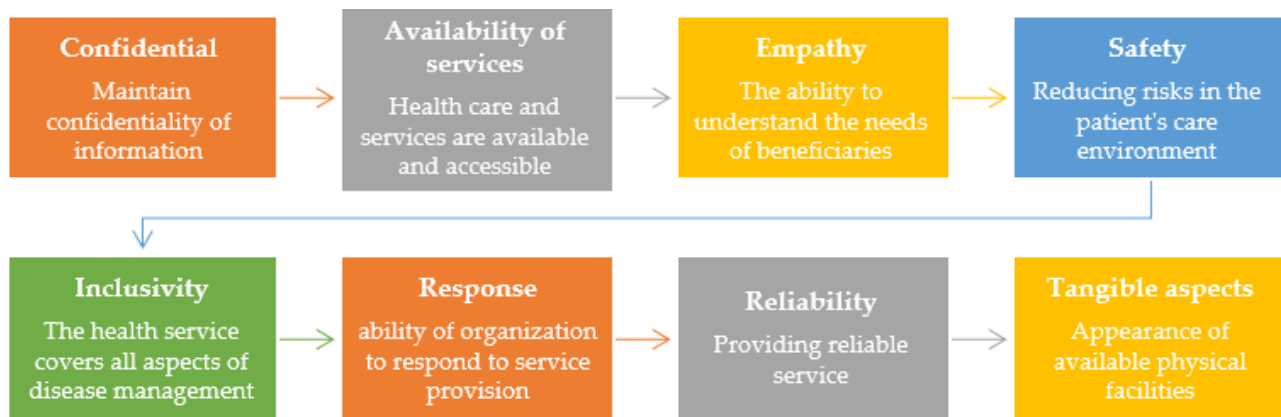


Figure 2. Dimensions of health services for patients

The dimensions of service quality are represented by several basic elements that ensure the provision of safe healthcare to patients (Palestinian Central Bureau of Statistics, 2014). Accordingly, the issue of service quality, especially in health services, has become a major topic in the marketing of all services. This topic is a focus of attention for hospital administrations, beneficiaries of health care services, doctors, and funders of these services, as these multiple parties focus on health service quality to achieve their goals and interests (Haddad, 2001).

Thus, the application of health services quality dimensions ensures the provision of safer, more accessible, and more convincing health services to providers and more satisfying to beneficiaries, thereby generating a positive view of the health care provided in society (Khurmah, 2000). Therefore, this study aimed to identify the impact of political variables on the quality of health services at the Al- Shifa Medical Complex.

2. Methods

To achieve the study's objectives, a descriptive-analytical approach was adopted. This approach allowed for systematic data collection, in-depth understanding of the problem, and drawing objective conclusions based on empirical evidence.

2.1. Tools

2.1.1. Field Visits (Observation)

A total of 15 field visits were conducted across different departments of Al-Shifa Medical Complex. Observation was structured using a pre-designed checklist based on key dimensions of health-care quality: tangibility, reliability, responsiveness, assurance, safety, and empathy (Appendix 1). During each visit, researchers systematically recorded evidence of equipment availability, staff performance, patient flow, and service delivery processes. Observations were triangulated with interview data to enhance reliability and reduce potential observer bias.

2.1.2. Personal Interview

Structured personal interviews were conducted with five stakeholders, including hospital managers, department heads, and senior healthcare providers. The interview guide comprised 14 focused questions covering the study's central themes: the influence of political variables, operational challenges, and quality of health service delivery (Appendix 2). Respondents were randomly selected within relevant departments to ensure a diverse perspective.

3. Results and Discussion

3.1. Field Visits Results (Observation)

3.1.1. Impact of Political Context on Healthcare Services

During multiple site visits to departments at Al-Shifa Medical Complex, it was observed that the 15-year-long Israeli blockade and the Palestinian internal division have significantly reduced both the quality and availability of healthcare services for Gaza citizens. These political factors disrupted supply chains, damaged infrastructure, and limited access to essential medicines and equipment, consistent with Thompson and Kapila (2018), who noted that conflicts and political instability severely affect healthcare service delivery globally. Similar disruptions have been documented in Syria, where ongoing conflict has resulted in the destruction of hospitals and the disruption of pharmaceutical supply chains, limiting access to health services for civilians (Khalil, Al-Amin, & Nassar, 2020). In Lebanon, political instability, combined with refugee influxes, has strained health system capacity, leading to shortages of staff and essential medical supplies (Hassan, Farah, & Haddad, 2019). These parallels indicate that prolonged political instability consistently undermines service quality and availability in conflict settings.

3.1.2. Impact on Medical Staff

Most medical and nursing staff at Al-Shifa Medical Complex exhibited functional burnout, attributed to prolonged financial crises affecting Palestinian government employees for over a decade. Staff shortages were notable across multiple departments, reducing responsiveness and efficiency in patient care. The administration was unable to provide adequate training or professional development in rare specialties. Furthermore, staff did not receive material or moral incentives, despite their critical role during major Israeli attacks on Gaza. These findings align with Al-Ahmadi (2006), highlighting leadership, organizational culture, manpower development, and coordination as key factors influencing healthcare quality. Comparable findings in Afghanistan indicate that prolonged conflict, low remuneration, and insufficient professional development reduce healthcare worker retention and performance, directly affecting patient care (Rashid, Ahmad, & Khan, 2018). From a resilience perspective, the chronic burnout and lack of support in Gaza suggest low adaptive capacity in the health system, limiting its ability to respond effectively under crisis conditions.

3.1.3. Impact on Infrastructure and Equipment

Frequent power outages were reported by both staff and patients, affecting emergency and routine medical services across all observed departments. The neonatal department was particularly affected, with shortages of essential medicines and disposable medical supplies, including ventilator, suction, feeding, and throat tubes, as well as blood-changing tubes. Staff were often forced to reuse disposable items for the same patient, highlighting severe resource limitations. This situation compromises patient safety and reduces the quality of service delivery. These observations are consistent with Abu Hasira (2019), who documented a severe lack of material and human resources, poor funding, and inadequate hospital infrastructure in Gaza due to the blockade and political division. Similarly, hospitals in war-affected Syria report that infrastructure destruction and intermittent power and water supplies significantly impede routine and emergency services (Sweileh, Samara, & Taha, 2021). The neonatal and dialysis departments in Gaza experienced disruptions similar to those observed in rural hospitals in Afghanistan during periods of conflict (Doocy, Burnham, & Robinson, 2019).

3.1.4. Impact on Patient Care

As a result of staff shortages, equipment deficits, and infrastructural limitations, patients experienced delays in receiving healthcare services, increasing their risk of deterioration and potential life-threatening complications. In neonatal care, increased premature births were reported, attributed to stress-related conditions in pregnant women living under conflict conditions. These findings demonstrate that political instability directly impacts patient outcomes, reduces service efficiency, and increases health risks in vulnerable populations. Comparable patterns are reported in Syria and Lebanon, where patients face barriers to timely care due to equipment shortages, staff deficits, and damaged infrastructure, leading to higher morbidity and mortality rates (Khalil et al., 2020; Hassan et al., 2019).

These findings indicate that political factors—specifically the Israeli blockade and Palestinian internal division—have a direct negative impact on staff capacity, hospital infrastructure, and patient care. By comparing Gaza's experience with evidence from Syria, Lebanon, and Afghanistan, it becomes clear that health system resilience in conflict settings depends on preparedness, adaptive capacity, and coordinated governance, highlighting the need for targeted interventions to strengthen institutional resilience under chronic political and economic pressures (Khalil et al., 2020; Hassan et al., 2019; Rashid, Ahmad, & Khan, 2018; Doocy et al., 2019).

3.2. *Personal Interview Results*

3.2.1. Health Crises Due to the Israeli Blockade

A nursing supervisor at the Internal Medicine Hospital confirmed that the health crises at Al-Shifa Medical Complex have worsened due to the Israeli blockade. Denial of treatment permits has led to the deterioration of many patients' conditions. The blockade, combined with the internal Palestinian division, has disrupted access to essential medical and therapeutic supplies, directly affecting service quality. These findings are consistent with Al-Bursh (2017), who emphasized that prolonged occupation and blockade caused significant damage to the health sector in Gaza, reducing the availability and effectiveness of healthcare services. Similar health crises are reported in Syria, where conflict and sieges disrupted access to essential medicines and medical supplies, worsening patient outcomes and health system performance (Khalil, Al-Amin, & Nassar, 2020).

3.2.2. Shortages of Medicines and Therapeutic Supplies

A pharmacist at Al-Shifa reported significant shortages of essential medicines, particularly those used by oncology and hematology patients. According to a recent report, the disability rate exceeded 50% for most essential medicines at the complex, severely limiting its capacity to treat critical conditions. These shortages force medical staff to ration medications and adjust treatment protocols, illustrating how political constraints directly compromise patient care and the resilience of the healthcare system. In Lebanon, similar shortages were observed in hospitals serving refugee populations, where political instability and resource limitations forced clinicians to ration drugs and modify treatment plans, directly affecting patient care (Hassan, Farah, & Haddad, 2019).

3.2.3. Working Environment and Hospital Infrastructure

A member of the nursing staff highlighted several environmental and infrastructural factors that reduce healthcare quality: inadequate ventilation increasing infection risk, lack of waiting lounges for visitors and escorts, poor lighting in patient rooms, and narrow spacing between beds due to suboptimal engineering design. These conditions hinder patient mobility, reduce comfort and privacy, and amplify the risk of hospital-acquired infections. These findings align with studies in conflict zones, showing that poor hospital infrastructure magnifies the negative effects of political and resource constraints on service quality. Comparable issues were reported in Afghanistan and Syria, where damaged hospital buildings and insufficient facilities directly limited service delivery and patient safety (Doocy, Burnham, & Robinson, 2019; Sweileh, Samara, & Taha, 2021).

3.2.4. Dialysis and Specialized Services

The Nephrology specialist reported that the Israeli blockade and political division have impaired the Industrial Kidney Department's operations, including maintenance of dialysis devices. The unit—considered one of the most functional globally—faces severe drug shortages, including deficiencies in erythropoietin needed to increase red blood cells in patients with kidney disease. Consequently, dialysis sessions for minor cases were reduced from three to two times per week, posing risks to patient health. These findings highlight how political instability directly affects the continuity of specialized medical services. Similar disruptions were observed in conflict-affected hospitals in Syria and Afghanistan, where specialized services such as dialysis were often suspended or reduced due to shortages in drugs, staff, and equipment (Rashid, Ahmad, & Khan, 2018; Khalil et al., 2020).

3.2.5. Emergency Services and Diagnostic Limitations

The Emergency Department director confirmed that staff work continuously to serve patients despite daily challenges posed by political fluctuations. Major obstacles include recurrent power outages, insufficient medical and nursing staff relative to patient load, lack of essential equipment and advanced diagnostic devices (e.g., MRI, radiotherapy), and unavailability of some laboratory tests within Gaza, forcing patients to seek care outside the Strip. These factors collectively reduce the timeliness and accuracy of diagnosis, impede treatment of critical conditions, and expose patients to increased health risks. In Syria and Lebanon, emergency departments faced similar limitations during periods of armed conflict and political instability, affecting service delivery and patient survival (Hassan et al., 2019; Sweileh et al., 2021). From a crisis management and resilience perspective, these results demonstrate the urgent need to strengthen hospital preparedness, ensure supply chain continuity, and improve infrastructure and staffing to maintain service quality under political and economic constraints.

3.3. Conceptual Diagram Based on the Study Results

The conceptual diagram in Figure 3 demonstrates the impact of political variables on the quality of health services, based on the study results.

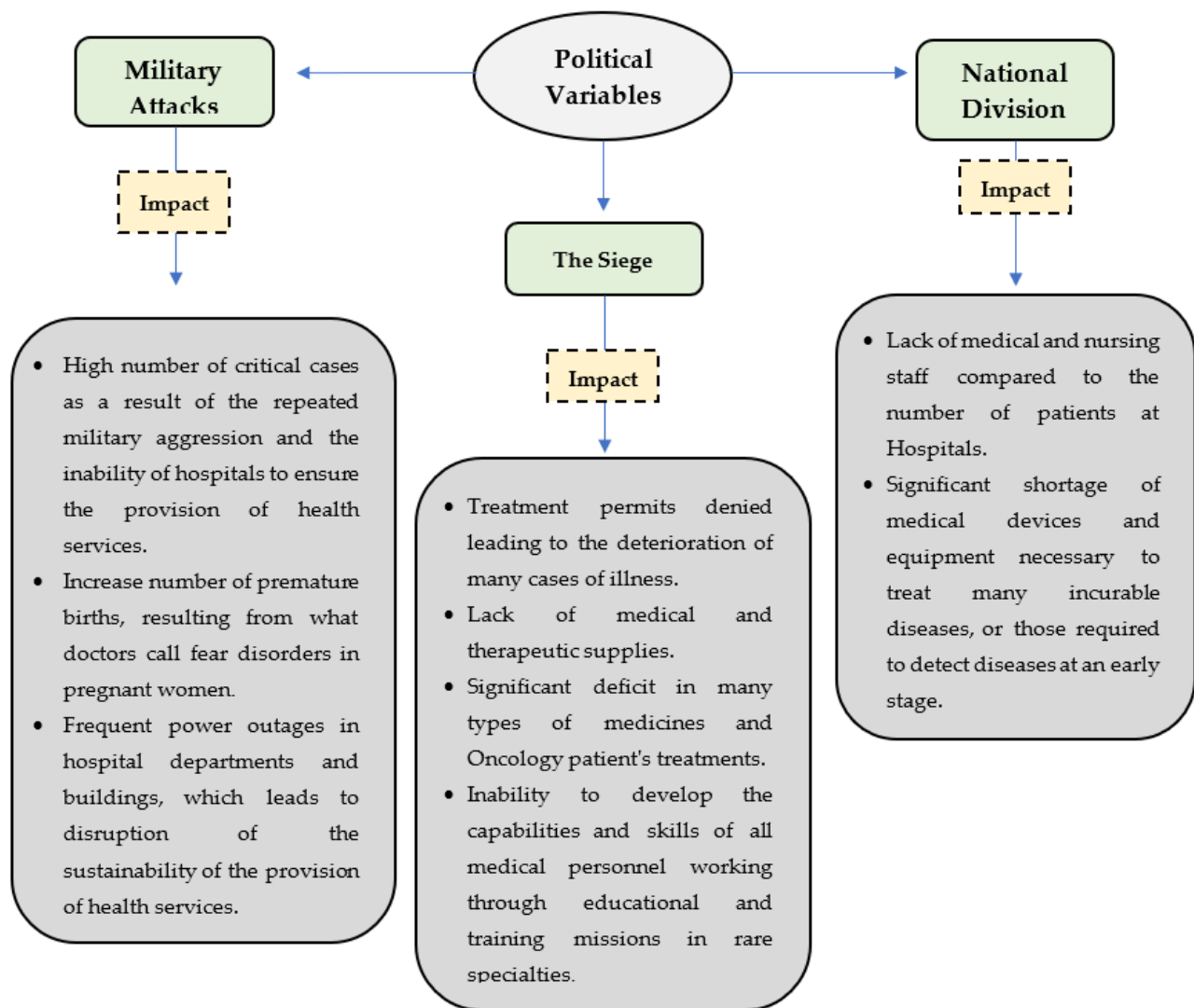


Figure 3. Conceptual diagram for impact of political variables on the quality of health services

4. Conclusion

The prolonged Israeli blockade and internal Palestinian political division have severely compromised the quality, availability, and resilience of healthcare services in the Gaza Strip, particularly at Al-Shifa Medical Complex. Critical shortages of essential medicines, medical equipment, and trained personnel, combined with frequent power outages, hinder accurate diagnosis, delay treatments, and threaten patient safety. These systemic challenges expose the fragility of the healthcare system and its vulnerability to political fluctuations, highlighting the urgent need for strategic interventions.

To address these issues, hospital administrators and policymakers must prioritize equipping all departments with necessary medical devices and advanced diagnostic tools, ensuring a stable supply of medicines, and maintaining adequate staffing levels. Strengthening professional development and providing incentives for healthcare personnel are essential to enhance service quality and staff resilience. Additionally, creating a safe, well-organized, and sustainable healthcare environment is crucial for both patients and providers. Implementing these measures will safeguard the health system against political and operational disruptions, and support the strategic objectives of the Palestinian Ministry of Health.

Author Contributions

All authors contributed to collecting data, analyzing results, and discussing the results, in addition to writing the manuscript.

Conflicts of Interest

The authors declare that this manuscript was approved by all authors in its form and that no competing interest exists.

Acknowledgements

The authors would like to thank the managers and department heads at Al-Shifa Medical Complex for their agreement to conduct the interviews.

Funding

This study was not funded but was self-financed research.

Appendix A: Observation Checklist

#	Item	Sufficient	Barely Sufficient	Insufficient
	The general appearance of the internal hospital departments is aesthetically comfortable for patients and visitors			
	Reliable health services are provided			
	Patients showing signs of dissatisfaction with health services provided			
	The departments have beds that are compatible with the nature of patient's cases in their various specialties			
	The hospital responds to patients' wishes and needs during their treatment period			
	The hospital covers all specialized health services (internal medical, surgical, obstetric)			
	The staff understands the patient's needs while providing the health service			
	The health staff explains the health service to its recipients in an appropriate manner			
	Health care is available to all patients 24 hours a day			
	Easy to obtain health services without any effort			
	The hospital provides health services during complex emergencies			
	There is a sufficient distance (1.2m) between the patients' beds in the internal departments			
	All consumables and medical tools are available in the hospital			
	All types of medicines are available for different patients			
	The infrastructure and interior design of the hospital departments is suitable for providing health services			
	Patient information is maintained confidentially			
	Patients receive health services in a manner that guarantees their privacy			
	The engineering design of the internal departments contributes to preventing the spread of infection among patients			
	The work environment is clean and free from Contamination			
	There are no unpleasant odors inside the patient rooms and the internal departments of the hospital			
	Standard infection control procedures and precautions are followed			
	Electricity is available without interruption			
	The work environment is safe and free from hazards			
	The hospital departments have good lighting and ventilation			
	Hazardous materials are stored in safe places away from the presence of patients and workers			

The field survey was conducted and all the aspects mentioned in the direct observation form were observed within the corridors of departments.

Appendix B: Study axes and interview questions

The first axis: Impact of political variables on the level of quality.	
	Did the political variables have a clear impact on the level of quality of health services provided to patients?
	How are health services provided in light of the various political fluctuations?
	What is the level of efficiency of the medical staff's performance as a result of the difficult financial situation?
	Are the skills of the medical staff being continuously developed?
	Do you face difficulty in sending medical personnel on educational and training missions outside the Gaza Strip?
The second axis: Impact of political changes on the nature of the departments	
	What are the most affected departments as a result of the surrounding political changes and fluctuations?
	How did the surrounding political changes contribute to the deterioration of the internal work environment of the complex's departments?
	Was there a clear effect of the political changes in exacerbating the burdens of the departments?
	Was there an impact of political variables on the availability of diagnostic radiology services?
	What is the level of shortage in the stock of medicines and medical supplies in the pharmacy departments?
The third axis: Impact of political changes on the health status of patients.	
	To what extent did the political fluctuations contribute to the worsening of patients' health conditions?
	How did the political changes affect the health conditions of oncology patients, and is there any difficulty in transferring them abroad?
	Do political variables have a significant role in increasing the number of patients with chronic and incurable diseases?
	Do patients with chronic and incurable diseases receive the required treatment adequately?

5. References

1. Abu Hasira, M. F. (2019). *Evaluation of the quality of performance of governmental health institutions according to the standards of the World Health Organization in the maternity hospital in Al-Shifa Medical Complex*. Islamic University Library, Gaza, Palestine.
2. Akter, S., Roy, S., & Aktar, S. (2022). The challenges of women in post-disaster health management: A study in Khulna District. *International Journal of Disaster Risk Management*, 5(1), 51–66. <https://doi.org/10.18485/ijdrm.2022.5.1.4>
3. Al-Ahmadi, H. A. (2006). Determinants of the quality of primary health care services. *Journal of Public Administration*, 46(3), 451–509.
4. Al-Asali, M. A. (2006). Reality and requirements for the development of health reality. *National Conference for Scientific Research and Cultural Development*, Damascus, Syria.
5. Al-Bursh, A. A. (2017). *Israeli policies and their repercussions on the health sector in the Palestinian territories*. Al-Azhar University, Gaza, Palestine.
6. Al-Imam, F. A.-S. (2003). Determinants of health service quality and its impact on customer satisfaction in university and private hospitals in Dakahlia Governorate. *Egyptian Journal of Commercial Studies*, 27(4).
7. Al-Ramlawi, A. H., El-Mougher, M., & Al-Agha, M. (2021). The role of Al-Shifa Medical Complex administration in evacuation and sheltering planning. *International Journal of Disaster Risk Management*, 2(2), 19–36. <https://doi.org/10.18485/ijdrm.2021.2.2.2>
8. Al-Sumaidaie, M. J. (1999). *Introduction to advanced marketing*. Amman: Dar Zahran for Publication and Distribution.

9. Al-Taweel, A., et al. (2009). The possibility of establishing dimensions of health services quality: A study in a selected group of hospitals in Nineveh Governorate. *College of Administration and Economics, University of Mosul, Mosul, Iraq*.
10. Brown, J. A. (2008). *The Healthcare Quality Handbook: A professional resource and study guide* (23rd ed.). USA: Quality Solutions, Inc.
11. Center for Clinical Governance Research in Health. (2009). *Complaints and patient satisfaction: A comprehensive review of the literature*. Sydney: National Library of Australia.
12. Diab, S. M. (2009). *Management of modern hospitals and health centers: A comprehensive perspective* (1st ed.). Amman, Jordan.
13. Djordjević, D., & Gačić, J. (2023). Sustainable recovery: The link between development and response to disasters. *International Journal of Disaster Risk Management*, 6(2), 223–244. <https://doi.org/10.18485/ijdrm.2023.6.2.4>
14. Doocy, S., Burnham, G., & Robinson, C. (2019). Health service delivery in rural Afghan hospitals during conflict: Challenges and lessons learned. *Conflict and Health*, 13(1), 45–58.
15. Doocy, S., Burnham, G., & Robinson, C. (2019). Health service delivery in rural Afghan hospitals during conflict: Challenges and lessons learned. *Conflict and Health*, 13(1), 45–58.
16. El-Mougher, M. (2022). Level of coordination between the humanitarian and governmental organizations in Gaza Strip and its impact on the humanitarian interventions to the internally displaced people (IDPs) following May escalation 2021. *International Journal of Disaster Risk Management*, 4(2), 15–45. <https://doi.org/10.18485/ijdrm.2022.4.2.2>
17. Euro-Mediterranean Human Rights Monitor. (2019). *Gaza Strip: The Israeli blockade*. Retrieved November 4, 2019, from <https://euromedmonitor.org/ar/gaza>
18. Euro-Mediterranean Human Rights Monitor. (2023). *A generation under blockade: Consequences of Israel's 17-year blockade of the Gaza Strip*. Retrieved July 28, 2023, from <https://euromedmonitor.org/en/article/5541/A-generation-under-blockade-Consequences-of-Israel%E2%80%99s-17-year-blockade-of-the-Gaza-Strip>
19. Haddad, A. B. (2001). *Marketing banking services*. Cairo: Al-Bayan for Printing, Publishing and Distribution.
20. Hansen, P. M., Peters, D. H., Edward, A., Gupta, S., Arur, A., Niayesh, H., & Burnham, G. (2008). Determinants of primary care service quality in Afghanistan. *International Journal for Quality in Health Care*, 20(6), 375–383.
21. Hassan, M., Farah, R., & Haddad, L. (2019). Political instability and healthcare capacity: The Lebanese case of refugee influx. *Journal of Health in Emergencies*, 7(2), 112–125.
22. Khalil, R., Al-Amin, S., & Nassar, H. (2020). The impact of armed conflict on healthcare services in Syria. *Global Health Review*, 8(3), 201–218.
23. Khoja, T. (2003). *Introduction to improving the quality of primary health care*. Amman, Jordan: Dar Al-Shorouk for Publishing and Distribution.
24. Khurmah, E. M. (2000). Management of health services in Jordan: A case study on the services of the radiology department at Jerash Central Hospital. *Administrative, Issue 83*, Jordan.
25. Medical Dictionary. (2014). *Hospitals*. Retrieved October 14, 2015, from <http://medical-dictionary.thefreedictionary.com/Hospitals>
26. Muhanna, R. (2014). Evaluation of the efficiency of the performance of health services provided in government hospitals in the Gaza Strip. *Journal of the Islamic University, College of Business Administration, Gaza, Palestine*.
27. Palestinian Center for Human Rights. (2018). *The deterioration of health conditions in the Strip as a result of the blockade*. Retrieved from <https://pchrgaza.org/ar/?p=7367>
28. Palestinian Central Bureau of Statistics. (2014). *Gaza Strip*. Retrieved November 1, 2019, from <http://www.pcbs.gov.ps/>
29. Palestinian Ministry of Health. (2018). *Annual Statistical Report on Hospital Performance, Gaza*. Retrieved November 16, 2019, from www.moh.gov.ps

30. Palestinian Ministry of Health. (2018). *The health status of the Gaza Strip*. Retrieved November 2, 2019, from <https://www.moh.gov.ps/portal/>
31. Rashid, M., Ahmad, F., & Khan, S. (2018). Healthcare workforce retention in conflict-affected regions of Afghanistan: An assessment. *International Journal of Health Policy and Management*, 7(10), 923–933.
32. Sweileh, W., Samara, S., & Taha, H. (2021). Hospital infrastructure and service delivery in war-affected Syria: Challenges and policy implications. *Middle East Health Journal*, 27(4), 301–315.
33. Thompson, R., & Kapila, M. (2018). *Healthcare in conflict settings: Leaving no one behind*. Doha: World Innovation Summit for Health.
34. United Nations Office for the Coordination of Humanitarian Affairs. (2019). *The blockade of the Gaza Strip*. Retrieved November 1, 2019, from <https://www.ochaopt.org/ar/theme/gaza-blockade>
35. Webster, M. (2008). *Siege definition*. Wayback Machine. Retrieved November 3, 2019, from <https://www.merriam-webster.com/dictionary/siege>
36. World Health Organization. (2009). *Technical paper on improving hospital performance in the Eastern Mediterranean Region* (Item No. 2, 62nd session). Regional Committee for the Eastern Mediterranean.



