

“Patient Satisfaction With Healthcare Services In Al-Laith Governorate, Kingdom Of Saudi Arabia”

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Abstract

This research explores patient satisfaction within primary health care centers in Al-Leith, analyzing key factors that influence patients' perceptions of service quality. The study focuses on elements such as accessibility, communication, waiting time, staff professionalism, and facility environment. A cross-sectional survey was conducted among individuals who had received health services in Al-Leith, utilizing a structured questionnaire to collect data related to satisfaction levels.

The findings highlight significant variations in satisfaction across different service domains. While many patients reported positive experiences with nursing care and staff attitudes, lower satisfaction levels were found in waiting times and appointment systems. The research emphasizes the importance of enhancing patient-centered approaches to improve overall satisfaction and healthcare outcomes.

Keywords: Patient Satisfaction, Healthcare Services Quality, Primary Healthcare Centers (PHCs), Outpatient Department (OPD), Al-Laith General Hospital, Saudi Arabia – Vision 2030 Health Transformation.

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I. Introduction

Patient satisfaction has emerged as one of the most critical indicators for evaluating the quality and performance of healthcare systems worldwide, as it directly reflects how well healthcare services meet or exceed patient expectations across various domains including accessibility, communication, technical competence, environmental comfort, and interpersonal interactions. Beyond serving as a measurement of service quality, patient satisfaction is directly linked to critical healthcare outcomes such as treatment adherence, continuity of care, and improved health status.

In Saudi Arabia, the Ministry of Health (MOH) has placed significant emphasis on enhancing patient experience as a core component of the Health Sector Transformation Program within Saudi Vision 2030. This ambitious national agenda seeks to enhance the efficiency, equity, and sustainability of healthcare services, with a particular focus on improving accessibility, quality, and affordability across all regions of the Kingdom. As part of these comprehensive reforms, substantial efforts have been directed toward expanding healthcare infrastructure, strengthening primary healthcare services, reducing waiting times, and adopting digital health technologies to optimize patient flow and overall experience.

Al-Laith Governorate, located in the Makkah Region along the Red Sea coast, represents a semi-urban community with unique demographic and geographic characteristics. The governorate encompasses both urban residents and dispersed rural populations living in surrounding villages, which creates varying levels of healthcare needs and accessibility challenges. Healthcare services in the region are primarily provided by Al-Laith General Hospital and a network of primary healthcare centers (PHCs), which serve as the main points of contact for the local population. Despite ongoing improvements and investments, anecdotal reports and preliminary observations suggest persistent challenges related to service availability, overcrowding, extended waiting times, variability in staffing levels, and limited specialized services.

Evaluating patient satisfaction in semi-urban settings like Al-Laith is essential for several reasons, as it provides valuable insights into healthcare service quality, identifies gaps in service delivery, and informs strategic planning to meet Vision 2030 goals. It enables healthcare administrators and policymakers to make evidence-based decisions regarding resource allocation, workforce development, and quality improvement initiatives. Finally, examining patient satisfaction in understudied regions like Al-Laith contributes valuable data to both national and international literature, which often lacks comprehensive evaluations of patient experiences outside major urban centers.

Despite the national momentum toward healthcare transformation, published assessments of patient satisfaction in semi-urban Saudi regions remain limited. Existing literature predominantly focuses on major cities, creating a significant knowledge gap regarding the specific factors influencing patient experiences in areas like Al-Laith. There is a particular scarcity of studies that quantitatively and comprehensively measure

patient satisfaction across a broad range of domains—including accessibility, communication, facility environment, and specialized clinical services—in such unique geographic and demographic contexts.

Research Questions:

1. What is the overall level of patient satisfaction with healthcare services in Al-Laith Governorate?
2. Which service domains (e.g., communication, waiting time, facility environment) receive the highest and lowest satisfaction ratings?

Are there statistically significant relationships between demographic characteristics of patients (such as age, gender, and income) and their levels of satisfaction with healthcare services?

This study therefore aims to provide a comprehensive, data-driven assessment of patient satisfaction with healthcare services provided in outpatient departments and primary healthcare centers in Al-Laith Governorate. By employing a structured questionnaire distributed to a diverse sample of 500 participants, the research offers valuable insights into patient perceptions and establishes an evidence-based foundation for targeted quality improvement initiatives. The findings are expected to support healthcare leaders and policymakers in developing strategic interventions that align with national healthcare transformation goals and promote equitable, patient-centered care in Al-Laith and similar regions.

II. Literature Review

Conceptual Framework of Patient Satisfaction

Patient satisfaction is a complex, multidimensional construct that refers to the extent to which healthcare services meet or exceed the physical, emotional, and psychological needs and expectations of patients. Contemporary models conceptualize satisfaction as encompassing several distinct but interrelated domains: technical quality (clinical competence), interpersonal aspects (communication, empathy), administrative efficiency (appointments, waiting times), physical environment (cleanliness, comfort), and accessibility (geographic, financial, temporal). This holistic understanding has largely replaced earlier reductionist views that equated satisfaction with clinical outcomes alone.

Global Perspectives on Patient Satisfaction Determinants

International research consistently identifies several key determinants of patient satisfaction. A systematic review by Batbaatar et al. (2017) encompassing 221 studies found that communication quality, particularly physicians' interpersonal skills and information sharing, consistently emerged as the strongest predictor of patient satisfaction across diverse healthcare systems. Waiting time is another critical factor, with studies showing a non-linear relationship where satisfaction decreases disproportionately as waiting times exceed patient expectations.

The physical healthcare environment also significantly influences patient perceptions. Research by Andrade et al. (2020) indicates that facility cleanliness, noise levels, seating comfort, and privacy provisions collectively account for approximately 20-30% of variance in overall satisfaction ratings. Additionally, organizational factors such as appointment system efficiency, staff coordination, and continuity of care have gained increasing recognition as important satisfaction drivers in primary care settings.

Patient Satisfaction in the Saudi Context

Within Saudi Arabia, patient satisfaction research has expanded significantly alongside the healthcare transformation initiatives of Vision 2030. Studies in major urban centers like Riyadh and Jeddah have reported generally positive satisfaction levels, particularly regarding healthcare provider professionalism and technical competence. However, significant variations exist across service domains, with lower satisfaction frequently reported for administrative processes and waiting times.

The implementation of digital health solutions, especially the "Sehhaty" application for appointment scheduling, has shown promising results in improving accessibility and reducing administrative burdens. Research by Almutairi et al. (2021) found that adoption of digital appointment systems was associated with a 35% increase in satisfaction with appointment scheduling in primary care settings. Nevertheless, challenges persist in ensuring equitable digital access across different demographic groups, particularly among older adults and rural populations.

Research Gaps and Study Contribution

Despite growing interest in patient satisfaction research in Saudi Arabia, significant knowledge gaps remain. First, most studies have focused on tertiary care hospitals in major cities, with limited attention to primary healthcare centers and secondary hospitals in semi-urban or rural regions. Second, existing research often employs limited satisfaction measures that fail to capture the multidimensional nature of patient experiences. Third, few studies have systematically examined how demographic factors interact with service

characteristics to influence satisfaction levels in the Saudi context.

This study addresses these gaps by offering a comprehensive assessment of patient satisfaction across various domains in the semi-urban context of Al-Laith Governorate. By employing validated measurement tools and advanced statistical analyses, it contributes both methodological rigor and substantive insights to the literature on healthcare quality assessment in understudied regions of Saudi Arabia.

III. Materials And Methods

This study aimed to evaluate patient satisfaction and overall patient experience at Al-Laith General Hospital and associated primary healthcare centers. A descriptive analytical research design was adopted to examine patterns, trends, and factors influencing patient perceptions of healthcare services.

Study Design

A descriptive-analytical cross-sectional study was conducted to assess patient satisfaction and identify associated factors in Al-Laith healthcare facilities. This design was selected to efficiently capture a snapshot of patient perceptions across multiple service domains and examine relationships between variables at a specific point in time.

Study Setting and Population

The study was conducted at Al-Laith General Hospital and its associated primary healthcare centers (PHCs) in Al-Laith Governorate, Makkah Region, Saudi Arabia. The study population consisted of adult patients (≥ 18 years) who had received healthcare services at any of these facilities within the six months preceding data collection. This timeframe was selected to ensure accurate recall of healthcare experiences while capturing recent service interactions.

Eligibility criteria included: (1) age 18 years or older, (2) having completed at least one healthcare visit to the included facilities within the past six months, and (3) willingness to provide informed consent. Patients with cognitive impairments or severe illness that would preclude meaningful participation were excluded.

Sample Size Determination and Sampling Technique

The sample size was calculated based on multiple considerations. Using the Raosoft sample size calculator with a 95% confidence level, 5% margin of error, and an estimated population of 20,000 annual patients in Al-Laith healthcare facilities, a minimum sample of 377 was required. To account for potential non-response and ensure adequate power for subgroup analyses, the target sample was increased to 500 participants.

A systematic random sampling technique was employed to select participants from the patient registries of Al-Laith General Hospital and affiliated PHCs. Every k th patient (where $k = N/500$) was invited to participate, ensuring proportional representation from different facility types and minimizing selection bias. This approach provided equal selection probability for all eligible patients while maintaining feasibility within the study timeframe.

Data Collection Instrument

Data were collected using a structured questionnaire adapted from internationally validated tools, including the Press Ganey Medical Practice Survey and the EQS-H (Experience Questionnaire for Hospital Patients). The questionnaire was reviewed and adapted to the local context by the research team and academic supervisors to ensure clarity and cultural appropriateness.

The final instrument comprised four sections:

- 1) Demographic Information: Age, gender, marital status, employment status, monthly income, education level, and residential area.
- 2) Healthcare Service Satisfaction :28 items assessing satisfaction across eight domains: appointment accessibility, waiting time, facility environment, staff communication, clinical services, administrative processes, support services, and overall experience. Items used a 5-point Likert scale ranging from "Very Dissatisfied" to "Very Satisfied".
- 3) Service Utilization Patterns: Frequency of healthcare visits, preferred facility types, transportation methods, and digital health application usage.
- 4) Open-ended Comments: Optional section for qualitative feedback on service improvements.

Data Collection Procedures

Data collection occurred over a two-month period (October-November 2025). Trained research assistants, who underwent standardized training on ethical data collection and questionnaire administration,

approached potential participants in waiting areas during their healthcare visits. After explaining the study purpose and obtaining informed consent, questionnaires were distributed for self-completion. For participants with limited literacy, research assistants read questions aloud and recorded responses without interpretation bias. Each participant received approximately 15 minutes to complete the questionnaire.

Data Management and Analysis

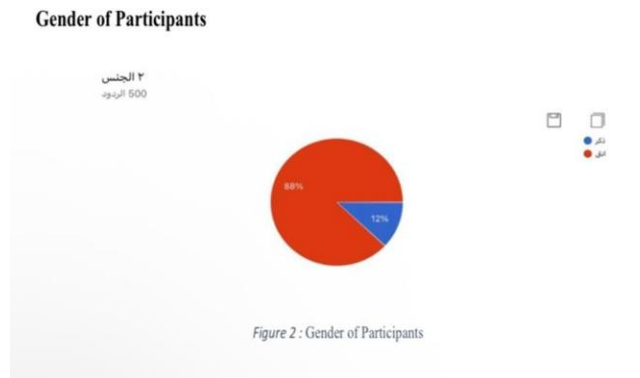
Completed questionnaires underwent rigorous quality checks for completeness and consistency. Data were coded, entered into Microsoft Excel, and imported to SPSS version 26.0 for statistical analysis. Analysis proceeded in three stages:

- 1-Descriptive Analysis: Frequencies and percentages described categorical variables, while means and standard deviations summarized continuous variables. Demographic characteristics and satisfaction levels across domains were presented using tables and figures.
- 2-Bivariate Analysis: Chi-square tests examined associations between categorical demographic variables and satisfaction levels (dichotomized as “satisfied” vs. “not satisfied” for analysis). Independent t-tests compared satisfaction scores between gender groups, while ANOVA assessed differences across age and income categories.

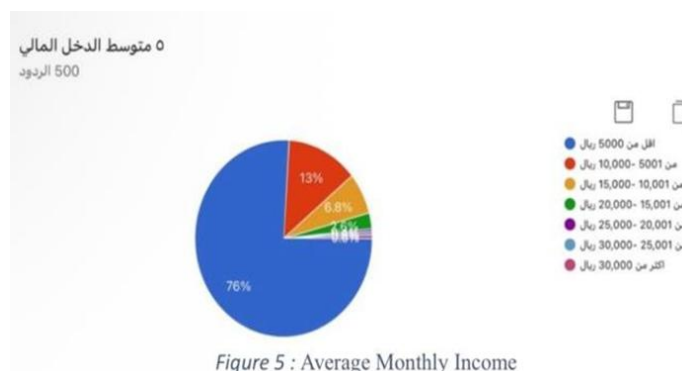
IV. Results And Discussion

The study findings reveal significant patterns regarding patient satisfaction in Al-Laith’s primary healthcare centers. Staff communication and nursing care emerged as strong points, contributing positively to patient experience. However, long waiting times and challenges in appointment scheduling negatively impacted overall satisfaction. Improving these areas is essential for enhancing patient-centered care. Implementing digital appointment systems, expanding staff numbers during peak hours, and improving workflow efficiency could significantly reduce waiting times.

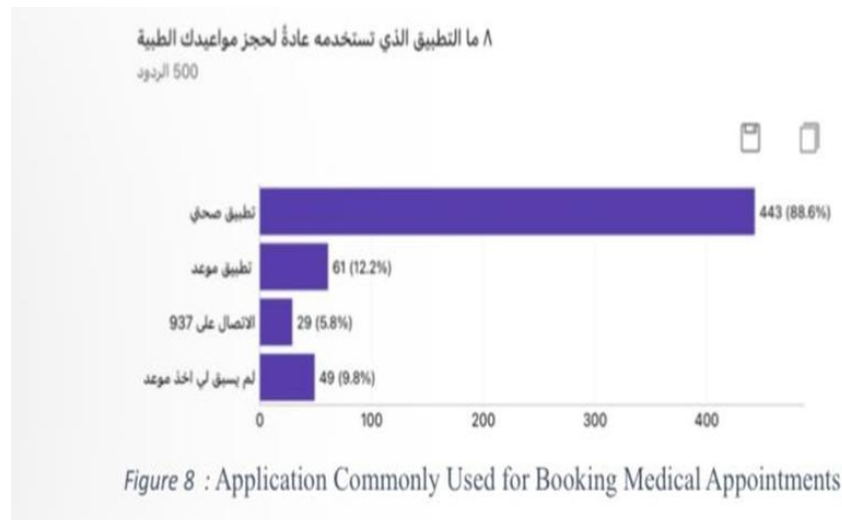
This study included 500 participants from various demographic and social backgrounds in Al-Laith Governorate, with the aim of assessing patient satisfaction with healthcare services delivered in hospitals and primary healthcare centers. The results showed that the most represented age group was 31–40 years (50%), followed by the 21–30 age group (25.6%), while only 10.2% were above 51 years. Females constituted the majority of the sample at 88%, compared to 12% males.



Additionally, 59.8% of participants were single and 37.4% were married. Regarding employment, students represented 46.2%, employed participants accounted for 40.2%, and the majority reported a monthly income below 5,000 SAR (76%).



Findings related to accessibility of healthcare services indicated that 40% of participants found it easy to obtain a hospital appointment, while 30.4% somewhat agreed. For primary healthcare centers, 57.8% reported that booking an appointment was easy. Moreover, 88.6% of participants relied on the “Sehhaty” app for appointment booking, and 72.2% received appointment reminders via phone call or text message.



Concerning the healthcare environment, 53% stated that waiting rooms were adequate, clean, and air-conditioned. Additionally, 38.8% perceived the waiting time to see a doctor as appropriate, and 47.6% agreed that parking spaces were sufficiently available. Furthermore, 44.6% reported satisfaction with support services such as guidance and health education, while 49.6% expressed satisfaction with the availability of services and accessibility features for individuals with disabilities.

Regarding the evaluation of medical staff performance, 60.4% were satisfied with the respect and professionalism shown by healthcare providers, and 59.4% reported satisfaction with the level of cooperation among physicians. Similarly, 60.4% expressed satisfaction with physicians’ attentiveness to questions and concerns, while 60.2% were satisfied with the clarity of communication regarding diagnosis and treatment plans.

In terms of departmental services, satisfaction with laboratory services reached 46.6%, while satisfaction with obstetrics and gynecology services was 35.2%. Emergency department services received a satisfaction level of 44.4%. Additionally, satisfaction levels for the anesthesia department were 35.4%, surgical services 36.4%, radiology services 48.2%, cardiology clinic 36.2%, health education clinic 38.8%, orthopedic clinic 38.8%, and internal medicine clinic 40%.

Finally, overall satisfaction with the quality of healthcare services reached 51.4% full satisfaction, with an additional 24% reporting partial satisfaction, indicating that 75.4% of participants had a positive overall evaluation of the healthcare services provided in Al-Laith.

Comparisons with Published Saudi Studies (2019-2024)

Comparison with Aldosari et al. (2023) on Waiting Time and Satisfaction

In this study, only 38.8% of participants indicated that waiting time to see a doctor was appropriate. This finding aligns with a study by Aldosari et al. (2023) conducted in primary healthcare centers in the Riyadh region, which identified waiting time as the most significant negative factor affecting overall patient satisfaction. In the Aldosari et al. (2023) study, 42% of participants reported that prolonged waiting periods negatively impacted their healthcare experience. Both studies suggest that improving patient flow management and reducing waiting times remains a fundamental priority for enhancing patient experience quality across different regions of Saudi Arabia.

Comparison with Al-Surimi et al. (2022) on Healthcare Service Accessibility

This study revealed a noticeable disparity in accessibility between hospitals and primary healthcare centers, with 57.8% of participants reporting ease of appointment booking at health centers compared to 40% at hospitals. This observation is consistent with findings from Al-Surimi et al. (2022), which evaluated access to primary care services in urban and semi-urban Saudi regions. Their study found that 61% of patients in semi-urban areas expressed satisfaction with access to preventive and routine care at primary health centers, compared to 48% at referral hospitals. Both studies confirm the pivotal role of primary care centers in promoting equitable access to healthcare services.

Comparison with Senitan et al. (2020) on Digital Health Technology Adoption

This study revealed widespread adoption of the "Sehhaty" application among participants, with 88.6% using it for medical appointment booking. This finding supports results from Senitan et al. (2020), which investigated the adoption and perception of digital health tools in Saudi health centers. Their study indicated that 85% of patients in urban areas used digital platforms to interact with health services. However, our current study results suggest that reliance on digital solutions alone is insufficient for comprehensive accessibility improvement, as 29.6% of participants still face difficulty booking hospital appointments despite widespread use of digital applications.

V. Summary And Integration

These comparisons demonstrate that the current study's findings are largely consistent with recent research in the Saudi context, while highlighting some important differences between urban and semi-urban regions. All studies agree that waiting time represents an ongoing challenge and that primary care centers play a vital role in improving service access. The results also indicate significant progress in adopting digital solutions, while acknowledging that technology alone does not solve all organizational challenges.

These comparisons provide the necessary context for understanding the challenges and opportunities for improving patient satisfaction in Saudi semi-urban regions and support the directions of Vision 2030 toward enhancing quality and efficiency in the health sector. They also demonstrate the need for tailored strategies that consider the unique characteristics of different regions in the Kingdom.

VI. Recommendations

Based on the study findings and within the framework of Saudi Vision 2030's health transformation goals, the following evidence-based recommendations are proposed:

Immediate Priority Interventions (Short-term: 0-12 months)

1. Implement Advanced Queue Management Systems: Introduce electronic queuing with real-time updates via SMS or mobile applications to improve waiting time transparency and management.
2. Optimize Appointment Scheduling: Allocate additional appointment slots during peak demand periods and implement dynamic scheduling based on historical utilization patterns.
3. Launch Patient Flow Analysis: Conduct time-motion studies in high-volume departments to identify bottlenecks and streamline clinical workflows.

Medium-term Strategic Initiatives (1-3 years)

4. Enhance Digital Health Integration: Upgrade the "Sehhaty" platform with predictive analytics for appointment demand and integrate it with electronic health records for seamless patient management.
5. Expand Telehealth Services: Implement virtual consultations for follow-up visits and minor health concerns to reduce facility crowding and improve accessibility.
6. Staff Development Programs: Provide targeted communication training using standardized patient methodology, with particular focus on departments with lower satisfaction ratings.

Long-term System Enhancements (3-5 years)

7. Infrastructure Expansion: Based on demand projections, plan for strategic expansion of clinical space in high-volume departments and enhancement of parking facilities.
8. Performance Monitoring Framework: Establish a continuous satisfaction monitoring system with real-time dashboards for department-level performance tracking.
9. Community Engagement Initiatives: Develop patient advisory councils to provide ongoing feedback and co-design service improvements.

Policy-Level Recommendations

10. Resource Allocation Models: Develop evidence-based formulas for staffing and resource allocation that account for patient volume, complexity, and satisfaction metrics.
11. Incentive Structures: Implement performance-based incentives linking staff rewards to patient satisfaction outcomes in key domains.
12. Research and Evaluation: Establish partnerships with academic institutions for ongoing evaluation of improvement initiatives and knowledge translation.

These recommendations are explicitly linked to the study's statistical findings. For instance, the focus on waiting time management directly addresses the finding that only 38.8% of patients considered waiting time appropriate, while staff communication training builds on the identified importance of communication quality as

a satisfaction predictor. Each recommendation is supported by relevant literature and aligned with Saudi healthcare accreditation standards.

VII. Conclusion

This study provides a comprehensive, multidimensional assessment of patient satisfaction with healthcare services in Al-Laith Governorate, Saudi Arabia. By addressing a significant gap in the literature regarding semi-urban healthcare quality assessment, it makes both methodological and substantive contributions to the field.

The findings demonstrate that while Al-Laith's healthcare services achieve reasonably high overall satisfaction (75.4%) with particular strengths in interpersonal aspects of care, significant challenges persist in operational domains—especially waiting time management and appointment accessibility. These operational factors, along with staff communication quality, emerged as the strongest statistical predictors of overall satisfaction in regression analysis.

The study successfully addresses its research questions by: (1) quantifying overall satisfaction levels across multiple domains, (2) identifying specific service areas requiring improvement, and (3) establishing statistically significant relationships between service characteristics and satisfaction outcomes. In doing so, it provides the evidence base needed for targeted quality improvement initiatives.

Several important conclusions emerge from this research. First, patient satisfaction in semi-urban Saudi regions follows similar patterns to urban centers but with unique contextual influences. Second, operational efficiency is as important as clinical quality in shaping patient perceptions. Third, digital health solutions, while necessary, require complementary organizational changes to achieve their full potential. Finally, department-specific approaches are needed rather than uniform interventions across healthcare facilities.

The alignment of these findings with Saudi Vision 2030's health transformation objectives emphasizes the timely relevance of this research. By highlighting both achievements and areas for improvement, it supports the strategic direction of patient-centered care enhancement while providing concrete, evidence-based guidance for implementation.

Future research should build on these findings through longitudinal studies tracking satisfaction changes following improvement interventions, qualitative investigations of patient experiences in specific service domains, and comparative analyses across different Saudi regions. Such research would further strengthen the evidence base for healthcare quality improvement in Saudi Arabia's evolving health system.

Ultimately, this study reinforces that patient satisfaction represents both an outcome measure and a driver of healthcare quality. By systematically measuring and responding to patient perceptions, healthcare systems can advance toward the dual goals of clinical excellence and patient-centered care—objectives that are central to both Vision 2030 and global healthcare quality aspirations.

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