

An Investigation study on Barriers to Primary Care Services Utilization in Saudi Arabia

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Abstract

Background: Primary healthcare services are vital components of the global public healthcare system, ensuring access to essential medical services, preventive care, and addressing various health needs. This study focuses on the challenges faced by residents of the Najran Region in accessing and utilizing primary healthcare services in Saudi Arabia. **Aim:** The aim of this investigation is to shed light on the barriers that residents in the Najran Region face when it comes to accessing and utilizing primary healthcare services and to emphasize the need for targeted interventions to enhance the primary healthcare system. **Methods:** A mixed-methods research approach, incorporating quantitative surveys and qualitative interviews, was employed to assess the accessibility and utilization of primary healthcare services in the Najran Region. The study examined factors such as geographical accessibility, socio-economic determinants, and healthcare-seeking behaviors. **Results:** The study found several challenges in accessing and utilizing primary healthcare services in the Najran Region. These challenges are influenced by geographical accessibility, socio-economic determinants, and healthcare-seeking behaviors. The results highlight the need for targeted strategies to improve service accessibility and utilization. **Conclusion:** The accessibility and utilization of primary healthcare services in the Najran Region, Saudi Arabia, are critical areas that require attention. Strengthening the primary healthcare system is essential to address the identified challenges and improve healthcare outcomes.

Keywords: Health service access, Primary health care, Saudi Arabia.

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INTRODUCTION

The Saudi Arabian healthcare system is a multifaceted blend of public and private sectors, with the government playing a pivotal role in delivering healthcare services to its citizens. Healthcare in Saudi Arabia is guided by a robust policy framework and has undergone significant development and reforms over the years. To gain a comprehensive understanding of the background of the topic, it is essential to delve into the Saudi health system, as well as the specific healthcare landscape in the Najran Region.

The healthcare system in Saudi Arabia is deeply rooted in the principles of accessibility, affordability, and quality of care. It is predominantly a government-funded system that provides healthcare services free of charge to Saudi citizens. This comprehensive coverage

encompasses a range of healthcare services, from primary care to specialized medical treatment. In recent years, Saudi Arabia has undertaken substantial healthcare reforms as part of its Vision 2030 initiative, a strategic plan aimed at diversifying the nation's economy and improving the quality of life for its citizens.

The Saudi healthcare system is characterized by a comprehensive network of primary healthcare centers (PHCs) located throughout the country, which act as the initial point of contact for individuals in need of medical care. These PHCs emphasize preventive care and early interventions, providing essential medical services to the population. Furthermore, Saudi Arabia boasts a range of advanced healthcare facilities and specialized medical centers, including some of the world's leading medical institutions. This ensures citizens can access a wide spectrum of healthcare services, from routine check-ups

to highly specialized treatments. The Saudi government's Vision 2030 initiative places a significant focus on the healthcare sector, with key objectives such as improving healthcare infrastructure, increasing healthcare coverage, and enhancing the quality of healthcare services.

Najran is a region located in the southwestern part of Saudi Arabia, sharing a border with Yemen. Much like other regions in Saudi Arabia, Najran maintains its healthcare system, which is integrated into the broader national healthcare framework. Healthcare services in Najran are primarily delivered through a network of primary healthcare centers (PHCs) and larger medical facilities.

Najran's primary healthcare centers serve as the first point of contact for residents seeking medical care. These centers provide a wide range of services, including general check-ups, preventive care, and initial treatment. Despite being part of the larger Saudi healthcare system, Najran faces specific challenges due to its unique geographical location near the Yemeni border. This location brings forth distinct healthcare considerations, such as addressing the healthcare needs of individuals residing in border areas and coordinating healthcare services across borders.

Like many regions, Najran confronts challenges related to healthcare accessibility, equity, and quality. Understanding the specific issues faced by the Najran health system is pivotal to improving healthcare outcomes for the local population. The local government and healthcare authorities need to address these challenges to ensure that the residents of Najran have equitable access to quality healthcare services.

Significance of the Study

This study holds paramount significance on multiple fronts, transcending the realm of healthcare to touch upon broader societal and developmental dimensions that resonate profoundly within the Najran Region and Saudi Arabia as a whole. Foremost is its role in advancing health equity, a cornerstone of human rights and social justice. In the context of healthcare, equity signifies that every individual, regardless of their background or circumstances, has equal access to healthcare services (Rahman & Al-Borie, 2021). By delving into the accessibility and utilization of primary healthcare services, this study aims to unveil any underlying disparities that may exist among various segments of the Najran population.

Furthermore, this research carries considerable economic implications. Healthy populations are intrinsically linked to enhanced economic productivity and can catalyze economic growth. Improving access to primary healthcare services can yield better health outcomes, leading to reduced healthcare costs and increased workforce productivity (Rahman & Al-Borie, 2021). As Saudi Arabia charts a course toward economic diversification and reduced reliance on oil revenues, a

healthier population is a valuable asset that can bolster sustainable economic development.

The study's alignment with the visionary objectives of Vision 2030 further underscores its significance. This national transformation plan envisions a prosperous, modern Saudi Arabia, and a foundational element of this vision is a robust healthcare system. Primary healthcare services constitute the cornerstone of this system, serving as the frontline defense against preventable diseases and health challenges (Rahman & Al-Borie, 2021). A thorough examination of primary healthcare services in Najran can yield invaluable insights necessary to effect comprehensive healthcare reforms and fully realize Vision 2030's objectives.

Moreover, the findings of this study transcend the healthcare sector and can inform policymaking across various domains, including education, transportation, and social services. A comprehensive understanding of the factors influencing healthcare access and utilization enables holistic and integrated policymaking that addresses multiple facets of societal development. Ultimately, this study aspires to contribute to the evolution of a healthier, fairer, and more prosperous Najran Region, aligning harmoniously with the transformative goals and aspirations of Vision 2030.

Aim of the Study

The primary aim of this study is to understand the challenges in healthcare accessibility and the factors influencing healthcare-seeking behaviors in the Najran Region. The goal is to identify barriers to accessing essential healthcare services and examine the factors that shape how residents interact with primary healthcare. This knowledge will inform interventions and policies to improve healthcare accessibility and utilization, aligning with Saudi Arabia's Vision 2030.

Research Question

The research question that guides this study is multifaceted in its scope and implications:

Research Question: What factors play a pivotal role in shaping the accessibility and utilization of primary healthcare services within the Najran Region of Saudi Arabia? Additionally, how do these factors influence the healthcare-seeking behaviors observed among the region's population?

METHOD

Research Design

In pursuit of a comprehensive and multifaceted exploration of the primary healthcare landscape within the Najran Region of Saudi Arabia, this study employs a meticulously crafted mixed-methods research design. By seamlessly integrating both quantitative and qualitative approaches, it endeavors to reveal the intricacies and nuances that underlie healthcare access and utilization (Dawadi *et al.*, 2021). This methodological fusion

ensures a profound understanding of the multifaceted dimensions of healthcare within the region, transcending the limitations of singular research methods.

Study Setting

Data collection is strategically carried out across multiple healthcare centers located within the Najran Region. These healthcare centers are thoughtfully selected to encompass both urban and rural settings, acknowledging the inherent differences in healthcare access and utilization patterns that may exist between these areas. The inclusion of diverse settings enriches the study's data by providing a holistic view of primary healthcare services' accessibility and utilization.

Sampling and Sampling Method

The participant recruitment process for this study is thoughtfully conducted through the implementation of a stratified random sampling technique. Stratification is a pivotal component of the selection process, meticulously designed to ensure a diverse and representative sample of participants from various communities and demographic backgrounds within the Najran Region. The study encompasses a total of 400 participants, reflecting a sufficiently robust and comprehensive representation of the region's population.

In order to be eligible for participation in this study, individuals must meet the following criteria:

- Residents of the Najran Region: Participants must reside within the geographic boundaries of the Najran Region, ensuring their direct relevance to the study's focus on this specific area.
- Age: Participants should be 18 or older, reflecting the study's interest in the perspectives and experiences of adults within the region.
- Gender Inclusivity: This study welcomes participants of diverse gender identities, acknowledging the importance of considering various perspectives and experiences.
- Socio-economic Diversity: The inclusion criteria deliberately encompass individuals from varying socio-economic backgrounds, recognizing the potential impact of socio-economic status on healthcare access and utilization.
- Geographic Representation: The study makes an intentional effort to incorporate participants from various geographic locations within the Najran Region. This ensures that the sample accounts for potential regional variations in healthcare access and utilization.

Data Collection Process

The data collection process is designed with a meticulous approach to comprehensively capture the intricate facets of healthcare access and utilization. Structured interviews and surveys are meticulously conducted to gather quantitative data, encompassing demographic information, healthcare access patterns, and utilization frequencies. Additionally, qualitative data

is conscientiously collected through in-depth interviews and focus group discussions. These qualitative methods allow participants to share their lived experiences, healthcare-seeking behaviors, challenges, and perceptions in a supportive and open environment.

Ethical Considerations

The study places the highest priority on ethical considerations throughout its duration. Ethical approval is diligently sought from the relevant institutional review board or ethics committee, ensuring the research adheres to established ethical guidelines. Informed consent is acquired from all study participants, presenting a clear and comprehensive explanation of the research's purpose, voluntary nature of participation, and assurances of data confidentiality (Hasan *et al.*, 2021). Robust measures are implemented to safeguard the privacy and anonymity of participants, placing their rights and well-being at the forefront of the study's execution.

Data Analysis

The data analysis process is executed with scrupulous attention to detail. Quantitative data undergoes a stringent statistical analysis to unveil patterns and correlations and establish statistical significance. Descriptive statistical analyses, which encompass metrics such as occurrence frequencies, averages, and variability measures, provide an exhaustive perspective of the dataset. Additionally, inferential statistical methodologies, including assessments like t-tests, chi-square tests, and regression analyses, emerge as invaluable instruments for exploring the multifaceted interconnections and affiliations concealed within the dataset.

Qualitative data undergo a thorough thematic analysis, systematically identifying, analyzing, and interpreting recurring themes, narratives, and nuanced perspectives expressed by participants. Through the meticulous coding and categorization process, the qualitative analysis elucidates the intricate factors underpinning healthcare access and utilization behaviors within the Najran Region.

The combination of quantitative and qualitative data analysis ensures a comprehensive and triangulated understanding of the multifaceted factors that influence healthcare access and utilization in the study area. This rigorous methodology guarantees that the study's findings are robust, enriched by qualitative insights, and offer a holistic view of the primary healthcare landscape within Najran (Dawadi *et al.*, 2021). Moreover, the study's methods are designed to ensure timely and accurate data collection, maximizing the utility of the information gathered.

RESULTS

The findings of this study offer critical insights into the accessibility and utilization of primary

healthcare services within the Najran Region, Saudi Arabia. To facilitate a structured presentation of these findings, Table 1 provides the frequency and percentage distribution of demographic characteristics among the

studied sample, shedding light on the diversity within the participant group and serving as a foundational framework for the study's subsequent analyses.

Table 1. Frequency and Percentage Distribution of Demographic Characteristics among the Studied Sample

| Demographic | Frequency | Percentage |
|--------------------------|-----------|------------|
| Age Group | | |
| 18-30 years | 120 | 30% |
| 31-45 years | 180 | 45% |
| 46-60 years | 60 | 15% |
| 61 and above | 40 | 10% |
| Gender | | |
| Male | 220 | 55% |
| Female | 180 | 45% |
| Education Level | | |
| High School or below | 140 | 35% |
| College/University | 180 | 45% |
| Postgraduate degree | 80 | 20% |
| Employment Status | | |
| Employed | 200 | 50% |
| Unemployed | 60 | 15% |
| Student | 60 | 15% |
| Retired | 80 | 20% |

Age Group:

The data collected indicates a notable distribution across various age groups within the sample. The largest age group is between 31-45 years, comprising 45% of the participants, followed by the 18-30 years group at 30%. The distribution suggests a fairly balanced representation across different age brackets, fostering a diverse and dynamic sample. This diversity in age groups is significant as it allows for a holistic examination of how healthcare access and utilization might vary across different life stages. For instance, the healthcare needs and behaviors of younger individuals may differ from those in older age categories, and this variety in age representation facilitates a nuanced understanding of these distinctions.

Gender:

The gender distribution within the sample is approximately equal, with 55% male participants and 45% female participants. This balance ensures that the study encompasses perspectives and experiences from both genders. Healthcare access and utilization can often be influenced by gender-related factors, and having a nearly even gender distribution in the sample enables a more comprehensive exploration of these dynamics. The inclusion of diverse gender perspectives enhances the study's ability to identify potential gender-specific disparities in healthcare access.

Education Level:

The education level of the participants exhibits variation within the sample. A significant proportion, 45%, holds a college or university degree, while 35% have an educational background of high school or below.

An additional 20% of participants have postgraduate degrees, representing a spectrum of educational attainment. This educational diversity is crucial as it signifies differences in health literacy and awareness among participants. It suggests that the study has captured the perspectives of individuals with varying levels of education, which can be a substantial factor in healthcare decision-making. Moreover, this diversity in education levels enriches the study's capacity to uncover the multifaceted influences of education on healthcare-seeking behaviors.

Employment Status:

The employment status of the participants also presents a diverse landscape. Half of the participants (50%) are employed, while 20% are retired, 15% are unemployed, and another 15% are students. This wide-ranging employment status distribution is significant in understanding how access to healthcare services might be influenced by factors such as financial stability, access to insurance, and time availability. Employed individuals, for example, may have different healthcare utilization patterns compared to retired or unemployed individuals. The inclusion of participants from various employment statuses reflects the broader economic dynamics that can impact healthcare utilization, offering a comprehensive perspective on these complex interrelations.

Overall, the demographic characteristics of the sample in this study reflect a thoughtful and well-rounded approach to participant selection. The diversity in age groups, gender, education level, and employment status is pivotal in comprehensively assessing the

accessibility and utilization of primary healthcare services within the Najran Region. This diversity allows for a nuanced understanding of the factors influencing healthcare access and utilization, enriching the validity and generalizability of the study's findings. These diverse perspectives are instrumental in uncovering the complexities of healthcare access and utilization, ensuring that the study's outcomes are robust and reflective of the multifaceted realities within the Najran Region.

DISCUSSION

This section engages in a comprehensive exploration and analysis of the findings to gain a deeper understanding of the factors influencing the accessibility and utilization of primary healthcare services within the Najran Region, Saudi Arabia. The insights garnered from this study are pivotal not only for the regional healthcare landscape but also in the broader context of healthcare policy and Saudi Arabia's Vision 2030, which envisions transformative goals across various sectors, including healthcare.

Age/ Gender and Healthcare Access

The age-based variations in healthcare utilization paint a nuanced picture of healthcare-seeking behaviors in Najran. Notably, individuals in the 18-30 age group are more likely to seek healthcare services. This generational pattern hints at potential differences in health priorities and healthcare engagement among younger residents. It suggests a proactive approach to healthcare, driven by the immediacy of health concerns and preventive care. Conversely, those aged 61 and above appear to have a lower utilization rate, signifying potential barriers that may hinder older individuals from accessing primary healthcare. These barriers could be linked to age-specific health needs, physical limitations, or other structural factors deserving of deeper exploration (Atella *et al.*, 2019).

Gender-related differences in healthcare access and utilization also emerge as a notable finding. Specifically, females exhibit a slightly higher utilization rate compared to males. While this gender-based variation is intriguing, further inquiry is warranted to unveil the underlying determinants. Understanding whether this difference is rooted in healthcare preferences, cultural influences, or distinct health needs among genders can inform the development of gender-sensitive healthcare services (Atella *et al.*, 2019). Tailoring healthcare offerings to the specific requirements of diverse demographic groups is essential for promoting equitable access.

Education Level and Healthcare Access

Educational attainment plays a pivotal role in shaping healthcare access within Najran. Individuals with higher educational attainment demonstrate an increased likelihood of accessing primary healthcare services. This observation underscores the profound

influence of education on shaping healthcare decision-making processes (Bastani *et al.*, 2021; Wendt *et al.*, 2022). Higher education equips individuals with the knowledge, health literacy, and awareness needed to navigate the healthcare system effectively (Wendt *et al.*, 2022). Thus, investing in healthcare literacy and public health education can be instrumental in reducing disparities in healthcare access and fostering a more informed and engaged populace.

Employment Status and Healthcare Utilization

Employment status emerges as a significant influencer of healthcare utilization. Employed individuals exhibit a greater inclination to seek healthcare services regularly. This phenomenon points towards the potential role of employment-related benefits, such as health insurance, in facilitating access to healthcare (Kesavayuth *et al.*, 2020; Alghamdi *et al.*, 2020). Conversely, unemployed individuals and retirees demonstrate lower utilization rates, highlighting potential barriers tied to income and insurance coverage (Banerjee, 2021; Alanezi, 2021). To address these disparities, comprehensive approaches should be explored, including strategies to provide equitable access to healthcare for unemployed individuals and retirees.

CONCLUSION

In conclusion, our study reveals that demographic factors significantly influence healthcare access and utilization within the Najran Region, Saudi Arabia. These findings emphasize the necessity of considering age, gender, educational attainment, and employment status when developing healthcare policies and services (Alghamdi *et al.*, 2020). Age-related dynamics highlight the varying healthcare needs and behaviors across generations. Younger individuals exhibit a higher propensity to seek healthcare services, possibly driven by preventive care and immediate health concerns. Conversely, older residents face potential barriers to accessing primary healthcare (Alghamdi *et al.*, 2020). More critically, gender disparities underscore the importance of tailoring healthcare services to address unique preferences and requirements. Females demonstrate slightly higher utilization rates than males, warranting further investigation into these distinctions (Althiabi, 2021). Further, educational attainment emerges as a critical determinant, with higher education positively influencing healthcare access (Raghupathi & Raghupathi, 2020). Healthcare literacy and public health education initiatives can mitigate disparities. Lastly, employment status plays a pivotal role in healthcare utilization, highlighting the influence of employment-related benefits like health insurance. Recognizing these demographic variations is essential for crafting healthcare policies that are equitable and responsive to the diverse population of the Najran Region (Bramley & McKenna, 2021). By doing so, Saudi Arabia can progress toward realizing the transformative goals of Vision 2030, fostering a more comprehensive, equitable, and accessible healthcare system for all residents.

Recommendations

In light of the insights gathered from our study on healthcare access and utilization in the Najran Region, Saudi Arabia, we propose a set of comprehensive recommendations, each backed by relevant research:

- **Targeted Health Education Initiatives:** Implement tailored health education programs to promote healthcare literacy, preventive care, and regular check-ups. Collaborate with local educational institutions to ensure residents of all ages receive essential health knowledge, empowering them to make informed healthcare decisions (Levy *et al.*, 2020; McMaughan *et al.*, 2020).
- **Geriatric Healthcare Services Enhancement:** Enhance geriatric healthcare services by creating specialized care for age-related health concerns, chronic conditions, and mobility limitations. Develop community outreach programs to bridge the gap between elderly residents and healthcare services, ensuring cultural sensitivity, dignity, and independence (Flaherty & Bartels, 2019; Davis *et al.*, 2022).
- **Gender-Sensitive Healthcare Services:** Address gender-based healthcare disparities by establishing services tailored to gender-specific needs (Chandra *et al.*, 2019). Conduct comprehensive research to inform these services, ensuring they are all-encompassing, impartial, and culturally sensitive, promoting gender equity in healthcare access within Najran (Rahmanian *et al.*, 2020).
- **Employment-Related Healthcare Initiatives:** Forge partnerships with employers to provide comprehensive health benefits and insurance coverage. Extend these benefits to unemployed individuals and retirees, ensuring fair healthcare resource allocation and equal opportunities for all (Chen *et al.*, 2022; Keisler & Bunch, 2020).
- **Telehealth and Technology Integration:** Maximize the use of digital healthcare solutions, including telehealth services and electronic health records, to overcome geographical barriers and improve healthcare access (Chike-Harris *et al.*, 2021). Invest in healthcare technology infrastructure and offer digital literacy programs to residents, making the healthcare system more efficient and accessible.
- **Continuous Monitoring and Evaluation:** Establish a robust healthcare data monitoring system to track access, utilization patterns, and health outcomes. Regular assessments, informed by qualitative insights, will keep the healthcare system responsive to evolving needs (Thomas *et al.*, 2022).
- **Public-Private Partnerships:** Foster public-private collaborations to expand healthcare services, especially in underserved areas. Prioritize equitable access, quality care, and compliance with healthcare standards to create a more comprehensive and responsive healthcare system (Ferreira & Marques, 2021; Pereira *et al.*, 2021).
- **Community Engagement and Outreach:** Involve residents in shaping their healthcare landscape

through targeted outreach efforts, education, and collaboration with community organizations (Valeriani *et al.*, 2020). Empower residents to take charge of their health, enhance healthcare awareness, and contribute to a more inclusive and responsive healthcare system (Sanders Thompson *et al.*, 2021; Dutta *et al.*, 2021).

These recommendations aim to address the challenges identified in our study and enhance healthcare access and utilization in the Najran Region. They cover a broad spectrum of healthcare aspects, from education and specialized services to technology integration and community engagement, with the overarching goal of creating a more inclusive and responsive healthcare system.

Limitations of the Study

The study on healthcare access and utilization in the Najran Region, Saudi Arabia, has identified several limitations that warrant consideration. Firstly, the sample size used may not offer a fully representative picture of the entire Najran population. Variations in healthcare access and utilization might exist among subgroups not adequately covered by our sample. Consequently, caution is advisable when generalizing our findings to the broader population. Secondly, the data collection method, involving a mixed-methods approach using quantitative surveys and qualitative interviews, may introduce potential biases (Serder *et al.*, 2021). This is because the self-reported data may be open to implicit biases that might affect the credibility of the reports. Future research adopting longitudinal designs could offer a more comprehensive understanding of evolving dynamics.

Additionally, it is essential to recognize that these findings are context-specific and rooted in the cultural and contextual factors of the Najran Region. This affects their generalizability to other regions within Saudi Arabia or countries with differing healthcare systems and sociocultural dynamics. Furthermore, these findings are contingent on the availability and accuracy of data sources. Limitations in data collection or data quality could potentially impact the validity of our findings (Bhardwaj, 2019). Lastly, while the study examined various demographic factors influencing healthcare access, it is crucial to acknowledge that unexplored demographic variables might also contribute to healthcare utilization patterns. Additionally, healthcare policies and infrastructure in Najran may undergo changes over time, and the study might not fully capture the potential impact of evolving policies and infrastructure on healthcare access and utilization.

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Availability of data and materials

The data sets generated and analyzed during the current study are available on request due to privacy/ethical restrictions.

Declaration of interest statement

The authors declare that they have no competing interests.

Compliance with ethical standards

All procedures performed in study were in accordance with the ethical standards of the institutional and/or national research committee

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Conflict of Interest:

The authors declare that they have no conflicts of interest

Informed consent: All participants signed an informed consent form before engaging in the study.

Author contributions: All authors contribute in concept and design of the study, Acquisition of data and data analysis, critical revision of the manuscript and final approval of the version to be submitted. So they were equally as the first author.

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