

Assessing patient satisfaction and quality of home health care services: A survey-based study in Hail Region: Saudi Arabia

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Abstract

Background: Home Health Care (HHC) services have emerged as a fundamental component of modern healthcare systems, offering medical and supportive care to patients in their own homes. These services are particularly vital for elderly individuals, chronically ill patients, and those recovering from hospitalization, as they provide personalized, cost-effective care while enhancing patient comfort and reducing hospital admissions. Despite the increasing reliance on HHC services, there remains a need to assess patient satisfaction, and the quality of care provided to ensure continuous improvement in service delivery. This study aimed to assess patient satisfaction and the quality of home healthcare services in the Hail region of Saudi Arabia and assessed the correlation between awareness, communication, and patient satisfaction to identify key areas requiring improvement.

Methods: A cross-sectional survey-based study was conducted among 100 patients receiving home healthcare services in Hail, Saudi Arabia. A structured questionnaire was used to collect data on sociodemographic characteristics, medical conditions, duration of care, awareness, communication, and patient satisfaction. Patient satisfaction was measured using a 5-point Likert scale, while awareness and communication were assessed using a 3-point scale. Statistical analysis, including Pearson correlation, was conducted using SPSS version 28.0, with significance set at $p < 0.05$.

Results: The majority of patients receiving home healthcare services were male (63%), with the largest age group being 21–29 years (23%). Diabetes (10%) was the most reported medical condition, and 31% of patients had been receiving care for more than a year. While 82% of participants reported being informed about HHC services, 69% confirmed receiving responses when contacting the institution, highlighting gaps in responsiveness. Patient satisfaction was generally high, with 71% reporting that caregivers treated them with kindness, yet inconsistencies were noted in communication and service reliability. The study found a moderate positive correlation between awareness, communication, and patient satisfaction ($r = 0.41$, $p = 0.048$), indicating that effective communication and awareness contribute significantly to improved patient experiences.

Conclusion: The findings suggest that while most patients were satisfied with their home healthcare services, gaps in communication and responsiveness need to be addressed. Improving caregiver training, implementing structured follow-up mechanisms, and integrating digital health solutions such as telemonitoring could enhance service quality. Healthcare policymakers should consider expanding awareness initiatives and strengthening service reliability to optimize patient experiences and healthcare outcomes.

Keywords: Home Health Care; Patient Satisfaction; Communication; Service Quality; Saudi Arabia; Healthcare Delivery

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1. Introduction

Home Health Care (HHC) services have become a cornerstone in modern healthcare systems; providing medical and supportive care to patients in their own homes. These services are particularly essential for elderly individuals; chronically ill patients; and those recovering from hospitalization; offering a more personalized and cost-effective alternative to institutional care (Hsieh & Kenagy; 2020). The primary goal of HHC is to enhance patient comfort; improve treatment adherence; and reduce hospital admissions while ensuring that patients receive high-quality medical care in familiar surroundings (Ng & Wong; 2018). With the increasing demand for patient-centered care; it is essential to assess both patient satisfaction and the quality of HHC services to enhance service delivery and healthcare outcomes.

HHC covers a range of services; including nursing care; physical therapy; medication management; and palliative care; allowing patients to receive necessary medical attention without the need for extended hospital stays (Carlisle et al.; 2022). Compared to traditional hospital-based care; HHC has been associated with improved health outcomes; enhanced comfort; and greater patient autonomy (Castor et al.; 2017). The fundamental purpose of HHC is to optimize healthcare resource utilization while maintaining high standards of care and patient safety (Dostalova et al.; 2022).

Patient satisfaction has a critical role in evaluating the effectiveness of HHC services. Satisfied patients are more likely to adhere to treatment plans; experience better psychological well-being; and establish long-term relationships with their healthcare providers (Rahadian Syah; 2024). Several factors influence satisfaction levels; including caregiver competence; communication effectiveness; service reliability; and the cultural sensitivity of care providers (Wachholz et al.; 2023). Given the increasing dependence on home-based medical care; understanding patient perspectives is crucial for improving healthcare delivery and ensuring that services meet patient needs and expectations.

The quality of HHC services is shaped by multiple factors; including caregiver professionalism; communication effectiveness; timeliness of service delivery; emotional support; and technological integration. Studies have consistently shown that well-trained and empathetic caregivers contribute significantly to patient satisfaction and health outcomes (Dostalova et al.; 2022). Patients who receive care from knowledgeable; compassionate professionals report better overall experiences and improved clinical results (Karam et al.; 2021). Ensuring that HHC providers receive specialized training in chronic disease management; communication skills; and cultural competence is crucial for enhancing service quality (Saudi Ministry of Health; 2021).

Effective communication between healthcare providers and patients is another key factor in service quality. Patients who receive clear instructions about their treatment plans; medication schedules; and self-care practices tend to have higher satisfaction rates (Ng & Wong; 2018). A lack of communication can lead to confusion; decreased adherence to medical recommendations; and lower levels of trust in healthcare providers (Rahadian Syah; 2024). Addressing language barriers and incorporating patient education initiatives into HHC programs can improve treatment compliance and patient engagement.

The timeliness and accessibility of HHC services also play a critical role in determining patient satisfaction. Delays in receiving medical attention; inconsistent visit schedules; and long response times have been cited as common concerns among HHC patients (Karam et al.; 2021). Implementing digital scheduling systems and telemonitoring technologies can enhance service efficiency; ensuring that patients receive timely medical interventions (Madigan et al.; 2013).

Providing emotional and psychological support is a fundamental aspect of home healthcare; particularly for patients coping with chronic illnesses or end-of-life care. As Carlisle et al. (2022) noted; the presence of empathetic caregivers who engage in active listening and reassurance significantly enhances patient well-being and satisfaction with HHC services. Similarly; Wachholz et al. (2023) showed that compassionate interactions from caregivers contribute to psychological stability; fostering a sense of security and trust; which are essential for long-term adherence to home care plans. This is particularly relevant for patients with dementia; as Hammar et al. (2021) highlighted the importance of treating patients with dignity and respect in home care settings; ensuring their autonomy and emotional well-being.

The rapid advancements in digital health technologies have further transformed the landscape of home healthcare. According to Madigan et al. (2013); the introduction of telemonitoring systems and virtual consultations has significantly improved remote patient management; allowing healthcare providers to monitor patients' conditions in real time. These technological innovations have been associated with improved treatment adherence; a reduction in hospital readmissions; and greater patient engagement in home-based care (Carlisle et al.; 2022). Moreover; as Ng & Wong (2018) showed; integrating telehealth solutions enables early detection of potential complications; facilitating proactive medical interventions and reducing the burden on emergency healthcare services. Additionally; Huang et al. (2021) examined the role of professional home care in reducing the burden on family caregivers; highlighting that

effective home-based care services not only benefit patients but also support their families by alleviating emotional and logistical stress.

The demand for home healthcare services in Saudi Arabia has surged in response to demographic shifts; an aging population; and an increase in chronic diseases. Recognizing the importance of HHC; the Saudi Ministry of Health (2021) has launched multiple initiatives aimed at expanding access to high-quality; patient-centered care at home. The national HHC program; initially introduced in 1991 at King Faisal Specialized Hospital; was later expanded in 2008 to accommodate a broader population (Gray & Ezzat; 1997). These services were strategically designed to reduce hospital overcrowding; improve continuity of care; and align medical services with Islamic values and cultural expectations (Alhelali et al.; 2016). Similarly; Lumillo-Gutierrez & Salto (2021) examined the Buurtzorg model in the Netherlands; a nurse-led home care initiative; and suggested that integrating nurse-led services could enhance care coordination and efficiency; providing a model that Saudi Arabia could adapt to improve its own HHC system.

Despite these advancements in home healthcare services; several challenges persist within the Saudi HHC system. As Karam et al. (2021) noted; concerns regarding service reliability; caregiver training; and patient follow-up remain significant obstacles to improving care outcomes.

Research conducted in Madinah found that although 90% of patients expressed satisfaction with home-based respiratory therapy services; limitations such as short visit durations and inadequate follow-up care posed critical concerns (Alhelali et al.; 2016). In a similar study; Suurmond et al. (2016) identified barriers in accessing home care services among ethnic minorities and elderly patients; showing that cultural and linguistic challenges play a role in patient dissatisfaction and reduced access to high-quality care.

Addressing these challenges requires a structured and multidisciplinary approach. Rahadian Syah (2024) showed the need for a comprehensive workforce development strategy; enhanced digital health integration; and improved coordination between healthcare providers and patients. Investing in specialized training programs; expanding telehealth solutions; and implementing standardized follow-up protocols could help bridge gaps in service delivery; ultimately leading to higher patient satisfaction and better health outcomes in Saudi Arabia's home healthcare sector.

Furthermore; Caro et al. (2017) stressed the importance of addressing caregiver burnout; as high stress levels among HHC providers can negatively impact the quality of care and patient satisfaction. Ensuring adequate mental health support for caregivers; alongside structured service improvements; could create a sustainable; patient-centered HHC model in Saudi Arabia.

This study is important as it aims to assess the determinants of patient satisfaction and quality of care in HHC services; providing valuable insights for healthcare policymakers and providers. With the increasing reliance on home-based medical care; evaluating service effectiveness and patient experiences is essential for optimizing healthcare delivery and improving patient outcomes (Hsieh & Kenagy; 2020). This research will contribute to the development of more patient-centered healthcare models that align with evolving healthcare needs.

The objective of this study is to assess patient satisfaction and quality of HHC services by examining key influencing factors such as caregiver awareness; professionalism; communication effectiveness; service reliability; emotional support; and technological integration.

The central hypothesis of this study is that higher levels of caregiver competence; effective communication; timely service delivery; and telemonitoring integration are positively associated with increased patient satisfaction and improved health outcomes in HHC services. This hypothesis is based on previous research findings indicating that personalized; well-coordinated; and technology-driven HHC models contribute to better patient experiences and reduced hospitalizations (Madigan et al.; 2013; Carlisle et al.; 2022).

2. Methods

This study used a cross-sectional design to assess patient satisfaction and the quality of home healthcare services in Hail; Saudi Arabia. Data were collected from patients receiving home healthcare services provided by the Saudi Ministry of Health (MOH) and private healthcare institutions. The study included participants from both urban and suburban areas of Hail to ensure diverse representation.

A total of 100 participants were selected using convenience sampling. The inclusion criteria required participants to be 18 years or older; enrolled in home healthcare services for at least one month; and cognitively capable of completing

the survey. Patients under 18 years old; those with less than a month of home healthcare experience; and individuals with severe cognitive impairment were excluded.

A structured questionnaire was developed by the researcher to measure demographics; medical history; awareness; and satisfaction with home healthcare services. It was divided into four sections: sociodemographic characteristics (gender; age; education; living situation); medical conditions and duration of care; awareness and communication (using a 3-point scale: Yes; Maybe; No); and patient satisfaction (measured by a 5-point Likert scale: Always; Often; Usually; Rarely; Never). The total expected scores for awareness ranged from 11 to 33; while patient satisfaction scores ranged from 4 to 20; with higher values indicating better service quality.

To ensure content validity; the questionnaire was reviewed by a panel of experts in healthcare research and home healthcare services. These experts evaluated the questionnaire for clarity; relevance; and comprehensiveness; and modifications were made based on their feedback. Additionally; a pilot study was conducted with a small sample to assess reliability and ease of understanding; and minor adjustments were incorporated before full-scale data collection.

Data collection was conducted through face-to-face interviews and self-administered surveys; depending on patient preference. Research assistants assisted those who required support in completing the questionnaire.

Quantitative data were analyzed using SPSS version 28.0; with descriptive statistics summarizing participant characteristics and satisfaction scores. Pearson correlation and regression analysis were used to examine relationships between key variables; with significance set at $p < 0.05$.

Ethical approval was obtained from the Institutional Review Board (IRB) of the Saudi Ministry of Health. All participants provided informed consent; and confidentiality was ensured by anonymizing responses and securing data access. The study adhered to the Declaration of Helsinki guidelines; ensuring participant rights and privacy were protected.

3. Results

3.1. Sociodemographic Characteristics

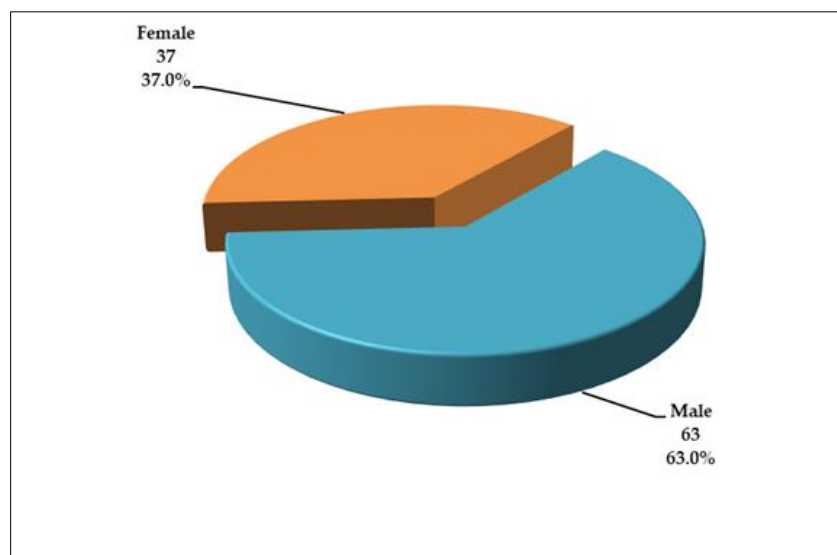


Figure 1 The gender distribution of the participants (n = 100)

The sociodemographic characteristics of the 100 patients who received home care services in Hail; Saudi Arabia; were analyzed in Table 1. The findings showed that 63% of the patients were male; while 37% were female; indicating that more men than women received home care services.

In terms of age distribution; the largest group of participants was aged 21 to 29 years (23%); followed by those aged 60 years and above (19%). The 40 to 49 years and 50 to 59 years age groups each accounted for 17%; while 15% were under 20 years old; and the smallest group was aged 30 to 39 years (9%).

Educational attainment varied among participants; with nearly 47% having pre-university education; 45% holding university degrees; and only 8% having postgraduate qualifications. Furthermore; the majority of participants (91%) did not live alone; whereas 9% reported living alone.

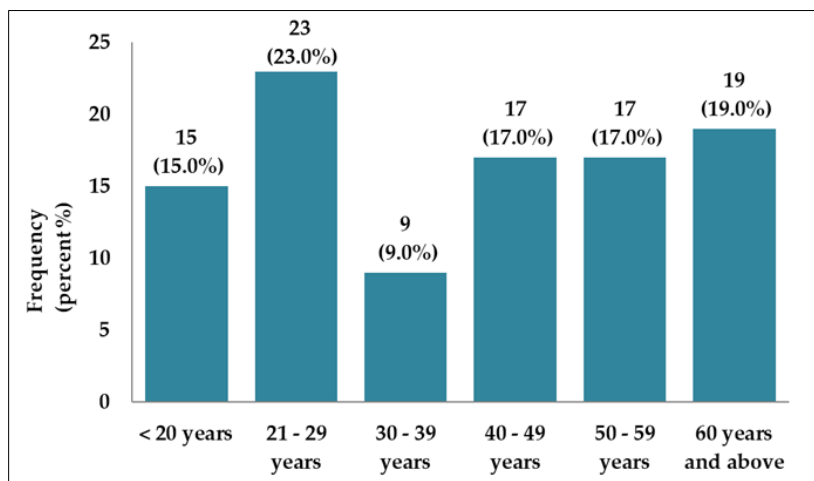


Figure 2 The age distribution of the participants (n = 100)

Table 1 Sociodemographic Characteristics of Participants (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

Characteristic	Category	Frequency (%)
Gender	Female	37 (37.0%)
	Male	63 (63.0%)
Age Group	< 20 years	15 (15.0%)
	21 - 29 years	23 (23.0%)
	30 - 39 years	9 (9.0%)
	40 - 49 years	17 (17.0%)
	50 - 59 years	17 (17.0%)
	60 years and above	19 (19.0%)
Level of Education	Postgraduate	8 (8.0%)
	Pre-university education	47 (47.0%)
	University education	45 (45.0%)
Living Alone	No	91 (91.0%)
	Yes	9 (9.0%)

3.2. Medical and Health-Related Characteristics

The medical conditions and health-related characteristics of the participants were outlined in Table 2. The results showed that the reported medical condition were diabetes (18%); bone fractures (7%); heart disease (15%); obstetric/gynecological issues (9%); and lung disease (2%).

However; 49% of participants reported other conditions; which indicated a diverse range of healthcare needs among home care patients.

Regarding the duration of home care; 41% of patients had received services for less than one month; while 14% had been in care for 1 to 6 months; another 14% for 6 months to 1 year; and 31% for over a year. These findings suggested that a significant proportion of patients required home care for an extended period.

In terms of the types of care received; specialized care was the most common service (28%); followed by domestic care (26%); while companionship and nursing care were each received by 12% of participants. Additionally; 22% of patients reported receiving other types of home healthcare services; indicating a wide range of medical and non-medical needs among patients.

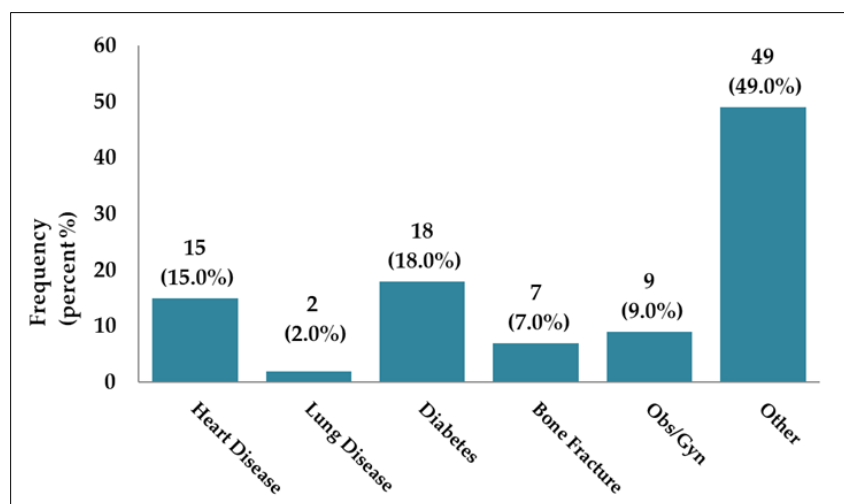


Figure 3 The medical diagnosis of the participants (n = 100)

Table 2 Medical and Health-Related Characteristics of Participants (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

Characteristic	Category	Frequency (%)
Medical Diagnosis	Heart Disease	15 (15.0%)
	Lung Disease	2 (2.0%)
	Diabetes	18 (18.0%)
	Bone Fracture	7 (7.0%)
	Obstetrics/Gynecology	9 (9.0%)
	Other	49 (49.0%)
Duration of Home Care	Less than 1 month	41 (41.0%)
	1 - 6 months	14 (14.0%)
	6 months to 1 year	14 (14.0%)
	Over 1 year	31 (31.0%)
Types of Home Care	Companionship	12 (12.0%)
	Domestic Care	26 (26.0%)
	Nursing Care	12 (12.0%)
	Specialized Care	28 (28.0%)
	Other	22 (22.0%)

3.3. Awareness; Communication; and Quality of Care

Table 3 presented the findings related to patients' awareness; communication; and quality of care; measured using a 3-point scale (Yes; Maybe; No). The majority of participants (82%) reported being informed about home healthcare services; while 13% were unsure; and 5% stated they were not informed. A total of 72% indicated that the institution discussed their care at the start; while 12% were uncertain; and 16% reported that this discussion did not take place. Additionally; 76% of patients confirmed that care providers followed up after starting care; while 18% were uncertain; and 6% stated they did not receive follow-ups. In terms of communication; 75% of patients said the purpose of care was explained to them; while 13% were unsure; and 12% indicated that it was not explained. Regarding responsiveness; 69% of patients stated they received a response from the institution when contacting them; whereas 19% were unsure; and 12% reported not receiving a response. Moreover; 65% confirmed receiving the assistance they requested; while 24% were uncertain; and 11% stated they did not receive assistance. The findings also showed that 42% of patients started a new treatment or experienced changes in their treatment plan; whereas 25% were uncertain; and 33% reported no changes. Additionally; 23% reported experiencing problems with the service; while 12% were unsure; and 65% stated they did not experience issues. Lastly; 83% of patients confirmed that the timing of new medications was explained to them; 75% believed their care provider was knowledgeable; and 48% reported contacting the institution's office for assistance.

Table 3 Awareness; Communication; and Quality of Care (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

Question	Yes (%)	Maybe (%)	No (%)
Were you informed about home health care?	82 (82.0%)	13 (13.0%)	5 (5.0%)
Did the institution discuss care at the start?	72 (72.0%)	12 (12.0%)	16 (16.0%)
Did a care provider follow up after starting care?	76 (76.0%)	18 (18.0%)	6 (6.0%)
Was the purpose of care explained?	75 (75.0%)	13 (13.0%)	12 (12.0%)
Did you receive a response when contacting the home healthcare institution?	69 (69.0%)	19 (19.0%)	12 (12.0%)
Did you receive the requested assistance during the past period?	65 (65.0%)	24 (24.0%)	11 (11.0%)
Did you start a new treatment or have any change in your treatment plan?	42 (42.0%)	25 (25.0%)	33 (33.0%)
Did you experience any problems with the service during the past period?	23 (23.0%)	12 (12.0%)	65 (65.0%)
Was the timing of new medications explained?	83 (83.0%)	8 (8.0%)	9 (9.0%)
Was the care provider knowledgeable?	75 (75.0%)	19 (19.0%)	6 (6.0%)
Did you contact the institution's office during the past period?	48 (48.0%)	23 (23.0%)	25 (25.0%)

3.4. Quality of Care and Patient Satisfaction

The quality of care and patient satisfaction were evaluated in Table 4; using a 5-point Likert scale (Always; Often; Usually; Rarely; Never). The findings showed that 66% of patients stated they were always informed of their care provider's arrival time; while 14% reported this often happened; 1% stated it usually happened; 7% said it rarely happened; and 12% reported it never happened. Regarding provider kindness; 71% of patients stated their care provider always treated them with kindness; 15% reported this often happened; 1% stated it usually happened; 5% said it rarely happened; and 8% reported it never happened. When asked whether their care provider explained things clearly; 64% of patients said this always happened; 22% reported it often happened; 3% stated it usually happened; 4% said it rarely happened; and 7% reported it never happened.

Lastly; 68% of patients confirmed that their care provider always listened carefully and attentively; 15% said this often happened; 7% stated it rarely happened; and 10% reported it never happened. These results indicated that while most patients had a positive experience with their care providers; some areas; such as communication and consistency in arrival times; required further improvement.

Table 4 Quality of Care and Patient Satisfaction (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

Question	Always (%)	Often (%)	Usually (%)	Rarely (%)	Never (%)
Were you informed of your care provider's arrival time?	66 (66.0%)	14 (14.0%)	1 (1.0%)	7 (7.0%)	12 (12.0%)
Did your care provider treat you with kindness?	71 (71.0%)	15 (15.0%)	1 (1.0%)	5 (5.0%)	8 (8.0%)
Did your care provider explain things clearly?	64 (64.0%)	22 (22.0%)	3 (3.0%)	4 (4.0%)	7 (7.0%)
Did your care provider listen to you carefully and attentively?	68 (68.0%)	15 (15.0%)	0 (0%)	7 (7.0%)	10 (10.0%)

3.5. Summary of score distributions for awareness; communication; and patient satisfaction

Table 5 provided an overall summary of awareness; communication; and patient satisfaction scores. The mean score for Awareness and Communication was 22.59; with scores ranging from 16 to 29 and a standard deviation of 2.74. Similarly; the Patient Satisfaction score had a mean of 11.97; with a minimum score of 5; a maximum score of 19; and a standard deviation of 2.61. These findings suggested that while awareness and communication were generally high; patient satisfaction varied more significantly; indicating potential areas for improvement in home healthcare services.

Table 5 Summary of Score Distributions for Awareness; Communication; and Patient Satisfaction (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

Score Summary	Mean Score	Minimum Score	Maximum Score	Standard Deviation
Awareness and Communication (Total Score)	22.59	16	29	2.74
Patient Satisfaction (Total Score)	11.97	5	19	2.61

3.6. Correlation Between Awareness; Communication; and Patient Satisfaction

The correlation between awareness; communication; and patient satisfaction was examined in Table 6 and figure 1. The Pearson correlation coefficient ($r = 0.41$) indicated a moderate positive correlation between awareness and communication scores and patient satisfaction scores. The p-value (0.048) suggested that the correlation was statistically significant; indicating that higher awareness and communication levels were associated with greater patient satisfaction. These results supported the hypothesis that effective communication and awareness in home healthcare services played a key role in improving patient satisfaction.

Table 6 Correlation matrix for awareness; communication; quality of care with patient satisfaction scores (n = 100 patients received home care services in Hail; Saudi Arabia 2025)

Total scores	Awareness and Communication (Total Score)	Patient Satisfaction (Total Score)	p-value
Awareness and Communication	1.00	0.41	-
Patient Satisfaction	0.41	1.00	0.048

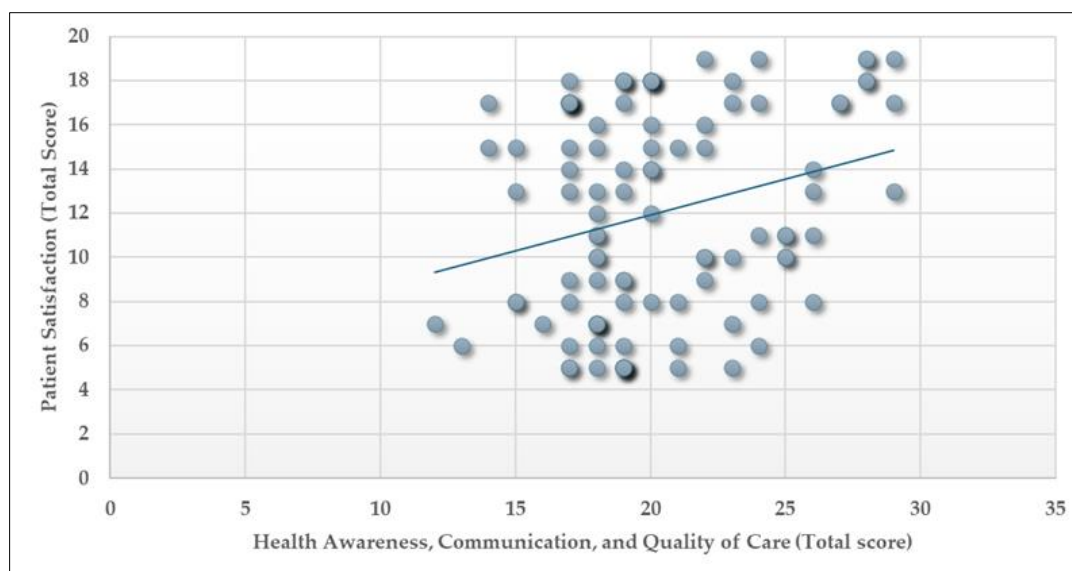


Figure 4 Scatter plot represented the correlation between awareness; communication; quality of care with patient satisfaction scores (n = 100 patients who received home care services in Hail; Saudi Arabia 2025)

4. Discussion

The findings of this study provide important insights into patient satisfaction and the quality of home healthcare (HHC) services in Hail; Saudi Arabia. The sociodemographic characteristics revealed that the majority of patients receiving HHC were male (63%); with a substantial proportion being middle-aged or elderly. These results align with previous research; such as Hsieh and Kenagy (2020); who reported that men are more likely to receive HHC services due to cultural and familial caregiving norms; particularly in regions where women often rely on family members for support. The educational background of patients in this study also reflected a diverse population; with nearly half holding university degrees. This is in contrast with findings from Wachholz et al. (2023); where lower educational attainment was associated with increased reliance on HHC; particularly in rural areas.

The distribution of medical conditions highlighted diabetes as the most common diagnosis (10%); followed by bone fractures and heart disease. These findings are consistent with Carlisle et al. (2022); who identified chronic illnesses as the leading causes for HHC utilization; particularly among aging populations. In Saudi Arabia; the high prevalence of diabetes is well-documented (Saudi Ministry of Health; 2021); reinforcing the need for specialized home-based diabetes management services. Furthermore; the extended duration of care required by many patients in this study (31% receiving services for over a year) supports previous observations by Dostalova et al. (2022); who noted that long-term home care is essential for patients with chronic conditions; disabilities; or post-surgical recovery needs.

The study findings also demonstrated that specialized care was the most commonly received service (28%); followed by domestic care (26%); which aligns with Ng and Wong (2018); who showed the importance of individualized care services in enhancing patient well-being. The diversity in care needs highlights the necessity for a multidisciplinary approach to home healthcare; as Castor et al. (2017) suggested that integrating nursing; physiotherapy; and psychological support can improve patient outcomes and satisfaction.

Patient awareness and communication played a significant role in service quality; with 82% of patients reporting being informed about HHC services. However; gaps in communication were evident; particularly in responsiveness (only 69% reported receiving a response from the institution). This finding is consistent with research by Rahadian Syah (2024); who found that poor communication and inadequate follow-ups contribute to lower satisfaction in HHC. Ensuring clear; transparent communication between providers and patients is crucial; as miscommunication can lead to reduced adherence to treatment plans and dissatisfaction (Ng & Wong; 2018).

Patient satisfaction was generally high; with 66% of patients always being informed of their provider's arrival time; and 71% reporting that providers always treated them with kindness. These findings are comparable to those of Karam et al. (2021); who showed that caregiver professionalism and empathy significantly influence patient experiences.

However; inconsistencies in arrival times and explanations of care indicate areas needing improvement; as suggested by Wachholz et al. (2023); who stressed that service reliability is critical for enhancing trust and satisfaction in HHC.

The correlation analysis revealed a statistically significant positive relationship between awareness; communication; and patient satisfaction ($r = 0.41$; $p = 0.048$). This supports previous findings by Madigan et al. (2013); who demonstrated that clear communication and patient education directly impact satisfaction levels. The mean satisfaction score of 11.97; with significant variation among participants; suggests that while many patients had positive experiences; service delivery inconsistencies need to be addressed. Carlisle et al. (2022) highlighted that patient satisfaction is not only dependent on medical care but also on the emotional support and attentiveness of caregivers; reinforcing the importance of comprehensive training programs for HHC providers.

The implications of these findings are crucial for improving HHC services in Saudi Arabia. Enhancing caregiver training; ensuring consistency in service delivery; and integrating digital health solutions; such as telemonitoring; could address communication gaps and improve patient satisfaction (Saudi Ministry of Health; 2021). Additionally; as highlighted by Castor et al. (2017); developing culturally sensitive patient education initiatives can further improve awareness and engagement with HHC services. Future research should focus on evaluating specific interventions that enhance responsiveness and follow-up care to optimize service quality

5. Conclusion

The findings of this study highlight the strengths and challenges of home healthcare (HHC) services in Hail; Saudi Arabia; with key factors such as patient awareness; communication; and caregiver professionalism influencing satisfaction levels. While most patients reported positive experiences; inconsistencies in responsiveness; follow-up care; and service reliability suggest areas for improvement. Given the statistically significant correlation between awareness; communication; and satisfaction; enhancing these aspects could lead to better patient experiences. It is recommended that HHC providers implement structured training programs focusing on communication skills; responsiveness; and cultural competence to ensure high-quality care.

Additionally; integrating digital health solutions; such as telemonitoring and automated scheduling; can improve service efficiency and follow-up care. Policymakers should consider expanding awareness campaigns to educate patients about available services and their rights in home healthcare. The implications of this study extend beyond Hail; as improving HHC quality can contribute to reducing hospital admissions; enhancing patient autonomy; and optimizing healthcare resource utilization. Future research should explore the long-term effects of service improvements and the role of emerging technologies in addressing patient needs more effectively.

Compliance with ethical standards

Acknowledgments

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We also extend our appreciation to our mentors; colleagues; and research advisors for their constructive feedback; encouragement; and invaluable guidance throughout the research process. Their contributions were instrumental in refining our methodology and analysis; ultimately strengthening the study's outcomes.

Author Contribution

This study was conducted as part of original research by [Basel Musleh Raishidi and Mousa Khalid Alateeq.] under the supervision of [Abdulaziz Alqhtani]. The principle researcher was responsible for study design; data collection; statistical analysis; and manuscript drafting. The supervisor provided guidance on research methodology; contributed to data interpretation; and supervised manuscript revisions. Both authors reviewed and approved the final version of the manuscript.

Disclosure of conflict of interest

The authors declare no conflict of interest regarding the publication of this research. This study was conducted independently and did not receive any external funding. The findings and interpretations presented in this paper reflect the authors' independent analysis and are not influenced by any external affiliations.

Statement of ethical approval

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the relevant Institutional Review Board (IRB) before initiating data collection.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. To protect participant privacy; all data have been anonymized and securely stored in compliance with ethical research guidelines

Statement of informed consent

Written informed consent was obtained from all participants; ensuring confidentiality; anonymity; and voluntary participation. Participants were fully informed of their right to withdraw from the study at any stage without any consequences.

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