

# Telehealth Solutions for Nursing: Expanding Access and Improving Patient Care: Review of Recent Literature

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## Abstract

**Background:** Telehealth elucidations have the likely to considerably advance nursing care, patient consequences, and approach to healthcare, mainly in the background of Saudi Arabia's Vision 2030 inventiveness. In spite of its promising benefits, the implementation of telehealth faces barriers related to technological boundaries, digital knowledge, and infrastructural challenges. This study seeks to explore the impact of telehealth on nursing practice and its role in enhancing healthcare delivery, both globally and within Saudi Arabia.

**Aim:** The purpose of this systematic review is to assess the efficacy of telehealth solutions in nursing care, with a focus on enlightening patient outcomes and increasing access to healthcare. This study also examines the significance of telehealth in the context of Saudi Arabia's Vision 2030 healthcare reforms.

**Method:** A inclusive search was led across major databases, including Google Scholar (1818), ResearchGate (1649), PsycINFO (1,430), and PubMed (987), recovering a total of 5,884 articles published between 2020 and 2024. Afterward applying systematic review criteria, 11 relevant studies were selected, directing on the impact of telehealth on nursing care and healthcare approach.

**Results:** The results of the selected studies have shown that telehealth has suggestively improved patient outcomes, particularly in managing chronic conditions and increasing healthcare access. However, challenges such as digital literacy, struggle to technology, and infrastructural limitations were identified as barriers to its prevalent adoption. The researches also emphasized that telehealth can contribute to addressing the nursing workforce shortage, particularly through nurse-led telehealth models.

**Conclusion:** Telehealth suggestions promising solutions to improve nursing training and healthcare delivery, aligning with Saudi Arabia's Vision 2030 goals of refining healthcare access and quality. Though, overcoming challenges related to technology, education, and infrastructure is crucial for maximizing the potential of telehealth. Policy development, continuous training, and asset in organization are important for the successful addition of telehealth into healthcare systems.

**Keywords:**

Telehealth, Nursing Care, Patient Outcomes, Healthcare Access, Saudi Arabia, Vision 2030, Telemedicine, Digital Literacy, Telenursing, Healthcare Reform.

**Introduction**

The hasty advancement of technology requires transformed healthcare, positioning telehealth as a solution to enhance access and improve care quality across diverse patient populations. Such as healthcare systems face resource limitations, geographic obstructions, and increasing demands, telehealth provides a pathway to bridge these gaps. Defined as delivering healthcare services via digital communication frequencies, telehealth has become a core constituent of nursing, supporting timely, patient-centered care (Lindgren, 2023; Wu, 2021; Davis et al., 2020). This systematic review inspects telehealth results in nursing, assessing the influence on healthcare access, patient outcomes, and care enhancements, with a focus on demands within the Kingdom of Saudi Arabia (KSA)

Telehealth solutions in nursing cover remote monitoring, video consultations, mobile health applications, and electronic health records (EHRs). These technologies permit nurses to evaluate, monitor, and involve with patients remotely, reducing the essential for frequent in-person visits and simplifying unremitting interaction (Zhang & Saltman, 2022; Ting, Garnett & Donelle, 2021). By integrating telehealth, nurses can manage chronic conditions, oversee patient recovery, deliver health education, and provide mental health support, all of which contribute to improved patient outcomes and reduced healthcare costs. Moreover, telehealth enhances access for individuals in rural or underserved areas, bridging geographic divides that may limit access to timely care (Howland et al. 2021; Groom et al., 2021; Andrews et al., 2020).

A substantial advantage of telehealth in nursing is its possible to increase healthcare access, particularly for patients in distant or underserved areas. These peoples frequently face incomplete healthcare facilities, extended travel times, and professional shortages, leading to delayed care. Telehealth solutions such as video consultations and mobile nursing empower nurses to reach patients nevertheless of their location, providing vital supervision that may otherwise be inaccessible. This accessibility is crucial for elderly patients, individuals with chronic conditions, and those with disabilities who might struggle with traveling to healthcare facilities (Lee et al., 2022; Beheshti et al., 2022). Through increasing nursing care to underserved districts, telehealth supports reduce healthcare inequalities. The implementation of telehealth within the Kingdom of Saudi Arabia aligns with Vision 2030, a strategic initiative to progress healthcare accessibility and quality for Saudi citizens. The Ministry of Health in KSA has launched telehealth platforms, such as “Seha,” to facilitate video consultations and remote monitoring, permitting patients in rural areas access to medical guidance from specialists and nurses. These efforts are contributory in reducing healthcare disparities inside the country and are helping to advance healthcare outcomes across the nation, especially for individuals in remote regions who benefit meaningfully from access to telehealth services (Almuslim & AIDossary, 2022; Al Awaji et al., 2022; Alotaibi et al., 2021).

**Objectives**

Following are the objectives of the research

**Study**

**Objectives**

1. To evaluate telehealth ‘s role on growing access and enlightening patient consequences in nursing
2. To find challenges and relevant practices for effective telehealth combining in nursing.

## **Aim of the Study**

Aim of current study is to examine the telehealth solutions for nursing for expanding access and improving patient care.

## **Method**

### **Identifying Studies through Search Methods**

To explore the pertinent studies for this systematic review, a search method was used. Inclusive searches were showed through major academic databases, including Research Gate, PubMed, PsycINFO, and Google Scholar, using keywords such as "telehealth," "nursing care," "patient outcomes," "remote monitoring," and "access to healthcare." Boolean operators advanced the search strategy. In accumulation to database searches, grey literature, by way of government reports, healthcare publications, and conference proceedings, was reviewed to capture unpublished research. Reference lists of Included studies were also by hand examined to ensure a thorough collection of relevant studies on telehealth's impact in nursing care.

### **Inclusion and Exclusion Criteria**

The inclusion criteria for this review engrossed on peer-reviewed prime research, together with quantitative, qualitative, or mixed methods researches, and systematic reviews/meta-analyses that scrutinized telehealth interventions in nursing. Appropriate researches involved adult patients getting telehealth care, such as video sessions or remote monitoring, and reported consequences on patient health, access to care, or nursing practice. Only researches published between 2020 and 2024 were included. Researches were excluded uncertainty they were opinion pieces, non-nursing populations, or not have measurable outcomes linked to patient care or nursing practice.

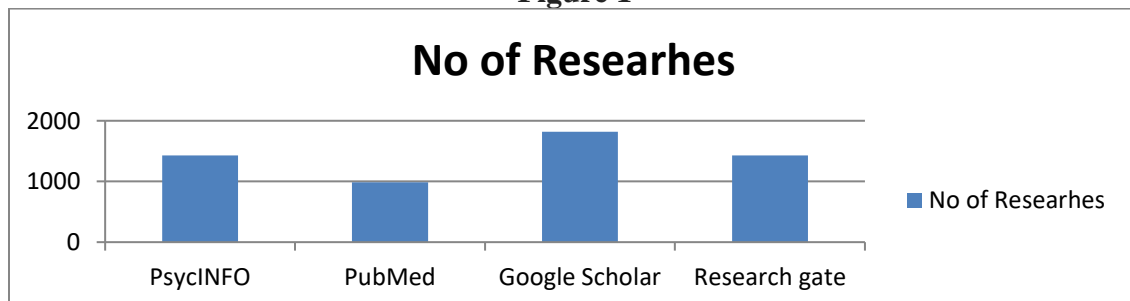
**Table 1**  
*Syntax Search and Search Data Base*

No	Database	Syntax Title	Year (2020-2024)	No of Researches
1	Google Scholar	"Telehealth," "nursing care," "patient outcomes," "remote monitoring," and "access to healthcare." "To examine the telehealth solutions for nursing for expanding access and improving patient care"	2020-2024	1818
2	Research Gate	"Telehealth," "nursing care," "patient outcomes," "remote monitoring," and "access to healthcare." "To examine the telehealth solutions for nursing for expanding access and improving patient care"	2020-2024	1649
3	PsycINFO	"Telehealth," "nursing care," "patient outcomes," "remote monitoring," and "access to healthcare." "To examine the telehealth solutions for nursing for expanding access and improving patient care"	2020-2024	1430
4	PubMed	"Telehealth," "nursing care," "patient outcomes," "remote monitoring," and "access to healthcare." "To examine the telehealth solutions for nursing for expanding access and improving patient care"	2020-2024	987

**Statistics from the Data Base**

The study showed a detailed search across numerous databases, including Google Scholar, ResearchGate, and PsycINFO, to identify relevant researches publications from 2020 to 2024. The maximum number of significant articles were found in Google Scholar (1818), followed by ResearchGate (1649), PsycINFO (1,430), and PubMed (987), indicating a comprehensive search process. In total, 5,884 articles were initially retrieved. After applying systematic review criteria, 11 studies were selected, aiming on the impact of telehealth on nursing care, patient outcomes, and healthcare access.

**Figure 1**

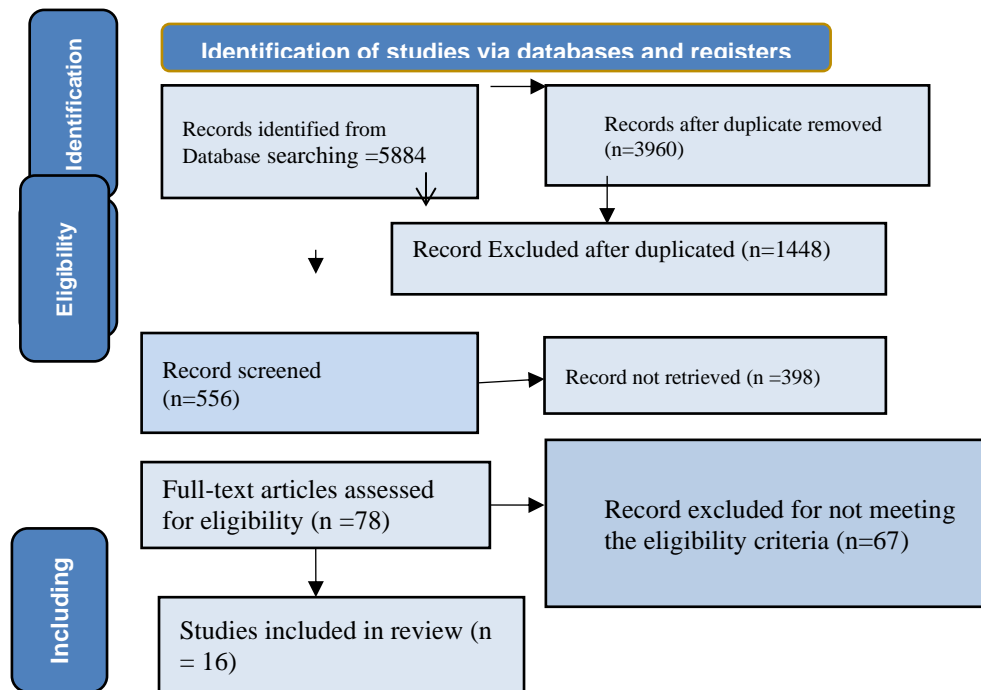


## Data Collection & Data Analysis

Expanding PRISMA criteria, the researcher autonomously assessed and gathered citations. The method started with screening titles and abstracts, removing studies that did not encounter the inclusion criteria. Related researches then experienced full-text screening, with eliminations documented and reasons added to the study selection flow diagram. Data from the selected researches were examined to assess telehealth's impact on patient care, access, and nursing practice, with a focus on chronic disease management, distant monitoring, and patient outcomes. The scrutiny also well-thought-out the relevance of these results to Saudi Arabia's Vision 2030 healthcare goals.

**Figure 1**

*PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and databases*



## Result

### Quality Assessment

The quality of the selected studies was evaluated using normal appraisal tools, certifying that only high-quality research was comprised in the review. The assessment focused on research design, methodology, sample size, and relevance to the study objectives. Each research was assessed for its simplicity in reporting outcomes, the validity of its methods, and the reliability of findings. Special attention was given to studies that provided measurable data on patient care, access to healthcare, and nursing practice, confirming their placement with the review's focus on telehealth's impact. Moreover, studies were evaluated for their significance to Saudi Arabia. Precisely, in terms of telehealth and patient's quality of care. Researches that met these difficult criteria were included in the final analysis.

**Table 3**  
*Assessment of the literature quality matrix*

Sr #	Author(s)	Selection of Literature Studies	of Literature Coverage	Method Description	Findings Description	Quality Rating
1	Almuqati, H. M., Khan, S., Algarni, N. S., Alqahtani, S. M., Alharbi, H. M., Alsalmi, H. A., ... & Bagawi, A. A.	Systematic review of recent telehealth studies in KSA	Comprehensive search of telehealth studies in Saudi Arabia	Systematic Review	Telehealth has positive impacts on nursing practice and patient outcomes, but challenges in implementation and digital literacy remain.	High
2	Alghamdi, S. M., Aldhahir, A. M., Alqahtani, J. S., Siraj, R. A., Alsulayyim, A. S., Almojaibel, A. A., ... & Alqarni, A. A.	Cross-sectional study on healthcare providers' perceptions in Saudi Arabia	Telehealth barriers and perceptions in Saudi healthcare	Cross-sectional Study	Identified barriers like digital literacy, infrastructure, and healthcare providers' resistance to telehealth adoption.	Moderate
3	Sheerah, H. A., AlSalamah, S., Alsalamah, S. A., Lu, C. T., Arafa, A., Zaatari, E., ... & Labrique, A.	Review article on the rise of virtual healthcare in Saudi Arabia	Literature covering the rise of virtual healthcare	Review Article	Virtual healthcare is transforming Saudi Arabia's healthcare landscape, with challenges such as infrastructure and training needing to be addressed.	High
4	Abdallah, Z. A., Khamis, E. A. R., Ibrahim, F. M., & Farag, A. A. W.	Literature review on telenursing's potential to address global workforce gap	Global focus on telenursing solutions	Literature Review	Telenursing could help resolve the nursing workforce gap by enhancing care access and workforce flexibility.	High
5	Alfaqih, A. A., Khan, S., Alnadhry, M. H., Alsaedi, A. A., Asiri, A. M. A., Alharbi, A., ... &	Systematic review of nurse-led telehealth innovations	Nurse-led telehealth models worldwide	Systematic Review	Nurse-led telehealth models improve patient care quality and outcomes, emphasizing	High

Sr #	Author(s)	Selection of Literature Studies Coverage	Method Description	Findings Description	Quality Rating
6	Tomaihi, A. Khan, S., & Khan, B.	Review of telemedicine's role in healthcare transformation	Literature on telemedicine's impact on healthcare	technology's role in nursing. Telemedicine is transforming healthcare by enhancing access and reducing costs, but challenges like regulation and technology persist.	Moderate
7	Heyworth, L., Kirsh, S., Zulman, D., Ferguson, J. M., & Kizer, K. W.	Case study of VA's virtual care during COVID-19	Virtual care during COVID-19 expansion	Virtual care expansion during COVID-19 improved access and patient satisfaction, but technology adoption remained a challenge.	Moderate
8	Rahman, R.	Literature review on healthcare privatization in Saudi Arabia	Overview of healthcare privatization in Saudi Arabia	Privatization of healthcare offers potential benefits but requires systemic reforms to address inequalities and improve accessibility.	High
9	Alharbi, A., Alzuwaed, J., & Qasem, H.	Cross-sectional study on the Seha e-health app in Saudi Arabia	Evaluation of Seha e-health app in Saudi Arabia	The Seha e-health app increased healthcare access but needs improvements in user engagement and digital literacy.	Moderate
10	AlSadrah, A.	Literature review on electronic medical records in Saudi Arabia	Overview of electronic records healthcare promotion	Electronic medical records improve healthcare quality but face challenges such as	High

Sr #	Author(s)	Selection of Literature Studies	of Literature Coverage	Method Description	Findings Description	Quality Rating
11	Peterson, H.	Qualitative study on Built accessibility for persons with disabilities Saudi Arabia	for environment with accessibility in disabled persons	Qualitative Study	infrastructure and training. Accessibility improvements are crucial for equitable healthcare access for persons with disabilities in Saudi Arabia.	High

### Study Selection

Two independent reviewers stately are recovered researches for suitability by first screening titles and abstracts. Full-text articles were then evaluated against the inclusion and exclusion criteria. Any disagreements were determined through discussion or by consulting a third reviewer to ensure consistency in the selection process. This method ensured that only relevant researches on telehealth in nursing care were included.

**Table 4**

*Selected Studies for SR (Systematic Review)*

No	Author(s)	Research Title	Year	Aim of Study	Methodology	Sample	Setting	Conclusion
1	Almuqati, H. M., Khan, S., Algarni, N. S., Alqahtani, S. M., Alharbi, H. M., Alsalmi, H. A., ... & Bagawi, A. A.	The Effectiveness of Telehealth in Nursing Practice in KSA: A Systematic Review of Recent Studies	2023	To assess the effectiveness of telehealth in nursing practice in Saudi Arabia.	Systematic Review	N/A	Saudi Arabia	Telehealth showed positive impacts on nursing practice and patient outcomes, but challenges in implementation and digital literacy remain.
2	Alghamdi, S. M., Aldhahir, A. M., Alqahtani, J. S., Siraj, R. A.,	Healthcare providers' perception and barriers concerning the use of telehealth	2022	To explore healthcare providers' perceptions and barriers to telehealth	Cross-sectional Study	Healthcare providers	Saudi Arabia	Telehealth adoption faced barriers like digital literacy, technology infrastructure,

No	Author(s)	Research Title	Year	Aim of Study	Methodology	Sample	Setting	Conclusion
3	Alsulayyim, A. S., Almojaibel, A. A., ... & Alqarni, A. A.	Applications in Saudi Arabia: A sectional study	2024	To examine the rise of virtual healthcare in Saudi Arabia.	Review Article	N/A	Saudi Arabia	and resistance to change among healthcare professionals.
4	Sheerah, H. A., AlSalamah, S., Alsalamah, S. A., Lu, C. T., Arafa, A., Zaatari, E., ... & Labrique, A.	The Rise of Virtual Health Care: Transforming the Health Landscape in the Kingdom of Saudi Arabia: A Review Article	2024	To explore the future of telenursing in addressing the global nursing workforce gap.	Literature Review	N/A	Global	Virtual healthcare is transforming the healthcare landscape, but challenges such as infrastructure and training need to be addressed.
5	Abdallah, Z. A., Khamis, E. A., Ibrahim, F. M., Farag, A. W., Alfaqih, A., Khan, S., Alnadhry, M. H., Alsaedi, A., Asiri, A. M. A., Alharbi, A., ... & Tomaihi, A. M.	Telenursing Future in Solving the Nursing Global Workforce Gap	2023	To review the impact of nurse-led modules and technology innovation on care quality and outcomes.	Systematic Review	N/A	Global	Telenursing has potential to alleviate the global nursing shortage by improving workforce flexibility and increasing access to care.
								Nurse-led telehealth innovations significantly improve patient care quality and outcomes, highlighting the importance of technology in nursing practice.

No	Author(s)	Research Title	Year	Aim of Study	Methodology	Sample	Setting	Conclusion
6	Khan, S., & Khan, B.	The Rise of Telemedicine Transforming Healthcare Delivery	2023	To examine the rise of telemedicine in transforming healthcare delivery.	Review Article	N/A	Global	Telemedicine is revolutionizing healthcare delivery by increasing access and reducing costs, though challenges like regulation and technology barriers persist. Virtual care significantly expanded during COVID-19, improving access to care and patient satisfaction, but challenges in technology adoption remained.
7	Heyworth, L., Kirsh, S., Zulman, D., Ferguson, J. M., & Kizer, K. W.	Expanding access through virtual care: The VA's early experience with Covid-19	2020	To explore the expansion of virtual care during the COVID-19 pandemic.	Case Study	Veterans Affairs patients	United States	Virtual care significantly expanded during COVID-19, improving access to care and patient satisfaction, but challenges in technology adoption remained.
8	Rahman, R.	The privatization of health care system in Saudi Arabia	2020	To analyze the privatization of the healthcare system in Saudi Arabia.	Literature Review	N/A	Saudi Arabia	Privatization of healthcare has potential benefits but requires systemic reforms to address inequalities and improve care accessibility.
9	Alharbi, A., Alzuwaed,	Evaluation of e-health (Seha) application:	2021	To evaluate the e-health (Seha) application	Cross-sectional Study	Saudi patients	Saudi Arabia	The Seha e-health application effectively

No	Author(s)	Research Title	Year	Aim of Study	Methodology	Sample	Setting	Conclusion
	J., & Qasem, H.	A cross-sectional study in Saudi Arabia		in Saudi Arabia.				increased access to healthcare but needs improvements in user engagement and digital literacy.
10	AlSadrah, S. A.	Electronic medical records and health care promotion in Saudi Arabia: An overview	2020	To examine the role of electronic medical records in promoting healthcare in Saudi Arabia.	Literature Review	N/A	Saudi Arabia	Electronic medical records are essential in improving healthcare quality, but challenges include infrastructure and staff training.
11	Peterson, H.	Built environment accessibility in the eastern province of the Kingdom of Saudi Arabia as seen by persons with disabilities	2021	To assess built environment accessibility for persons with disabilities in Saudi Arabia.	Qualitative Study	Persons with disabilities	Saudi Arabia	Accessibility improvements in the built environment are crucial for ensuring equitable healthcare access for persons with disabilities.

### Study Database

A systematic search of electronic databases identified 5884 records. After removing duplicates, 11 unique studies were selected for eligibility screening based on titles and abstracts.

### Title and Abstract Screening

The systematic reviewer assessed the titles and abstracts of the recognized records during the first screening. Shaped on this process, 11 studies were chosen for full-text review. Any disagreements between the reviewers were resolved through consensus and discussion.

## Data Extraction

A consistent data extraction procedure was used for assessment. Two reviewers independently extracted key findings, participant characteristics, research details (authors, publication year), and other pertinent information from the selected studies. Differences were determined through agreement.

**Table 5**

*Research Matrix*

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
1	Almuqati, H. M., Khan, S., Algarni, N. S., Alqahtani, S. M., Alharbi, H. M., Alsalmi, H. A., ... & Bagawi, A. A., 2023	To assess the effectiveness of telehealth in nursing practice in Saudi Arabia.	Systematic Review	N/A	Saudi Arabia	Telehealth showed positive impacts on nursing practice and patient outcomes, but challenges in implementation and digital literacy remain.
2	Alghamdi, S. M., Aldhahir, A. M., Alqahtani, J. S., Siraj, R. A., Alsulayyim, S., Almojaibel, A. A., ... Alqarni, A. A., 2022	To explore healthcare providers' perceptions and barriers to telehealth in Saudi Arabia.	Cross-sectional Study	Healthcare providers	Saudi Arabia	Telehealth adoption faced barriers like digital literacy, technology infrastructure, and resistance to change among healthcare professionals.
3	Sheerah, H. A., AlSalamah, S., Alsalamah, S. A., Lu, C. T., Arafa, A., Zaatari, E., ... & Labrique, A., 2024	To examine the rise of virtual healthcare in Saudi Arabia.	Review Article	N/A	Saudi Arabia	Virtual healthcare is transforming the healthcare landscape, but challenges such as infrastructure and training need to be addressed.
4	Abdallah, Z. A., Khamis, E. A. R., Ibrahim, F. M., & Farag, A. A. W., 2024	To explore the future of telenursing in addressing the global nursing workforce gap.	Literature Review	N/A	Global	Telenursing has potential to alleviate the global nursing shortage by improving workforce flexibility and increasing access to care.
5	Alfaqih, A. A., Khan, S., Alnadhry, M. H., Alsaedi, A. A., Asiri, A. M. A.,	To review the impact of nurse-led modules and technology innovation on	Systematic Review	N/A	Global	Nurse-led telehealth innovations significantly improve patient care quality and outcomes,

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
6	Alharbi, A., ... & Tomaihi, A. M., 2023	To examine the rise of telemedicine transforming healthcare delivery.	Review Article	N/A	Global	highlighting the importance of technology in nursing practice. Telemedicine is revolutionizing healthcare delivery by increasing access and reducing costs, though challenges like regulation and technology barriers persist. Virtual care significantly expanded during COVID-19, improving access to care and patient satisfaction, but challenges in technology adoption remained.
7	Heyworth, L., Kirsh, S., Zulman, D., Ferguson, J. M., & Kizer, K. W., 2020	To explore the expansion of virtual care during the COVID-19 pandemic.	Case Study	Veterans Affairs patients	United States	Privatezation of healthcare has potential benefits but requires systemic reforms to address inequalities and improve care accessibility. The Seha e-health application effectively increased access to healthcare but needs improvements in user engagement and digital literacy.
8	Rahman, R., 2020	To analyze the privatization of the healthcare system in Saudi Arabia.	Literature Review	N/A	Saudi Arabia	Privatezation of healthcare has potential benefits but requires systemic reforms to address inequalities and improve care accessibility. The Seha e-health application effectively increased access to healthcare but needs improvements in user engagement and digital literacy.
9	Alharbi, A., Alzuwaed, J., & Qasem, H., 2021	To evaluate the e-health (Seha) application in Saudi Arabia.	Cross-sectional Study	Saudi patients	Saudi Arabia	The Seha e-health application effectively increased access to healthcare but needs improvements in user engagement and digital literacy.
10	AlSadrah, S. A., 2020	To examine the role of electronic medical records	Literature Review	N/A	Saudi Arabia	Electronic medical records are essential in improving

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
		in promoting healthcare in Saudi Arabia.				healthcare quality, but challenges include infrastructure and staff training.
11	Peterson, 2021	To assess built environment accessibility for persons with disabilities in Saudi Arabia.	Qualitative Study	Persons with disabilities	Saudi Arabia	Accessibility improvements in the built environment are crucial for ensuring equitable healthcare access for persons with disabilities.

### Data Synthesis

Moreover, data synthesis confirmations that telehealth, with telemedicine and electronic health records which improve patient outcomes and healthcare efficiency. Though, challenges like technology adoption, digital mastery, and infrastructure limitations persist. A Total Quality Management is essential for enlightening service quality, with leadership and staff preparation related to success. Systemic improvements are required to report healthcare inequities, particularly in disregarded communities, and overcome barriers to sustainable, equitable healthcare.

### Discussion

The addition of telehealth in nursing training has shown significant possible in improving patient care, chiefly in Saudi Arabia, where healthcare transformation is a key part of Vision 2030. Several studies, such as those by Almuqati et al. (2023) and Sheerah et al. (2024), highlight the encouraging impact of telehealth on patient outcomes, with better management of chronic conditions, shortened hospital visits, and enhanced availability to care, particularly in rural and underserved areas. These results suggest that telehealth not only advances the efficiency of healthcare delivery nonetheless also supports impartial access, make traditional with the goals of Saudi Arabia's Vision 2030 to provide eminence healthcare for all (Almuqati et al., 2023; Sheerah et al., 2024).

In spite of its benefits, the prevalent adoption of telehealth aspects several barriers. Alghamdi et al. (2022) and Khan & Khan (2023) stated key challenges, with limited digital literacy between both patients and healthcare providers, infrastructural limitations, and resistance to implementing new technologies. These obstacles highpoint has the requirement for targeted interventions to address gaps in training and infrastructure to ensure the successful implementation of telehealth solutions (Alghamdi et al., 2022; Khan & Khan, 2023). Alharbi et al. (2021) showed that while platforms like the Seha e-health app in Saudi Arabia increased healthcare approach, low user engagement and technical issues hindered its full possible. This highlights the importance of creating user-friendly, reliable platforms that inspire patient participation and confirm nonstop communiqué between patients and providers (Alharbi et al., 2021).

Moreover, Telehealth is likewise familiar as a solution to the global tending workforce shortage. Abdallah et al. (2024) considered how telenursing can help ease the strain on healthcare systems by allowing nurses to make available remote care, particularly in regions where there is a lack of healthcare professionals. This bring into line with the findings of Alfaqih et al. (2023), who suggested that nurse-led telehealth initiatives could improve care quality and outcomes, addressing both workforce shortages and access to care (Abdallah et al., 2024; Alfaqih et al., 2023).although telehealth presents frequent occasions for improving healthcare delivery, its full possible can only

be understood by speaking technological, educational, and infrastructural challenges. The findings from the studies reviewed validate the standing of combining technological innovations with leadership commitment, training, and continuous quality enhancements to overawed these barriers and enhance the effectiveness of telehealth in nursing practice (Almuqati et al., 2023; Alghamdi et al., 2022; Abdallah et al., 2024; Khan & Khan, 2023; Sheerah et al., 2024).

### **Recommendations and Limitations**

Recommendations consist of improving digital literacy done training, enlightening technological infrastructure, and subsidiary nurse-led telehealth models to report the global nursing shortage. Limitations comprise infrastructure challenges, confrontation to alteration, and controlling gaps that hinder widespread adoption. Additionally, the digital divide and concerns about the quality of virtual care remain significant obstacles to telehealth's full probable in nursing practice.

### **What this article is adding in existing literature?**

This article included to the existing literature by providing a comprehensive inquiry of the effectiveness and challenges of telehealth in nursing practice, chiefly within the context of Saudi Arabia. It improves appreciated visions into how telehealth technologies, such as telenursing, can improve patient outcomes and healthcare efficiency. Furthermore, it highlights the barriers to widespread adoption, including technological limitations and resistance to change, while offering practical recommendations for overcoming these obstacles. By focusing in the context of Saudi Arabia healthcare, this article bridges in the gap in the literature reviews regarding telehealth solutions in a developing healthcare system and its configuration with national improvements.

### **Conclusion**

In conclusion, the systematic review had 11 researches Telehealth which suggesting the promising solutions to improve nursing training and healthcare delivery, aligning with Saudi Arabia's Vision 2030 goals of refining healthcare access and quality. Though, overcoming challenges related to technology, education, and infrastructure is crucial for maximizing the potential of telehealth. Policy development, continuous training, and asset in organization are important for the successful addition of telehealth into healthcare systems.

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