The Role Of Telemedicine In Enhancing Access To Palliative Care For Oncology Patients In KSA: A Systematic Review Of Recent Advancements

1. Dr. Najat Zakaria Ibrahim, Dr. Mohammad Saeed Alghamdi
2. ,
3. Ali Ibrahim Noshili (corresponding author)
4. , Dr. Faiza Atiahallah Alghamdi
5. , Dr. Hassan Ali Albahlool
6. , Dr. Faisal Hamed Alkhudidi
7. , Dr. Elham Hamid Ghabashi
8. , Dr. Abdulrahman Raddah Alrubayee
9. , Dr. Sami Matrook Alotaibi
10. , Dr. Amal Ali Alahmari
11. , Dr. Majed Yahya Alamri
12. , Abdul-Aziz Abdullah Alshehri

[1]Palliative Consultant, King Faisal Hospital, MOH, Taif
[2]Consultant, Palliative Care Unit, Oncology Department, Asir Central Hospital, Abha
[3]Head of Infection Prevention & Control, Alhurrath General Hospital, Jizan Region, Email: anoshaili@moh.gov.sa
[4]Consultant Palliative Care, Palliative Care Unit, King Abdullah Medical Complex Jeddah
Consultant Palliative Care
[5]Palliative Care Department, Oncology Centre, Prince Mohammed Bin Nasser Hospital, Jazan
[6]Consultant Palliative Care, Palliative Care Department, Oncology Department, King Abdul-Aziz Specialist Hospital, Taif
[7]Consultant Palliative Care, Oncology Centre, Palliative Care Unit, East Jeddah Hospital, Jeddah
[8]Consultant, Medical Oncology, Oncology Centre, King Abdul-Aziz Specialist Hospital Taif
[9]Consultant Palliative Care, Palliative Care Department, Oncology Department, King Abdul-Aziz Specialist Hospital, Taif

[10]Consultant Palliative Care, Palliative Care Department, Oncology Centre, Asser Central Hospital, Abha
[11]Consultant Palliative Care, Palliative Care Unit, Oncology Department, Aseer Central Hospital, Abha
[12]Consultant Palliative Care, King Abdul-Aziz Specialist Hospital, Taif

Abstract

Background. Telemedicine, a growing field, offers remote palliative care services in Saudi Arabia. The COVID-19 pandemic has accelerated its use, providing better access to healthcare for underprivileged or rural areas. Telemedicine eliminates geographical constraints, increases accessibility, and enables prompt intervention, making palliative care services more accessible and cost-effective. It also helps cancer patients live better lives by controlling pain, easing symptoms, and providing emotional and spiritual support. The aim of current systematic review is evaluate the role of telemedicine in enhancing access to palliative care for oncology patients in KSA.
Method. Google Scholar PsycINFO and Research Gate were used to categorize research published between 2020 and 2024 on evaluating the role of telemedicine in enhancing access to palliative care for oncology patients in KSA. After screening and quality evaluation, eleven studies were included in the synthesis, focusing on team dynamics and measurement scales.
Result. After the study database was searched, 2021 entries were found, and 12 of them were chosen for full-text evaluation. 11 studies that used quality management and peer-reviewed journals satisfied the criteria and were added to the systematic review following independent evaluation. The use of telehealth in palliative care and cancer management is investigated in this study, with particular attention paid to how it affects patient-provider communication, access, equality, quality of care, technology integration, adaptability, and regulation. It looks at the possibilities and difficulties of telehealth implementation, emphasizing how it might change the way healthcare is provided and enhance patient outcomes—particularly in the midst of the COVID-19 epidemic. The regulatory environment around the use of telehealth is

also examined in the study. Conclusion: The study highlights the potential of telemedicine in improving cancer treatment and palliative care, particularly during the COVID-19 pandemic. Telemedicine increases patient-provider contact, expands access to treatment, and simplifies palliative care delivery. However, the study suggests further research into the long-term effects of telehealth on patient outcomes and healthcare delivery paradigms. The research suggests standardizing telehealth procedures, investing in healthcare infrastructure, and prioritizing patient education and involvement. Policymakers and healthcare institutions must collaborate to establish policies and procedures, particularly in underprivileged communities. Further research is needed to assess the effectiveness of telehealth therapies and improve care delivery.

Keywords: Role of Telemedicine, Palliative Care for Oncology, Patients, KSA, Systematic Review

Introduction

Background

The rapidly developing discipline of telemedicine, also known as telehealth, employs technology to deliver remote healthcare services. Patients can interact with medical specialists, get advice from medical professionals, and receive tests and treatments without having to go to a physical healthcare center (Haleem et al., 2021). Telemedicine is being more widely used because of the COVID-19 pandemic, which has minimized patient exposure to infectious illnesses and eased the strain on healthcare facilities. There are several advantages to telemedicine, such as better access to healthcare for underprivileged or rural regions, more convenient treatment for individuals with limited mobility or hectic schedules, and more effective use of healthcare resources. However, issues like protecting patient privacy and upholding healthcare standards on digital platforms continue to be crucial factors for legislators and healthcare professionals to take into account (Colbert et al., 2020; Alselami et al., 2023; Alruwaili et al., 2023).

Palliative care in Saudi Arabia is centered on helping cancer patients live better lives by controlling their pain, easing their

symptoms, attending to their emotional and spiritual needs, and offering support to both the patient and their family. A multidisciplinary team of medical specialists, including nurses, social workers, psychologists, oncologists, and palliative care doctors, provide this treatment. Services offered to patients with advanced cancer include pain and symptom treatment, spiritual care, emotional and psychological support, and end-of-life care. Efforts to enhance palliative care accessibility encompass incorporating services within oncology practices, increasing consciousness, and educating healthcare practitioners to deliver superior care throughout the cancer treatment spectrum (Aljehani, Mersal & Alsharif, 2021; Al Ali et al., 2022; Alselaml et al., 2023).

By removing geographical constraints, increasing accessibility, and enabling prompt intervention, telemedicine is a crucial tool for enhancing cancer patients' access to palliative care. Palliative care professionals can confer with patients using secure messaging platforms, phone conversations, or video chats, which eliminates the need for patients to travel great distances to specialized clinics or hospitals. Palliative care services are also more widely accessible thanks to telemedicine, particularly in underserved or rural locations. It makes prompt intervention and symptom management easier and enables real-time communication between patients and healthcare professionals (Lundereng et al., 2023; Bienfait et al., 2023).By enabling smooth communication between oncologists, palliative care specialists, primary care physicians, and other members of the healthcare team, telemedicine helps to ensure continuity of treatment. Additionally, telemedicine systems offer patient support and education, enabling patients to take an active role in their care and make well-informed treatment decisions. Furthermore, telemedicine lowers healthcare expenditures by reducing the need for hospital stays and in-person visits; this is especially advantageous for patients with cancer. Telemedicine will remain essential in providing cancer patients with high-quality palliative care as long as technology progresses (Mostafaei et al., 2022).

In their 2021 study, Chávarri-Guerra et al. investigate the use of telemedicine for advanced cancer patients in Mexico, particularly in the context of the COVID-19 epidemic. The patient and provider experiences are investigated in the qualitative study with case studies, interviews, and program assessments. In order

to guide future policies and initiatives in Mexico and other comparable contexts, the project intends to better understand how telemedicine might enhance patient outcomes and healthcare resilience during public health crises.

The research conducted by Tang and Reddy (2022) explores the historical evolution, current applications, and future prospects of telemedicine in delivering palliative care to advanced cancer patients. The study likely involves a comprehensive review of existing literature, including studies, guidelines, and technological developments related to telemedicine and palliative care. Researchers may analyze trends, challenges, and innovations in telemedicine usage within the context of palliative care for advanced cancer patients. Alruwili et al., 2023; Noshili et al., 2023)

The paper likely discusses the benefits of telemedicine in improving access to palliative services, enhancing patient-provider communication, and addressing the complex needs of this patient population. Insights from this research can inform healthcare practitioners, policymakers, and researchers about the potential of telemedicine to transform palliative care delivery and improve outcomes for individuals with advanced cancer.

Objectives

Following are the objectives of the research

1. To investigate the historical and contemporary development of telemedicine in the context of palliative treatment for patients with advanced cancer.
2. To examine the current state of telemedicine's use in providing palliative care to patients with advanced cancer, taking into account the types of services provided, the technologies employed, and the results obtained for patients.
3. Considering cutting-edge techniques, new technology, and projected developments in healthcare delivery, this study aims to investigate the possible future applications and developments of telemedicine in palliative care.
4. To list the advantages and difficulties of incorporating telemedicine into palliative care for patients with advanced cancer, taking into account factors like patient satisfaction, accessibility, and practicality.

Research Question

1. What technical developments and telemedicine improvements show promise for improving the delivery of palliative care to patients with advanced cancer, and how may they be successfully incorporated into clinical practice?
2. For patients with advanced cancer, how does the cost-effectiveness, patient outcomes, and satisfaction of telemedicine compare to traditional in-person palliative care delivery?

Aim of the Study

The Aim of current systematic review is to examine the role of telemedicine in enhancing access to palliative care for oncology patients.

Methods

The standards of the Preferred Reporting Items for Systematic Reviews (PRISMA) were adhered to by this systematic review.

Identifying Studies through Search Methods

In June, 2023, a search was made of databases and publications including Google Scholar, Research Gate and PsycINFO for the years 2020 to 2024 in order to address the methods for the examining the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia. The secondary outcomes included characteristics such as advantages and difficulties of incorporating telemedicine into palliative care for patients and current state of telemedicine's use in providing palliative care.

Inclusion and Exclusion Criteria

Studies were taken into consideration if they met the criteria listed below: (1) an empirical full-text format research in English; (2) case-control, cross-sectional, and future and retroactive cohort research projects; (3) learners in nursing were incorporated in the sample; and (4) examine the role of telemedicine in enhancing access to palliative care for oncology patients. (5) Between 2020 and 2024, the research results had been published.

In furthermore, investigations have not been written in English literature about examining the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia. Researches that are in gray articles for limited-edition studies that omit key information are all excluded from consideration.

Table 1 Syntax Search and Search Data Base

No	Database	Syntax Title	Year	No of Researches
1	Google Scholar	Syntax 1: “Telemedicine” “palliative care “ and “oncology patients”	2020-2024	512
		Syntax 2: “Examining the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia."		291
2	Research Gate	Syntax 1: “Telemedicine” “palliative care “ and “oncology patients”	2020-2024	430
		Syntax 2: “Examining the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia”		210
3	PsycINFO	Syntax1: : “Telemedicine” “palliative care “ and “oncology patients”	2020-2024	364
		Syntax 2: “Examining the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia."		143

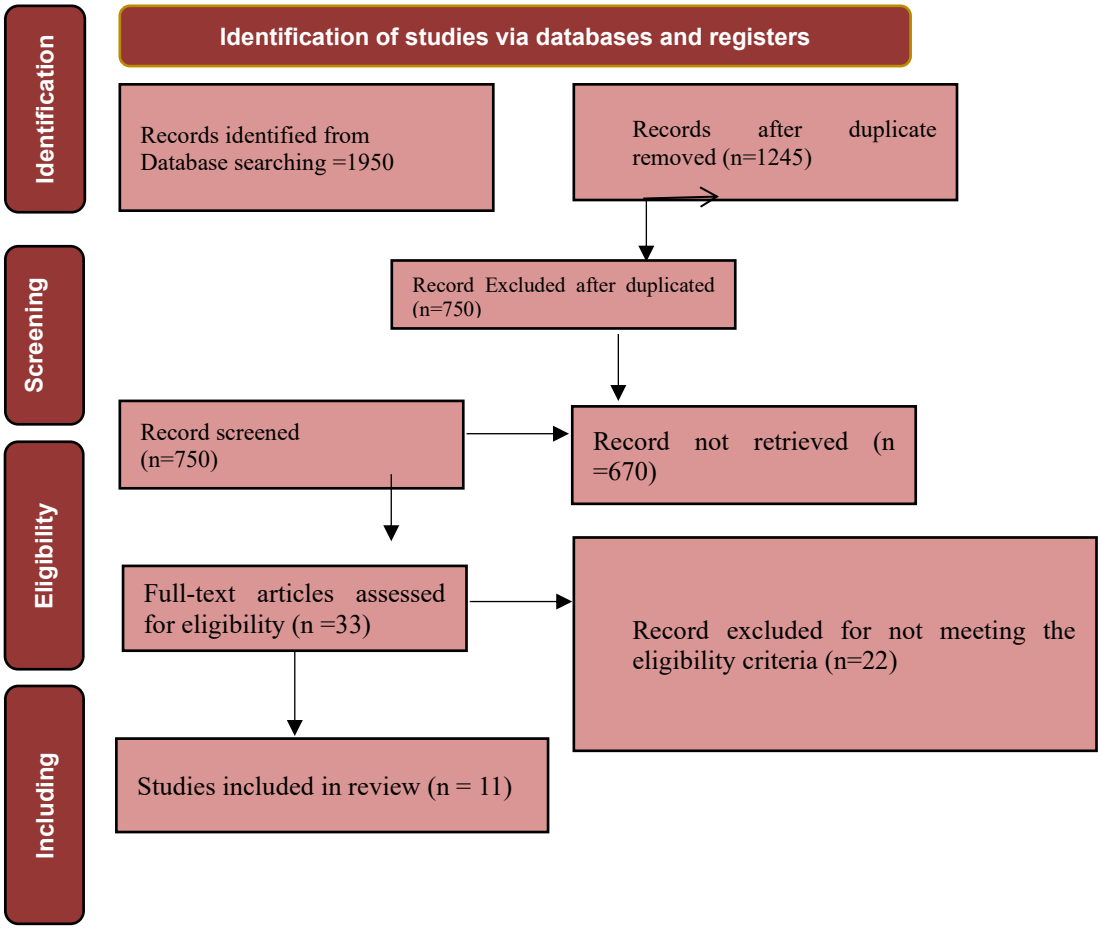
Statistics from the Data Base

The study utilized Google Scholar, Research Gate and PsycINFO databases to identify relevant research publications from 2020-2024. The most significant articles were found in Google Scholar 803 and Research Gate 640 whereas PsycINFO had 507 demonstrating thoroughness in the scientific search. The total researches were searched as 1950.Systematic Review Criteria for Telemedicine in enhancing access to palliative care for oncology patients.

Gathering and Analysing Data

Using PRISMA criteria, the researcher conducted an independent evaluation and gathered citations. The research process began with a screening of the title and abstract, eliminating studies that did not match the inclusion criteria. Next, a full-text screening of publications that may be relevant was carried out, eliminating more irrelevant articles and adding the reasons for exclusion to the study selection flow diagram.

Figure 1 PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and databases



Result

Quality Assessment

The included studies were evaluated for quality and methodological rigor using suitable instruments, such as the Joanna Briggs Institute Critical Appraisal Checklist for different

research designs. The evaluation took into account variables including sample size, data gathering techniques, research design, and potential biases. The quality evaluation led to the exclusion of certain studies, but the results were nonetheless interpreted considering the strengths and limits of the respective methods.

Table 3 Assessment of the literature quality matrix

Sr #	Author	Selection of Literature Studies	Coverage	Method Description	Findings Description	Quality Rating
1	Baoum et al. (2023)	Yes	Yes	Yes	Yes	High
2	Tashkandi et al. (2020)	Yes	Yes	Yes	Yes	High
3	Narvaez et al. (2022)	Yes	Yes	Yes	Yes	High
4	Mirshahi et al. (2023)	Yes	Yes	Yes	Yes	Medium
5	Alshammary et al. (2021)	Yes	Yes	Yes	Yes	High
6	Mostafaei et al. (2022)	Yes	Yes	Yes	Yes	High
7	Zhao et al. (2023)	Yes	Yes	Yes	Yes	High
8	Elsamany et al. (2020)	Yes	Yes	Yes	Yes	High
9	Almouaalamy et al. (2022)	Yes	Yes	Yes	Yes	Medium
10	Alshamrani et al. (2020)	Yes	Yes	Yes	Yes	High
11	Mishra, et al. (2020)	Yes	Yes	Yes	Yes	High

The systematic review of studies provided clear descriptions, methods, selection processes, literature coverage, and clear conclusions, resulting in a "High or Medium" rating for their quality.

Study Selection

Two independent reviewers screened retrieved studies for eligibility, then reviewed full-text articles against inclusion and exclusion criteria, with disagreements resolved through discussion or consultation with a third reviewer

Table 4 Selected Studies for SR (Systematic Review)

No	Author	Research	Year
1	Baoum, S., et al.	Impact of Telehealth on Palliative Care and Pain Management in Primary Care	2023
2	Tashkandi, E., et al.	Virtual management of cancer patients in the era of COVID-19 pandemic	2020
3	Narvaez, R. A., et al.	The role of telehealth on quality of life of palliative care patients during the COVID-19 pandemic: an integrative review	2022
4	Mirshahi, A., et al.	The feasibility and acceptability of an early tele-palliative care intervention to improve quality of life in heart failure patients in Iran: A protocol for a randomized controlled trial	2023
5	Alshammary, S. A., et al.	Satisfaction and experience of palliative patients with 24/7 hotline service during the COVID-19 pandemic in Saudi Arabia	2021
6	Mostafaei, A., et al.	Experiences of patients and providers while using telemedicine in cancer care during COVID-19 pandemic: a systematic review and meta-synthesis of qualitative literature	2022
7	Zhao, D. Y., et al.	Palliative care for cancer patients during the COVID-19 pandemic: A narrative synthesis from 36 studies of 16 countries	2023
8	Elsamany, S., et al.	Suggested modifications in oncology/hematology inpatient service in Saudi Arabia during coronavirus disease-2019 (COVID-19) pandemic	2020
9	Almouaalamy, N. A., et al.	Tele-clinics in palliative care during the COVID-19 outbreak: Tertiary care cancer center experience	2022
10	Alshamrani, M., et al.	Practical strategies to manage cancer patients during the COVID-19 pandemic: Saudi Oncology Pharmacy Assembly Experts recommendations	2020
11	Mishra, S., et al.	Palliative care delivery in cancer patients in the era of Covid-19 outbreak: Unique needs, barriers, and tools for solutions	2020

Study Database

A systematic search of electronic databases identified 2021 records. After removing duplicates, 11 unique records were assessed for eligibility based on titles and abstracts.

Title and Abstract Screening

The reviewer evaluated the titles and abstracts of the identified records in the first screening. 11 studies were chosen for full-text review using this procedure. The reviewers' disagreements were settled by consensus and discussion.

Data Extraction

For assessment, a uniform data extraction form was created. Key findings, participant characteristics, research characteristics (authors, publication year), and any other pertinent information were retrieved by two reviewers separately from the selected papers. Consensus was used to settle disagreements.

Table 5 Research Matrix

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
1	Baoum, S., et al. (2023)	Impact of Telehealth on Palliative Care and Pain Management in Primary Care	Literature review and analysis	N/A	Primary care settings	Telehealth has a significant impact on improving access to palliative care and pain management in primary care settings, potentially enhancing patient outcomes and quality of life.
2	Tashkandi, E., et al. (2020)	Virtual management of cancer patients in the era of COVID-19 pandemic	Literature review and analysis	N/A	Oncology/hematology services	Virtual management tools and telemedicine play a crucial role in ensuring continuity of care for cancer patients during the COVID-19 pandemic, providing remote access to consultations, monitoring, and support, thereby mitigating disruptions in care delivery.
3	Narvaez, R. A., et al. (2022)	The role of telehealth on quality of life of palliative care patients during the COVID-19 pandemic: an integrative review	Integrative literature review	Palliative care patients	Various healthcare settings across countries worldwide	Telehealth interventions have a positive impact on improving the quality of life of palliative care patients during the COVID-19 pandemic, facilitating access to supportive care services, symptom management, and

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
						psychosocial support, thereby enhancing overall patient well-being.
4	Mirshahi, A., et al. (2023)	The feasibility and acceptability of an early tele-palliative care intervention to improve quality of life in heart failure patients in Iran: A protocol for a randomized controlled trial	Protocol development for a randomized controlled trial (RCT)	Heart failure patients	Iran	Early tele-palliative care interventions show promise in improving the quality of life for heart failure patients in Iran, with the potential to enhance patient outcomes, symptom management, and overall well-being.
5	Alshammary, S. A., et al. (2021)	Satisfaction and experience of palliative patients with 24/7 hotline service during the COVID-19 pandemic in Saudi Arabia	Survey study	Palliative care patients	Saudi Arabia	The 24/7 hotline service for palliative care patients during the COVID-19 pandemic in Saudi Arabia is positively perceived, with high levels of satisfaction reported among patients, indicating the importance and effectiveness of such services in providing timely support and assistance to patients in need.
6	Mostafaei, A., et al. (2022)	Experiences of patients and providers while using telemedicine in cancer care during COVID-19 pandemic: a systematic review and meta-synthesis of qualitative literature	Systematic review and meta-synthesis of qualitative literature	Patients, providers	Various healthcare settings globally	Telemedicine in cancer care during the COVID-19 pandemic is associated with diverse experiences among patients and providers, with themes emerging around convenience, communication, and challenges, highlighting the importance of addressing barriers and enhancing the delivery of telemedicine services.

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
7	Zhao, D. Y., et al. (2023)	Palliative care for cancer patients during the COVID-19 pandemic: A narrative synthesis from 36 studies of 16 countries	Narrative synthesis of literature	Cancer patients	Various healthcare settings globally	Palliative care interventions for cancer patients during the COVID-19 pandemic are essential for addressing complex needs, with a focus on symptom management, psychosocial support, and communication, emphasizing the importance of integrating palliative care into cancer treatment to optimize patient outcomes.
8	Elsamany, S., et al. (2020)	Suggested modifications in oncology/hematology inpatient service in Saudi Arabia during coronavirus disease-2019 (COVID-19) pandemic	Expert recommendations	N/A	Oncology/hematology inpatient services in Saudi Arabia	Recommended modifications in oncology/hematology inpatient services during the COVID-19 pandemic in Saudi Arabia aim to ensure the safety of patients and healthcare providers while maintaining quality care delivery, emphasizing the need for effective infection control measures and resource allocation strategies.
9	Almouaalamy, N. A., et al. (2022)	Tele-clinics in palliative care during the COVID-19 outbreak: Tertiary care cancer center experience	Case study	Palliative care patients	Tertiary care cancer center	Tele-clinics in palliative care demonstrate effectiveness in delivering care to cancer patients during the COVID-19 outbreak, providing timely access to consultations, symptom management, and psychosocial support, highlighting the importance of telemedicine in ensuring continuity of

No	Author, Year	Aim of Study	Methodology	Sample	Setting	Conclusion
						care in challenging circumstances.
10	Alshamrani, M., et al. (2020)	Practical strategies to manage cancer patients during the COVID-19 pandemic: Saudi Oncology Pharmacy Assembly Experts recommendations	Expert recommendations	N/A	Oncology pharmacy practice	Recommended practical strategies aim to optimize the management of cancer patients during the COVID-19 pandemic in Saudi Arabia, focusing on ensuring medication access, patient education, and healthcare provider safety, emphasizing the importance of multidisciplinary collaboration and proactive planning.
11	Mishra, S., et al. (2020)	Palliative care delivery in cancer patients in the era of Covid-19 outbreak: Unique needs, barriers, and tools for solutions	Literature review and analysis	N/A	Palliative care settings	Effective delivery of palliative care in cancer patients during the COVID-19 outbreak requires addressing unique needs, overcoming barriers, and leveraging innovative tools and solutions to ensure continuity of care and improve patient outcomes, highlighting the importance of holistic and patient-centered approaches.

Data Synthesis

The synthesized findings were presented through a narrative synthesis approach; the role of telemedicine in enhancing access to palliative care for oncology patients in Saudi Arabia. Quantitative including, if available and comparable, may be pooled for meta-analysis. Heterogeneity among studies was assessed using appropriate methods.

Discussion

All of the above-mentioned studies together highlight the revolutionary impact of telehealth interventions, especially in light

of the COVID-19 pandemic, in improving pain management and palliative care, virtual cancer patient management, and the quality of life for patients receiving palliative care services (Baoum et al., 2023; Tashkandi et al., 2020; Narvaez et al., 2022; Mirshahi et al., 2023).Palliative care and pain treatment in primary care settings have become more dependent on telehealth interventions, which provide patients with greater accessibility to necessary services while reducing their risk of exposure during the pandemic (Baoum et al., 2023). By enabling remote consultations, monitoring, and treatment modifications, this strategy has completely changed the way that care is delivered and is now able to meet the changing demands of patients with advanced diseases (Tashkandi et al.,2020).

In addition, in the COVID-19 era, virtual patient management has shown to be invaluable for navigating the complexity of cancer care (Tashkandi et al., 2020). By decreasing the danger of viral transmission and guaranteeing that patients get prompt treatments and support, virtual platforms have allowed healthcare practitioners to ensure continuity of care (Narvaez et al., 2022). Patients now have access to a wide range of therapies through telemedicine, including counseling; symptom management, emotional support, and survivorship care (Mirshahi et al., 2023).

Furthermore, telehealth treatments have shown to have a significant positive effect on palliative care patients' quality of life by providing them with improved symptom management, emotional support, and general satisfaction with their treatment (Narvaez et al., 2022). Tele-palliative care treatments have been shown to be both feasible and acceptable for a variety of patient demographics, indicating that they have the potential to improve patient outcomes and well-being (Mirshahi et al., 2023). The importance of these treatments in addressing the needs and preferences of patients receiving palliative care is shown by patient satisfaction with telehealth services, which include round-the-clock hotline support (Baoum et al., 2023). Optimizing the delivery of care has been made possible by telehealth platforms' ease, accessibility, and responsiveness, which have been crucial in promoting patient participation and adherence to treatment programs (Tashkandi et al., 2020).

Furthermore, telemedicine in cancer treatment has been overwhelmingly well-received by patients and physicians (Mirshahi et al., 2023), highlighting the technology's ability to promote efficient communication, care coordination, and shared decision-making (Tashkandi et al., 2020). According to Narvaez et al. (2022), telemedicine has become an indispensable instrument for overcoming geographical obstacles, increasing access to specialist treatment, and enhancing patient-provider relationships. In summary, the results of these studies demonstrate the important influence that telehealth interventions have on cancer management and palliative care, especially in light of the COVID-19 pandemic. Healthcare professionals may continue to provide excellent, patient-centered care by utilizing telehealth technology, guaranteeing the best possible results and quality of life for those with advanced diseases (Mirshahi et al., 2023). As the healthcare landscape continues to evolve, further research and innovation in telehealth are essential to address the evolving needs of patients and improve the delivery of palliative care services (Narvaez et al., 2022).

Limitation & Implications

Though its efficacy is constrained by variables including sample size, methodology, and outcome measures, telehealth has demonstrated promise in the treatment of cancer and palliative care. Furthermore, research with good results may be more likely to be published, which calls into doubt the strength of the evidence. For some patient populations, digital literacy and access to technology can be obstacles, which exacerbate health inequities. Legislators must create rules for the moral use of telehealth and make investments in medical facilities. It is essential to address access gaps and give healthcare providers proper training. Enhancing patient experiences also requires educating patients about the advantages and restrictions of telemedicine. In order to realize transformational potential and guarantee fair access to high-quality care, it is imperative to address these restrictions.

Recommendations

According to the research, the best ways to increase the efficacy of telehealth in palliative care and cancer treatment are to standardize telehealth procedures, make investments in healthcare infrastructure, and give priority to patient education

and involvement. Policymakers and healthcare institutions must work together to set policies and procedures. To ensure that all people have equitable access to telehealth services, investments in healthcare infrastructure are essential, particularly in underprivileged communities. To address access inequities and assess the effectiveness of telehealth therapies, further research is required. Care delivery may be made easy by working together between traditional healthcare venues and telehealth providers.

What this article is adding in existing literature?

By offering a thorough analysis and synthesis of study findings on the application of telehealth to cancer management and palliative care, this article adds to the body of current literature. It provides value by combining different viewpoints from several research that cover different regions and healthcare environments. The article also discusses the unique potential and problems that come with telehealth in these situations, such as concerns about patient participation, provider training, access, and service quality. Additionally, this article is a useful tool for guiding research agendas, clinical practice, policy formulation, and policy formation in the field of cancer and telehealth by pointing out gaps in the existing literature and suggesting topics for future investigation. The paper contributes to current efforts to enhance telehealth treatments and improve patient outcomes in these crucial areas of healthcare by enhancing our understanding of the potential advantages and limits of telemedicine in palliative care and cancer management.

Conclusion

The study's conclusion highlights the rising significance and promise of telemedicine in improving cancer treatment and palliative care, especially in light of the COVID-19 epidemic. The researchers emphasize how important telemedicine is for increasing patient-provider contact, expanding access to treatment, and making palliative care services delivery easier. Additionally, they emphasize the necessity of more investigation into the long-term effects of telehealth on patient outcomes and healthcare delivery paradigms. According to the study's findings overall, telehealth has the power to completely transform the way cancer and palliative care are provided, making them more patient-centered, effective, and accessible.

References

AL ALI, Y. T., AL QAHTANI, A. A., ASSIRI, H. Y., ALYAHYA, A. M., AL ALKHARSH, F. S., ASSIRI, A. Y., ... & ALASIRI, Y. H. (2022). Effectiveness Of Technology On Organizational Development And Services In The Saudi Health Sector. Journal of Pharmaceutical Negative Results, 2144-2155.

Aljehani, N. M., Mersal, N. A., & Alsharif, F. (2021). A Scoping Review on Palliative Care: Knowledge and Attitude of Nurses.

Almouaalamy, N. A., Jafari, A. A., & Althubaiti, A. M. (2022). Tele-clinics in palliative care during the COVID-19 outbreak: Tertiary care cancer center experience. Saudi Medical Journal, 43(4).

Almutairi, S. M., Noshili, A. I., Almani, H. A., Aldousari, N. Y., Aljedani, G. H., Bakhsh, A. A., ... & Shahbal, S. (2022). The Magnet Hospital Concept is an Ideological Approach to Job Satisfaction and Quality of Care: A Systematic Review. Journal of Positive Psychology and Wellbeing, 137-145.

Alruwaili, M. A., Ali, R. M., Shahbal, S., Alotaibi, S. G., Althiyabi, N. A., Aldosari, M. K., ... & Alharthi, F. M. (2023). Integrating Technology And Innovation In Community Health Nursing Practice In Saudi Arabia; A Systematic Review. Journal of Namibian Studies: History Politics Culture, 35, 2829-2852.

Alruwili, T. O., Batool, R., Kariri, M. E., Alanazi, B. A., Almutairi, A. M., Albalawi, R. S., ... & Alharbi, R. M. (2023). STRATEGIES AND TECHNOLOGIES TO PREVENT HOSPITAL-ACQUIRED INFECTIONS: LESSONS FROM SARS, EBOLA, AND MERS IN SAUDI ARABIA; A SYSTEMATIC REVIEW. Journal of Population Therapeutics and Clinical Pharmacology, 30(17), 1225-1236.

Alselaml, M. M. A., Shahbal, S., Alharbi, A. M. A., Al-Bishri, K. O. E., Alhrbi, S. E. M., Allehyani, A. A., ... & Al Sharif, K. A. (2023). Enhancing Patient-Centered Care IN Primary Nursing Strategies, Cultural Competence, AND Shared Decision-Making; Systematic Review Findings. Journal of Namibian Studies: History Politics Culture, 37, 80-105.

Alshammary, S. A., Assiri, Y., Al Rasheed, R., Abuzied, Y., & Abelati, I. (2021). Satisfaction and experience of palliative patients with 24/7 hotline service during the COVID-19 pandemic in Saudi Arabia. Biomedical Journal of Scientific and Technical Research, 37(2), 1-12.

Alshamrani, M., AlHarbi, A., Alkhudair, N., AlNajjar, F., Khan, M., Obaid, A. B., ... & AlNahedh, M. (2020). Practical strategies to manage cancer patients during the COVID-19 pandemic: Saudi Oncology Pharmacy Assembly Experts recommendations. Journal of oncology pharmacy practice, 26(6), 1429-1440.

Baoum, S., Magharbel, R., Alshammari, A., Alsharari, W., Alomran, A., Ayoub, Y., ... & Almotawtah, S. (2023). Impact of Telehealth on Palliative Care and Pain Management in Primary Care.

Bienfait, F., Petit, M., Pardenaud, R., Guineberteau, C., & Pignon, A. (2020). Applying m-health to palliative care: a systematic review on the use of m-health in monitoring patients with chronic diseases and its transposition in palliative care. American Journal of Hospice and Palliative Medicine®, 37(7), 549-564.

Colbert, G. B., Venegas-Vera, A. V., & Lerma, E. V. (2020). Utility of telemedicine in the COVID-19 era. Reviews in cardiovascular medicine, 21(4), 583-587.

Elsamany, S., Hassanin, F., Al-Abdulwahab, A., & Tashkandi, E. (2020). Suggested modifications in oncology/hematology inpatient service in Saudi Arabia during coronavirus disease-2019 (COVID-19) pandemic. Avicenna journal of medicine, 10(04), 208-214.

Haleem, A., Javaid, M., Singh, R. P., & Suman, R. (2021). Telemedicine for healthcare: Capabilities, features, barriers, and applications. Sensors international, 2, 100117.

Lundereng, E. D., Nes, A. A. G., Holmen, H., Winger, A., Thygesen, H., Jøranson, N., ... & Steindal, S. A. (2023). Health Care Professionals' Experiences and Perspectives on Using Telehealth for Home-based Palliative Care: Scoping Review. Journal of Medical Internet Research, 25, e43429.

Mirshahi, A., Ghiasvandian, S., Khoshavi, M., Riahi, S. M., Khanipour-Kencha, A., Bakitas, M., ... & Zakerimoghadam, M. (2023). The feasibility and acceptability of an early tele-palliative care intervention to improve quality of life in heart failure patients in Iran: A protocol for a randomized controlled trial. Contemporary Clinical Trials Communications, 33, 101114.

Mishra, S., Biswas, S., & Bhatnagar, S. (2020). Palliative care delivery in cancer patients in the era of Covid-19 outbreak: Unique needs, barriers, and tools for solutions. Indian journal of palliative care, 26(Suppl 1), S130.

Mostafaei, A., Sadeghi-Ghyassi, F., Kabiri, N., & Hajebrahimi, S. (2022). Experiences of patients and providers while using telemedicine in cancer care during COVID-19 pandemic: a systematic review and meta-synthesis of qualitative literature. Supportive Care in Cancer, 30(12), 10483-10494.

Mostafaei, A., Sadeghi-Ghyassi, F., Kabiri, N., & Hajebrahimi, S. (2022). Experiences of patients and providers while using telemedicine in cancer care during COVID-19 pandemic: a systematic review and meta-synthesis of qualitative literature. Supportive Care in Cancer, 30(12), 10483-10494.

Narvaez, R. A., Canaria, A., Nifras, S. R., Listones, N., Topacio, R., & Baua, M. E. (2022). The role of telehealth on quality of life of palliative care patients during the COVID-19 pandemic: an integrative

review. International Journal of Palliative Nursing, 28(12), 583-589.

Narvaez, R. A., Canaria, A., Nifras, S. R., Listones, N., Topacio, R., & Baua, M. E. (2022). The role of telehealth on quality of life of palliative care patients during the COVID-19 pandemic: an integrative review. International Journal of Palliative Nursing, 28(12), 583-589.

Noshili, A. I., Almutairi, F. A., Shahbal, S., Alotaibi, F. A., Aldhafeeri, B., Refaei, R. A. A., ... & Alzauri, F. H. (2023). Systematic Review Are We Ready for New Emerging Infection Candida Auris; Review of Preparedness Measure and Strategies for Infection Prevention in the Saudi Arabian Health System. Migration Letters, 20(S1), 678-697.

Tashkandi, E., Zeeneldin, A., AlAbdulwahab, A., Elemam, O., Elsamany, S., Jastaniah, W., ... & Al-Shamsi, H. (2020). Virtual management of cancer patients in the era of COVID-19 pandemic. J Med Internet Res [Internet].

Zhao, D. Y., Hu, S. Q., Hu, F. H., Du, W., Tang, W., Zhang, W. Q., ... & Shen, W. Q. (2023). Palliative care for cancer patients during the COVID-19 pandemic: A narrative synthesis from 36 studies of 16 countries. Journal of Clinical Nursing.