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Experiences with Virtual Health Clinics in Home Care: A Qualitative Study from the Hail Region, Saudi Arabia

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Abstract **Objectives:** Virtual Health Clinics (VHCs) gained widespread adoption during the COVID-19 pandemic, providing accessible care while reducing the need for in-person visits. As home care services continue to evolve post-pandemic, understanding the experiences of both patients and healthcare providers using VHCs is essential, particularly in underserved regions such as Hail, Saudi Arabia. **Aim:** This qualitative study explores the experiences, challenges and enablers of healthcare providers and home care patients who use virtual health clinics in the Hail region. **Methods:** Semi-structured interviews were conducted with a purposive sample of five healthcare providers and fifteen home care patients receiving services through the Home Health Care Department at King Khalid Hospital between January and June 2024. Interviews were transcribed and analyzed thematically using an inductive approach supported by NVivo 12 software. **Results:** Three key themes emerged from the analysis: (1) the need for structured training in virtual care technology, with providers reporting limited preparation and patients expressing confusion during virtual visits; (2) the dual nature of remote communication, which offered time and cost savings but was hindered by poor connectivity in rural areas; and (3) limited access to IT support during virtual appointments, particularly outside standard working hours, which contributed to service disruptions. **Limitations:** The study's findings are based on a small sample size from a single hospital, which may limit generalizability. The qualitative design also introduces potential interpretation bias. **Conclusion:** While virtual health clinics offer clear advantages for home care delivery, their effective implementation depends on addressing operational challenges, including training, communication infrastructure and IT support. These insights provide practical guidance for healthcare administrators and policymakers seeking to expand virtual care services in home-based settings.

Key Words Virtual Health, Virtual Clinics, Experiences, Qualitative, KSA, Home Patients

INTRODUCTION

In recent years, there has been a growing interest in integrating Virtual Health Clinics (VHCs) into routine healthcare services. Initially deployed as an emergency response to the COVID-19 pandemic, VHCs enabled healthcare systems to maintain continuity of care while mitigating risks associated with in-person interactions [1-3]. As the acute phase of the pandemic subsides, attention has shifted toward the sustainability of digital health interventions, emphasizing long-term integration into healthcare delivery models [34-37]. Emerging evidence suggests that maintaining telehealth services post-pandemic can improve chronic disease management, enhance patient engagement and reduce healthcare costs when supported by robust infrastructure and policy frameworks [35,38]. However, challenges related to digital equity, provider workload, reimbursement models and patient adherence remain critical barriers to sustained adoption [36,39]. In Saudi Arabia, initiatives such as the "Sehha" app and the 937 teleconsultation line exemplify the national commitment to telehealth, offering a scalable model that extends beyond pandemic-era necessity [8,16]. These services have demonstrated numerous benefits, including improved access, patient satisfaction, reduced travel burden and decreased transmission risk-particularly for follow-up and chronic disease management [4,8,20]. Understanding the factors that influence the long-term success of VHCs is essential for optimizing digital health strategies in home care, especially in underserved regions.

Concurrently, home care has emerged as a critical component of health service delivery, especially for elderly and chronically ill populations. A large body of literature recognizes the cost-efficiency and psychosocial advantages of home-based care compared to institutional settings [4,16,17]. Kok *et al.*, for instance, found that elderly individuals receiving home care reported greater emotional well-being and autonomy. Furthermore, continuity in home care is sustained through two interdependent dimensions: coordinated care management and consistent service delivery [19]. These elements are especially vital in settings with resource constraints or limited access to specialized facilities.

Despite these advantages, the integration of VHCs into home care settings-particularly in rural or underserved regions-remains a largely understudied area. While previous studies have explored the economic and logistical aspects of telehealth [5-7,13-15], fewer have examined the user experience or implementation challenges in home care contexts. Research has highlighted barriers such as insufficient training for healthcare providers, limited digital literacy among patients, inadequate IT support and unreliable internet connectivity-specially in geographically isolated areas [7,8,18,21]. Additionally, there is growing evidence that older patients may require targeted support and orientation to navigate virtual care technologies effectively [22].

Although recent literature has explored virtual care in hospitals or outpatient clinics, relatively little empirical work has examined its application in home-based care models-despite their expanding role in modern health systems. In the context of Saudi Arabia's Vision 2030, which emphasizes digital transformation and equitable healthcare access, understanding the practical and human-centered aspects of VHC use in home care is both timely and necessary.

This study, therefore, aims to explore the experiences of healthcare providers and home care patients using virtual health clinics in the Hail region of Saudi Arabia. It seeks to identify challenges, enablers and actionable insights for improving virtual care delivery in home-based settings.

METHODS

Setting and Procedure

This qualitative exploratory study was conducted at the Home Health Care Department of King Khalid Hospital in Hail, Saudi Arabia, between January and June 2024.

The study targeted healthcare providers and adult patients (≥20 years) receiving home health care services. Healthcare providers were interviewed in person at the hospital following pre-arranged appointments, during which the interview questions were administered. After completing provider interviews, a purposive sample of home health care patients attending the clinic was identified. These patients were contacted by telephone, informed about the study and asked to provide verbal and written consent before participating. Patients could complete the questions via phone or in person and all identifiers (names, contact numbers) were omitted to ensure confidentiality.

The study aimed to capture the perspectives of both healthcare providers and patients regarding the use of Virtual Health Clinics (VHCs) in home care services.

Participants

A purposive sample was selected to represent the broader population while ensuring feasibility. The sample included five healthcare providers (physicians and nurses) and fifteen home health care patients from King Khalid Hospital in Hail.

All participants were informed that participation was voluntary and that they could withdraw at any stage without consequence. Verbal and written consent were obtained before the interviews began. Demographic data-including age, gender, ethnicity and geographic location-were collected prior to the interviews.

Data Collection

Semi-structured individual interviews were conducted by a trained member of the research team, either face-to-face or via Microsoft Teams. The interview guide explored:

- Use of technology in VHCs
- Perceived risks
- Barriers and enablers to adoption
- Suggestions for improving VHC use in home care

The questions were adapted from a previous validated study [8] and modified to suit the study context. The interview guide was reviewed by external experts and revisions were made accordingly.

A second team member attended each interview (camera and microphone off) to take detailed field notes and provide additional analytical perspectives. Recruitment continued until thematic saturation was reached-defined as the point when no new insights emerged to refine or challenge existing themes [9].

All interviews were audio-recorded, anonymized and transcribed verbatim by an external transcriber. Transcripts were not returned to participants for validation.

Data Analysis

Data were analyzed using an inductive thematic approach following Braun and Clarke's six-phase framework [10–12]. Transcripts were imported into NVivo 12 (QSR International) and accuracy was verified against the recordings.

Phase 1: Researchers immersed themselves in the data by reading and re-reading transcripts, taking note of their initial impressions. **Phase 2**: Initial codes were generated for a subset of transcripts (three from each participant group), forming a preliminary coding framework. Two team members independently coded the remaining transcripts, meeting regularly to refine codes, merge related items and resolve discrepancies. Phases 3–5: Codes were organized into preliminary themes, aligned with study objectives and compared across participant groups (healthcare providers vs. patients). The Microsoft Whiteboard tool was used to visually map relationships between themes and facilitate team discussion. Phase 6:

Themes were finalized through iterative review, supported by representative quotes and thematic summaries were developed. An audit trail of coding decisions, meeting notes and thematic framework versions was maintained throughout.

RESULTS

A total of 20 interviews were conducted, including 15 patients who were engaged with virtual care and 5 healthcare providers who provided healthcare services through a virtual health clinic. The interviews ranged from 25 min to 71 min (average = 44 min). Participant characteristics are presented in Table 1. The analysis identified key aspects of patient experience and contextual factors that influence and inform participants' perspectives on virtual care and its connection to compassionate care.

Remote Communication

Remote communication emerged as the most frequently discussed theme among both healthcare providers and patients (Figure 1). Participants highlighted that virtual consultations are especially beneficial in rural areas, offering significant time and cost savings. A physician noted:

"We used to take a one-and-a-half-hour drive out there... If we can deliver healthcare services through virtual health, then we save time and cost." (P1, P3)

Patients likewise appreciated the convenience of avoiding long commutes and parking difficulties:

"I prefer follow-ups through virtual health rather than face-to-face... Virtual health could be beneficial for most patients." (P6–P13)

However, infrastructure limitations were common concerns, particularly in rural areas:

"Some patients are without good internet connectivity. They may have an outdated phone line that cannot handle data transmission." (P3)

In terms of interaction quality, some patients valued the structure and reduced anxiety of virtual formats:

"During in-person visits, I'd forget questions. Now with the smartphone, I have my questions displayed beside me." (P17, P20)

Providers, however, noted that remote consultations made it harder to interpret non-verbal cues, potentially affecting clinical assessments.

Figure 1 Thematic Frequency Bar Chart (Shows Remote Communication as the most frequently mentioned theme, followed by Training and IT Support).

Table 1: Participant Demographics

Participants	Sex	Age	Type of Participant	Nationality
Part. # 1	F	34	Nurse	Indian
Part. # 2	F	45	Physician	Saudi
Part. # 3	M	52	Physician	Egyptian
Part. # 4	M	40	Physician	Saudi
Part. # 5	F	44	Physician	Saudi
Part. # 6	F	55	Patient	Saudi
Part. # 7	M	26	Patient	Saudi
Part. # 8	M	85	Patient	Saudi
Part. # 9	F	44	Patient	Saudi
Part. # 10	F	72	Patient	Saudi
Part. # 11	M	66	Patient	Saudi
Part. # 12	M	56	Patient	Saudi
Part. # 13	M	45	Patient	Saudi
Part. # 14	M	63	Patient	Saudi
Part. # 15	M	84	Patient	Saudi
Part. # 16	M	61	Patient	Saudi
Part. # 17	F	52	Patient	Saudi
Part. # 18	F	49	Patient	Saudi
Part. # 19	M	70	Patient	Saudi
Part. # 20	M	65	Patient	Saudi

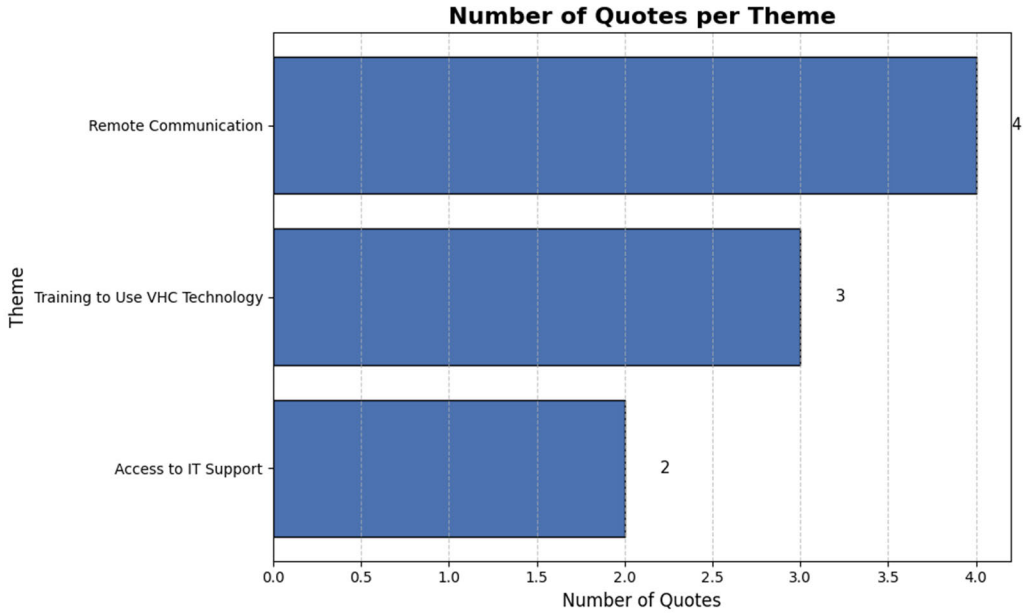

Figure 1: Thematic Frequency Bar Chart

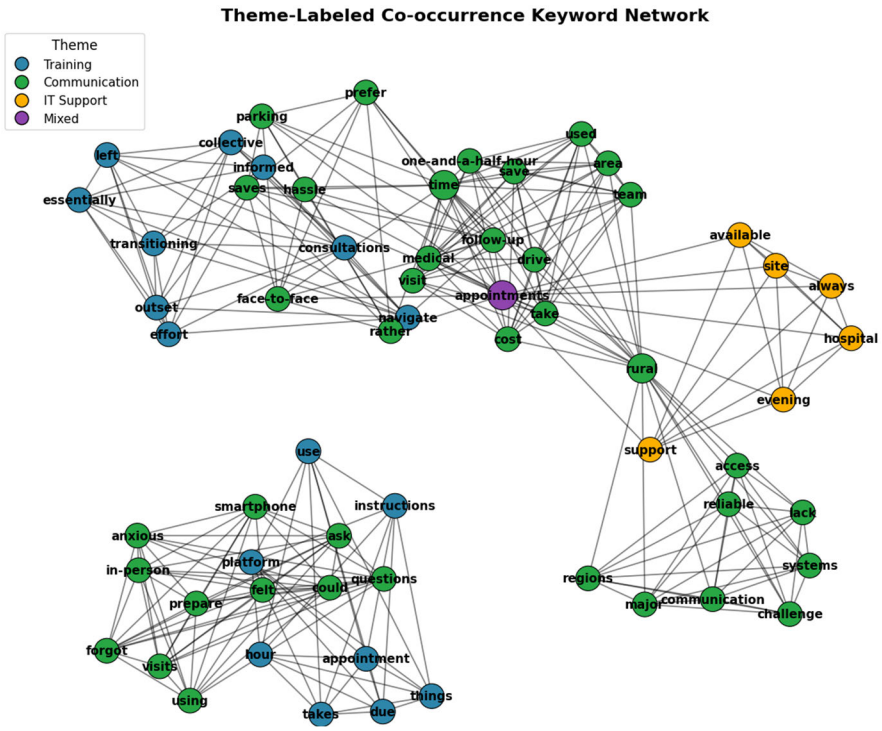

Figure 2: Theme-Labeled Co-occurrence Keyword Network of Participant Responses

Training to Use Virtual Healthcare Technology

Both providers and patients reported limited structured training for effective use of virtual platforms. Several clinicians felt they had to self-learn:

"We've essentially been left to navigate this on our own. From the outset, we were informed that we would be transitioning to telephone consultations and it has been a collective effort..." (P2, P3)

Although some institutions offered training sessions, these often conflicted with clinical schedules. Participants recommended hands-on workshops, practical demonstrations and easy-to-access online resources. A patient suggested:

"My appointment at the virtual health clinic takes more than one hour due to many things about the use instructions... It would be great to get the training session at the hospital, so it won't take much time during the real visit." (P9)

While many providers advocated for mandatory training, others questioned its ongoing relevance after the pandemic.

Access to IT Support During Virtual Visits

Access to IT support was a shared concern, especially outside standard working hours. A provider stated:

"We always have IT at the hospital site... but unfortunately, support is not always available in the evening." (P1, P3, P5)

Technical issues-such as audio/video glitches, login errors and connection interruptions-were described as disruptive to care. Suggested solutions included dedicated helplines, pre-visit tech checks and more intuitive platforms.

Table 2: Group-Based Thematic Frequency Comparison

Theme	Healthcare Providers	Patients
Training to Use VHC Tech	1	1
Remote Communication	2	2
Access to IT Support	1	1

Table 3: Sentiment Distribution by Group

Group	Negative	Positive
Healthcare Providers	3	1
Patients	1	2

Table 4: Quote Frequency by Theme

Theme	Healthcare Providers	Patients	Total Quotes
Access to IT Support	1	1	2
Remote Communication	2	2	4
Training to Use VHC Tech	1	1	2

Figure 1 illustrates the frequency of quotes per theme, showing that Remote Communication was most frequently discussed, followed by Training to Use Virtual Healthcare Technology and Access to IT Support.

Group-Based Thematic and Sentiment Comparison

As shown in Table 2 and visualized in Figure 2 (Theme-Labeled Co-occurrence Keyword Network), both providers and patients discussed Remote Communication most frequently, but providers mentioned IT support issues more often.

Sentiment analysis (Table 3) showed that providers reported more negative experiences than patients, who reported more positive perceptions.

Quote Frequency Across Themes

Table 4 summarizes total quotes by theme and group, reinforcing that Remote Communication was the most prominent theme.

DISCUSSION

The findings of this study indicate that remote communication was the most frequently discussed theme among both healthcare providers and patients. This outcome is consistent with previous research showing that virtual consultations can reduce travel time, minimize costs and enhance access to care, particularly for patients in rural and underserved regions [10–12]. The convenience of avoiding long commutes and logistical barriers was a prominent benefit identified in our data, aligning with evidence that virtual care can improve patient adherence and satisfaction [13,14]. However, the reported limitations related to poor internet connectivity and outdated infrastructure mirror the challenges documented in other studies on telehealth implementation in rural areas [15–17]. These connectivity issues not only affect the technical quality of consultations but may also influence equity in access to digital healthcare services [18].

A notable finding was that patients often valued the structured nature of virtual consultations, reporting reduced anxiety and improved preparation for visits. This observation corresponds with earlier studies suggesting that remote formats may encourage patient engagement and facilitate the use of prompts or notes during interactions [19,20]. In contrast, healthcare providers expressed concern about the reduced ability to interpret non-verbal cues, which is an important component of clinical assessment. Similar concerns have been highlighted in prior work examining the limitations of telehealth in capturing subtle patient cues and building rapport [21,22].

The second theme, training to use virtual healthcare technology, revealed a perceived lack of structured and accessible training programs for both providers and patients. Our findings suggest that many clinicians had to adapt through self-directed learning, which may limit efficiency and confidence in delivering care via virtual platforms. This observation is in line with studies reporting that insufficient training can impede telehealth adoption and reduce service quality [23–25]. Furthermore, the preference for hands-on workshops and concise, practical training materials over lengthy didactic lectures supports recommendations in the literature for experiential and scenario-based learning approaches [26].

Access to IT support during virtual visits emerged as the third key theme, with participants highlighting the absence of consistent technical assistance outside standard working hours. These results reflect prior research showing that timely and responsive technical support is critical for sustaining telehealth services and preventing appointment disruptions [27–29]. Participants' recommendations for dedicated helplines, pre-visit technical checks and user-friendly platform designs align with best practice guidelines for optimizing telehealth systems [30,31].

Finally, the sentiment analysis revealed that healthcare providers expressed more negative perceptions overall, particularly regarding IT support and training, whereas patients reported relatively more positive experiences. This difference may be attributed to the operational and workflow challenges faced by providers in integrating virtual care into routine practice, as suggested by earlier studies on clinician workload and digital transition [32,33].

Taken together, these findings reinforce the importance of addressing infrastructure gaps, enhancing training opportunities and ensuring accessible IT support to maximize the benefits of virtual healthcare. Future implementation strategies should incorporate both provider and patient perspectives to ensure sustainable, equitable and effective telehealth delivery.

Cultural factors played a significant role in shaping the experiences and perceptions of both healthcare providers and patients regarding virtual health clinics. Digital literacy emerged as a critical determinant of effective VHC use, particularly among older patients and those from rural areas where exposure to technology may be limited. The varying levels of digital literacy influenced patients' confidence and ability to navigate virtual platforms, often necessitating additional support and training. This aligns with broader evidence that digital literacy disparities can exacerbate health inequities in telehealth adoption.

Patient-provider relationships were also influenced by cultural expectations and communication styles prevalent in the Saudi context. The reduced opportunity for non-verbal cues in virtual consultations was particularly challenging, as these cues often play a vital role in building trust and rapport within the culturally nuanced patient-provider dynamic. Providers expressed concern that virtual formats might impede their ability to fully assess patients' conditions and emotional states, which are often communicated implicitly through body language and tone.

Gender roles further intersected with virtual care experiences. In some cases, female patients may face additional barriers related to privacy concerns, comfort with technology, or household responsibilities that affect their engagement with VHCs. Conversely, gender dynamics within healthcare teams and patient interactions could influence communication patterns and perceptions of care quality. Recognizing these gender-specific factors is essential for tailoring virtual care interventions that are culturally sensitive and equitable.

Incorporating an understanding of these cultural dimensions is crucial for designing training programs, communication strategies and support mechanisms that address the unique needs of diverse patient populations. Future efforts to expand virtual health clinics in Saudi Arabia and similar contexts should integrate culturally informed approaches to enhance digital health literacy, foster effective patient-provider relationships and accommodate gender-specific considerations, thereby improving the overall acceptability and sustainability of virtual care services.

This study provides in-depth perspectives from both healthcare providers and patients on virtual home health care services at King Khalid Hospital, supported by purposive sampling and demographic profiling to enhance contextual understanding. However, the small sample size, single-site setting and qualitative design may limit generalizability and

introduce interpretation bias. Despite these constraints, the findings offer valuable guidance for developing and improving similar services.

CONCLUSION

This study underscores critical operational challenges and enablers in implementing Virtual Health Clinics (VHCs) for home care within the Hail region, with implications that extend beyond the local context. The findings highlight universal themes such as the need for structured training, robust remote communication infrastructure and accessible IT support-elements essential to the scalability and sustainability of digital health services worldwide. As healthcare systems globally pivot toward hybrid care models post-pandemic, addressing these factors is vital to ensuring equitable access, improving patient and provider experiences and enhancing care quality across diverse settings. Moreover, the study's emphasis on rural and underserved populations aligns with international priorities to reduce digital health disparities and promote inclusive telehealth adoption. Future digital health strategies should integrate culturally sensitive training programs, invest in reliable connectivity infrastructure and develop responsive technical support mechanisms to support long-term virtual care delivery. These insights contribute to the evolving evidence base guiding policymakers and health administrators in designing resilient, patient-centered virtual care systems that can adapt to changing healthcare landscapes globally.

This study's qualitative design and purposive sampling from a single hospital in the Hail region limit the generalizability of the findings. The relatively small sample size of five healthcare providers and fifteen patients may not capture the full diversity of experiences with virtual health clinics. Additionally, data were collected through interviews without participant transcript validation, which could introduce interpretation bias. These factors should be considered when applying the results to broader contexts.

Acknowledgement

We would like to thank the participants who took the time to participate in our study.

Ethical Statement

Ethical approval was obtained from the Standing Committee for Scientific Research Ethics at the University of Hail [H-2025-496]. All data were anonymized and no identifiable information was collected. Participants were fully informed about the study objectives and provided verbal and written consent before participation.

REFERENCES

[1] Centers for Disease Control and Prevention. *Using Telehealth to Expand Access to Essential Health Services during the COVID-19 Pandemic*. 2020, www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html.

[2] Patel, S.Y. *et al.* "Variation in telemedicine use and outpatient care during the COVID-19 pandemic in the United States." *Health Affairs*, vol. 40, no. 2, 2021, pp. 349–358. https://doi.org/10.1377/hlthaff.2020.01786.

[3] Mehrotra, A. *et al.* "Paying for telemedicine after the PANDEMIC." *JAMA*, vol. 325, no. 5, 2021, pp. 431–432. https://doi.org/10.1001/jama.2020.25706.

[4] Hägglund, M. *et al.* "Bridging the gap: A virtual health record for integrated home care." *International Journal of Integrated Care*, vol. 7, 2007, e26. https://doi.org/10.5334/ijic.191.

[5] Ludwig, W. *et al.* "Health-enabling technologies for the elderly-an overview of services based on a literature review." *Computer Methods and Programs in Biomedicine*, vol. 106, no. 2, 2012, pp. 70–78. https://doi.org/10.1016/j.cmpb.2011.11.001.

[6] van Goor, H.M.R. *et al.* "Designing a virtual hospital-at-home intervention for patients with infectious diseases." *Journal of Clinical Medicine*, vol. 13, no. 4, 2024, p. 977. https://doi.org/10.3390/jcm13040977.

[7] Al-Garni, A.M. *et al.* "Patients' experience and satisfaction toward virtual health care during COVID-19 in Southern Saudi Arabia." *Medicine*, vol. 104, no. 6, 2025, e41443. https://doi.org/10.1097/MD.0000000000041443.

[8] Maniaci, M.J. *et al.* "Overall patient experience with a virtual hybrid hospital-at-home program." *SAGE Open Medicine*, vol. 10, 2022, p. 20503121221092589. https://doi.org/10.1177/20503121221092589.

[9] Saunders, B. *et al.* "Saturation in qualitative research." *Qualitative and Quantitative*, vol. 52, 2018, pp. 1893–1907. https://doi.org/10.1007/s11135-017-0574-8.

[10] Smith, A.C. *et al.* "Telehealth for global emergencies." *Journal of Telemedicine and Telecare*, vol. 26, no. 5, 2020, pp. 309–313. https://doi.org/10.1177/1357633X20916567.

[11] Totten, A.M. *et al. Telehealth for Acute and Chronic Care Consultations*. Agency for Healthcare Research and Quality, 2019, www.ahrq.gov/research/findings/evidence-based-reports/telehealth.html.

[12] Kruse, C.S. *et al.* "Telehealth and Patient Satisfaction." *BMJ Open*, vol. 7, 2017, e016242. https://doi.org/10.1136/bmjopen-2017-016242.

[13] Powell, R.E. *et al.* "Patient perceptions of telehealth video visits." *Annals of Family Medicine*, vol. 15, no. 3, 2017, pp. 225–229. https://doi.org/10.1370/afm.2095.

[14] Almathami, H.K.Y. *et al.* "Barriers and facilitators to telemedicine at patients' homes." *Journal of Medical Internet Research*, vol. 22, no. 2, 2020, e16407. https://doi.org/10.2196/16407.

[15] Eze, N.D. *et al.* "Telemedicine in the OECD." *PLOS One*, vol. 15, no. 8, 2020, e0237585. https://doi.org/10.1371/journal.pone.0237585.

[16] Campos-Castillo, C. and D.L. Anthony. "Racial and ethnic differences in telehealth use." *Journal of the American Medical Informatics Association*, vol. 28, no. 1, 2021, pp. 119–125. https://doi.org/10.1093/jamia/ocaa221.

[17] Kruse, C.S. *et al.* "Barriers to telemedicine adoption worldwide." *Journal of Telemedicine and Telecare*, vol. 24, no. 1, 2018, pp. 4–12. https://doi.org/10.1177/1357633X16674087.

[18] Greenhalgh, T. *et al.* "Beyond adoption of health technologies." *Journal of Medical Internet Research*, vol. 19, no. 11, 2017, e367. https://doi.org/10.2196/jmir.8775.

[19] Donaghy, E. *et al.* "Video consulting in primary care." *British Journal of General Practice*, vol. 69, no. 686, 2019, pp. e586–e594. https://doi.org/10.3399/bjgp19X704141.

[20] Ignatowicz, A. *et al.* "Videoconferencing for long-term conditions." *Digital Health*, vol. 5, 2019, p. 2055207619845831. https://doi.org/10.1177/2055207619845831.

[21] Shaw, S. *et al. Virtual Online Consultations in the NHS*. *Health Services and Delivery Research*, vol. 6, no. 21, 2018, pp. 1–136. https://doi.org/10.3310/hsdr06210.

[22] McKinstry, B. *et al.* "Telephone consulting in primary care." *British Journal of General Practice*, vol. 59, no. 563, 2009, pp. e209–e218. https://doi.org/10.3399/bjgp09X420941.

[23] Henry, B.W. *et al.* "Clinician behaviors in telehealth care." *Advances in Medical Education and Practice*, vol. 12, 2021, pp. 139–152. https://doi.org/10.2147/AMEP.S291049.

[24] Ortega, G. *et al.* "Telemedicine and disparities." *Health Policy and Technology*, vol. 9, no. 3, 2020, pp. 368–371. https://doi.org/10.1016/j.hlpt.2020.08.001.

[25] Serhal, E. *et al.* "Implementing eMental health." *Implementation Science*, vol. 10, 2015, p. 174. https://doi.org/10.1186/s13012-015-0345-7.

[26] Kruse, C.S. *et al.* "Telemedicine in chronic heart disease." *JRSM Open*, vol. 8, no. 3, 2017, p. 2054270416681747. https://doi.org/10.1177/2054270416681747.

[27] Hammersley, V. *et al.* "Comparing video, telephone and face-to-face consultations." *British Journal of General Practice*, vol. 69, no. 686, 2019, pp. e595–e604. https://doi.org/10.3399/bjgp19X704573.

[28] Gajarawala, S.N. and J.N. Pelkowski. "Telehealth benefits and barriers." *Journal of Nurse Practice*, vol. 17, no. 2, 2021, pp. 218–221. https://doi.org/10.1016/j.nurpra.2020.09.013.

[29] Ellimoottil, C. *et al.* "Telehealth in rural primary care." *Telemedicine Journal and e-Health*, vol. 24, no. 12, 2018, pp. 990–996. https://doi.org/10.1089/tmj.2017.0277.

[30] Bashshur, R.L. *et al.* "Foundations of telemedicine interventions." *Telemedicine Journal and e-Health*, vol. 20, no. 9, 2014, pp. 769–800. https://doi.org/10.1089/tmj.2014.9981.

[31] Totten, A.M. *et al. Telehealth: Mapping the Evidence*. Agency for Healthcare Research and Quality, 2016, effectivehealthcare.ahrq.gov/products/telehealth/technical-brief.

[32] Anthony, B.Jnr. "Integrating telehealth to reduce health inequalities." *Journal of Public Health Research*, vol. 10, no. 4, 2021, p. 2274. https://doi.org/10.4081/jphr.2021.2274.

[33] Donelan, K. *et al.* "Patient and clinician experiences with telehealth." *American Journal of Managed Care*, vol. 25, no. 1, 2019, pp. 40–44, www.ajmc.com/view/patient-and-clinician-experiences-with-telehealth-for-patient-follow-up-care.