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The Future of Telehealth: Engineering Personalized Virtual Consultations

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ABSTRACT

Telehealth has rapidly evolved from a supplementary healthcare service to a central pillar of modern medical delivery, especially accelerated by the COVID-19 pandemic. This paper examines the historical development, current trends, and future directions of telehealth, emphasizing the critical role of engineering personalized virtual consultations. Technological innovations such as biometric monitoring, machine learning integration, generative AI, and avatar-based communication are transforming patient engagement and healthcare outcomes. However, significant challenges such as digital literacy, provider training, and system integration remain barriers to full adoption. Case studies demonstrate how strategic leadership and thoughtful implementation can ensure success. Ultimately, telehealth's future hinges on personalization, equitable access, and the continuous collaboration between technology developers, healthcare providers, and patients. This paper underscores how engineered personalization will define the next era of telehealth and revolutionize the patient care experience.

Keywords: Telehealth, Personalized virtual consultations, Healthcare technology, Patient-centered care, Artificial intelligence in healthcare, Telemedicine innovation, Remote healthcare delivery.

INTRODUCTION

Telemedicine, a telecommunication tool akin to e-health, enhances equitable access to healthcare, enabling medical care regardless of distance. This approach optimizes the use of limited medical personnel and resources, particularly benefiting from on-the-job medical training in rural areas. Defined by providing medical care anywhere at any time, telemedicine assures quality care when adequate nursing and technological support are available. Patients receive medical information remotely, reducing the need for long-distance travel, crucial in demanding diagnostics essential for effective patient treatment. Radiotherapy exemplifies effective telemedicine, especially for rapidly growing tumors requiring prompt intervention. The goals include optimizing treatment planning and fostering collaboration between radiotherapy centers. Remote treatment planning applications are under development but face limitations. Telehealth offers a substantial opportunity to enhance healthcare delivery, dramatically increasing patient accessibility and convenience while maintaining high service standards. The development process of telehealth applications aims to maximize benefits, with examples like telehealth directories illustrating ongoing advancements. Existing telehealth platforms typically focus on basic medical consultation services, linking patients with healthcare professionals for a fee. Telemedicine applications dominate digital health, featuring capabilities like video calls, instant messaging, and real-time information exchange, as well as simple medical assessments and referrals. Ultimately, telemedicine favors asynchronous interactions between patients and healthcare providers, marked by the straightforward nature of existing platforms and limited foundational services for physician interaction [1, 2].

Historical Context of Telehealth

Telemedicine: Current Impact on the Future. The application of telemedicine at the University of Rochester Medical Center Strong Memorial Hospital is currently being implemented in conjunction with the New York State Department of Corrections, significantly enhancing and expanding healthcare access for a diverse and often underserved patient population comprising inmates and individuals with complex

health needs. This innovative and strategic approach underscores the vital and transformative role that telemedicine plays in delivering crucial medical services while simultaneously improving health outcomes in correctional facilities that are located throughout the state of New York, which can often face challenges related to limited access to specialized medical care. By effectively bridging geographical gaps and facilitating timely and necessary consultations for patients who might otherwise face significant barriers to receiving care, telemedicine is truly revolutionizing how healthcare is accessed by inmates. This ensures they receive the medical attention they need in a timely fashion while also addressing the unique challenges and complexities posed by their specific circumstances, such as mobility issues and security constraints. Such advancements in healthcare delivery not only enhance individual patient care experiences but also contribute to the overall efficiency, safety, and effectiveness of public health systems within correctional environments. Furthermore, by utilizing technology to create a more responsive healthcare framework, telemedicine promotes equitable health access, which is essential for fostering better health outcomes and is beneficial not just for the patients themselves but for the broader community, as it builds a healthier population that is less likely to return to the system [3, 4].

Current Trends in Telehealth

The global landscape of telehealth has rapidly altered in the wake of mandated lockdowns caused by COVID-19. A necessity of social distancing, telehealth has redefined how patients access care. Mandates against in-person visits created an immediate increase in telecare, birthing a boom in pioneering telehealth technology. VTC clinical platforms grew to fit the needs of evolving practice, enhancing patient experience with the addition of new tele-technical intricacies. Despite the systemic shift of the industry, telehealth abandonment is unlikely post-COVID-19 and likely will evolve further, with stronger inclinations toward personalized medicine as a focus. Telehealth is defined as using telecommunications to provide health assessment, diagnosis, intervention, consultation, supervision, and information across distance. The technology has grown exponentially, evolving from telephone chats and VTC as essential additions to practice, aiding in the transmission of audio, video, patient records, and lab results. Laws and standards have slowly begun to adapt to these new, critically essential modalities of care, and many patients newly exposed to these alternatives are expected to adopt their use. Telehealth rapidly took off in response to the COVID-19 pandemic and the closing of schools, offices, and clinics. Prohibition on in-office visits created an opening and demand for VTC options, leading to system overloads across native platforms and the creation of myriad free, improvised systems aimed at meeting the need. The scrappy nature of this initial response and the clinical realities of such practice presented novel educational complexities for both patients and novices in the platform. Well-designed and implemented telehealth platforms for care delivery were sorely needed as methods of traditional care were displaced [5, 6].

Technological Innovations in Telehealth

In 1996, the American Telemedicine Organization recognized that telehealth could enhance patient care by improving access and reducing costs. Since then, significant advancements have been made to realize this vision. As telehealth technologies progress, the potential for increased personal engagement through virtual consultations will expand. Clinicians will gain the ability to observe aspects unattainable via standard video calls. New patient engagement technologies will emerge, leveraging cellular data on voice and vision to analyze patient behavior during consultations. Existing technologies, like biometric monitoring devices and mobile health apps, will be integrated into telehealth. Innovations in signal processing and machine learning will enhance context recognition, human behavior analysis, and personalized feedback in telehealth. Studies on telemonitoring indicate the viability of remote health and well-being assessments. Performance varies with task complexity; simpler tasks yield better results, while complex tasks show less effectiveness. It remains uncertain how such findings pertain to symmetry, expression behaviors, and patient attentiveness in virtual consultations. Understanding these patterns is crucial for creating new monitoring applications and refining current models. Learning enhancements are essential to deepen the understanding of non-symmetrical relationships relevant to telehealth. Another key area for personalization involves capturing patient engagement in consultations. Current health engagement platforms primarily rely on SMS-derived texts. Many conversation systems accept detailed texts, but smaller, structured phrases based on domain knowledge may facilitate easier implementation. Additionally, utilizing existing handheld devices like smartphones for behavioral and physiological measurements presents a promising opportunity for telehealth personalization, given their ease of use and compliance with health monitoring standards [7, 8].

Personalization in Telehealth

Personalization in the delivery of health care content provides opportunities for engagement with evidence-based interventions in ways that account for the preferences and needs of individual patients. The proliferation of easily accessible health care content provides an opportunity to enable patient-centered delivery of health care content at scale. Given the wide-ranging availability of health care content, patients preferred to receive personalized health care content based on their medical records as opposed to generalized health care information. They were more likely to share these personalized health care resources with family members. Moreover, the delivery of personalized health care information was associated with a reduction in patients' anxiety levels. Recent technological and economic developments have significantly transformed the healthcare sector towards more personalized and IoT-based healthcare services. Personalized healthcare services have been realized by control and monitoring applications, which are typically developed using AI/ML-based algorithms. The emergence of cost-effective and miniaturized sensors, mobile devices, and easy and ubiquitous access to the internet is paving the way for personalized care. Personalized healthcare services are either wearable devices or health-monitoring systems that intend to address a particular health condition using technological comfort. However, current personalized healthcare services are dedicated to supporting technological personalization. Currently available personalized health monitoring systems are unable to consider different interrelated health conditions. As a result, personalized decision-making may lead to an inappropriate diagnosis. Therefore, healthcare 5.0 technology has recently evolved to achieve a fully autonomous healthcare service for individual patients, taking into account the interdependent effects of different health conditions of a user [9, 10].

Challenges in Telehealth Implementation

Implementation of telehealth has become essential due to the COVID-19 pandemic, presenting significant challenges such as clinical concerns, patient preferences, and providers' comfort with technology. These issues span a technology continuum, from basic remote consultations to integrated care applications. Simple teleconsultation platforms, focusing only on remote consultation and e-prescriptions, are inadequate for the current demands. More thoughtful integration with electronic health records and addressing the complexity of adaptations is crucial for broader telehealth adoption. The rapid integration of telehealth into clinical workflows during the pandemic aimed to provide care while reducing exposure risks. Key lessons include improving communication, addressing patients' technical inquiries, and understanding the technological literacy of both patients and providers. Variability in how video visits were executed highlights the need for a structured framework to assess institutional responses. Patients' preferences often lean toward in-person consultations, with factors like language barriers and low digital literacy, especially among the elderly, posing major challenges. Addressing inequities in healthcare through teleconsultation requires strategies targeting computer literacy and language issues. Concerns also arose regarding the efficiency of clinical workflows and teleconsultation applications, with studies revealing that providers often feel uncomfortable using technology due to misdiagnosis risks akin to in-person visits. Literature suggests that technology-based care can be more time-consuming than traditional consultations. To improve provider comfort, early inclusion of healthcare informatics education in medical and nursing school curricula is strongly advised [11, 12].

Future Directions for Telehealth

Synthesizing patient consent regulations with technological advances can enhance personalized telehealth protocols. Telehealth consultations could utilize generative neural nets to create hyper-realistic avatars that conduct text-based dialogues in the doctor's voice. Health care providers can also employ text-to-scene neural nets to quickly fabricate high-definition environments and recreate 3D virtual clinics based on physician and patient descriptions. These innovations could lead to fully immersive telehealth visits in secure, photo-realistic settings, allowing patients to connect from any location. Personalized avatars could engage in conversations or initiate consultations in diverse environments, such as hospital bedsides or public areas. Generative content synthesis would enable tailored consultations for patients universally. Additionally, generative neural nets can turn text conversations into high-definition videos, preserving visit records for human resources or primary care review. Devices engaging patients during and after consultations could generate transcripts, audio recordings, animated summaries, and realistic portrayals of discussions. Integrating generative AI into telehealth and consent protocols would facilitate better adaptation within existing infrastructures. Top generative-text net APIs offer straightforward plug-ins for tech companies, while user-friendly modeling tools can address consumer needs. Systematic

computations would be necessary to design telehealth-consent protocols aligned with individual jurisdictions, insurance plans, and health care alliances [13, 14].

Case Studies of Successful Telehealth Programs

Success in telehealth relies heavily on management commitment, technology options, integration capabilities with existing systems, and support and training at the practice level. A clear vision is crucial for engaging all employees, physicians, staff, and patients within the healthcare organization. Leadership perceptions of telehealth will significantly affect its implementation, requiring recognition of it as a vital part of the organizational mission rather than merely a tool or gimmick. Telehealth is essential for enhancing patient care, improving outcomes, and lowering costs. Organizations must choose between providing and purchasing telehealth services, as new market entrants emerge from various sectors. Additionally, organizations should carefully evaluate technology options, as numerous vendors offer diverse systems ranging from primary care to advanced robotic surgical procedures. A telehealth system doesn't need to address every application initially; requirements will evolve as usage increases or new hardware is introduced. However, any telehealth system must integrate seamlessly with the healthcare IT infrastructure to avoid costly upgrades or replacements later. Regular users may have to adjust scheduling methods to cater to remote patients, acknowledging that telehealth experiences differ from in-person consultations. Staff training on the technical aspects of telehealth is critical to alleviate anxiety and ensure effective interactions. An organizational mindset emphasizing telehealth as a valuable patient access channel, similar to face-to-face visits, is essential for successful marketing and support, alongside firm-wide backing beyond merely observing the technology [15, 16].

The Role of Healthcare Providers in Telehealth

Telehealth technology largely involves synchronous, two-way audiovisual communication between a provider and a patient. At the organizational level, telehealth services can involve various actors, including care providers assisting remote patients, specialists evaluating cases, clinic coordinators managing schedules and records, and IT staff providing systems support. Prior studies often focused on patient-centered telehealth consultations; to ensure disambiguation, only provider-to-patient communication via commercial telehealth technologies has been referred to as telehealth services. A care provider's role in telehealth services is to pre-consult a patient and consult the specialist afterward. Care providers are on the frontline of telehealth services and handle potential service disruptions. The quality of their pre- and post-consultation interactions with patients and specialists helps facilitate fluency of telehealth consultations. Most high-quality telehealth services are delivered in organizations where numerous organizational and technical factors are addressed beforehand. Focused on the front-line providers' role in telehealth consultations, this study views them as facilitators of pre- and post-consultation interactions. With a concern for improved telehealth service performance, this study investigated the association between a provider's adaptive use of telehealth technologies and the fluency of telehealth consultation, which involves telehealth performance, pre-consultation interaction, post-consultation interaction, personal factors, and facilitation experience variables. Adaptive use of technologies is an IT managerial concept that captures the second stage of the use process in the technology acceptance and use model. Telehealth technology acceptance studies mainly focus on patients as a primary service actor, claiming that patients' perceived attributes of telehealth technology, social influence, internet self-efficacy, and trust in IT service providers can explain their acceptance of telehealth technology. After organizational adoption of telehealth technology, patients' perceptions of post-adoption use and health service augmentation are unique and notable antecedents of telehealth technology adaptation [17, 18].

Patient Experiences and Outcomes in Telehealth

Telehealth has expanded during the COVID-19 pandemic, with studies suggesting that patients are generally satisfied with healthcare delivered via video or phone. There is virtually no research on patient experience with telehealth in established health-care systems. This study compares telehealth and in-office encounters from the perspective of patient experience, a key aspect of health care quality assessment in the U.S. Overall, patient experience with telehealth is comparable to or even better than in-office encounters regarding satisfaction or specific components of experience. Patients attending visits via telehealth and in-office visits were compared on several experience measures. Pre-pandemic, patient experience with telehealth was slightly better than with in-office visits. During the pandemic, telehealth encounters continued to be rated better, but patients using both modes thought that video visits were better than audio-only or in-office visits. Compared to in-office visits, telehealth experiences were rated

similarly in timeliness and coordination domains, and slightly better in satisfaction with the provider. Audio-only visits showed worse ratings than in-office visits in provider communication and satisfaction with the provider. During the pandemic, telehealth offered clearer advantages over in-office visits. Telehealth is associated with high satisfaction levels in federal programs and at individual health systems, but substantial gaps remain in knowledge about how patient experience compares to in-office encounters across a wide array of health systems. This study is the first in health care to evaluate patient experience with both video and audio-only telehealth as well as in-office encounters, using a standard measure across a wide range of health systems. Telehealth was introduced to ambulatory care receptionists across health systems. Telehealth was rolled out in the EMR across health systems in sequential phases. Two telehealth forms were concurrently deployed, one for video telehealth and another for audio-only telehealth [19, 20].

Ethical Considerations in Telehealth

Telehealth services improve healthcare accessibility and communication, yet they raise ethical and legal concerns, presenting challenges for healthcare personnel. This work reviews literature on telehealth's state and associated ethical and legal issues. The analysis covers telemedicine's role in Indian healthcare, its legal and ethical aspects, policy recommendations, patient privacy rights concerning electronic records, and healthcare providers' perceptions of telecare barriers. It also examines the impact of technology on safety and therapeutic relationships, and the applications of ethics in telemedicine services. Telehealth provides remote healthcare through technology, allowing professionals to diagnose and treat from a distance. The term encompasses various healthcare services regardless of geographical limitations. Telemedicine specifically refers to healthcare service delivery, excluding peripherals for medical imaging, and it is limited to qualified professionals under physician supervision. In India, telemedicine gained prominence during the COVID-19 pandemic, which severely affected healthcare services. The industry is passionate about creating remote healthcare systems. However, the sustainability of hastily instituted telemedicine services post-COVID remains uncertain. While telehealth enables care in remote areas, ethical challenges include governance, regulation, data privacy, health equity, and the trustworthiness of remote care compared to in-person interactions. Issues related to teleeducation and telework also need attention [21, 22].

Economic Impact of Telehealth

Telehealth transformations have resulted in more than one-third of all visits being conducted remotely as of 2022. The exponential growth led to high demand for video visits, creating more appointment availability and accommodating a greater daily volume of patients. This transition to telehealth has changed how integration with electronic health record (EHR) systems and coordination across multidisciplinary teams is achieved. Overall, telehealth has significantly impacted both care access for families and practice operations while presenting challenges that require solutions to better optimize the technology's use. Governments worldwide have realised the urgent need for virtual health solutions due to the inability of a high number of patients to get appropriate medical care during the COVID-19 pandemic. This has resulted in a huge investment and expansion of telemedicine services to alleviate patients' concerns regarding contact with healthcare professionals. Aside from doctors and patients, many healthcare providers, including hospitals, clinics, institutions, organisations, commercial medical service providers, software service providers, and medical insurance companies, have implemented services using telemedicine. The economy, environment, and transportation of doctors and patients can be impacted positively, with the economic impact on treatment costs and incomes of healthcare providers. Considering these aspects and experiences of countless telemedicine practices and researching experts, the economic impact on telemedicine practice in developed nations is analysed in this article. This service will be personalised in the future with vastly improved virtual receptionists. Similar to a physical clinic, a setup will be available for patients to watch a welcome/interrogation video or enjoy some easier designs while waiting for their turn. If necessary, they can grab a glass of water or check some questions over the screen that will be sent to the doctor for further chats. Also, video conference delays will be treated in a more human way; there will be notifications like "waiting for the doctor to join" and "doctor is engaged with another patient" [23, 24].

Future Technologies Shaping Telehealth

Telemedicine has expanded significantly, especially during the pandemic. Research indicates that telehealth visits accounted for 10% of all visits in 2020, with a 140% increase during the pandemic's early months compared to 2019. Despite this growth, over three years post-COVID-19's public health

emergency declaration, significant gaps remain in the nationwide telehealth system. New technologies and infrastructure developments are essential to addressing these challenges. A statewide telemedicine program could enable consultations between counties and nonprofit organizations. The technological landscape for telehealth will continue to evolve, focusing on enhanced video conferencing, EHR integration, reliable broadband access, improved user training, and increased access to consumer products for better engagement. Integrating multi-modal data streams into electronic medical records could also enhance interactions during telehealth visits, incorporating recordings, biometric data, and patient-reported outcomes. Generative AI may further augment telehealth experiences, addressing patient inquiries before provider visits while navigating misinformation concerns. Chatbots could ask pre-visit questions about symptoms, improving efficiency and comfort for patients, and tracking adherence to follow-up recommendations post-visit. [25, 26].

CONCLUSION

The trajectory of telehealth is poised for unprecedented growth as engineering innovations advance personalized virtual consultations. From its historical roots addressing accessibility challenges to its pandemic-driven expansion, telehealth now stands at the crossroads of technology and individualized care. By integrating AI, biometric analysis, generative models, and user-centered design, the future telehealth landscape promises hyper-personalized, immersive, and efficient healthcare experiences. Nevertheless, success will depend on overcoming technological literacy gaps, training healthcare providers, ensuring equitable access, and embedding telehealth into core healthcare systems rather than treating it as an auxiliary service. As telehealth evolves, engineering approaches that prioritize personalization, patient engagement, and inclusivity will ultimately reshape how health services are delivered and experienced worldwide.

REFERENCES

1. Zimeras S, Gortzis LG. Interactive Tele-Radiological Segmentation Systems for Treatment and Diagnosis. International Journal of Telemedicine and Applications. 2012;2012(1):713739.
2. Poonsuph R. The Design Blueprint for a Large-Scale Telehealth Platform. International Journal of Telemedicine and Applications. 2022;2022(1):8486508.
3. Belcher AM, Coble K, Cole TO, Welsh CJ, Whitney A, Weintraub E. Buprenorphine induction in a rural Maryland detention center during COVID-19: implementation and preliminary outcomes of a novel telemedicine treatment program for incarcerated individuals with opioid use disorder. Frontiers in psychiatry. 2021 Oct 28;12:703685. frontiersin.org
4. Dunn RC, Stegall CJ, Creel C, Fuchs CJ, Menzies BE, Summers NA. Evaluating the delivery of care by telemedicine for incarcerated people living with HIV: a cohort study. BMC Infectious Diseases. 2024 Jul 22;24(1):717. springer.com
5. Nitiema P. Telehealth before and during the COVID-19 pandemic: analysis of health care workers' opinions. Journal of medical Internet research. 2022 Feb 25;24(2):e29519.
6. Greiwe J. Telemedicine lessons learned during the COVID-19 pandemic. Current Allergy and Asthma Reports. 2022 Jan;22(1):1-5.
7. Hare N, Bansal P, Bajowala SS, Abramson SL, Chervinskiy S, Corriel R, Hauswirth DW, Kakumanu S, Mehta R, Rashid Q, Rupp MR. Work group report: COVID-19: unmasking telemedicine. The Journal of Allergy and Clinical Immunology: In Practice. 2020 Sep 1;8(8):2461-73.
8. Goodman W, Bagnall AM, Ashley L, Azizoddin D, Muehlensiepen F, Blum D, Bennett MI, Allsop M. The extent of engagement with telehealth approaches by patients with advanced cancer: systematic review. JMIR cancer. 2022 Feb 17;8(1):e33355. jmir.org
9. Libanori A, Chen G, Zhao X, Zhou Y, Chen J. Smart textiles for personalized healthcare. Nature Electronics. 2022 Mar;5(3):142-56.
10. Deng W, Zhou Y, Libanori A, Chen G, Yang W, Chen J. Piezoelectric nanogenerators for personalized healthcare. Chemical Society Reviews. 2022;51(9):3380-435. polymer.cn
11. Singh V, Sarbadhikari SN, Jacob AG, John O. Challenges in delivering primary care via telemedicine during COVID-19 pandemic in India: a review synthesis using systems approach. Journal of family medicine and primary care. 2022 Jun 1;11(6):2581-8.
12. Hoffman PE, London YR, Weerakoon TS, DeLucia NL. Rapidly scaling video visits during COVID-19: The ethos of virtual care at Yale Medicine. InHealthcare 2020 Dec 1 (Vol. 8, No. 4, p. 100482). Elsevier.

13. Tukur M, Pintore G, Gobbetti E, Schneider J, Agus M. SPIDER: SPherical Indoor DEpth Renderer. InSTAG 2022 Jan 1 (pp. 131-138).
14. Tukur M, Boraey Y, Jashari S, Villanueva AJ, Shah U, Al-Zubaidi M, Pintore G, Gobbetti E, Schneider J, Agus M, Fetais N. Virtual Staging Technologies for the Metaverse. In2024 2nd International Conference on Intelligent Metaverse Technologies & Applications (iMETA) 2024 Nov 26 (pp. 206-213). IEEE.
15. Thanakijsombat T, Bhatiasevi V, Suwanposri C. Public adoption of telehealth technology in Thailand. Journal of Global Business Review.. 2022 Oct 27;24(1):14-33.
16. Singh B. Leadership and Performance Evaluation Strategies for Remote Healthcare Teams in the Digital Era: Effective Leadership in Remote Healthcare. InDesign, Development, and Deployment of Cutting-Edge Medical Devices 2025 (pp. 101-136). IGI Global Scientific Publishing. [HTML]
17. Rowe Ferrara M, Chapman SA. Rural patients' experiences with synchronous video telehealth in the United States: a scoping review. Telemedicine and e-Health. 2024 May 1;30(5):1357-77.
18. Alenoghena CO, Ohize HO, Adejo AO, Onumanyi AJ, Ohihoin EE, Balarabe AI, Okoh SA, Kolo E, Alenoghena B. Telemedicine: a survey of telecommunication technologies, developments, and challenges. Journal of Sensor and Actuator Networks. 2023 Mar 2;12(2):20. mdpi.com
19. Rossini A, Parente A, Howell B. Perceptions of telehealth among commercial members who responded to a patient-experience survey during the onset of the coronavirus-19 pandemic. Telemedicine and e-Health. 2022 Apr 1;28(4):551-7.
20. Greenfield PT, Manz WJ, DeMaio EL, Duddleston SH, Xerogeanes JW, Scott Maughon T, Spencer CC, Dawes A, Boden SD, Hammond KE, Wagner ER. Telehealth can be implemented across a musculoskeletal service line without compromising patient satisfaction. HSS Journal®. 2021 Feb;17(1):36-45. sagepub.com
21. George E, Jameel S, Attrill S, Tetali S, Watson E, Yadav L, Sood S, Srinivasan V, Murthy GV, John O, Grills N. Telehealth as a Strategy for Health Equity: A Scoping Review of Telehealth in India During and Following the COVID-19 Pandemic for People with Disabilities. Telemedicine and e-Health. 2024 Jun 1;30(6):e1667-76. griffith.edu.au
22. Aneja J, Arora S. Telemedicine and ethics: opportunities in India. Indian J Med Ethics. 2021 Oct 1;6(4):314-20.
23. Chang JE, Lai AY, Gupta A, Nguyen AM, Berry CA, Shelley DR. Rapid transition to telehealth and the digital divide: implications for primary care access and equity in a post-COVID era. The Milbank Quarterly. 2021 Jun;99(2):340-68. nih.gov
24. Mandal S, Wiesenfeld BM, Mann D, Lawrence K, Chunara R, Testa P, Nov O. Evidence for telemedicine's ongoing transformation of health care delivery since the onset of COVID-19: retrospective observational study. JMIR Formative Research. 2022 Oct 14;6(10):e38661. jmir.org
25. Chao GF, Li KY, Zhu Z, McCullough J, Thompson M, Claflin J, Fliegner M, Steppe E, Ryan A, Ellimoottil C. Use of telehealth by surgical specialties during the COVID-19 pandemic. JAMA surgery. 2021 Jul 1;156(7):620-6. jamanetwork.com
26. Darrat I, Tam S, Boulis M, Williams AM. Socioeconomic disparities in patient use of telehealth during the coronavirus disease 2019 surge. JAMA Otolaryngology–Head & Neck Surgery. 2021 Mar 1;147(3):287-95. jamanetwork.com

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