

Telehealth as a Catalyst for Equitable and Patient-Centered Healthcare Delivery

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Dr. Topacio earned her Doctor of Philosophy in Nursing Science from St. Paul University Philippines and completed post-doctoral training in Strategic Management and Leadership at Philippine Christian University. She is currently pursuing a Master of Business Administration, further strengthening her expertise in healthcare management, organizational leadership, and strategic decision-making. Her doctoral research, which examined disaster management contingency planning and training for nursing service personnel, was published in the World Journal of Nursing Research. Her research agenda focuses on disaster preparedness and health system resilience, cardiovascular health behaviors, telehealth and digital health interventions, nursing workforce development, and equitable healthcare delivery. She has authored peer-reviewed journal articles, systematic reviews, concept papers, and conference presentations that contribute to applied nursing science and practice.

Her scholarly work is informed by substantial leadership and academic experience. Dr. Topacio previously served as Chief Nursing Officer in the Philippines, leading nursing operations, quality improvement initiatives, workforce development, and infection prevention programs. She has held academic appointments as a Clinical Instructor and Associate Professor in undergraduate nursing programs and continues to contribute to graduate nursing education as a Master of Science in Nursing thesis panelist, mentoring students in research design, methodology, and scholarly writing.

Dr. Topacio is a Licensed Professional Teacher in the Philippines and a Certified Healthcare Administrator, reflecting her combined expertise in education, leadership, and healthcare systems

management. She holds board certifications in Medical-Surgical Nursing and Cardiac-Vascular Nursing from the American Nurses Credentialing Center and maintains registered nurse licensure in multiple U.S. states and the Philippines. She is an active member of the Philippine Nurses Association–Philippines, the North Dakota Nurses Association, Sigma Theta Tau International Honor Society of Nursing, and the Society of Internationally Educated Nurses in North America.

Introduction

Telehealth is a method of delivering health care services via electronic



communications

technology, allowing patients to interact with their health care provider from a distance.

The COVID-19 pandemic has accelerated the growth of Telehealth as one solution for addressing issues with accessing care.

Telehealth originated as a means of reaching patients in rural or underserved areas, but has since evolved into a comprehensive approach to increasing access to quality health care for all individuals and communities.

The rapid growth and increased use of Telehealth in the past few years may provide a more equitable opportunity for underserved populations and communities to utilize telehealth services. Current telehealth trends show a sizeable increase in the use of telehealth services, due in part to improved technologies becoming more widely utilized and recognition that more patient-centered care models are necessary. As global health systems adapt to this new reality, there is an opportunity to provide

patients with greater access to high-quality care, including those who previously experienced limited access to care in traditional settings (Alghamdi et al., 2023).

The increase in Telehealth services raises several questions about Telehealth's ability to meet patients' varying needs. A key element in answering these questions involves examining how Telehealth may fit within a more patient-centered care model. By focusing on the specific experiences and preferences of patients, we may better understand how Telehealth fits into the overall delivery of equitable care and increase the likelihood of reaping its benefits, regardless of the patient's. Telehealth enables currently engaged patients by providing direct communication with their physician. This saves both the patient and their physician time by eliminating barriers to access. This flexibility gives patients many options for how and when they receive care, including when to maintain continuity of care, thus providing continuity of care that accommodates their individual preferences and lifestyles. Many patients may benefit from talking with their doctors via video (Krishna Mukesh et al., 2024).

Telehealth platforms often provide features that promote patient engagement (e.g., appointment reminders, patient education, and the ability to monitor their health), which empower patients to become more involved in managing their health. Patient engagement usually results in higher patient satisfaction and overall improved health and adherence to treatment by increasing the likelihood that patients will engage in healthy behaviors (Krishna Mukesh et al., 2024).

Although telehealth can help provide personalized care, its effectiveness will vary depending on many factors (e.g., access to technology and health literacy). These variables can result in different levels of personalization and, therefore, in varying ways in which telehealth will enhance equity in healthcare delivery through enhanced engagement and education for patients. Therefore, understanding and addressing these variables must

be a priority as we continue to explore opportunities to close the gap in healthcare access and quality by enhancing inclusion in patient care.

Reducing Disparities in Healthcare

Reducing disparities in health care is important in achieving an equitable health care system for vulnerable populations. There are many barriers that prevent many individuals from receiving adequate and timely medical care, such as transportation issues, a shortage of facilities, and a lack of resources to pay for required care. These barriers result in delays in receiving medical services and lower-quality care. Telehealth offers a potential path to address these barriers by connecting patients with health care providers regardless of location.

For example, rural communities with few health care providers may benefit from telehealth services. Patients can use video consultations and remote patient monitoring to access health care without ever leaving their homes. Furthermore, telehealth can be developed to offer comprehensive language options and fit numerous cultural contexts, thereby providing equitable care to patients from many backgrounds.

Research has shown that by focusing, telehealth has been a vehicle for increasing the availability of preventive health services, chronic disease management, and mental health services in underserved communities. These documented increases in access for underserved populations demonstrate that telehealth can create health equity by reducing disparities in access to health care.

The continuous emergence of innovative technologies driving telehealth illustrates their potential to enhance access to care for all patients and providers, creating healthier populations and environments.

New Innovations That Are Changing Telehealth

Telehealth is being redefined through technological innovations that are improving how health care is delivered and received. Technology such as Artificial Intelligence (AI) and Machine Learning (ML) is now being used in telehealth systems to enhance how patients are assessed and diagnosed. In the case of using AI Chatbots, one emerging trend in telehealth is that patients can obtain instant responses to questions about their symptoms and determine what type of healthcare they need. Providing patients with a faster way to get answers to their healthcare questions has reduced the time they spend waiting for a response, improving their overall experience (Ibrahim, 2024).

A second significant trend within telehealth is the development of Wearable Devices (e.g., Heart Rate Monitors, Smart watches, etc.), which allow individuals to monitor their health in real time. Information collected from Wearable Devices can be sent directly to a physician, enabling the physician to intervene sooner by providing the patient with a customized treatment plan. Such devices provide a more active method for managing Chronic Illnesses, which require continuous supervision and treatment, than traditional methods.

As Telehealth continues to evolve, future trends will focus more on interoperability between Telehealth Systems and Other Healthcare Systems/Organizations. As different healthcare organizations come together to share data and communicate more effectively, patients will have greater continuity of care across providers. Along with Improved Continuity of Care, advances in Virtual Reality (VR) and Augmented Reality (AR) will offer Healthcare professionals new ways to prepare themselves for Telehealth appointments with patients (Ijiga et al., 2024).

To realize the overall benefits of these new technologies and ensure that Telehealth remains a viable option for healthcare, it is critical to develop a Comprehensive Regulatory and Policy Framework. This will allow for

Innovators in Telehealth to develop new technologies safely and effectively, while protecting patient privacy and promoting Equal Access to Telehealth services. By developing a Regulatory and Policy Framework, the Healthcare System will be able to develop and incorporate innovative telehealth Technologies.

Regulatory and Policy Framework

The regulatory framework that governs telehealth will have. The healthcare regulations that vary by state and country have created wide variation in how telehealth can be implemented. So many regulations were temporarily lifted that permitted Providers to establish a telehealth solution very quickly due to COVID-19, and as a result, Patients were able to get access to telehealth very quickly. Eliminating many of these Regulations created the need for long-term and ongoing changes to the Infrastructure for both Patients and Providers to utilize Telehealth Services. One example of that is several States are temporarily going to allow Providers to give Telehealth Services outside their Licensing Jurisdiction by waiving the necessary licensure requirements.

Therefore, policymakers will need to design a cohesive Regulatory Structure that encourages innovation and addresses patient safety through telehealth.

Policymakers will also need to address the data privacy and security requirements of



telecommunications technology providers delivering telehealth, as well

as the reimbursement models associated with telehealth, to ensure fair and equitable compensation models for providers.

The establishment of comprehensive and robust regulatory structures will not eliminate all of the barriers to telehealth resources and services. There will still be challenges facing the Telehealth Sector, such as Access to Technology, Digital Literacy, and Equity of Access, to limit the success and availability of Telehealth Resources for Patients. The Regulatory Structures being developed as the Telehealth Sector evolves will need ongoing oversight and monitoring to ensure that they continue to enable Patients to experience the Full Benefits of Telehealth Services. The greatest obstacle to telemedicine utilization is the lack of technological infrastructure for many patients. Many patients lack access to a reliable Internet connection or to a computer, tablet, or smartphone needed to attend telehealth appointments, creating disparities in healthcare access. In addition, patients who lack the requisite digital skills to navigate telehealth systems will face additional challenges when seeking care via telehealth (Tukur et al., 2023).

Privacy and security are paramount concerns for patients when using telehealth services. Because telehealth communications are primarily transmitted digitally, sensitive patient information can be disseminated over the Internet, creating opportunities for data breaches or unauthorized access. Patients may feel vulnerable about how their personal health information is protected, but may not fully understand how their data is collected, stored, and used, which can result in hesitancy to utilize telehealth services.

In addition, the patient-provider relationship may be affected by the online nature of telehealth consultations. For example, some patients may feel less connected to their healthcare provider when interacting with them online than when meeting face-to-face. This lack of connection may

hinder the development of open communication and rapport that typically occurs in face-to-face visits (Adam et al., 2024).

Despite these limitations, many successful telehealth implementations demonstrate the potential of telehealth to improve the delivery of care and reduce disparities in access to care. Learning from successful examples of telehealth implementation could help present-day healthcare systems adequately address these challenges and improve the overall patient experience.

My Reflective Journey



My insights into equitable, patient-centered healthcare delivery have greatly evolved due to the impact of Telehealth on my practice as a nurse practitioner and on how I view care delivery in cardiology and progressive care nursing. As I have cared for many critically ill patients with multiple systems requiring high-acuity care throughout my career, I've learned that timely access to care is often a major factor in determining a patient's

outcome. Thoughtfully integrating telehealth, therefore, allows us to provide superior specialized care beyond hospital walls to patients who may not have access to this specialty care due to geographic location, socioeconomic status, or limited mobility in their communities.

Whether it is through remotely monitoring a patient's cardiovascular symptoms or through virtual follow-up consultations, I have seen, first-hand, how telehealth tools, such as digital health technologies, provide patients with an opportunity to become actively involved in their care and

to minimize unnecessary hospitalizations. These experiences confirmed my belief that telehealth is more than a new technological tool but is strategically used to address long-standing issues of healthcare access.

Because of my experience in nursing leadership, disaster preparedness, and health systems management, I also view telehealth as a vehicle for resilience and continuity of care. Telehealth, as a Digital Health Intervention, provides scalable solutions that support the coordination of care, sustainable healthcare workforce initiatives, and an efficient response to public health emergencies and disruptions within health systems. My research in disaster management and health system resilience has provided me with strong support for the application of adaptable models of care for both patients and providers. Telehealth platforms facilitate collaboration among interdisciplinary teams, provide opportunities for real-time decision-making, and ensure continuity of care delivery, especially for vulnerable populations. Through both my research efforts and practice as a nurse leader, I can now view telehealth as a vital component of future healthcare systems.

Conclusion

As a nurse educator and researcher, I am fully committed to advancing telehealth through evidence-based practice, developing appropriate policy initiatives, and training healthcare workers. Mentoring student nurses and contributing to nursing literature have further enhanced my commitment to ensuring that digital health advancements are ethically, inclusively, and culturally sensitive, focusing on patient-centered care regardless of the medium used to deliver care. I believe patient-centered care should always guide our practices, regardless of the technological mediums utilized to provide care, and that establishing trust, open lines of communication, and compassion with patients is just as critical as providing clinically competent care. Therefore, I reflect on telehealth with

the conviction that it will enable nurses to advocate for equitable access to high-quality healthcare services for all individuals by amplifying their advocacy for equity while aligning technology with the nursing values of caring and compassion.

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