

UNDERSTANDING TELEMEDICINE STRATEGIES THROUGH FIELD-BASED OBSERVATIONS, INTERVIEWS AND BENCHMARKING ACTIVITIES

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Type of manuscript: research paper

Abstract:

The imperative for telehealth and telemedicine has become increasingly pronounced in addressing and alleviating health inequalities exacerbated by provider shortages and limited access to healthcare, particularly in underserved regions. The pandemic laid bare the vulnerabilities within traditional healthcare models, prompting a paradigmatic shift towards more resilient and inclusive systems. Telehealth has become a critical tool for connecting patients with healthcare providers, especially in areas plagued by shortages of physicians and specialists. In a world where geographical barriers often limit access to medical expertise, telehealth serves as a bridge, enabling patients to consult with a diverse array of doctors and specialists without the burdensome constraints of time-consuming and expensive travel. Moreover, telemedicine has proven instrumental in mitigating the shortage of healthcare personnel by empowering them to deliver remote care. This not only optimizes resource allocation but also enables healthcare professionals to reach patients in remote or rural areas where physical presence might be impractical. The significance of this development in a post-COVID-19 world is underscored by the imperative to build more resilient, adaptable, and equitable healthcare systems. The paper delves into the multifaceted impacts of this revolution, shedding light on its far-reaching consequences for patient care, healthcare systems, and the broader healthcare landscape, especially for small medical practices through field based-observations. Beyond the reactive curative model that has traditionally characterized healthcare, telehealth is propelling a shift towards a proactive, preventive approach. This shift is not only essential for managing and preventing the spread of contagious diseases but also for fostering a more comprehensive and patient-centric approach to healthcare.

Keywords: telehealth; teledermatology; tele-mental health; ADHD treatment; telemedicine; medical care; medical treatment; healthcare; health administration; public health.

JEL Classification: H51, I120, I140, I180

Received: 15 October 2023 **Accepted:** 14 December 2023 **Published:** 31 December 2023

Funding: N/A

Publisher: AR&P

Cite as: Burrell, D.N. (2023). Understanding telemedicine strategies through field-based observations, interviews and benchmarking activities. *Health Economics and Management Review*, 4(4), 58-68. <https://doi.org/10.61093/hem.2023.4-05>.



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Introduction

Access to medical care during the COVID-19 pandemic has posed a substantial social and economic challenge for numerous communities worldwide. As the virus spread rapidly, overwhelming healthcare systems, the demand for medical services, testing and treatment surged unprecedentedly. For many underserved and marginalized communities, this surge in demand exacerbated existing healthcare disparities. Limited access to medical care left these communities more vulnerable to the virus. They faced testing, diagnosis and treatment delays, increasing infection rates and poorer health outcomes.

The COVID-19 pandemic has irrevocably altered the healthcare landscape, compelling a rapid and unprecedented adoption of telehealth and telemedicine technologies. This transformation extends beyond the immediate need for social distancing and infection control. It signals a fundamental shift in how healthcare is conceptualised, delivered and received (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020). One of the unintended consequences of COVID-19 was the rise of telemedicine as a viable alternative to the standard practice of medicine and, in some instances, a preferable solution. Telemedicine is becoming more prevalent. One of the reasons for its rise is to expand people's access to healthcare in underserved areas (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

Telehealth and Telemedicine: A Catalyst for Change

Telehealth and telemedicine have long been touted as promising solutions to address healthcare disparities and improve access to care. However, it took the urgency of a global pandemic to expedite their integration into mainstream healthcare systems. These technologies encompass a spectrum of services, ranging from remote consultations and digital health monitoring to telesurgery and telepharmacy. The adoption of telehealth and telemedicine has been instrumental in shifting the healthcare paradigm in several ways (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

1. Shifting from Treatment to Prevention:

Historically, healthcare has often been centred on treating illnesses and managing chronic conditions. The reactive approach prevailed, with healthcare interventions initiated after the onset of symptoms. Telehealth and telemedicine empower individuals to engage in proactive preventive measures. Remote monitoring of vital signs, wearable devices and telehealth consultations for preventive health education encourages individuals to take an active role in maintaining their well-being (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

2. Expanding Access to Healthcare:

Telehealth has emerged as a powerful tool to bridge geographic and socioeconomic disparities in healthcare access. Individuals in underserved or remote areas can now receive expert medical advice without requiring long journeys. This expanded access has profound implications for preventive care, as individuals can consult healthcare providers for routine check-ups and health screenings (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

3. Personalised Preventive Medicine:

Telemedicine platforms collect vast amounts of patient data, enabling the application of predictive analytics and machine learning algorithms to assess health risks and recommend tailored preventive interventions. The shift toward data-driven healthcare offers the potential for early detection and intervention in chronic diseases, reducing the burden on reactive treatments (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

4. Fostering a Culture of Wellness:

The ubiquity of telehealth services has cultivated a culture of wellness, where individuals seek healthcare not only when they are unwell but also for preventive health maintenance. Digital health apps, wearable devices and telehealth consultations support individuals in managing their health proactively (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

Medical treatment typically necessitates prolonged and intimate contact between patients and their respective healthcare experts (Burrell, 2022). The actual presence of physicians is frequently necessary throughout the many stages of patient care, such as diagnosis, treatment decision-making, therapy delivery

and patient follow-up (Burrell, 2022). The building of these activities is what Foucault refers to as a “medical gaze,” which enables the physician to acquire objective and abstract knowledge of the patient’s sickness through observations, dialogues with the patient and physical examinations (Burrell, 2022). Because of this, the clinical examination must incorporate all visual, haptic, auditory and kinesthetic senses, highlighting the significance of social presence in medical care. Presence is required because of the inherent unpredictability connected with the potentially life-threatening differences that can exist across medical situations, even ones that fall under the same medical category (Burrell, 2022).

Because of this, the clinical processes involved in telemedicine might be quite different from those involved in traditional medical procedures. This shift in logistics necessitates the reconfiguration of workflows, which varies according to the nature and specifics of the selected system. This can influence clinical results substantially and may cause disruptions in work practices (Burrell, 2022). Therefore, the technology that is created for telemedicine needs to account for the requirement of the actors’ presence or take into consideration the knowledge transfer that is necessary for the collaborative clinical activities that take place across companies (Burrell, 2022). For instance, some research has used socio-cognitive theories to build telemedicine systems that simulate face-to-face communication and make the users feel connected to healthcare professionals. These systems aim to improve the quality of patients’ experiences with telehealth services (Burrell, 2022). Secondly, the complexity and ambiguity of clinical diagnoses and treatment increase the challenges associated with the delivery of healthcare, both in person and virtually (Burrell, 2022). Several different telemedicine modalities allow healthcare providers to provide care to their patients. On the other hand, due to the complexity of the situations and the information, these solutions only partially meet the difficulties that arise while providing healthcare services remotely (Burrell, 2022). Telemedicine systems are complicated; they are not restricted to communication platforms but often contain tools and technologies across sites to support essential clinical duties.

Telemedicine is a relatively new field, and its development is still in its infancy (Burrell, 2022). These technologies allow synchronous communication via telephone calls or live audio-video interactions, often conducted with patients through mobile devices, such as smartphones, tablets or personal computers (Burrell, 2022). In addition, telemedicine systems are not restricted to communication platforms. Instead, they frequently call for tools and technology to be employed across sites to support the therapeutic activities pertinent to the telemedicine setting (Burrell, 2022). In the body of prior research, these kinds of settings were referred to as High-Reliability Organizations (HROs), aiming to achieve error-free and dependable performance (Weick et al., 1999). In these settings, practice is extremely sensitive to deviations, and its participants strive for consistency in their behaviours (Burrell, 2022). As a result, actors must respond appropriately to guarantee trustworthy performance (Burrell, 2022).

Problem Statement

The key research question is to understand how small medical practices deployed, utilized and leveraged telemedicine during COVID-19 and continue to deploy its elements. In recent years, the adoption of telehealth has seen exponential growth, catalysed further by the COVID-19 pandemic. While larger healthcare institutions have made significant strides in integrating telehealth into their operations, small medical practices face distinct challenges and often lag in this transformative endeavour. The imperative to gain insights from these small medical practices on how to employ telehealth in their operations effectively is critical. It can not only benefit these organizations but also serve as a vital resource for similar entities lacking a starting point, an understanding of telehealth capabilities and a roadmap for implementation.

Rationale

Telehealth, encompassing a spectrum of services from remote consultations to digital health monitoring, has proven its potential to revolutionise healthcare delivery. It offers improved patient access, enhanced care coordination and cost-effectiveness. However, small medical practices, typically characterized by limited resources and infrastructure, often need to be more robust when attempting to harness the potential of telehealth.

The COVID-19 pandemic served as a catalyst, compelling healthcare organizations to expedite their adoption of telehealth to ensure the continuity of care while mitigating infection risks. In this context, larger healthcare institutions with robust technological capabilities were better positioned to adapt swiftly. Small medical practices, on the other hand, faced unique challenges. They grappled with issues like limited budgetary allocation for technology investments, inadequate training for staff, and concerns about regulatory compliance.

These challenges underscore the need to gain insights directly from small medical practices regarding their experiences with telehealth. Understanding the specific hurdles they encounter, the strategies they employ to overcome them and the outcomes they achieve can yield invaluable knowledge. This knowledge can serve as a foundation for similar organizations that are yet to embark on their telehealth journey or are struggling to navigate the complexities of implementation.

Significance

The significance of this research lies in its potential to empower small medical practices to embrace telehealth as a viable and transformative solution for healthcare delivery. By elucidating the experiences, successes and challenges these practices face, it can provide a roadmap for others in similar circumstances. The insights gained can inform policy recommendations, technological investments and training initiatives to support small medical practices transitioning toward a telehealth-enabled future.

Ultimately, this research seeks to bridge the telehealth divide, ensuring that the benefits of telehealth are not limited to larger institutions but are accessible to all, regardless of their size or resources. It recognises that small medical practices can significantly improve healthcare access, quality and efficiency in their communities and beyond when equipped with the knowledge and resources to harness telehealth effectively.

Method

Field-based interviewing/observation was employed. Field-based observation and the invaluable capability to benchmark successful healthcare organizations represent a pragmatic, invaluable and highly effective approach to applied research in the healthcare sector. This methodology empowers researchers and practitioners alike to delve into the real-world intricacies of healthcare operations, facilitating a profound understanding of best practices and innovative strategies that drive success.

Field-based observation immerses researchers directly into the operational contexts of healthcare organizations. It allows them to converse firsthand with healthcare professionals, administrators and staff members. This direct interaction provides a unique perspective transcending mere data analysis, enabling researchers to glean rich insights into healthcare delivery, management and patient care complexities. These candid conversations unveil the nuances of daily operations, revealing both the triumphs and challenges healthcare organizations face.

Moreover, benchmarking against successful healthcare organizations offers a compelling advantage. Researchers gain valuable insights into the factors underpinning success by comparing high-performing institutions' practices, policies and approaches with their peers. This benchmarking process serves as a yardstick against which to measure performance and identify areas for improvement. It fosters a culture of continuous learning and adaptation, promoting the adoption of evidence-based best practices that have been proven effective in achieving superior healthcare outcomes.

The practicality of field-based observation lies in its real-world applicability. It allows researchers to explore healthcare dynamic and ever-evolving landscape, where best practices are in constant flux. As healthcare organizations grapple with emerging challenges, such as technology integration, evolving patient demographics and shifting regulatory landscapes, field-based research offers a timely and adaptable means of staying informed and responsive. This approach acknowledges that successful healthcare strategies are dynamic but require ongoing assessment and refinement.

Furthermore, the effectiveness of this approach is underscored by its capacity to bridge the gap between theory and practice. It transforms theoretical concepts and academic insights into actionable recommendations to drive tangible improvements in healthcare organizations. By engaging directly with healthcare practitioners, researchers can co-create pragmatic, contextually relevant and readily implementable solutions, thus maximising the likelihood of successful outcomes.

Organization 1

The first healthcare practice subject to a field investigation was a dermatological clinic that had transitioned to telemedicine. Since 2020, they have been doing their business using a telehealth method. They conduct business in the states of Virginia and West Virginia. Both of the physicians are female. One person was of African-American descent, the other person was of a Latino-American. Dermatology is the branch of medicine that deals with diagnosing and treating various skin disorders. These skin problems can vary from hereditary illnesses to malignant diseases like malignant melanoma. Melanoma is an example of a malignant disease (Hoey, 2012). Therefore, therapy for these numerous ailments is of the highest significance, particularly for

patients who reside a substantial distance away and may not have access to dependable transportation for medical care. According to Leath et al. (2018), around one-fifth of the USA population resides in rural regions. However, according to O'Hanlon et al. (2019), more than one hundred rural hospitals have shut their doors since 2010. The number of dermatologists available to treat patients in many rural locations could be much higher. According to Story (2016), managing how materials or services are obtained, stored and delivered is logistics and supply chain management.

Teledermatology, often known as TD, is a subspecialty of dermatology that involves the remote diagnosis, monitoring, treatment and prevention of skin disorders through the utilization of various communication means (Pasquali et al., 2020). Primary therapeutic dialogue refers to the conversation that takes place directly between a patient and a dermatologist or nurse practitioner (Pasquali, 2020). On the other hand, secondary TD refers to the communication that takes place between the patient and the provider in an indirect manner. This component even includes the other parties involved in the telemedicine visit, such as the health insurance companies (Pasquali, 2020). Tertiary TD refers to the second opinion among experts, such as a dermatologist consulting with another dermatologist or a specialist from a different field (Pasquali, 2020). When a patient connects with a professional to follow up on an issue, this type of care is known as patient-aided (Pasquali, 2020). The final form is given to the patient directly. This communication occurs when a patient contacts a healthcare professional utilizing a technology gadget (Pasquali, 2020).

Telehealth has become a valuable tool for small dermatology practices, offering various elements, aspects and uses to enhance patient care, expand services and streamline operations. Here are vital considerations for utilizing telehealth in a small dermatology practice based on the field interviews.

Virtual Consultations: Telehealth enables dermatologists to conduct remote consultations with patients. This feature allows for initial assessments, follow-up appointments and treatment planning without requiring in-person visits.

Convenience and Accessibility: Patients can access dermatological care from the comfort of their homes, reducing the need for travel and wait times. This convenience can encourage more individuals to seek timely consultations.

Teledermoscopy: Teledermoscopy involves specialised equipment that patients can use at home to capture high-quality images of skin lesions. Dermatologists can then remotely assess these images for potential issues.

Rash and Skin Condition Evaluation: Virtual consultations allow dermatologists to assess rashes, skin conditions and dermatological concerns. Patients can share images and provide detailed descriptions of their symptoms for diagnosis.

Medication Management: Dermatologists can manage medication regimens through telehealth, providing prescription renewals, dosage adjustments and monitoring treatment outcomes.

Skin Cancer Screenings: Teledermatology allows for the remote screening of skin lesions and suspicious moles. Dermatologists can identify potential skin cancers and recommend further evaluation or biopsy if needed.

Education and Counselling: Dermatologists can educate patients about skincare routines, sun protection and self-examinations. Telehealth also provides an opportunity for counselling on managing chronic skin conditions.

Follow-Up Appointments: Telehealth facilitates follow-up appointments for ongoing skin conditions, allowing dermatologists to monitor progress and adjust treatment plans as necessary.

Biopsy and Lab Results: Dermatologists can discuss biopsy results and laboratory reports with patients through virtual consultations, ensuring they are well informed about their diagnoses and treatment options.

Photographic Documentation: Dermatologists can use telehealth to document patients' skin conditions over time, which can be valuable for tracking progress and changes in skin health.

Prescription Renewals: Patients can request prescription renewals through telehealth, streamlining the process and ensuring continuity of care.

Referrals and Collaborations: Telehealth enables dermatologists to collaborate with other healthcare providers and specialists for comprehensive patient care, particularly in cases requiring multidisciplinary approaches.

Continuing Medical Education (CME): Dermatologists can engage in online CME activities and attend virtual conferences to stay updated with the latest advancements in dermatology.

Billing and Payment Integration: Many telehealth platforms offer integrated billing and payment functionalities, simplifying the financial aspects of providing virtual care.

Practice Marketing and Outreach: Small dermatology practices can leverage telehealth to expand their patient base by reaching individuals in remote or underserved areas through digital marketing.

In summary, telehealth offers a wealth of opportunities for small dermatology practices. It enhances patient accessibility and convenience, supports various aspects of dermatological care and enables ongoing monitoring and education. With the appropriate technology and secure platforms, dermatologists can provide high-quality care and extend their reach to a broader patient population.

Organization 2

The second organization reviewed was a mental health practice of two therapists: an African-American female and a Latina female. The Mental Health medical group, like many other businesses, has been significantly affected by the COVID-19 pandemic and, as a result, has moved to 90% of their appointments being Telehealth approaches. Before 2020, all appointments (100%) had been face-to-face.

Although there has been an increase in the demand for mental health services due to COVID-19, providing patients with mental health care services has been complicated because patients cannot attend their weekly treatment sessions physically. This has made it particularly difficult to provide patients with mental health services (Burrell, 2022). One of the measures governments have taken to mitigate the pandemic's impact is restricting patients' access to attend in-office visits. This is one of the initiatives that countries have taken. Isolation from society, lockdowns and other preventative measures are further examples of additional tactics (Burrell, 2022).

Additionally, the mandatory requirements of social distancing and stay-at-home orders make it difficult for people to access what they may need the most: face-to-face contact that can provide support and connection that can only sometimes be conveyed electronically. This can make it difficult for people to access the things they need most. Because of this, it is more difficult for people to get their hands on the object they might require the most (LoGiudice, 2020; Hughey, 2020). Sometimes, the emotion, intensity and ability to empathetically connect with a patient are disrupted due to bad internet connections, incoming phone calls (switch blanks out the screen), or delay/lag in conversations.

Researchers have noted other challenges: some patients cannot use video platforms because they may not have access to a computer, internet services or privacy (LoGiudice, 2020; Hughey, 2020). Telemental health is only a useful viable option if patients and providers know how to use it. Education, mental state and age can also become a barrier (LoGiudice, 2020; Hughey, 2020). Although virtual or telephonic sessions can be a valuable solution, especially during an immediate crisis, it is essential to emphasise that it is not a magic bullet and fix-all (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

Telehealth has revolutionised the landscape of mental health counselling, particularly for small practices. Its versatility and accessibility have enabled practitioners to expand their reach, enhance patient care and streamline operations (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020).

Below there are key elements, aspects and uses of telehealth for small counselling mental health practices based on the field interviews.

Virtual Consultations: Telehealth allows mental health practitioners to conduct counselling sessions with clients remotely. This virtual format offers convenience and flexibility, eliminating geographical barriers and enabling clients to access therapy from the comfort of their homes.

Scheduling Flexibility: Telehealth offers greater flexibility in scheduling sessions. Therapists can accommodate clients' diverse time zones and busy schedules, thus expanding their client base and optimising appointment availability.

Client Convenience: Telehealth promotes client convenience by reducing the need for travel and eliminating associated time and cost constraints. This convenience can enhance overall client satisfaction and adherence to therapy.

Secure Communication: Secure and encrypted telehealth platforms ensure the confidentiality and privacy of client-therapist interactions, addressing data security and patient confidentiality concerns.

Documentation and Record-Keeping: Telehealth platforms often include features for electronic record-keeping and documentation, making it easier for practitioners to maintain accurate client records, treatment plans and progress notes.

Assessment Tools: Some telehealth platforms integrate assessment tools and questionnaires that therapists can administer to clients during sessions, enabling data-driven treatment planning and monitoring.

Group Therapy Sessions: Telehealth supports group therapy sessions, allowing therapists to facilitate group discussions, support groups and workshops with clients who may be geographically dispersed.

Continuity of Care: Telehealth enables the continuity of care, ensuring that clients can maintain their

therapeutic relationships even when they cannot attend in-person sessions due to travel, illness or other constraints.

Emergency Response: Telehealth platforms can be equipped with emergency response features, allowing therapists to assess and respond to crises, such as suicidal ideation, with appropriate interventions and referrals.

Professional Development: Telehealth also facilitates professional development for therapists through online training and supervision sessions, ensuring practitioners remain up-to-date with the latest therapeutic techniques and ethical standards.

Billing and Payment Integration: Many telehealth platforms include integrated billing and payment functionalities, simplifying the administrative aspects of running a small counselling practice.

Marketing and Outreach: Telehealth expands the reach of small practices, enabling therapists to market their services to a broader audience, including clients in remote or underserved areas.

Research and Data Collection: Telehealth can be used for research purposes, allowing therapists to collect data on treatment outcomes, client satisfaction and other relevant variables.

Crisis Hotlines and Helplines: Small counselling practices can use telehealth to operate crisis hotlines or helplines, offering immediate support to distressed individuals.

Collaboration and Consultation: Telehealth facilitates collaboration and consultation among mental health professionals, enabling them to seek second opinions, share expertise and enhance their clinical skills.

Telehealth has become an indispensable tool for small counselling mental health practices. It offers a wide range of benefits, including increased convenience for clients, flexible scheduling, secure communication, and the potential to expand one's client base (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020). Its versatility extends to assessment, group therapy, emergency response, professional development and research, making it a valuable asset for practitioners in the mental health field.

Organization 3

The final organization was a solo mental health practice in Northern VA, outside of Washington DC, that focused on coaching adolescents and adults with ADHD. The practice has moved from having an office and meeting clients face-to-face to exclusively via telehealth. As a result of the introduction of telehealth, they have increased their business by 75%.

Telemedicine, the remote delivery of healthcare services through telecommunications technology, presents a versatile and promising avenue for addressing the unique needs of patients with attention deficit hyperactivity disorder (ADHD). This overview elucidates the various applications of telemedicine in catering to individuals grappling with ADHD, enhancing their access to specialised care and improving overall treatment outcomes.

Diagnostic Assessment and Screening: Telemedicine facilitates the initial assessment of patients suspected to have ADHD. Through virtual consultations with healthcare providers, individuals can undergo comprehensive evaluations, including clinical interviews and standardised assessments. This process expedites identifying and diagnosing ADHD, ensuring early intervention and treatment planning.

Medication Management: Patients with ADHD often require medication management to optimise treatment efficacy and minimise side effects. Telemedicine allows for real-time consultations with psychiatrists or prescribing physicians, enabling medication adjustments, reviews of treatment progress and prescription refills without needing in-person visits, which can be particularly beneficial for patients in remote or underserved areas.

Psychoeducation and Counselling: Telemedicine platforms offer a conducive environment for psychoeducation and counselling sessions. Mental health professionals can provide patients and their families valuable information about ADHD, coping strategies and behavioural interventions through video conferences or telephonic consultations, fostering a better understanding of the condition.

Parental Training and Support: Parents of children with ADHD can access valuable training and support resources via telemedicine. These sessions may encompass behaviour management strategies, communication techniques and coping mechanisms. Such guidance equips parents with the tools necessary to create a supportive and structured home environment.

Therapeutic Interventions: Telemedicine extends access to a wide array of therapeutic interventions tailored to address the specific needs of patients with ADHD. These interventions may include cognitive-behavioural therapy (CBT), dialectical-behaviour therapy (DBT) and mindfulness-based techniques, all of which can be effectively delivered through virtual platforms.

School-Based Services: Telemedicine can bridge the gap between healthcare providers, educators and school psychologists. Collaborative efforts facilitated by telehealth can streamline the development and implementation of Individualised Education Plans (IEPs) and 504 plans, ensuring that students with ADHD receive the necessary accommodations and support in their academic settings.

Follow-Up and Monitoring: Regular follow-up appointments are essential for tracking treatment progress and addressing emerging concerns. Telemedicine offers a convenient means for patients to maintain regular contact with their healthcare providers, ensuring that treatment plans are adjusted as needed and that patients remain engaged in their care.

Remote Access for Underserved Populations: Telemedicine breaks down geographical barriers, making specialised ADHD care accessible to individuals residing in rural or underserved areas. This democratisation of healthcare services can profoundly impact improving the quality of life for patients who may not otherwise have access to expert care.

In conclusion, the applications of telemedicine in the context of ADHD care are far-reaching, encompassing diagnostics, medication management, psychoeducation, counselling, parental support, therapeutic interventions, school-based services and ongoing monitoring. By leveraging telemedicine, healthcare providers can deliver comprehensive and individualised care to patients with ADHD, fostering improved outcomes, enhanced access to care and a more patient-centric approach to managing this neurodevelopmental disorder.

Recommendations

The deployment of telehealth and telemedicine has emerged as a promising avenue for mitigating health disparities rooted in provider shortages and limited access to healthcare services in specific communities. In regions marked by physician and specialist shortages, telehealth bridges geographical barriers by connecting patients with healthcare providers remotely. This technology enables patients to access a broader network of specialists and experts, reducing the need for time-consuming and often costly travel to receive specialised care. Moreover, telemedicine has the potential to attract healthcare professionals to underserved areas, as practitioners can deliver care from remote locations, helping to alleviate the scarcity of local healthcare providers (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh, & Hajizadeh, 2020).

Access to health services, particularly in rural and remote communities, has historically been challenging. Telehealth solutions transcend this challenge by providing on-demand healthcare consultations via digital platforms (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh & Hajizadeh, 2020). Patients who once faced lengthy travel times and obstacles accessing in-person care can now schedule virtual appointments, ensuring timely intervention and reducing health disparities. Additionally, telehealth facilitates continuity of care, enabling patients to receive regular check-ups and preventive services without disruptions, essential for managing chronic conditions and promoting overall health equity. By addressing these critical areas, telehealth and telemedicine offer a tangible means of narrowing the healthcare access and quality gap, especially for vulnerable communities.

Access to the internet is an essential component to the success of any telehealth endeavours that may be undertaken. On the other hand, if specific households or people do not own a mobile device that enables them to connect digitally, “access points” will need to be constructed in the respective areas (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh, & Hajizadeh, 2020).

It is possible to build one of the entry points through the schools in the communities. It is possible to convert mobile pods and position them on campuses away from classroom buildings to keep the safety of the schools from being compromised. These pods can have a kiosk installed to access the appropriate specialist remotely. By positioning the pods near the school buildings, it will be possible to create a dependable internet connection by employing the school’s network to connect to the various services (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh, & Hajizadeh, 2020).

The availability of high-speed internet, already deeply ingrained in our culture, may be helpful to underprivileged communities in many more ways. It impacts the overall quality of life and, consequently, people’s health since millions rely on it to buy, socialise and work from home (Burrell, 2022).

Through the establishment of telehealth kiosks and centres in shopping malls, churches, community centres and educational institutions, partnerships with hospitals and other community groups may help provide telehealth to local communities (Haque, 2021; De Simone et al., 2022; Thomas et al., 2022; Monaghesh, & Hajizadeh, 2020).

It is possible to construct mobile units that can carry high-tech equipment like iPads to patients for instant

consultations and then convey those devices to the next patient in line (Burrell, 2022).

Community health workers are essential to promoting and implementing telehealth in different areas. Community health workers, often known as CHWs, are considered on the front lines of public health because of their “cultural competence” and their communities’ trust in them. They are in a position unlike any other to provide solutions to the problems that underprivileged areas are experiencing.

Conclusion

In conclusion, the results of this small-scale practical study have yielded substantial and valuable insights for small medical practices embarking on the journey of integrating telemedicine and telehealth into their operations. The findings underscore the significance of these technologies in enhancing healthcare delivery, particularly in resource-constrained settings. Furthermore, they shed light on small medical practices’ unique challenges and offer practical solutions that can serve as a compass for others in similar circumstances.

The significance of this research lies in its potential to empower small medical practices with actionable knowledge. It highlights the manifold benefits of telemedicine and telehealth, such as improved patient access, streamlined care coordination and cost-efficiency, and addresses the intricate web of challenges inherent to their adoption. By providing practical strategies and insights from real-world experiences, this study equips small medical practices with the tools and know-how to navigate the complexities of telehealth implementation.

The findings presented here resonate beyond the confines of this study participants. They serve as a beacon for the broader community of small medical practices exploring the value uses and benefits of telemedicine and telehealth. These insights offer a promising starting point, guiding practices toward successful integration while mitigating potential pitfalls.

As the healthcare landscape evolves, telemedicine and telehealth will undoubtedly play an increasingly pivotal role. Despite their resource limitations, small medical practices are poised to leverage these technologies effectively, thereby expanding access to care, improving patient outcomes and bolstering the resilience of healthcare systems.

In essence, this research contributes to the growing body of knowledge that affirms the transformative potential of telemedicine and telehealth in healthcare delivery. It reaffirms the belief that, irrespective of size or resources, small medical practices can harness these technologies to provide high-quality, accessible and patient-centred care. The insights derived from this study beckon small medical practices to confidently embark on their telehealth journey, guided by the wisdom of those who have successfully navigated these uncharted waters.

The ultimate beneficiaries are the patients – the heart and soul of healthcare. Their access to care, improved health outcomes and enhanced healthcare experiences underscore the value of telemedicine and telehealth, making pursuing these technologies not merely a choice but an imperative for small medical practices.

Recommendations for Future Research

While this study has provided valuable insights through field-based observations and benchmarking, the multifaceted landscape of telemedicine and telehealth integration in small medical practices calls for continued research that explores alternative approaches and avenues. The following recommendations for future research encompass diverse methodologies and focus areas to enhance our understanding of this critical subject further:

1. Longitudinal studies: Future research can employ longitudinal studies to track the evolution of telemedicine and telehealth integration in small medical practices over extended periods. Such studies would provide valuable insights into the long-term impact on patient outcomes, operational efficiency and financial sustainability.

2. Comparative analysis: Conducting comparative analyses between small medical practices that have successfully integrated telemedicine and those that cannot offer deeper insights. This approach can highlight the specific factors and strategies that distinguish success stories and provide practical recommendations for overcoming barriers.

3. Qualitative research: Qualitative research methods, such as in-depth interviews and focus groups, can delve into the perspectives and experiences of healthcare providers, staff members and patients. Qualitative data can provide nuanced insights into telehealth adoption’s social and cultural aspects, uncovering valuable information beyond quantitative measures.

4. Technology adoption models: Exploring established technology adoption models, such as the Technology Acceptance Model (TAM) or the Unified Theory of Acceptance and Use of Technology

(UTAUT), within the context of small medical practices can help identify critical determinants of telemedicine acceptance and usage.

5. Health equity and access: Research can centre on the impact of telemedicine on health equity and access, particularly in underserved communities. Understanding how telehealth initiatives can bridge healthcare disparities is crucial for policymakers and healthcare practitioners.

6. Regulatory and policy analysis: Investigating the regulatory and policy landscape surrounding telemedicine and telehealth can provide critical insights. Assessing the impact of evolving regulations on small medical practices can inform advocacy efforts and guide policy recommendations.

7. Economic and financial analysis: In-depth economic and financial analyses can delve into the cost-effectiveness of telehealth integration for small medical practices. Evaluating return on investment (ROI) and cost-benefit ratios can guide financial planning and decision-making.

8. Patient-centred outcomes: Research should emphasise patient-centred outcomes more strongly. Studies can explore patient satisfaction, engagement and the impact of telemedicine on health-related quality of life.

9. Innovative implementation strategies: Investigating innovative implementation strategies, such as collaborative networks among small practices, telehealth hubs or shared resources, can provide alternative models for successful integration.

10. Technology development and usability: Research into developing user-friendly telehealth technologies tailored to small medical practices' specific needs and constraints can enhance adoption rates and user satisfaction.

11. Cultural competence and training: Exploring the role of cultural competence training in telehealth settings can help address disparities in care and improve patient-provider relationships.

12. Ethical considerations: In-depth examinations of the ethical dimensions of telehealth, including issues related to privacy, informed consent and data security, are essential for ensuring ethical telehealth practices.

The recommendations for future research outlined above represent diverse approaches and focal points that can enrich our understanding of telemedicine and telehealth integration in small medical practices. By exploring these avenues, researchers can contribute to developing evidence-based strategies and policies that empower small practices to navigate the evolving healthcare landscape successfully. This collective effort promises to improve access to care, enhance patient outcomes and advance telehealth's transformative potential in healthcare delivery.

Conflicts of interest: The author declares no conflict of interest.

Data availability statement: Not applicable.

Informed consent statement: Not applicable.

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