A Narrative Study on the use of Telemedicine in Rural Health Care

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Abstract:

Telemedicine is the utilization of telecommunications technology for delivering healthcare services from a distance, enabling patients to interact with healthcare professionals, obtain medical guidance, and undergo diagnosis and treatment without physically visiting healthcare facilities. The information was sourced from various online databases such as Research Gate, PubMed, Scopus, CINHAL, and Google Scholar. It plays a vital role in rural regions by surmounting geographical obstacles and granting healthcare access to isolated communities, facilitating remote consultations with specialists, and minimizing the necessity for patients to undertake extensive travel. Additionally, telemedicine enhances healthcare accessibility for individuals with restricted mobility or transportation alternatives. The analysis shows that telehealth has many benefits, including reducing travel time, improving communication between patients and providers, increasing access to healthcare, promoting health awareness, and helping patients manage chronic conditions.

Introduction:

Telemedicine uses electronic communications to communicate techniques to do that and assist health coverage when disassociated differs from the respondents. Telemedicine is the swap of diagnostic value from one spot to another utilizing electronic information, which improves care

health status. Telemedicine has considerations that can be used for multiple services, including Bluetooth devices, inboxes, two-way movies, devices, or other processes of the Institute of Electrical and Electronics.

Beginning more than 40 years ago with private hospital broadening their services to patients in remote places, telemedicine has grown tremendously and become an integral aspect of unique divisions, emergency rooms, family doctor office space, home health care, and the consumer's abode and workforce.

"Tele" is just a Greek word meaning "distance" and "modern" is still a Latin term meaning "to heal".

Telehealth can assist healthcare systems, organizations, and providers in expanding access to and improving the quality of rural healthcare. Using telehealth in rural areas to deliver and assist with the delivery of healthcare services can reduce or minimize challenges and burdens patients encounter, such as transportation issues related to travel for specialty care. Telehealth can also improve monitoring, timeliness, and communications within the healthcare system.

Telehealth is a remote healthcare service delivery method that allows for real-time communication between a patient and a healthcare provider. Telehealth has been used to promote healthy behaviors and condition management, and there have been promising effects observed, including increasing patient participation and satisfaction and reducing rates of chronic illnesses.

Telehealth uses telecommunications technology and other electronic data to assist with clinical healthcare services provided at a distance, which can also include providing education, administrative functions, and peer meetings. While one of the most common images of telehealth is that of a patient speaking by videoconference with a healthcare provider who is located remotely, telehealth can take other forms, including:

- Remote patient monitoring (RPM)
- Store and forward transmission of medical information
- Mobile health communication (mHealth)

Challenges for providing telehealth services in rural areas are also discussed, such as workforce issues, quality of care concerns, reimbursement, licensure, and access to broadband services.

Telehealth includes a broad array of services that facilitate the delivery of medical consultation, patient education, health information services, and other related services via the use of digital technologies. Technologies utilized in telehealth include but are not limited to video conferencing, health apps, mobile health, and other methods that promote patient monitoring from remote locations if needed. It is noteworthy that telehealth allows patients in rural settings to gain access to medical providers at larger facilities. These services can be used to address issues associated with physician shortages and access to specialty care in rural and remote locations.

According to the Centers for Disease Control and Prevention (CDC), people living in rural areas are more likely to pass away prematurely than urban residents. The current rural population in the United States remains at approximately 57 million, while more than 272 million Americans live in urban areas. The following are five leading causes of death in rural areas:

- Heart disease
- Cancer
- Unintentional injury
- Chronic lower respiratory disease
- Stroke[1]

The purpose for which telemedicine is used may be categorized as one or a combination of the following:
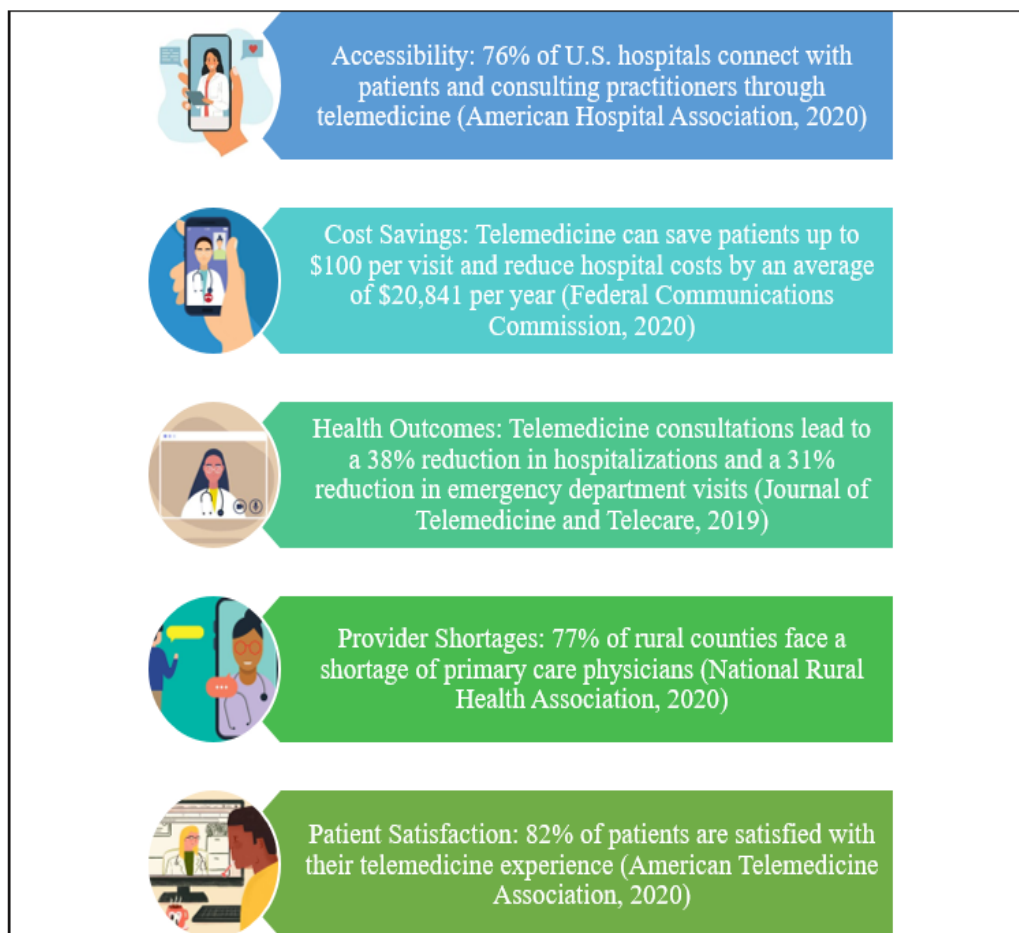
Clinical, educational, and administrative.

For clinical services, sessions generally include interaction between clinicians (and may include or exclude the patient). For example, a primary health care provider could telephone a specialist to discuss appropriate clinical management of an unusual case. Alternatively, a digital image of an X-ray could be sent via email to a specialist to assist with diagnosis.

For education, sessions may include the delivery of lectures and workshops to multiple sites using techniques such as videoconferencing, teleconferencing, and web-casting. In Queensland for instance, most videoconferencing equipment is currently used by hospitals for educational purposes. Educational sessions may involve the delivery of a pre-recorded lecture (videotape

or DVD) to a group of students at a remote site or an interactive workshop conducted via videoconference involving several different sites simultaneously.

For administrative applications, communication between different sites for management meetings, interviewing interstate/international candidates for position vacancies, and keeping in contact with regional sites are all different types of telemedicine activity.

In all cases, telemedicine is used to facilitate a service or activity for which the parties would normally have to travel

Accessibility: 76% of U.S. hospitals connect with patients and consulting practitioners through telemedicine (American Hospital Association, 2020)

Cost Savings: Telemedicine can save patients up to $100 per visit and reduce hospital costs by an average of $20,841 per year (Federal Communications Commission, 2020)

Health Outcomes: Telemedicine consultations lead to a 38% reduction in hospitalizations and a 31% reduction in emergency department visits (Journal of Telemedicine and Telecare, 2019)

Provider Shortages: 77% of rural counties face a shortage of primary care physicians (National Rural Health Association, 2020)

Patient Satisfaction: 82% of patients are satisfied with their telemedicine experience (American Telemedicine Association, 2020)

Summary of Telemedicine Statistics

Challenges faced by the rural sector in receiving good Healthcare

While rural sectors are showing considerable progress with improved facilities and awareness programs, the healthcare sector needs still has a long way to go. The reason could be attributed to,

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Behavior pattern among people living in rural sectors.

- Lack of proper education

- Lack of transportation facilities

- Poor access to healthy food

- Lack of hygiene

- Lack of basic needs

- While each of the above points can contribute to a deteriorating healthcare system, a collective approach is the need of the hour where people and authorities concerned work together towards a successful solution. Telemedicine can be a very effective solution that makes use of technology to reduce many of the above-mentioned constraints and bring a change.

The telemedicine initiative in India has not been free of challenges and controversies. "There are inevitable difficulties associated with the introduction of new systems and technologies," according to Sathyamurthy. "There are some who needlessly fear that they will lose their jobs. Although the systems are user-friendly, others are affected by the fear of the unknown in handling computers and other equipment. There is a feeling that the initial investment is high and hence financially not viable."

Natalie K. Brisbane, Liam J. Caffery & Anthony C. Smith 2015 An investigation on Awareness, and experiences of telehealth in an agricultural Queens country group reveals that Three respondents were enough that medical providers that had all hitherto utilized telehealth in their nursing experience. Twenty-seven (57%) entrants consistently toured to open leading medical. While 28 (60%) entrants enough that conscious of telehealth, sole six (13%) would have currently utilized telehealth services; three as doctors and three as medical professionals. Field of study topics included: admittance and the need to commute; paternalism and liberation; and acceptance and misconceptions.[2]

Sailee D. Bhambere 2016 conducted a study on the implementation of telemedicine in rural areas that shows that The Indian virtual care market figures for about $15 Million, and is intended to double within the next 5 years. The present electronic health records growth in India can be supposed to represent the growth in that state because this growth is principally in the metro areas and monetarily forth some birthrate. The maximum universal health care

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deprivation is encountered in remote communities. The shortage of teachers in all of these spaces is severe, while the urban centers are overflowing with medical practitioners.[3]

Tele-consultations, teleradiology and medical expression, Data sharing and review, and such. Are the focus job vacancies telemedical currently takes? With the introduction of modern innovation, so much enhanced production can just be predicted from it. But, to begin, and can be used to enlighten the population regarding the various health issues and ailments. Medical remedies like counseling, so it becomes so much more meaningful in the rural, could be carried out by employing Telemedia. Until a few decades past, virtual care in village India was virtually impossible due to serious barricades. But the positive frame considering those have spent so long led to by the current regime.[4]

Venture money making, ever more large corporations moving into Nucleus Hospital, and health IT initiatives help make the future telemedical type of situation full of hope. Linking the primary health system in settlements to the ancillary health care clinics in either portion of the area, or in many case scenarios, another state is way quicker and value efficacious in comparison with erecting secondary health care institutes on the homepage.[5]

Amar Gupta, Mariam E. Dogar, Emily Sijin Zhai, Pooja Singla, Tooba Shahid, Hilal Nuriye Yildirim, Sabrina Romero, Shaurya Singh 2018, Innovative Telemedicine Approaches in Different Countries: Opportunity for Adoption, Leveraging, and Scaling-Up**.** In the age of digitization, a growing percentage of services are becoming available online, and this trend is affecting healthcare too. As evolving technology creates more avenues for physicians to deliver affordable and instant care to their patients, there has been a sharp increase in the number of telemedicine implementations across the world. As in other disciplines, guidelines, and regulations on telemedicine lag behind the use of the technology and are still being crafted and modified. For example, the new nationwide policy on telemedicine of the Department of Veterans Affairs (VA) of the US Government became effective in mid-2018 and incorporates the opinions and recommendations made 7 years earlier. In recent years, the VA spent over $1 billion a year on the transportation of veterans to and from hospitals; now with telemedicine, this amount can be used increasingly for other purposes. This cost-saving experience at the national scale should alert industry actors, national governments, and consumers of the growing urgency to address the policy and regulatory aspects of telemedicine

to provide healthcare services with greater speed, quality, and safety to rapidly increasing percentages of citizens of their respective countries.[6]

Morgan, Sarah (2019), Systematic literature review of telehealth use in the rural United States. The search uses the PubMed Central database to find papers between 2015 and 2019 with relevant keywords. Papers were then included based on: whether they were written in the United States, if they were not a literature review, if they addressed a rural population, and if they used an eHealth intervention. The result showed that 47 relevant articles were analyzed. 14 were feasibility studies, 7 were qualitative analyses, 17 were randomized controlled trials, 8 were non-RCT prospective studies, and 1 was a Centers for Disease Control report. The articles primarily focused on the feasibility and implementation of telemedicine programs and gathered information on user experience, patient satisfaction, and program implementation factors like fidelity. This leaves a gap in the literature about the actual efficacy and public health significance of recent telehealth programs and their effect on user health. However, it also shows a trend towards implementing more telemedicine programs once they are shown to be feasible.[7]

Vinoth G. Chellaiyan, A. Y. Nirupama, Neha Taneja, (2019) Telemedicine in India: Where do we stand? Telemedicine is considered to be the remote diagnosis and treatment of patients using telecommunications technology, thereby providing substantial healthcare to low-income regions. The earliest published record of telemedicine was in the first half of the 20th century when ECG was transmitted over telephone lines. From then to today, telemedicine has come a long way in terms of both healthcare delivery and technology. A major role in this was played by NASA and ISRO. The setting up of the National Telemedicine Taskforce by the Health Ministry of India, in 2005, paved the way for the success of various projects like the ICMR-AROGYASREE, NeHA, and VRCs. Telemedicine also helps family physicians by giving them easy access to specialty doctors and helping them in close monitoring of patients. Different types of telemedicine services like store and forward, real-time and remote or self-monitoring provide various educational, healthcare delivery and management, disease screening, and disaster management services all over the globe. Even though telemedicine cannot be a solution to all the problems, it can surely help decrease the burden of the healthcare system to a large extent.[8]

A systematic literature review of peer-reviewed and grey literature was conducted. The authors used electronic databases including Embase, PubMed, CINAHIL, and Web of Science to locate and access relevant articles based on their inclusion criteria. Studies were selected that investigated the implementation of telemedicine in the clinical and educational healthcare settings in rural or remote locations within the United States. Forty articles were identified for review. The identified articles were published between 2010 and 2021 that were used in the study. There was no significant literature on telemedicine utilization in the Commonwealth of Virginia. Additionally, there were limited studies on rural and remote settings that utilized telehealth services during the COVID-19 pandemic. Evidence suggests that telemedicine could improve access to healthcare services and enable providers to monitor patients from a distance. Researchers identified six key factors associated with telemedicine's success and sustainability: education, training, vision, ownership, adaptability, economics, efficiency, and equipment. The study concluded that Rural and remote communities experience healthcare disparities and poor patient outcomes due to limited access to quality care and inequalities in education, training, and resource allocation. A deficiency of technological skills, knowledge, and or resistance to change may prevent a quality telehealth program from being able to serve patients adequately.[9]

Michael Butzner, Yendelela Cuffee 2021, Telehealth Interventions and Outcomes Across Rural Communities In The United States: Narrative Review A narrative review of studies published on PubMed from January 2017 to December 2020 was conducted. terms included telehealth, telemedicine, rural, and outcomes. The study showed that Among 15 included studies, 9 studies analyzed telehealth interventions in patients, 3 in health care professionals, and 3 in both patients and health care professionals. The included studies reported positive outcomes and experiences of telehealth use in rural populations including acceptability and increased satisfaction; they also noted that technology is convenient and efficient. Other notable benefits included decreased direct and indirect costs to the patient (travel cost and time) and health care service provider (staffing), lower onsite health care resource utilization, improved physician recruitment and retention, improved access to care, and increased education and training of patients and health care professionals. The study concluded that Telehealth models were associated with positive outcomes for patients and healthcare professionals, suggesting these models are feasible and can be effective. Future telehealth interventions and studies examining these programs are warranted, especially in rural

communities, and future research should evaluate the impact of increased telehealth use as a result of the COVID-19 pandemic.[10]

Jessica Anderson and Jitendra Singh 2021 conducted A Case Study on Using Telehealth in a Rural Healthcare Facility to Expand Services and Protect the Health and Safety of Patients and Staff. The study is initiated in 4 processes. COVID-19 has had a large impact on agrarian installations. While telehealth services will still not supplement each biomedical meet to a walk-in clinic, it is also crucial to highlight that even these service deliveries have the potential to become vital alter. This construction allowed me to gain an understanding of where a telehealth program was introduced and to gather perspective as to how consumption among this service delivery shifted over a length of time. Processes changed considerably and at twice they need to be altered regularly. Greater profitability or superannuation of extremely important personnel since the initiation of the superbug can place a severe burden on the existing staff. Currently seeking existing hires can also be extremely hard in village installations. Receiving folks to take debt in a 's rural is daunting, and yet when contestants were all from spaces of milder seasonal changes seem to be less negatively affected by COVID-19 it is difficult to save enough bonuses to go and get them to affix the crew. Employment concerning telehealth will indeed be ongoing. Initiatives are intended to educate the group on what potential benefits telehealth can provide.[11]

Michael Butzner, Dr PH corresponding and Yendelela Cuffee,2021 Narrative study conducted on Telehealth Interventions and Outcomes Across Rural Communities in the United States: the finding shows that Among 15 included previous research, 9 previous research reviewed telehealth complications in service users, 3 in health care professionals, and 3 in both staff and patients 'consultants. The included researchers noted successful effects and perceptions of telehealth use anyway remote communities including permissibility and improved job satisfaction; they also indicated that advancements are efficient and convenient. Side remarkable rewards included declined expenditure to the service user (airfare and moments) and health care service (resourcing), significantly decreased construction site health care capacity utilization, improved general practitioner recruitment, relevant content to show concern and elevated education and training of physicians and other healthcare specialist.[12]

Cherry Chu Peter Cram, Andrea Pang, Vess Stamenova, Mina Tadrous, R Sacha Bhatia 2021 A concurrent triangulation on Rural Telemedicine Use Before and During the COVID-

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19 Pandemic: they observed a significant increase in the amount of telemedicine goes to visit among both socioeconomic service users after the begins of the COVID-19 pandemic. Earlier to the pandemic, one such frequency must've been significantly greater by many rural clients than those of city clients (11 tours per 1000 patient populations vs 7 tours per 1000 service users in December 2019, to between; P <. 001). During the pandemic, both public and private telemedicine rates increased substantially, but uptake rate increases among rural patient populations seemed to be much lower than all those by many inner-city patient populations.[13]

Shreya Kolluri, Thor S. Lieu of actually, Rohan K., R. Street Coffee, Jr., Jonathan Littell, and Latha Ganti 2021 conducted a study on Telehealth in Response to the Rural Health Disparity the conclusions of the study demonstrate that rural debt in telehealth is display and dominantly hopeful. In the research, 88% seem to be either evaluating or intend to support telehealth, and then only 12% of participants stated that they would not just be available to telehealth at the moment.[14]

Methodology:

The present study aims to specify the use of telemedicine in rural health care. The intensive information seemed to be accumulated from texts, research papers, and data sources; for online data browsers and databases such as Research Gate, PubMed, Scopus, CINHAL, and Google Scholar., the keyword phrases responsibility of nurse practitioners, telemedicine, rural health care, and use of telemedicine in rural health care are being used. Between February to April 2024, to implement those ideas dataset tasks were carried through. Research findings had been tested and included according to the total sample; previous research has been validated and retrieved by 3 review sites. Rulings from the research project had been successfully synthesized textually.

Result and discussions:

As per the narrative, it's being assessed such a provision of quality care hospital services, for which path length is a crucial part, via all health care professionals employing information communication technologies for the share of valid data for identification, therapeutic and preventive of disorder and injury problems, monitoring and studies, and for the community colleges of health care providers, always in the involvement of pursuing the health of an individual and their groups. 'But remote healthcare does have such difficulties when we implement it in expediency.

Telemedicine technology acceptance elevated in regional and remote spaces during the COVID-19 ebola outbreak, but its use expanded in cities and much less remote communities. Prospective investigations should investigate the potential restrictions to telemedicine use throughout agrarian clients and the implications of agrarian telemedicine on patient health show concern use of and findings.

The health service is morphing into value-based treatment, which heavily relies on modern clinical conformance and reintegration. Nonetheless, to wholly transfer towards the main objective, we need options to improve the physician and the patient as adaptive and widely available. Telehealth and virtual care programs can help the rural birthrate to a large extent, especially those who live with the strength to perform, patients struggling with a psychosomatic condition, or drug addiction, and the folks that have curtailed aptitude in the different communications communication. Off from all of these, the apps are now also favorable for former players, atoll inhabitants, elderly individuals, incarcerated people, and kids.

Though telemedicine has so many perks, it has some different burgeoning confounders in remote regions, and even more so for the health insurers who encounter many issues each day. Some of them will be, Telemedicine has been stricken by a matter of obligation even before data supplied through telemedicine has been misrepresented

Maintaining the confidentiality of information of telemedicine services would be essential to acknowledgment by customers" and healthcare professionals; those certain services should always conform to any private information and privacy rules Protection of knowledge and electronic systems is the highest priority. Learning about the help desk workforce in network security during the transfer of consumer information is an important aspect of cultivating standard implementation use. There is a need to develop a process for rebate of the facilities supplied through telemedical by the healthcare providers

The functional specifications for a fruitful telecare application entail a guarantee, high-speed internet link, a medical remote healthcare scooter to serve as the connector for the conversation, a community medical app, and the IT profession to set up the program but be readily accessible when the software system fails.

Telemedicine trips can require a considerable period for facilities and transferral of prescription medications is tormented by a matter of debt when data supplied through telemedicine is wrongly interpreted.

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Maintaining the related to confidentiality of telemedicine services is extremely important to affirmation by consumer purchase and healthcare professionals; these services must comply with every data protection and nondisclosure regulations

The protection of knowledge and computers is only of the highest priority. Schooling helpdesk employees in infosec during the swap of client data is an important portion of promoting standard system use.

There is a need for commercial projects for cost recovery of the benefits rendered through telemedicine by healthcare providers

The system requirements for a productive telemedicine plan encompass ensuring security, high-speed internet relationship, a diagnostic and therapeutic telemedicine wheelbarrow to serve as the hotspot for the connection, urgent care operating system and enter to IT practitioners to set up the program but to be usable when the framework hick-ups.

Specific abilities that should be clarified to pass the telemedicine follow orders encompass training time to establish the expertise required to set up and just use devices, professional competence, interpersonal and small group, documentary evidence, work experience, management in the context, profession, and administrative functions, and surveillance of health-care information

Telemedicine is called to combat social impediments that inhibit the outcome. That kind it enables the wireless carriers with the geographical region and mailing medical intervention in distant places position where there is a decline in public transport. Apart from that, it also helps in improving the economic strength of the continent by saving on airfare and some other worldwide monetary. This display multiple noticeably to enhancing connected health and user-friendliness with the innovation in overall healthcare.

Once the rural inhabitants approve the advancements, it leads to better patient outcomes when it comes to rehabilitation and category to category.

The central objective of electronic health records was to let national healthcare achieve the isolated places and make them obtainable wirelessly, Today, in remote regions, widely available medical centers are dearth. Consequently, the time to wander and the displacement are the major challenges faced by the service user. Off from each other in this, on achieving the doctor's office the waiting list is much too long as the measurement between clients per gynaecologist is amazingly top. According to the research findings, the measurement is 39.8

clinicians per 1,00,000 service users, to be specific. Due to this long waiting moment, patients were found to miss their injections of medication but also psychotherapy, resulting in decay in their health.

Telemedical gets far from these challenges by sending medical support through communications between the health providers and the patient populations, improving the overall sort of situation of local health care.

It does provide comfort to practitioners but also the service users since they have the negotiating power to access one another from anywhere without possessing just to be given at the doctor's office.

It is vital to keep rail of the patient's troponins who are also on pills or affected by a periodontitis affliction. And the rural inhabitants find it difficult to visit geographical distance hospital facilities. In that kind of situation, the telemedical actions a to save and allow the service provider to observe the patient's health from anywhere. At twice, the client would become stupid and lax and decide to stop taking the prescription drugs ASAP after they start feeling a little better. This increases the chances of the cancer's sensations. But through this discoverable innovation, doctors are so well reminded and surveilled to finish their course work of portions and better medication reconciliation and forestall gaffes while medication.

It gives rapid healthcare settings as doctors are attached continually through telemedicine technology.

It does provide comfort to practitioners but also the service users since they have the negotiating power to access one another from anywhere without possessing just to be given at the doctor's office.

It tends to give the patient population immediate access to consult the qualified professional who is a tap down fast. It also saves the cost factor and moment and thus, ends in the correct psychotherapy at the perfect moment.

Telemedicine tours could require significant moments for operational support and transferral of treatments.

Specific skill sets that must be acknowledged to pass the telecare assure the quality encompasses practice time to advance the skill set needed to set up and to use devices, technical expertise, interpersonal and small group, evidence, continuing education, risk allocation, process and procedural matters, and safeguards of health-care information.

Conclusion:

An emerging area of focus is tailoring telehealth services and access for rural communities. Identifying the needs that rural residents utilize telehealth for can help create a more sustainable model for telehealth combined with traditional healthcare. Everyone deserves access to quality healthcare, no matter what zip code or county they live in. Telehealth can bridge the gap between people in rural areas who lack access to healthcare and those who don't have transportation to get there on time.

The review suggests that telehealth has several benefits, including reducing the time spent on traveling to healthcare facilities, improving communication between patients and healthcare providers, increasing the availability of healthcare services, promoting individuals' awareness of their health, and empowering patients to have greater control over managing their chronic illnesses.

Reference:

1. CDC. (2018). Centers for Disease Control and Prevention. https://www.cdc.gov/ruralhealth/index.html

2. Bradford, N. K., Caffery, L. J., & Smith, A. C. (2015). Awareness, experiences, and perceptions of telehealth in a rural Queensland community. BMC Health Services Research, 15(1). https://doi.org/10.1186/s12913-015-1094-7

3. Rajkumar, E., Gopi, A., Joshi, A., Thomas, A. E., Arunima, N. M., Ramya, G. S., Kulkarni, P., Rahul, P., George, A. J., Romate, J., & Abraham, J. (2023). Applications, benefits, and challenges of telehealth in India during the COVID-19 pandemic and beyond: A systematic review. BMC Health Services Research, 23(1). https://doi.org/10.1186/s12913-022-08970-8

4. Carrillo de Albornoz, S., Sia, K.-L., & Harris, A. (2021). The effectiveness of teleconsultations in primary care: A systematic review. Family Practice, 39(1). https://doi.org/10.1093/fampra/cmab077

5. Visible.vc. (2023, June 1). How Venture Capital is Funding the Future of Healthcare + 7 VC Firms Making Investments. https://visible.vc/blog/venture-capital-in-healthcare/

6. Samad, Abdul. (2023). Transforming Healthcare Delivery: Innovative Telemedicine Applications in Low-Resource Settings.

https://www.researchgate.net/publication/379832070_Transforming_Healthcare_Delivery_Innovative_Telemedicine_Applications_in_Low-Resource_Settings

7. Abuyadek, R. M., Hammouda, E. A., Elrewany, E., Elmalawany, D. H., Ashmawy, R., Zeina, S., ... Ghazy, R. M. (2024). Acceptability of tele-mental health services among users: A systematic review and meta-analysis. BMC Public Health, 24(1), 1–18. https://doi.org/10.1186/s12889-024-18436-7

8. ISO. (2024). Welcome to the world of telemedicine: Understanding the basics. Retrieved April 24, 2024, from https://www.iso.org/healthcare/telemedicine

9. Sahoo, S. K., & Nayak, S. C. (2022). Revisiting public relations profession in India: A systematic literature review. Journal of Creative Communications. https://doi.org/10.1177/09732586221095311

10. Pullyblank, K. (2023). A scoping literature review of rural beliefs and attitudes toward telehealth utilization. Western Journal of Nursing Research, 45(4), 375–384. https://doi.org/10.1177/01939459221134374

11. Rural Health Information Hub. (n.d.). Telehealth and health information technology in rural healthcare. Retrieved April 24, 2024, from https://www.ruralhealthinfo.org/topics/telehealth-health-it

12. Butzner, M., & Cuffee, Y. (2021). Telehealth interventions and outcomes across rural communities in the United States: Narrative review. Journal of Medical Internet Research, 23(8), e29575. https://doi.org/10.2196/29575

13. Chu, C., Cram, P., Pang, A., Stamenova, V., Tadrous, M., & Bhatia, R. S. (2021). Rural telemedicine use before and during the COVID-19 pandemic: Repeated cross-sectional study. Journal of Medical Internet Research, 23(4), e26960. https://doi.org/10.2196/26960

14. Kolluri, S., Stead, T. S., Mangal, R. K., Coffee, R. L., Jr, Littell, J., & Ganti, L. (2022). Telehealth in response to the rural health disparity. Health Psychology Research, 10(3). https://doi.org/10.52965/001c.37445