

Barriers to Healthcare Across Rural Communities-Testing Telehealth as an Alternative Model of Healthcare Service Delivery

Pavani Kottapalli

USA

ABSTRACT

Healthcare consumers from rural areas in the United States have inadequate access to healthcare due to a lack of providers, ineffective healthcare networks, and impaired healthcare delivery models. Further, low income, insurance coverage, and transportation are significant challenges limiting rural healthcare consumers' access to healthcare. Therefore, preventable hospitalizations are more common in rural areas. As a result, healthcare access in rural areas has become a pressing issue for healthcare leaders and the government. Therefore, the author would like to conduct a literature review to assess the barriers in rural areas and establish the framework for a pilot study to propose telehealth as an alternative healthcare service delivery model to improve healthcare accessibility and health promotion.

***Corresponding author**

Pavani Kottapalli, USA.

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Is Telehealth an Effective Healthcare Service Delivery Model for Rural Population?

Telehealth is a care delivery model that utilizes information technology to provide clinical care via audio and video to the distant living population. Although Telehealth promises a future for healthcare administrators to tackle rapid aging, geographical challenges, lack of transportation, unavailable providers, and further special needs in rural locations, the implementation of Telehealth remains a challenge for several reasons, such as privacy concerns, acceptability, reimbursement issues, low technology support, the ability to use the technology and provider licensure regulations [1,2]. However, the 2019 pandemic has introduced widespread Telehealth and increased awareness and adaptability in the U.S. population. Further, the necessity during the pandemic has forced politicians and policymakers to ease the reimbursement and legal regulations. Also, studies have shown that telehealth usage has significantly increased compared to the prior pandemic despite similar challenges, evident that telehealth is evolving rapidly. Further, although telehealth visits have increased in rural areas during the pandemic, overall telehealth usage remained low compared to the urban population [3]. Therefore, the author would like to examine the barriers to healthcare access and pilot the telehealth program to test its effectiveness in rural communities to improve access to care.

Barriers to Healthcare Access in Rural Communities

The objective of the right to healthcare access has become a challenge for the United States (U.S.) healthcare system due to various reasons such as low income, increased aging, lack of transportation, poor internet services, and workforce shortages.

Further, around 51 million people live in rural areas in the U.S. Still, only 9% of physician practices are available, causing geographic disparities between urban and rural communities. Additionally, transportation barriers impact less than 3% and more than 67% of the rural population, leading to inadequate access to primary healthcare chronic and specialty health services, evidenced by poor outcomes [4].

The research showed that people who live in rural communities and can drive have 2.29 times more tendency to attain chronic healthcare services and 1.92 times more tend to attend regular checkups. On the other hand, the lack of transportation causes missing appointments and delays in care for the inhabitants living in rural communities who cannot drive. In addition, studies revealed that more than 5.8 million people received delayed medical treatment in the U.S. due to inadequate transportation. In addition, Inadequate public transportation, wheelchair-accessible vehicles, high-cost transportation, and weather conditions are the primary reasons for the rural population to access needed health services. Therefore, lack of transportation in rural areas is a severe concern as it constrains the individual's potential to access healthcare services and causes poor health outcomes [5-7].

Additionally, rapid aging in rural areas increases the need for medical services in rural settings. Despite Affordable Care Act reforms and Medicaid expansion to the rural population, 12.9% out of 14.5% of the nation is uninsured due to low income and below the poverty line. Further, the less comprehensive insurance coverage and cultural perceptions towards seeking health services such as mental health and psychological counseling remain limitations for access to health care [8]. Therefore, healthcare regulatory bodies, policymakers, and administrators must integrate telehealth to meet the demand for an alternative healthcare service

delivery model to improve access and reduce global disparities.

Understanding the Telehealth Program

Telehealth and telemedicine words are used interchangeably. However, telemedicine comes under the telehealth umbrella as Telehealth means a technology-enhanced healthcare delivery system that connects providers and patients from distant locations. In addition, telemedicine refers to clinical services. In addition, both provide health education, remote monitoring, consultation, and channels to exchange information via videoconference and calls. Further, the concept of telehealth was initiated to increase the accessibility of healthcare in rural settings, in addition to its wide range of acceptance [9]. In addition, Telehealth gives hope to healthcare administrators by increasing access to resources and care in rural areas. However, more studies are needed to understand the challenges of integration and its effectiveness. This paper establishes a framework for piloting the telehealth program in any given location to give future healthcare leaders insight.

Framework, Implementing, and Testing the Piloting Telehealth Program

Healthcare is becoming entirely technology-driven and requires users to adopt it to benefit from its vast uses, such as Telehealth. Moreover, studies have shown that Telehealth is increasing the accessibility to healthcare and, therefore, the quality outcomes in a rural setting. However, the first step in integrating telehealth is understanding the feasibility, acceptability, and ways to normalize (routine telehealth usage). Though several small-scale pilot studies were conducted in the past, their impact remained limited on normalization due to the restricted data availability on evolving technology and changes in effects [10]. Thus, the author would like to suggest a qualitative study of twenty families in rural areas to understand Telehealth's acceptability and find normalization challenges.

Selecting the Focus Group

The author would like to focus on piloting a telehealth program to deliver Mental health specialty for twenty elderly families in rural settings having a hospital as a point of referring location.

Developing the Survey Tool

Create the questionnaire based on three areas: 1. awareness of Telehealth services, 2. Available resources/infrastructure, 3. Desire to learn the benefits of telehealth and its utilization. Each area is to have ten questions, and once the research team selects the questionnaire, the focused group will receive it either via survey link or as a hard copy. The author would like to choose an appreciative inquiry model as a survey method to promote telehealth and access to healthcare [11]. Further, the participants of twenty families would receive a Tablet and \$100 worth of Best Buy cards. The focused area model questions are as follows.

Awareness of Telehealth services (Bowen, 2022)	Available Resources/ Infrastructure (Bowen, 2022)	Desire to Learn the Benefits of Telehealth and Its Utilization (Bowen, 2022)
For example, have you ever had a chance to attend Telehealth?	What are the reasons you have limited telehealth usage?	For example, do you believe telehealth is an essential alternative for timely treatment?
For example, do you have anyone in your family or friends who benefits from telehealth services?	For example, do you have cell phones and internet services at home?	E.g., Is navigating the new applications on your cellphone is hard for you?

Collecting the Data

The survey for the focused group will not exceed 30 minutes, and the trained researchers from the psychology or sociology specialization will collect consent on the interview day. Additionally, interviews will be conducted in smaller groups to avoid complexity [12].

Analyzing the Data

After the interviews, the Subject Matter Experts will categorize the collected data under three themes, as noted in the table, and analyze the benefits and limitations of telehealth, awareness of services, infrastructure, and security concerns according to the answers.

Results

The study results conclude the potential accessibility and feasibility of Telehealth services in rural settings to improve mental health care in the rural elderly population. Once the study summary is available, the author will create the report with the limitations and exclusion criteria and send it to the government for large-scale projects with the potential cost and time for normalization. After all, refinement in the pilot program is needed according to the limitations faced during the study for further effectiveness and advancement in upcoming studies.

Discussion

Telehealth is necessary for the rural population due to the noted barriers to healthcare in this paper, and it is the best alternative model for healthcare delivery, as evident during the pandemic. Further, telehealth gives hope to healthcare administrators as the U.S. faces a wide range of provider and patient ratio gaps and geographical disparities. However, the accessibility of telehealth in rural areas has remained limited due to the poor internet, computer literacy, and cultural differences. Furthermore, studies on telehealth integration are limited, and analyses are not being advanced from pilot studies to actual projects.

Additionally, the localized hospitals or facilities that serve vast areas in rural geography must have operable infrastructure and providers with the available time to conduct telehealth. Also, it is essential to bring awareness to providers about advancing telehealth technology along with the patients or providing the technical support system for effective operation because providers may not find time to troubleshoot the issue in the system alone. Also, continuous policy revisions must occur according to the advancements in telehealth, such as multistate licensure practices and malpractice coverage.

In conclusion, patient and provider satisfaction surveys are imperative for normalizing telehealth services, operational costs, and reimbursement in rural areas to improve access to healthcare. As the volume of patients increases, the operational cost might decrease if the insurance coverage for telehealth services is improved. The government must take the initiative to improve internet services around rural areas, advance communication channels, and minimize technology limitations to enhance healthcare.

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