

Exploring Healthcare Accessibility: Unveiling The Challenges And Opportunities in Rural Communities of Talagang



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Abstract: *This study looks into the nuances of healthcare accessibility in Talagang's rural villages, giving light on the complexities of the problems encountered and potential solutions. The study provides an in-depth overview of the contemporary healthcare scene by combining qualitative interviews, quantitative surveys, and on-the-ground observations. The findings highlight important challenges such as geographical isolation, insufficient infrastructure, financial limits, and a shortage of skilled healthcare workers. Additionally, socio-cultural variables and low health literacy exacerbate gaps in access to care. Despite these challenges, the analysis reveals interesting areas for improvement.*

Leveraging technology, such as telemedicine and mobile health units, appears to be a promising strategy for closing the healthcare gap in remote populations. Further, community-based programs, such as recruiting healthcare volunteers and advocating health education, have the potential to produce long-term changes. Policy recommendations prioritize improving healthcare facilities, rewarding medical workers to work in remote locations, and encouraging involvement in the community. By unraveling the complexity of healthcare availability in rural Talagang, this study hopes to provide evidence-based solutions suited to these communities' specific needs, eventually leading to equal healthcare access and enhancing overall health

Keywords: Healthcare accessibility, rural villages, Talagang, Geographical isolation, insufficient infrastructure, telemedicine

Introduction

Talagang, located in the heart of Punjab province, embodies the ideal rural background, with vast agricultural fields, tightly connected communities, and restricted access to contemporary amenities. While the lovely scenery may convey peace, behind the surface lurks a healthcare ecosystem riddled with difficulties. Healthcare accessibility remains a major concern, especially in rural places around the world, where remoteness, financial constraints, and socioeconomic inequities combine to create major obstacles to healthcare delivery. Among such remote locations, Talagang stands out as a microcosm of these

issues, dealing with specific characteristics which influence accessibility, affordability, and quality of healthcare. In the past few years, as urbanization has accelerated, rural areas such as Talagang have often been left behind, unable to keep up with the changing healthcare landscape.

The purpose of this research is to investigate the complex web of factors that influence the availability of healthcare in Talagang, Pakistan's rural areas. By exposing the obstacles and opportunities that accompany this context, the study hopes to contribute to a better understanding of the intricacies of healthcare service in such environments. Numerous residents are unable to access medical care due

to geographic distance, rough terrain, and poor transportation infrastructure. As a result, residents must travel considerable distances, frequently on foot or by unreliable public transportation, to seek medical assistance, increasing care delays and jeopardizing health outcomes.

In addition, the shortage of medical facilities in Talagang's rural pockets exacerbates discrepancies in access to key services. Primary medical centers, which are the lifeblood of a lot of rural areas, are frequently short of staff underequipped, and ill-equipped to handle the population's diversified healthcare requirements. The shortage of skilled healthcare workers, such as doctors, nurses, and paramedics, puts additional demand on the medical sector, exposing populations to avoidable diseases and worsening current health disparities.

Socioeconomic considerations have an important influence in determining the availability of healthcare in Talagang. Poverty, unemployment, and a lack of health insurance all combine to create financial hurdles that prevent people from getting prompt medical care. For many rural inhabitants, the option between acquiring necessary drugs and placing food on the table becomes a stark reality, emphasizing the complex relationship between health and economic well-being.

Despite these challenges, there are numerous chances for innovation and development in Talagang's rural healthcare system. Telemedicine and mobile health units are two promising technological breakthroughs for broadening access to healthcare services beyond traditional brick-and-mortar facilities. Furthermore, community-based interventions, such as training local health volunteers and organizing health education campaigns, have the potential to empower communities and promote a culture of proactive healthcare seeking.

Against this backdrop, the purpose of this study is to conduct a thorough investigation into healthcare accessibility in rural Talagang. By clarifying the various problems and opportunities inherent in this setting, the study

hopes to provide evidence-based interventions and policy suggestions suited to the specific needs of Talagang's rural communities. Sustainable solutions can be developed by collaborating with governments, healthcare providers, community partners, and academia to close the accessibility gap, reduce inequities, and eventually enhance health outcomes for all Talagang inhabitants.

LITERATURE REVIEW

The literature review "Health care access and barriers for the physically disabled in rural Punjab, Pakistan" by Mahtab Ahmad provides a thorough analysis of current studies on healthcare access for people with physical disabilities, particularly in rural areas. It emphasizes the importance of equal healthcare access for this demographic, as well as the societal consequences of limited access to essential healthcare services. Previous research has shown the widespread inequities that people with disabilities face in accessing healthcare, with problems ranging from physical constraints in healthcare facilities to socio-cultural variables including stigma and prejudice. Gender differences appear as a major subject, with research showing that men and women with disabilities use healthcare differently. Women frequently encounter extra challenges due to caring duties, economic dependency, and gender stereotypes that influence healthcare-seeking behaviors. Policy measures to increase healthcare access for people with disabilities are highlighted, highlighting the importance of inclusive policies and advocacy actions. However, gaps in policy implementation and enforcement persist, emphasizing the continued need for focused interventions to address disparities in healthcare access (Ahmad, 2013).

The article "Barriers to Accessing Surgical Care in Pakistan" is a thorough assessment of the issues and obstacles that people confront when seeking surgical care in Pakistan. It begins by underlining the crucial significance of limited access to surgical care, which leads to increased morbidity and death across a range of medical issues in the country. To tackle these issues, the authors introduce the 'Healthcare Barrier Model,' which serves as a framework for

delineating and characterizing the varied range of hurdles that impede access to healthcare in poor nations, with a particular emphasis on Pakistan's surgical care landscape. Patient-related variables investigated in the literature review include socio-demographic factors such as age (with a particular emphasis on the elderly), gender (especially focusing on females), preferences for alternative health providers like Hakeem or traditional healers, personal perceptions regarding disease and treatment, poverty, personal healthcare expenses, lack of social support, geographic constraints, and compromised general health status influencing the Environmental impediments highlighted include governance deficiencies, issues provided by displaced or refugee populations, and features of the medical-legal system that affect treatment and referral processes (Irfan FB, 2011).

Panezai, Ahmad, and Saqib's study looks into access to primary health care (PHC) services in Pakistan, focusing on gender discrepancies. Data from 302 respondents show that, while women tend to use PHC services more than men due to their greater health demands, significant numbers of both sexes face barriers to accessing these critical services. Gender-related hurdles to PHC provision were identified in a variety of areas, including geographic discrepancies in basic health unit sites, transportation issues, personnel shortages, financial limits, limited service hours, and organizational flaws. These findings illustrate the complex interaction between gender dynamics and healthcare access, emphasizing the necessity for tailored measures to reduce disparities. The research report recommends for gender-sensitive policies and initiatives to improve availability of basic medical care in Pakistan. Authorities can address the distinct barriers to getting medical care that men and women confront by using a gender-inclusive approach. These efforts could include actions to improve transportation infrastructure, expand service hours, increase personnel availability, and make organizational reforms to better address the population's different demands. By recognizing and resolving gender-related obstacles, authorities

can work towards fair availability of PHC services, which will enhance health outcomes and well-being across the country (Sanaullah Panezai, 2017).

Theoretical Framework

Healthcare Access Theory: According to this theory, a variety of factors influence access to healthcare, including affordability, availability, acceptability, and accessibility. It serves as the study's overall theoretical lens, examining the complexity of healthcare access in rural Talagang, Pakistan.

The Social Determinants of Health Theory: It claims that environmental, social, and economic variables influence the outcome of health. In the context of the research, it guides the investigation of how socioeconomic factors such as poverty, education, and employment affect healthcare access in rural communities.

Health Behavior Models: Health behavior models such as the Health Belief Model and the Theory of Planned Behavior shed light on people's attitudes, beliefs, and perceptions about using healthcare. These models contribute to the study of healthcare-seeking patterns among rural Talagang inhabitants, as well as the identification of obstacles and facilitators of medical access.

The Community Empowerment Framework: It highlights the necessity of involving the local population as active partners in increasing healthcare access. It guides the study's strategy for community-based actions and initiatives targeted at strengthening rural Talagang people to advocate for their own medical requirements and mobilize resources.

Technological Innovation Perspective: This viewpoint recognizes the importance of technology, especially telemedicine and mobile health units, in breaking down geographical obstacles and improving healthcare access. It guides the investigation of novel methods to close the healthcare gap in rural Talagang.

Policy Analysis Perspective: This approach entails examining existing healthcare laws and advocating based on evidence policy solutions

to improve healthcare disparities. It directs the study's advocacy for policy reforms such as infrastructural improvements and benefits for healthcare personnel to encourage equitable access to healthcare in rural communities.

Methodology:

Population: The study was done in rural Talagang, Punjab, Pakistan, with a focus on inhabitants aged 20 to 60. This age range was selected to reflect a wide range of adult experiences with healthcare access. Participants from differed economic strata are included in the group to ensure a thorough knowledge of the difficulties and opportunities for healthcare accessibility in these remote regions.

Sample Size: This study's sample size was established using a simple random sampling procedure to ensure broad representation. Respondents ranging in age from 20 to 60 years were chosen, representing a diverse socioeconomic background. This sample size is deemed adequate to provide statistically meaningful insights into healthcare access difficulties in rural Talagang.

Tool Construction: To collect information, an interview outline and a structured questionnaire were created. The interview guide was created to address all significant factors of healthcare accessibility, such as geographical remoteness, transportation, socioeconomic disparities, and the efficacy of support networks. The questionnaire asked open-ended as well as closed-ended inquiries to collect quantitative and qualitative data. The questionnaire had the following key sections:

- **Demographic information:** It includes age, gender, education, occupation, and income level.
- **Healthcare Access:** Distance to the nearest healthcare institution, mode of transportation, and frequency of appointments.
- **Healthcare Quality and Affordability:** Customer opinions on service quality, healthcare affordability, and cost-related delays.

- **Government and Community Support:** Raising awareness of government programs and encouraging community participation in healthcare projects.
- **Technological Awareness:** The understanding and application of telemedicine and other technical breakthroughs in healthcare.

Pilot Testing: Prior to full-scale data gathering, a pilot test was done with 15 respondents from the intended population. The goal of this pilot testing was to discover any difficulties with the questionnaire's layout, question clarity, and overall flow. The feedback from the pilot test was used to improve the questionnaire, ensuring that it was understandable and effectively captured the relevant information.

Validity: The content's validity of the study tools was determined by talking with healthcare practitioners, faculty members, and academic experts. Their comments was used to ensure that the questionnaire and interview guide addressed all essential aspects of healthcare accessibility. Construct validity was determined by matching the questions to the theoretical frameworks described in the literature study, such as the Healthcare Access Theory and the Social Determinants of Health Theory.

Ethical Consideration: Ethical considerations were crucial in this study. The following actions were made to assure ethical compliance:

- **Informed Consent:** Participants were given complete information about the study's objective, processes, risks, and benefits. All participants provided written informed consent.
- **Confidentiality:** To preserve participants' privacy, replies were anonymized and data was securely stored. Only the researchers got access to the raw data.
- **Voluntary Participation:** Respondents were informed that they might withdraw from the study at any moment with no penalty.
- **Approval:** The faculty staff at PMAS Arid Agriculture University Rawalpindi examined and approved the study protocol.

This assured that the research followed ethical norms and procedures.

Materials and Methods

By combining qualitative and quantitative methods, this study seeks to capture both the depth and breadth of perspectives on healthcare access in the target communities. The study was carried out in rural areas in Talagang, Punjab Pakistan in March-April 2024. The study sought to capture the dynamics of healthcare accessibility in Talagang's rural areas. Rural areas may confront unique barriers to accessing healthcare services due to variables such as geographical distance, inadequate facilities, and economical restraints.

By investigating the availability of healthcare in this area, the study hopes to identify the particular obstacles and possibilities that rural residents face in obtaining vital healthcare services, eventually contributing to the development of specific measures and policy recommendations to enhance the provision of healthcare in Talagang's rural communities. Semi-structured interviews, focus group discussions, and participant observation were employed to gather qualitative data. These methods enable in-depth exploration of

participants experiences, perceptions, and challenges related to healthcare accessibility. Online surveys/questionnaires were administered to a representative sample of residents to quantify key aspects of healthcare access, such as distance to healthcare facilities, affordability of services, and satisfaction levels.

RESULTS AND DISCUSSION

The sample population involved in the research, majority of respondents fall within the age range of 18-25, including both genders male and female. Educationally, most respondents have attained a college or university level of education. In terms of occupation, some of the respondents identify as students, followed by a diverse range of professions including homemakers, farmers, and individuals engaged in various professional roles such as lecturers, army retirees, and private job holders.

The survey indicated a wide range in the travel time to the nearest healthcare center. While Figure.01 shows that approximately 23.9% of participants indicated access within one kilometer, 41.3% reported distances between one and five kilometers. A significant proportion, 26.1%, reported distances of 6 to 10 kilometers, with 8.7% reporting that the nearest healthcare institution was more than 10 kilometers away from their home.

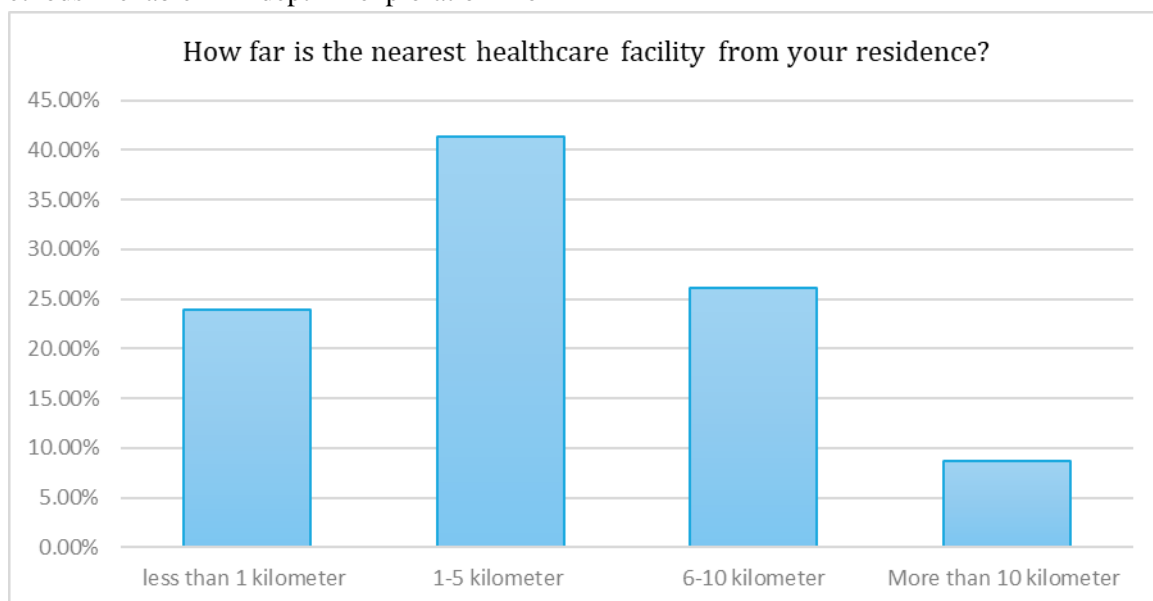


Figure.01

Respondents used a variety of transportation

options to access healthcare institutions. Motorcycles were the most popular means of transportation, accounting for 32.6% of all

participants, followed by private automobiles (26.1%) and public transportation (19.6%). Additionally, 17.4% of respondents reported walking to healthcare facilities.

A sizable proportion of respondents reported difficulty accessing healthcare services, with 58.7% citing difficulties. These issues were primarily caused by the distance to healthcare facilities or a lack of appropriate transit options. However, 23.9% of participants reported no substantial impediments, while 17.4% encountered them very occasionally.

In terms of specialist healthcare services, more than half of the participants (54.3%) indicated the necessity to go beyond their town. Some responders cited particular locations such as Hasan Abdal, Rawalpindi, and Lahore, while others provided distance estimates, such as 10 kilometers or travel times of 2 to 3 hours via public transportation. These findings highlight the need for rural Talagang inhabitants to seek specialized medical care outside of their immediate area.

Respondents had diverse perceptions of how affordable healthcare services were in the area. While 10.9% thought healthcare services were extremely reasonable, 39.1% said they were reasonably priced. However, 39.1% of respondents said healthcare services were prohibitively expensive. A lower percentage,

10.9%, stated that healthcare services were not cheap in their area.

Concerning the delay in accessing healthcare treatments owing to cost concerns, the majority of those surveyed, 52.2%, stated that they had not encountered such holdups. However, 17.4% reported postponing accessing healthcare services owing to cost concerns, with 30.4% encountering such delays on occasion.

When asked how they rated the standard of healthcare services in their neighborhood, the responses differed. A small number of respondents, 10.9%, evaluated the quality as exceptional, while a greater proportion, 45.7%, thought it was decent. Additionally, 39.1% evaluated the quality as fair, while 10.9% ranked it as poor. These findings shed light on how local citizens view the cost and value of healthcare services.

Respondents had different perceptions of the government's support for rural healthcare services. Figure 02 shows 19.6% agreed that the government provided appropriate help, 32.6% were unsure. Interestingly, 10.9% believe that the government gives some assistance, revealing a nuanced viewpoint. However, a significant proportion, 37%, disagreed that the government adequately supports healthcare services in rural areas.

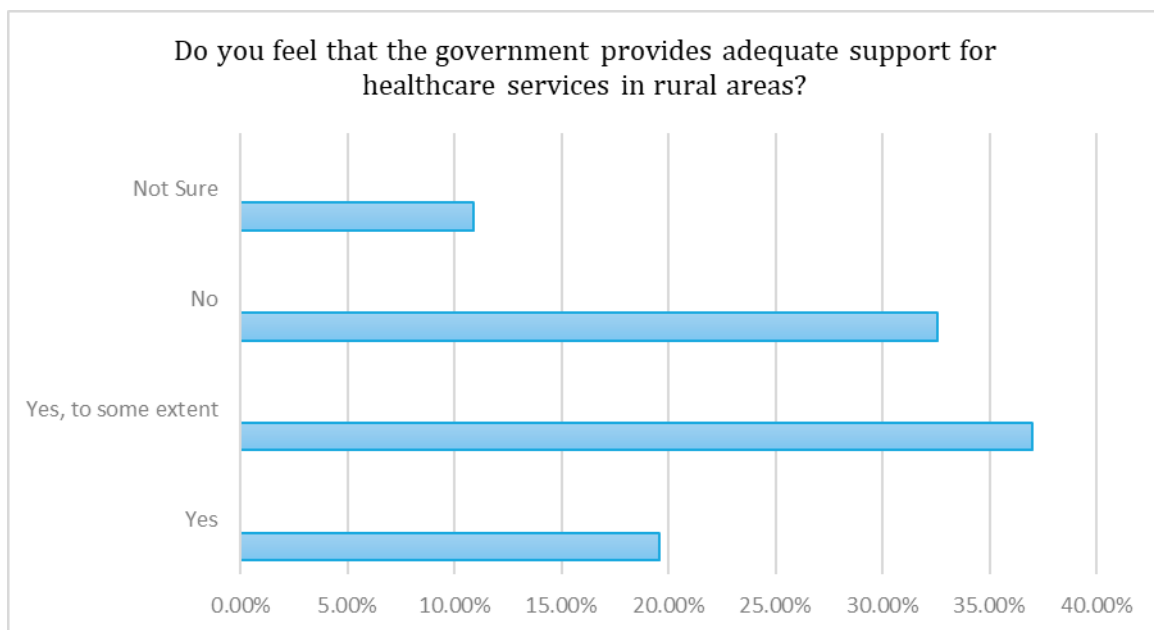


Figure.02

Respondents recognized the substantial

contributions made by local leaders or community members in tackling healthcare concerns. A sizable proportion, 28.3%, believe that local leaders and community people play an important part in supporting health education and awareness programs. Furthermore, 26.1% emphasized their role in encouraging collaborations between healthcare providers and community organizations, while 15.2% advocated for increased funding for healthcare infrastructure. Notably, 17.4% of respondents acknowledged that local leaders and community people participate in all of the aforementioned activities to solve healthcare concerns.

Respondents demonstrated various levels of awareness regarding technical breakthroughs or telemedicine projects targeted at improving healthcare access in rural areas. While 23.9% were aware of such initiatives, a greater proportion, 43.5%, voiced uncertainty. Furthermore, 32.6% said they were unaware of any technical breakthroughs or telemedicine projects aimed at improving healthcare access in rural areas. These findings offer insight on perceived government support, the involvement of local leaders and community members, and understanding of technical advances in tackling rural healthcare difficulties.

Conclusion

The extensive examination into access to medical care in rural Talagang shows a slew of issues for its residents. Geographic isolation, limited facilities, economic constraints, and a lack of experienced healthcare staff all add to the difficulty of healthcare delivery in these places. Socio-cultural factors and insufficient health literacy exacerbate discrepancies in healthcare access among the population. Despite these obstacles, the report suggests various areas for development. Adopting technological advancements such as telehealth and mobile health units shows potential for closing the healthcare gap in distant communities. Furthermore, community-based efforts, such as hiring healthcare volunteers and encouraging health education campaigns, have the potential to spark lasting improvements and encourage local communities to take control of their own health.

Policy recommendations focus on improving healthcare infrastructure, rewarding medical personnel to work in rural places, and encouraging community engagement. By unraveling the complexity of healthcare provision in rural Talagang, this project hopes to deliver evidence-based solutions customized to the communities' individual needs. Collaboration between governments, medical professionals, community groups, and academia is critical to eliminating the availability gap, lowering disparities, and ultimately enhancing health outcomes for all Talagang inhabitants.

Policy Recommendations:

- Develop and extend telemedicine services to give remote consultations and medical guidance, decreasing the need for patients to travel vast distances to healthcare institutions.
- Send mobile health units into rural locations to provide primary care, immunizations, and health education, guaranteeing that even the most isolated populations have access to medical treatment.
- Recruit and educate local volunteers to serve as health care providers, providing basic medical care, health information, and chronic illness management assistance to their communities.
- Implement wellness programs that focus on preventive care, nutrition, maternity health, and managing chronic illnesses to educate residents to take proactive efforts to maintain their health.
- Implement policies that subsidize healthcare expenses and offer grants and loans to make healthcare accessible for low-income rural households.
- Develop transportation alternatives, such as discounted public transportation or community shuttle programs, to alleviate the travel strain for residents who need to visit distant healthcare facilities.
- Encourage cooperation among governments, the corporate sector, and nonprofit organizations to fund and support

healthcare programs, resulting in a more sustainable and holistic strategy for rural healthcare delivery.

- Implement strong monitoring and evaluation systems to regularly examine the performance of healthcare policies and initiatives, enabling for data-driven modifications and enhancements to suit the changing requirements of rural populations.

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