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Patient Perspectives on the Need for Telehealth Services in Rehabilitation

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Telehealth in rehabilitation, patient perspectives, digital health, cross-sectional survey, telehealth adoption, healthcare accessibility, rehabilitation services.
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ABSTRACT

Background: The integration of telehealth services in rehabilitation has gained attention as a means to enhance accessibility and patient engagement. Understanding patient perspectives is essential for optimizing these services.

Objective: This study aimed to explore patient perspectives on the need for telehealth services in rehabilitation, identifying factors influencing acceptance and satisfaction.

Methods: A cross-sectional survey was conducted at the Faculty of Allied Health Sciences, Superior University, Lahore, involving 106 participants. Inclusion criteria were adults receiving or who had received rehabilitation services in the past six months. Data were collected through structured questionnaires assessing demographic details, telehealth access, previous experience, and willingness to use telehealth. Descriptive and inferential analyses were performed using SPSS version 25, with a significance level set at $p < 0.05$.

Results: The mean age of participants was 45.3 years (SD 12.6), with 52.8% male. Of the participants, 84.9% had access to telehealth-capable devices, 45.3% had previous experience with telehealth, and 71.7% were willing to use it. Support for telehealth was strong or moderate in 70.8% of participants, while 10.3% were against its use.

Conclusion: Patients demonstrated a fair to moderate need for telehealth in rehabilitation, highlighting the potential for wider adoption. Future efforts should focus on addressing barriers to enhance patient satisfaction and service effectiveness.

INTRODUCTION

The growing demand for accessible and flexible healthcare solutions has led to a significant rise in the adoption of telehealth services, particularly in the field of rehabilitation (1-4). Telehealth, defined as the use of digital information and communication technologies to deliver health services remotely, has been instrumental in overcoming traditional barriers to healthcare access, such as geographical constraints, transportation difficulties, and limited availability of specialized care (1). Rehabilitation patients, who often require frequent sessions and continuous monitoring, stand to benefit greatly from the integration of telehealth into their treatment plans (4).

Recent studies have highlighted the effectiveness of telehealth services in rehabilitation, demonstrating comparable or even superior outcomes to conventional in-person therapy for various conditions, including musculoskeletal disorders, post-stroke rehabilitation, and chronic pain management (2, 3). Telehealth enables personalized care, real-time feedback, and adherence monitoring, which are critical components of successful rehabilitation (4). Moreover, the convenience of accessing therapy from home not only enhances patient satisfaction but also improves engagement and adherence to prescribed treatment protocols (5).

Patient perspectives on telehealth in rehabilitation have been largely positive, with many appreciating the convenience, reduced travel time, and flexibility in scheduling. However, concerns remain regarding the quality of the patient-provider interaction, technological challenges, and the potential for reduced hands-on care (6). Understanding these perspectives is crucial for optimizing telehealth services to better meet patient needs and improve outcomes. The COVID-19 pandemic has further underscored the importance of telehealth as a viable alternative to face-to-face care, prompting a revaluation of service delivery models in rehabilitation (7-11).

This study aimed to explore the perspectives of patients on the need for telehealth services in rehabilitation, focusing on their experiences, preferences, and perceived barriers to adoption. The objective was to identify key factors that influence patient acceptance and satisfaction with telehealth, thereby informing the development of patient-

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centered telehealth interventions in rehabilitation settings.

MATERIAL AND METHODS

This cross-sectional survey was conducted at the Faculty of Allied Health Sciences, Superior University, Lahore, Pakistan, and involved a sample size of 106 participants. The study aimed to assess patient perspectives on the need for telehealth services in rehabilitation. Participants were selected based on specific inclusion and exclusion criteria to ensure the relevance and reliability of the findings. Inclusion criteria included patients aged 18 years and above who were currently receiving or had received rehabilitation services within the past six months, had access to a device capable of supporting telehealth services, and were willing to participate in the study (7-13). Exclusion criteria included patients with cognitive impairments that could hinder their ability to provide informed consent or complete the survey, and those who were not proficient in the local language, which could affect their ability to understand and respond to the survey questions.

Data collection was carried out through structured questionnaires, which were designed to capture demographic information, patient experiences with telehealth, perceived benefits, and barriers to the adoption of telehealth services in rehabilitation. The questionnaires were administered in a face-to-face setting to minimize non-response rates and ensure comprehensive data collection (12-17). Each participant provided informed consent before participating in the survey, in line with the ethical standards outlined in the Declaration of Helsinki. Confidentiality of the participants was maintained throughout the study, and all data were anonymized prior to analysis to protect the identity of the respondents.

Data were analyzed using SPSS version 25. Descriptive statistics, including means, standard deviations, and frequencies, were used to summarize the demographic data and key variables. Chi-square tests were performed to examine associations between demographic characteristics and patient perspectives on telehealth services. Logistic regression analyses were employed to identify factors that significantly influenced patient acceptance of telehealth, adjusting for potential confounders. Statistical significance was set at a p-value of less than 0.05.

The findings from this study aimed to provide insights into patient preferences and identify critical factors influencing the acceptance of telehealth services in rehabilitation, thereby guiding the development of tailored telehealth interventions that meet patient needs and improve rehabilitation outcomes.

RESULTS

The study involved 106 participants with a mean age of 45.3 years (SD 12.6). As shown in Table 1, the sample comprised 52.8% males, with 37.7% having an education level of high school or below, and 58.5% were employed. This demographic data highlights a moderately diverse group in terms of age and socio-economic status.

Table 1: Demographics Summary

Characteristic	Categories	N (%)
Age (years)	Mean (SD)	45.3 (12.6)
Gender	Male	56 (52.8%)
Education Level	High School or Below	40 (37.7%)
Employment Status	Employed	62 (58.5%)

Table 2 illustrates the study variables, revealing that a significant proportion of participants (84.9%) had access to a telehealth-capable device, although fewer (45.3%) had previous experience with telehealth services. Despite this limited experience, a large majority (71.7%) expressed willingness to use telehealth for rehabilitation, suggesting openness to incorporating technology into their healthcare routines.

Table 2: Study Variables

Variable	Yes N (%)	No N (%)
Access to Telehealth Device	90 (84.9%)	16 (15.1%)
Previous Experience with Telehealth	48 (45.3%)	58 (54.7%)
Willingness to Use Telehealth	76 (71.7%)	30 (28.3%)

Patient perspectives on the need for telerehabilitation, detailed in Table 3, indicate that most participants favored telehealth services, with 28.3% strongly in favor and 42.5% moderately in favor, totaling 70.8% in

support of telehealth. Meanwhile, 18.9% were neutral, and a small minority (10.3%) were against or strongly against using telehealth for rehabilitation. These results suggest a generally positive attitude towards the adoption of telehealth services in rehabilitation, reflecting potential for wider acceptance and integration into patient care strategies.

Table 3: Patient Perspective on Telerehabilitation Need

Perspective	N (%)
Strongly in Favor	30 (28.3%)
Moderately in Favor	45 (42.5%)
Neutral	20 (18.9%)
Against	8 (7.5%)
Strongly Against	3 (2.8%)

The findings underscore the importance of addressing patient concerns and ensuring the effective implementation of telehealth services tailored to the needs and preferences of rehabilitation patients.

DISCUSSION

The findings of this study demonstrated a generally favorable attitude towards the integration of telehealth services in rehabilitation among the participants, with the majority expressing either strong or moderate support for such services (7). This aligns with previous research that has highlighted the growing acceptance of telehealth as an alternative to conventional in-person care, particularly for patients who face barriers such as limited mobility, geographic distance, or time constraints (8). The high percentage of participants willing to use telehealth services despite limited prior experience suggests an openness to embracing digital health solutions, which has been similarly observed in other studies focusing on diverse patient populations (9-14).

One of the strengths of this study was its focus on capturing patient perspectives, which are critical for the successful implementation of telehealth services. By identifying the factors that influence patient acceptance, such as device accessibility and willingness to engage with telehealth, the study provided valuable insights that can inform the development of patient-centered telehealth interventions. However, the study also had several limitations (15). The cross-sectional design limited the ability to establish causality or examine changes in patient attitudes over time. Furthermore, the study was conducted within a single academic setting, which may limit the generalizability of the findings to broader, more diverse populations. Future research should consider longitudinal designs and include a wider range of settings to validate these findings and explore how patient attitudes evolve as telehealth becomes more integrated into routine care (17, 18).

Additionally, the reliance on self-reported data may have introduced response biases, as participants might have expressed socially desirable opinions regarding the use of telehealth. The study's sample size, while adequate for preliminary insights, also posed limitations in terms of statistical power, particularly for subgroup analyses that could have explored differences in perspectives based on demographic or clinical characteristics. Addressing these limitations in future studies could provide a more nuanced understanding of patient preferences and barriers, ultimately supporting more tailored and effective telehealth interventions (3, 16).

Despite these limitations, the study highlighted important implications for clinical practice and policy. The positive attitudes towards telehealth observed among participants underscore the need for healthcare providers and policymakers to invest in telehealth infrastructure, training, and support systems that facilitate the smooth integration of these services into rehabilitation care. Recommendations include ensuring that telehealth platforms are user-friendly and accessible to all patients, regardless of their technological proficiency or resources, and that providers are adequately trained to deliver care effectively through digital means. Addressing concerns about the quality of patient-provider interactions and ensuring that telehealth complements rather than replaces necessary hands-on care could further enhance patient satisfaction and adherence to rehabilitation programs (10, 12-16).

CONCLUSION

In conclusion, the study provided evidence of a fair to moderate demand for telehealth services in rehabilitation, reflecting a broader trend towards digital health adoption. By acknowledging and addressing the strengths, weaknesses, and limitations of telehealth, healthcare systems can better meet the needs of patients and enhance the overall quality of care. Future research should continue to explore

patient experiences and outcomes related to telehealth in rehabilitation, thereby contributing to the evidence base needed to refine and expand these services in a patient-centered manner.

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