



Research Article

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Barriers and Facilitators to Accessing Physiotherapy Services in Rural Communities of Bangladesh: A Qualitative Phenomenological Study

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Abstract

Background: Physiotherapy plays an essential role in improving functional independence and reducing disability; however, access to rehabilitation services remains limited in many rural regions of Bangladesh. Geographic isolation, inadequate infrastructure, financial hardship, and insufficient awareness may prevent individuals from obtaining timely physiotherapy care. Understanding these barriers from the perspectives of service users and healthcare providers is necessary for developing equitable rehabilitation services.

Methods: A qualitative phenomenological study was conducted to explore experiences related to accessing physiotherapy services in rural Bangladesh. Eighteen participants, including physiotherapy service receivers, physiotherapists, and a Resident Medical Officer, were purposively selected from Bhairab and Kuliarchor Upazila of Kishoreganj District. Semi-structured, in-depth interviews were conducted in Bangla and audio-recorded with informed consent. Interviews were transcribed verbatim, translated into English, and analyzed using Braun and Clarke's thematic analysis framework.

Results: Seven interconnected themes emerged from the analysis: (1) perception and awareness of physiotherapy, (2) health condition and its experiences on daily life, (3) health-seeking behavior and access pathways, (4) physical accessibility barriers, (5) financial factors and affordability, (6) social and family influence, and (7) health system and structural barriers. Participants generally expressed positive attitudes toward physiotherapy but demonstrated limited understanding of its scope. Long travel distances, transportation difficulties, repeated treatment costs, inadequate referral mechanisms, shortage of physiotherapists, and the absence of physiotherapy services within government facilities substantially restricted access. Family support and community recommendations were identified as important facilitators that encouraged treatment utilization.



Conclusion: Access to physiotherapy services in rural Bangladesh is influenced by multiple social, economic, geographical, and health system factors that operate simultaneously. Improving community awareness, strengthening referral pathways, expanding rehabilitation services at primary healthcare facilities, increasing the rural physiotherapy workforce, and integrating physiotherapy into national health policy may substantially improve equitable access to rehabilitation services for rural populations.

Keywords: Physiotherapy, Rural health, Rehabilitation services, Healthcare accessibility, Bangladesh, Phenomenology, Qualitative research, Health systems

Introduction

Rehabilitation is recognized as an essential component of universal health coverage and is fundamental to improving functional independence, reducing disability, and enhancing quality of life. Physiotherapy, as a core rehabilitation profession, provides evidence-based interventions for individuals with musculoskeletal, neurological, cardiopulmonary, and other disabling conditions, contributing significantly to functional recovery and community participation [1,2].

Despite its recognized benefits, access to physiotherapy services remains uneven across many Low- and Middle-Income Countries (LMICs), particularly in rural communities where rehabilitation resources are scarce [1, Ayres, et al. 2025]. In Bangladesh, healthcare services have expanded considerably over recent decades; however, rehabilitation services have not developed proportionately, resulting in substantial disparities between urban and rural populations (Ellangovin, 2009, [3]).

Most physiotherapy facilities are concentrated in urban centers such as Dhaka, while rural communities experience shortages of qualified professionals and limited rehabilitation infrastructure (Ellangovin, 2009, [3]). Socioeconomic factors further influence service utilization, as poverty, low educational attainment, and unstable occupations reduce the ability of rural residents to seek appropriate rehabilitation care (Sajib et al., 2024; Sajib et al., 2025). Financial constraints, including treatment costs, transportation expenses, and loss of daily income, often discourage patients from initiating or completing physiotherapy programs (Ellangovin, 2009).

Sociocultural beliefs also shape healthcare-seeking behavior in rural Bangladesh. Many individuals initially consult traditional healers, local pharmacists, or informal healthcare providers before considering physiotherapy services (Ellangovin, 2009). Gender-related social norms may further restrict women's access to rehabilitation because of limited autonomy and family decision-making structures (Kalin, 2011). Conversely, community-based healthcare initiatives and culturally appropriate education programs have demonstrated potential to improve awareness and utilization of rehabilitation services (Ellangovin, 2009).

International evidence indicates that rural populations face comparable challenges in accessing physiotherapy services. Studies from Australia and New Zealand have identified workforce shortages, uneven geographical distribution of physiotherapists, transportation barriers, and limited-service availability as major determinants of rehabilitation access (Adams et al., 2016; [4]). Similar findings have been reported in other resource-constrained settings, where geographical isolation and inadequate healthcare infrastructure delay timely rehabilitation and encourage reliance on traditional medicine (Dipeolu, 2024; Fernandes & Bandekar, n.d.).

Health system characteristics also influence physiotherapy utilization. Direct access models implemented in countries such as the United States, the United Kingdom, and Australia have improved accessibility, reduced waiting times, and enhanced patient satisfaction by allowing individuals to seek physiotherapy services without mandatory physician referral ([5]; Parag, et al. 2014). In contrast, fragmented referral pathways and limited recognition of physiotherapy within healthcare systems continue to restrict service utilization in many LMICs (Bury & Stokes, 2013; Hendriks et al., 2003).

The Andersen Behavioral Model of Health Service Utilization provides a comprehensive framework for understanding these complex relationships by categorizing determinants into predisposing, enabling, and need factors ([6]; Soleimanvandiazar, et al. 2020). Predisposing characteristics such as age, gender, education, and health beliefs influence individuals' willingness to seek care, whereas enabling resources—including financial capacity, transportation, social support, and healthcare availability—determine actual service utilization (Rommel & Kroll, 2017; Berecki-Gisolf et al., 2013). Perceived and evaluated health needs remain the strongest predictors of physiotherapy use, particularly among individuals living with chronic musculoskeletal and neurological conditions (Li et al., 2016; Soleimanvandiazar et al., 2020).

Although previous studies have explored healthcare accessibility in Bangladesh, most have focused on primary healthcare, maternal health, or general health service utilization rather than physiotherapy specifically ([7], Hamiduzzaman et al., 2021). Furthermore, qualitative evidence describing the lived

experiences of rural residents, physiotherapists, and Resident Medical Officers regarding access to physiotherapy services remains limited ([3], *Smith, 2022*).

Therefore, this phenomenological study aimed to explore the barriers and facilitators influencing access to physiotherapy services among rural populations in Bangladesh from the perspectives of service users, physiotherapists, and Resident Medical Officers. The findings are expected to provide context-specific evidence to support equitable rehabilitation service delivery, strengthen referral systems, and inform future clinical practice and health policy development (*Ayres, et al. 2025; Sajib. et al. 2025*).

Materials and Methods

Study Design

This study employed a qualitative research design using a phenomenological approach to explore the lived experiences and perceptions of rural populations regarding access to physiotherapy services in Bangladesh. A phenomenological methodology was considered appropriate because it facilitates an in-depth understanding of how individuals interpret and experience a particular phenomenon within their everyday social context [8,9]. Rather than quantifying healthcare utilization, the study focused on participants' personal experiences, perceived barriers, facilitators, and healthcare-seeking behaviors related to physiotherapy services.

Study Setting

The study was conducted in two rural upazilas—Bhairab and Kuliarchor—located in Kishoreganj District, Bangladesh. These areas were selected because they represent typical rural communities where access to specialized rehabilitation services is limited and residents frequently rely on primary healthcare facilities and informal healthcare providers for musculoskeletal and neurological conditions.

Study Population and Participants

The study included three groups of participants to obtain multiple perspectives on physiotherapy accessibility:

- a) Adult rural residents who required or had previously received physiotherapy services;
- b) Registered physiotherapists providing rehabilitation services within the study area; and
- c) Resident Medical Officers (RMOs) involved in patient management and referral decisions.

A total of 18 participants were recruited, comprising service users, physiotherapists, and one Resident Medical Officer. Participants represented diverse ages, educational backgrounds, occupations, and healthcare experiences, allowing the exploration of access-related issues from different social and professional

viewpoints.

Sampling Strategy

Purposive sampling was used to recruit participants with direct experience relevant to the research objectives ([10]; *Palinkas, et al. 2015*). Individuals were selected based on their ability to provide rich information regarding physiotherapy utilization, barriers, and facilitators within rural settings.

Data collection continued until thematic saturation was achieved, whereby no substantially new concepts or themes emerged from subsequent interviews, indicating sufficient depth and completeness of the collected data (*Guest, et al. 2020*).

Inclusion and Exclusion Criteria

Inclusion Criteria

Service users

- Aged 18 years or older;
- Resident of the study area for at least six months;
- Diagnosed with or experiencing a condition requiring physiotherapy;
- Willing to participate and provide informed consent.

Physiotherapists

- Currently practicing within the study area;
- Minimum of one year of professional experience;
- Willing to participate voluntarily.

Resident Medical Officer

- Working in a local healthcare facility;
- Minimum of six months of professional experience;
- Involved in patient referral or rehabilitation-related healthcare services.

Exclusion Criteria

Participants were excluded if they:

- Were younger than 18 years of age;
- Were temporary visitors or urban residents;
- Were unable to provide informed consent;
- Were interns or trainees without independent clinical responsibilities; or
- Worked outside the designated study locations.

Development of the Interview Guide

Semi-structured interview guides were developed based on the study objectives, existing literature, and the Andersen Behavioral

Model of Health Service Utilization [11,6]. Separate interview guides were prepared for service users, physiotherapists, and the Resident Medical Officer while maintaining consistency across key domains.

The interview guide explored participants' understanding of physiotherapy, healthcare-seeking behavior, accessibility, financial considerations, family and social influences, referral pathways, and perceived health system challenges.

Initially prepared in English, the interview guide was translated into Bangla and culturally adapted to ensure clarity, contextual appropriateness, and participant comprehension.

Pilot Testing

Before formal data collection, the interview guide was pilot tested with two individuals from a comparable rural community, including one physiotherapy service user and one healthcare provider. Feedback obtained during the pilot phase resulted in simplification of several questions, replacement of technical terminology with locally understandable expressions, and incorporation of additional probing questions. Data obtained during pilot testing were not included in the final analysis.

Data Collection Procedure

Data were collected through face-to-face, semi-structured in-depth interviews conducted during the study period after obtaining permission from relevant healthcare authorities and community representatives.

Before each interview, participants received an explanation of the study objectives, confidentiality measures, voluntary nature of participation, and their right to withdraw at any stage without consequences. Written or verbal informed consent was subsequently obtained.

All interviews were conducted in Bangla in locations chosen for participant comfort and privacy, including participants' homes and community healthcare facilities. Interviews lasted approximately 20–30 minutes and were audio-recorded with permission. Field notes documenting contextual observations, participant interactions, and non-verbal expressions were recorded simultaneously to enrich data interpretation.

Data Management and Analysis

Audio recordings were transcribed verbatim in Bangla by the principal researcher and subsequently translated into English. To improve translation accuracy and preserve semantic meaning, the translated transcripts were independently reviewed by two additional bilingual reviewers.

Data were analyzed using Braun and Clarke's six-phase thematic analysis framework [12,13].

Initially, transcripts were read repeatedly to achieve familiarity

with the data. Meaningful segments of text were then systematically coded across the dataset. Similar codes were grouped to generate preliminary themes, which were continuously reviewed and refined through an iterative analytical process. Themes and subthemes were subsequently defined and named to accurately represent participants' experiences regarding access to physiotherapy services.

Representative participant quotations were incorporated into the findings to enhance credibility and illustrate the interpretation of each theme.

Rigour and Trustworthiness

The study adopted established qualitative strategies to enhance trustworthiness based on the criteria proposed by *Lincoln and Guba* [14].

Credibility was strengthened through prolonged engagement with participants, triangulation of perspectives from service users, physiotherapists, and the Resident Medical Officer, and repeated review of interview transcripts. Dependability was maintained through a systematic data collection and analytical process guided by an experienced academic supervisor.

Confirmability was supported by researcher reflexivity, where personal assumptions and professional biases were consciously bracketed throughout data collection and analysis. Translation accuracy was verified through independent review of English transcripts and repeated comparison with the original Bangla recordings.

Transferability was facilitated by providing detailed descriptions of the study context, participant characteristics, sampling procedures, and analytical methods, allowing readers to determine the applicability of findings to similar rural healthcare settings.

Ethical Considerations

Ethical approval for this study was obtained from the Institutional Review Board of the Bangladesh Health Professions Institute (BHPI), Faculty of Medicine, University of Dhaka. The study was conducted in accordance with internationally accepted ethical principles for research involving human participants.

Participation was entirely voluntary, and informed consent was obtained before each interview. Participants were assured that their identities would remain confidential and that all personal information would be anonymized during transcription, analysis, and publication. Participants retained the right to decline answering any question or withdraw from the study at any stage without penalty.

To ensure privacy and data security, audio recordings and transcripts were stored in password-protected files accessible only to the research team. No identifying information is reported in this

manuscript.

Results

Participant Characteristics

A total of 18 participants were included in this study, comprising rural physiotherapy service users, four practicing physiotherapists, and one Resident Medical Officer (RMO). Participants ranged in age from 25 to 65 years and represented diverse occupational

and educational backgrounds, including housewives, farmers, businesspersons, a rickshaw puller, healthcare professionals, and migrant workers. This diversity provided comprehensive insights into individual, community, and health system perspectives regarding access to physiotherapy services.

Thematic analysis identified seven major themes and twenty subthemes that describe participants' experiences of accessing physiotherapy services in rural Bangladesh (Table 1,2).

Table 1: Overview of Themes and Subthemes.

Theme	Sub-theme
1. Perception and Awareness of Physiotherapy	Basic understanding of physiotherapy Perceived effectiveness Misconceptions and limited awareness
2. Health Condition and Daily Life Experiences	Physical symptoms Functional limitations Daily life influence
3. Health-Seeking Behavior and Access Pathways	Initial treatment behavior Transition to physiotherapy Information sources
4. Barriers to Physical Accessibility	Geographic barriers Transportation challenges Service availability
5. Financial Factors and Affordability	Cost perception and payment burden Economic variation and indirect costs
6. Social and Family Influence.	Family support Social influence Peer support
7. Health System and Structural Barriers	Availability of services and infrastructure Workforce limitations Issues of policy, recognition and system

Table 2: Alignment of Objectives with Themes and Sub-themes.

Theme	Description	Sub-theme	Supporting Excerpts
Theme 1: Perception and Awareness of Physiotherapy	Participants showed varied understanding of physiotherapy, where it is mostly perceived as exercise- and machine-based treatment rather than a comprehensive rehabilitation approach.	1.1. Basic understanding of physiotherapy 1.2. Perceived effectiveness 1.3. Misconceptions and limited awareness	"Compared to medicine, physiotherapy is better because it has no side effects." - (P04) "Some people think therapy works only temporarily." (P05)
Theme 2: Health Condition and Daily Life Experiences	Physical health conditions significantly affected patients' mobility, independence, and quality of daily life.	2.1 Physical symptoms 2.2 Functional limitations 2.3 Daily life influence	"From my waist to my leg, I have severe pain... I cannot bend." (P02) "I cannot move my hand properly... I feel difficulty in movement." (P04) "I cannot sleep at night due to pain." (P06)

Theme 3: Health-Seeking Behavior and Access Pathways	Participants followed a delayed and sequential care pathway, often starting with medication before reaching physiotherapy through informal referrals	3.1 Initial treatment behavior 3.2 Transition to physiotherapy 3.3 Information sources	"I took medicine for two and a half months... after stopping, the pain returned." (P01) "The doctor advised me to take physiotherapy." (P07) "I heard about physiotherapy from a relative." (P08)
Theme 4: Physical Accessibility Barriers.	Geographic distance, transportation difficulties, and lack of nearby services limited access to physiotherapy.	4.1 Geographic barriers 4.2 Transportation challenges 4.3 Service availability	"Distance is the main problem. My home is far." (P02) "Travel is difficult... it delays improvement." (P05) "There is no physiotherapy service in government facilities here." (RMO01)
Theme 5: Financial Factors and Affordability	Cost and financial constraints affected continuation of physiotherapy, especially due to repeated out-of-pocket payments.	5.1 Cost perception and payment burden 5.2 Indirect and cumulative costs	"Some patients cannot continue treatment regularly due to financial problems." (PT01) "There is no free physiotherapy service in government hospitals." (RMO01)
Theme 6: Social and Family Influence.	Family and social networks played an important role in encouraging treatment and improving awareness, though support varied.	6.1 Family support 6.2 Social influence 6.3 Peer support	"My family supports me and encourages me to continue treatment." (P03) "When one patient improves, they bring others from their community." (PT01)
Theme 7: Health System and Structural Barriers	Health system limitations, lack of infrastructure, workforce shortages, and weak referral systems restricted service access.	7.1 Service availability and infrastructure 7.2 Workforce limitations 7.3 Policy, recognition, and system issues	"There is no physiotherapy service in our government hospital." (RMO01) "Physiotherapy is not well recognized compared to other specialties." (PT01)

Theme 1: Perception and Awareness of Physiotherapy

- Participants demonstrated varying levels of understanding regarding physiotherapy. Most service users associated physiotherapy with exercise, massage, or electrotherapy modalities rather than recognizing it as a comprehensive rehabilitation profession.
- One participant explained,
- "Physiotherapy means exercises. They move my hand and leg and give ultrasound and TENS." (P01)
- Despite limited conceptual understanding, physiotherapy was generally viewed positively because participants believed it provided long-term improvement with fewer adverse effects than medication.
- "Compared with medicine, physiotherapy is better because it has no side effects." (P04)
- However, misconceptions remained common within the community.
- "Some people think physiotherapy only works for a short time." (P05) (Figure 1)

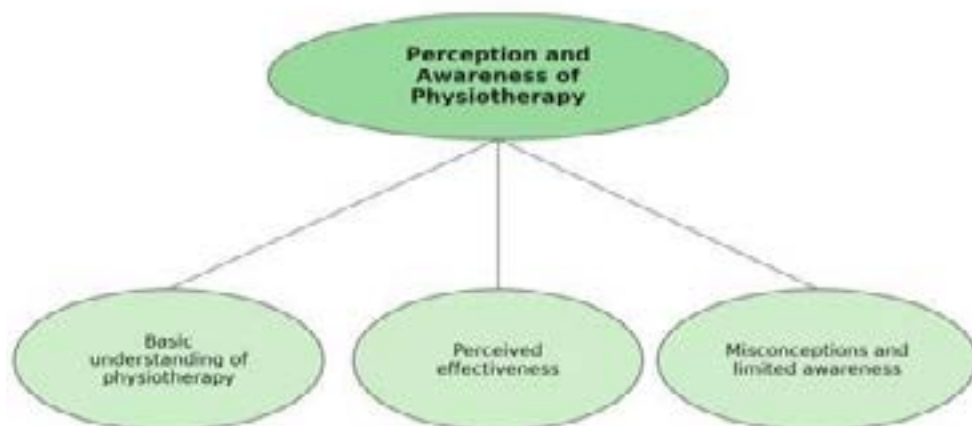


Figure 1: Theme-1.

Theme 2: Health Condition and Daily Life Experiences

- Persistent pain, stiffness, weakness, and restricted mobility substantially affected participants' functional independence and quality of life.
- One participant described the severity of symptoms:
- "From my waist to my leg, I have severe pain. I cannot bend properly." (P02)
- Physical limitations interfered with routine activities including self-care, employment, and household responsibilities.
- "I cannot move my hand properly and it becomes difficult to do daily work." (P04)
- Several participants also reported sleep disturbance and difficulty performing religious activities.
- "I cannot sleep at night because of the pain." (P06)

Theme 3: Health-Seeking Behavior and Access Pathways

- Participants commonly followed a sequential healthcare pathway, initially seeking medication or consulting general physicians before considering physiotherapy.
- One participant stated,
- "I took medicine for nearly two and a half months, but after stopping it the pain came back." (P01)
- Physiotherapy was frequently initiated following referral by a physician or recommendation from family members and acquaintances.
- "The doctor advised me to take physiotherapy." (P07)
- Community members also played an important role in disseminating information.
- "I first heard about physiotherapy from one of my relatives." (P08) (Figure 2)



Figure 2: Theme-3.

Theme 4: Physical Accessibility Barriers

- Distance to healthcare facilities emerged as one of the most frequently reported barriers to physiotherapy utilization.
- Participants explained that long travel distances and inadequate transportation delayed treatment and reduced attendance.
- "Distance is the main problem because my home is far from the clinic." (P02)
- Transportation difficulties created additional challenges.
- "Traveling is difficult and that delays my recovery." (P05)

- Healthcare providers also highlighted the absence of physiotherapy services within nearby government facilities.
- "There is no physiotherapy service in our government hospital." (RMO01)

Theme 5: Financial Factors and Affordability

- Although some participants considered individual treatment sessions affordable, repeated visits resulted in substantial cumulative expenses.
- One participant remarked,
- "The treatment cost is manageable, but repeated visits become

- expensive.” (P04)
- Physiotherapists acknowledged that financial hardship frequently interrupted treatment continuity.
- “Some patients cannot continue treatment regularly because of financial problems.” (PT01)
- The Resident Medical Officer emphasized the lack of publicly funded rehabilitation services.
- “There is no free physiotherapy service in government hospitals.” (RM001) (Figure 3)

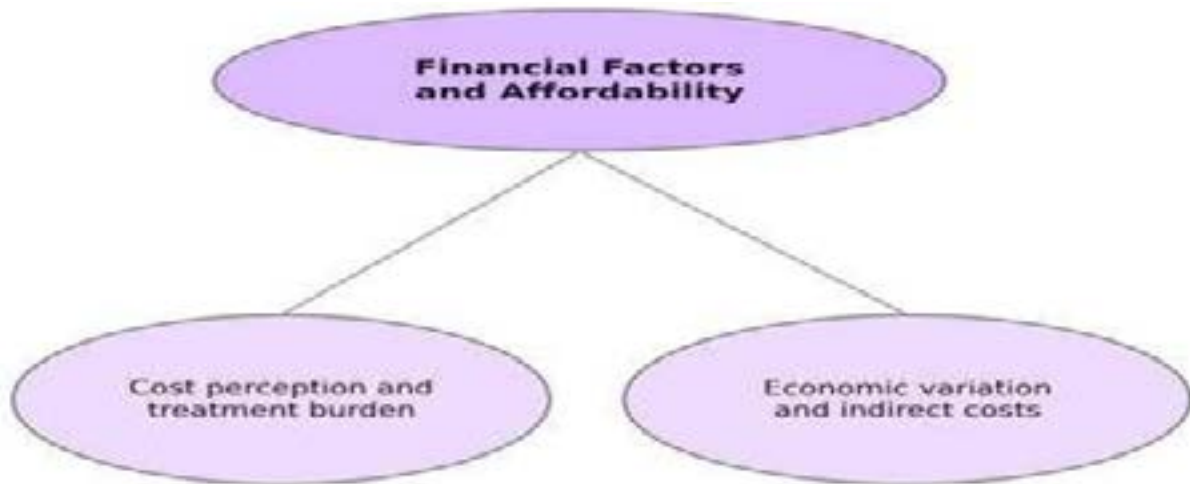


Figure 3: Theme-5.

Theme 6: Social and Family Influence

- Family members played a significant role in encouraging treatment initiation and continuation.
- One participant shared,
- “My family always supports me and encourages me to continue treatment.” (P03)
- Word-of-mouth communication was another important facilitator of physiotherapy utilization.
- “When patients improve, they tell others and bring people from their community.” (PT01)
- Participants described community experiences as an important source of confidence and motivation to seek rehabilitation.
- hospital.” (RM001)
- Limited professional recognition further affected rehabilitation service delivery.
- “Physiotherapy is still not well recognized compared with other medical specialties.” (PT01)
- The Resident Medical Officer also highlighted insufficient multidisciplinary collaboration.
- “Physiotherapists are not included in routine patient management teams.” (RM001)

Discussion

This qualitative phenomenological study explored the barriers and facilitators influencing access to physiotherapy services among rural populations in Bangladesh from the perspectives of service users, physiotherapists, and a Resident Medical Officer (RMO). The findings revealed that access to physiotherapy is shaped by multiple interconnected factors operating at individual, community, and health system levels. Seven major themes emerged from the analysis: perception and awareness of physiotherapy, health condition and impact on daily life, health-seeking behavior and access pathways, physical accessibility barriers, financial factors and affordability, social and family influence, and health system and

Theme 7: Health System and Structural Barriers

- Participants consistently identified structural weaknesses within the healthcare system as major obstacles to accessing physiotherapy services.
- Healthcare providers reported inadequate infrastructure and workforce shortages.
- “There is no physiotherapist posted in our government

structural barriers.

Perception and Awareness of Physiotherapy

The findings indicate that although participants generally held favorable attitudes toward physiotherapy, their understanding of the profession was limited. Most participants associated physiotherapy with exercise, massage, or electrotherapy rather than recognizing it as a comprehensive rehabilitation approach aimed at restoring function and improving participation.

Similar findings have been reported in low- and middle-income countries, where rehabilitation services remain poorly understood and are often viewed as secondary to medical [1,2]. Limited health literacy and misconceptions regarding physiotherapy may contribute to delayed utilization and underuse of rehabilitation services.

Interestingly, many participants perceived physiotherapy as safer than long-term medication because of its minimal side effects. This positive perception provides an opportunity for healthcare professionals and policymakers to strengthen community awareness programs that promote evidence-based rehabilitation and encourage timely healthcare seeking.

Health Condition and Daily Life Experiences

Participants described persistent pain, restricted mobility, and functional limitations that affected their ability to work, perform household activities, sleep, and participate in religious and social life. These findings demonstrate that the consequences of musculoskeletal disorders extend beyond physical impairment and influence multiple dimensions of daily functioning.

This observation is consistent with the International Classification of Functioning, Disability and Health (ICF), which conceptualizes disability as an interaction between health conditions, activity limitations, participation restrictions, and environmental factors [15]. Likewise, the Global Burden of Disease study identifies musculoskeletal disorders as one of the leading causes of disability worldwide [16].

The findings emphasize that delayed access to physiotherapy may accelerate functional decline and reduce independence, highlighting the importance of early rehabilitation interventions within primary healthcare systems.

Health-Seeking Behavior and Access Pathways

A notable finding of this study was the sequential healthcare pathway followed by most participants. Patients commonly sought medication, consulted local practitioners, or visited general physicians before considering physiotherapy. Access to rehabilitation frequently occurred only after symptoms persisted or conventional treatment failed.

These findings are consistent with previous studies conducted in resource-limited settings, where rehabilitation services remain poorly integrated into primary healthcare and referral systems

are underdeveloped [17]. Dependence on physician referral may contribute to unnecessary treatment delays and prolonged disability.

The study also demonstrated that family members, relatives, and community networks play an influential role in directing patients toward physiotherapy services. Although informal referral pathways increase awareness, they cannot substitute for structured clinical referral systems. Strengthening collaboration between physicians and physiotherapists could facilitate earlier intervention and improve patient outcomes.

Physical Accessibility Barriers

Geographical distance and transportation difficulties emerged as some of the most significant barriers to accessing physiotherapy services. Many participants reported traveling considerable distances to obtain rehabilitation, resulting in interrupted treatment schedules and reduced adherence.

These findings correspond with studies from Australia, New Zealand, and other rural healthcare settings, where uneven distribution of physiotherapists and inadequate transportation infrastructure limit rehabilitation accessibility (Adams, et al., 2016, [4]).

Participants also emphasized the absence of physiotherapy services within government healthcare facilities in rural areas. This lack of local services forces patients to rely on private clinics or travel to urban centers, increasing both financial and physical burdens.

Expanding physiotherapy services at Upazila Health Complexes and integrating community-based rehabilitation programs may substantially reduce these geographical inequalities and improve service utilization.

Financial Factors and Affordability

Financial constraints represented another major obstacle to sustained physiotherapy utilization. Although individual treatment sessions were often perceived as affordable, repeated appointments, transportation costs, and loss of daily income created a substantial cumulative economic burden.

These findings reflect broader evidence from low- and middle-income countries, where out-of-pocket healthcare expenditure remains a major determinant of healthcare access and treatment adherence [18]. The absence of publicly funded physiotherapy services disproportionately affects economically disadvantaged populations and increases inequities in rehabilitation access.

Incorporating physiotherapy into publicly financed healthcare services or universal health coverage initiatives may reduce financial hardship and improve continuity of care among rural populations.

Social and Family Influence

Family support emerged as an important facilitator of physiotherapy utilization. Participants described emotional encouragement, financial assistance, and practical support from family members that enabled them to initiate and continue rehabilitation.

Peer recommendations and positive community experiences also influenced healthcare decisions. Individuals who experienced improvement frequently encouraged relatives and neighbors to seek physiotherapy, creating informal community networks that promoted rehabilitation awareness.

These findings support previous research highlighting the importance of social capital and collective decision-making in healthcare utilization across South Asian communities [19]. Community engagement strategies that involve caregivers, community leaders, and former patients may therefore enhance awareness and increase rehabilitation uptake in rural settings [20].

Health System and Structural Barriers

System-level challenges were consistently identified as the most significant barriers to physiotherapy access. Participants reported limited rehabilitation infrastructure, shortages of qualified physiotherapists, inadequate referral mechanisms, and insufficient recognition of physiotherapy within government healthcare services.

These findings are consistent with the World Health Organization Rehabilitation 2030 initiative, which identifies workforce shortages and poor integration of rehabilitation into health systems as major obstacles to achieving equitable access worldwide [1].

The absence of physiotherapists from multidisciplinary healthcare teams further limits coordinated patient management and delays rehabilitation referral. Strengthening workforce capacity, establishing dedicated physiotherapy positions within government hospitals, and integrating rehabilitation into primary healthcare policies could substantially improve accessibility and quality of care.

Interpretation Through the Andersen Behavioral Model

The findings align closely with the Andersen Behavioral Model of Health Service Utilization. Predisposing factors, including limited knowledge and misconceptions regarding physiotherapy, influenced participants' willingness to seek rehabilitation. Enabling factors such as transportation availability, financial resources, family support, and local service provision determined whether physiotherapy could be accessed. Need factors, particularly persistent pain and functional disability, ultimately motivated individuals to seek rehabilitation despite numerous barriers.

The interaction of these three domains demonstrates that improving physiotherapy utilization requires interventions beyond individual behavior change. Policy reform, health system strengthening, community education, workforce development, and financial protection mechanisms should be implemented simultaneously to achieve equitable rehabilitation access.

Clinical and Policy Implications

The study highlights several practical implications for rehabilitation services in Bangladesh. Community education programs should improve public understanding of physiotherapy and promote early healthcare seeking. Structured referral pathways between physicians and physiotherapists should be strengthened to reduce treatment delays. Expansion of physiotherapy services within government primary healthcare facilities and investment in rural rehabilitation infrastructure are essential to address geographical disparities.

Furthermore, incorporating physiotherapy into publicly funded healthcare programs and increasing the rural rehabilitation workforce may reduce financial barriers and improve continuity of care. Community participation and family engagement should also be considered integral components of rehabilitation planning and service delivery.

Strengths and Limitations

This study provides an in-depth exploration of physiotherapy accessibility by incorporating perspectives from service users, physiotherapists, and a Resident Medical Officer, allowing triangulation of experiences across multiple stakeholders. The phenomenological design facilitated a rich understanding of lived experiences within rural communities.

However, the findings should be interpreted in light of several limitations. The study was conducted in two rural upazilas within a single district, which may limit transferability to other regions of Bangladesh. As a qualitative investigation with a relatively small purposive sample, the findings are intended to provide contextual understanding rather than statistical generalization. Additionally, although careful translation procedures were employed, subtle differences in meaning may have occurred during translation from Bangla to English.

Overall, the study demonstrates that improving access to physiotherapy services in rural Bangladesh requires coordinated interventions addressing awareness, accessibility, affordability, referral systems, workforce capacity, and health policy integration. Such comprehensive strategies are essential for achieving equitable rehabilitation services and advancing universal health coverage.

Conclusion

This qualitative phenomenological study explored the barriers and facilitators influencing access to physiotherapy services among rural populations in Bangladesh from the perspectives of service

users, physiotherapists, and a Resident Medical Officer. The findings demonstrate that access to physiotherapy is a multidimensional phenomenon shaped by individual perceptions, health needs, socioeconomic circumstances, geographical accessibility, family support, and health system characteristics.

Although participants generally perceived physiotherapy as an effective and safe treatment option, limited awareness and misconceptions frequently delayed rehabilitation seeking. Long travel distances, inadequate transportation, repeated out-of-pocket expenses, shortage of physiotherapists, weak referral mechanisms, and the absence of physiotherapy services within government healthcare facilities collectively restricted timely and continuous access to care. Conversely, family encouragement, peer recommendations, and positive treatment experiences acted as important facilitators that promoted service utilization.

The findings align with the Andersen Behavioral Model of Health Service Utilization, demonstrating that predisposing, enabling, and need factors interact to determine access to rehabilitation services. Improving physiotherapy accessibility therefore requires coordinated interventions at multiple levels rather than isolated clinical solutions.

Strengthening community awareness, integrating physiotherapy into primary healthcare, expanding rural rehabilitation infrastructure, increasing the physiotherapy workforce, establishing structured referral pathways, and incorporating rehabilitation services into publicly funded healthcare programs are essential strategies for reducing inequities in access. Implementing these measures may contribute to more equitable rehabilitation services and support the achievement of universal health coverage in Bangladesh.

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Conflict of Interest

The authors declare that they have no competing interests regarding the publication of this manuscript.

Ethical Approval

Ethical approval for this study was obtained from the Institutional Review Board (IRB) of the Bangladesh Health Professions Institute (BHPI), Faculty of Medicine, University of Dhaka. Written or verbal informed consent was obtained from all participants prior to data collection. Participation was voluntary, and confidentiality and anonymity were maintained throughout the study in accordance with internationally accepted ethical principles for research involving human participants.

Author Contributions (Credit Statement)

- **Conceptualization:** Jasim Uddin, Mohammad Millat Hossain
- **Methodology:** Jasim Uddin, Mohammad Millat Hossain
- **Data Collection:** Jasim Uddin
- **Data Transcription:** Jubaer Al Mahmud
- **Data Translation:** Kamrunnahar koly
- **Thematic Analysis:** Jasim Uddin
- **Writing – Original Draft:** Jasim Uddin
- **Writing – Review & Editing:** Mohammad Millat Hossain, SK. Moniruzzaman
- **Supervision:** SK. Moniruzzaman
- All authors reviewed and approved the final manuscript.

Data Availability Statement

The qualitative datasets generated and analyzed during the current study are not publicly available because they contain information that could compromise participant confidentiality. De-identified data may be made available by the corresponding author upon reasonable request and subject to institutional ethical approval.

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