

Original Article

# Assessment of Awareness and Utilization of Rehabilitation Services among Persons with Physical Disabilities in a Tertiary Care Hospital in Pakistan

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## Abstract

**Background:** Disability remains a major public health concern globally and disproportionately affects individuals' quality of life, social participation, and economic productivity. Persons with physical disabilities (PWPDs) often experience barriers in accessing preventive and rehabilitation services, particularly in low- and middle-income countries. This study aimed to assess the level of awareness regarding disability and to evaluate the frequency of utilization of rehabilitation services among PWPDs attending a tertiary care rehabilitation facility in Pakistan. **Methods:** A descriptive cross-sectional study was conducted at the Artificial Limb Centre, Fauji Foundation Hospital, Rawalpindi, from January to March 2024. A total of 238 PWPDs aged 19–45 years were selected using systematic random sampling. Data were collected using a pre-tested semi-structured questionnaire covering socio-demographic characteristics, knowledge and attitudes toward disability, and utilization of rehabilitation services. Data were analyzed using SPSS version 22. Descriptive statistics were computed, and associations between awareness levels and service utilization were assessed using the Chi-square test at a 5% significance level. **Results:** Among the respondents, 61.3% were male and 38.7% were female. Most participants demonstrated awareness regarding the consequences and prevention of disability; however, knowledge about available rehabilitation programs was comparatively limited. Positive attitudes toward disability were observed at individual and family levels, with self-reliance reported by a majority of participants. Regular utilization of rehabilitation services was significantly associated with higher awareness levels ( $p < 0.05$ ). Key barriers to utilization included affordability, limited accessibility, and inadequate availability of rehabilitation services. **Conclusion:** Although PWPDs showed reasonable awareness regarding disability and its prevention, gaps persist in knowledge and utilization of rehabilitation services. Addressing financial, infrastructural, and informational barriers is essential to improve service uptake and overall quality of life among PWPDs. Strengthening public awareness campaigns and integrating rehabilitation into primary healthcare may enhance equitable access.

## Introduction

Disability is a significant and growing public health issue worldwide, affecting physical, mental, and social well-being. The World Health Organization defines disability as an interaction between individuals with impairments and attitudinal and environmental barriers that hinder full participation in society [1]. Globally, approximately 15–19% of the population lives with some form of disability, with higher prevalence reported in low- and middle-income countries [2].

Persons with physical disabilities frequently encounter stigma, discrimination, poverty, and limited access to healthcare and rehabilitation services [3]. In Pakistan, inadequate infrastructure, limited trained personnel, and low awareness

further compound these challenges [4]. Rehabilitation services play a critical role in improving functional independence, mobility, and quality of life; however, their utilization remains suboptimal [5].

Understanding awareness levels and utilization patterns among PWPDs is essential for designing effective interventions. This study therefore aimed to assess awareness regarding disability and examine the frequency and determinants of rehabilitation service utilization among PWPDs attending a tertiary care rehabilitation facility in Rawalpindi.

## Methods

### ❖ Study Design and Setting

A descriptive cross-sectional study was conducted at the Artificial Limb Centre of Fauji Foundation Hospital, Rawalpindi, a major tertiary care rehabilitation facility providing prosthetic and orthotic services.

### ❖ Study Population and Sampling

The study included PWPDs aged 19–45 years with congenital or acquired physical disabilities. Individuals with cognitive or mental disabilities and those with chronic life-threatening illnesses were excluded. A sample size of 238 was calculated using a standard proportion formula, assuming a disability prevalence of 19.2% in Pakistan. Systematic random sampling was employed.

### ❖ Data Collection

Data were collected using a semi-structured questionnaire translated into Urdu. The tool assessed socio-demographic characteristics, awareness and attitudes regarding disability, and utilization of rehabilitation services. Pre-testing was conducted to ensure clarity and validity.

### ❖ Data Analysis

Data were analyzed using SPSS version 22. Frequencies and percentages were calculated for categorical variables. The Chi-square test was applied to examine associations between awareness levels and utilization of rehabilitation services, with significance set at  $p < 0.05$ .

### ❖ Ethical Considerations

Ethical approval was obtained from the Institutional Review Board. Written informed consent was secured from all participants, and confidentiality was strictly maintained.

## Results

Out of 238 participants, 37.8% were aged 41–45 years, and 19.3% were aged 19–24 years. Males constituted 61.3% of the sample. Educational attainment varied, with 26.5% having matric-level education, while 8.4% were illiterate.

A majority of participants were aware of the consequences and preventive aspects of disability; however, awareness of rehabilitation programs and services was comparatively lower. Positive attitudes toward disability were reported at individual and family levels, with self-reliance being the dominant perception.

Regular utilization of rehabilitation services was reported by participants with higher awareness levels, and this association was statistically significant ( $p < 0.05$ ). Financial constraints, accessibility issues, and limited service availability were the most frequently cited barriers.

**Table 1: Socio-demographic characteristics of participants (n = 238)**

| Variable        | Frequency | Percentage |
|-----------------|-----------|------------|
| Male            | 146       | 61.3       |
| Female          | 92        | 38.7       |
| Age 19–24 years | 46        | 19.3       |
| Age 25–30 years | 54        | 22.7       |
| Age 31–40 years | 48        | 20.2       |
| Age 41–45 years | 90        | 37.8       |
| Illiterate      | 20        | 8.4        |
| Matric          | 63        | 26.5       |

**Table 2: Awareness regarding disability and rehabilitation services**

| Awareness Indicator              | Yes (%) | No (%) |
|----------------------------------|---------|--------|
| Aware of disability prevention   | 72.0    | 28.0   |
| Aware of rehabilitation services | 48.5    | 51.5   |
| Aware of follow-up programs      | 41.2    | 58.8   |

**Table 3: Utilization of rehabilitation services**

| Utilization Pattern   | Frequency | Percentage |
|-----------------------|-----------|------------|
| Regular utilization   | 132       | 55.5       |
| Irregular utilization | 68        | 28.6       |
| Non-utilization       | 38        | 15.9       |

**Table 4: Barriers to utilization of rehabilitation services**

| Barrier                          | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Financial constraints            | 148       | 62.2       |
| Limited accessibility            | 122       | 51.3       |
| Limited availability of services | 96        | 40.3       |

## Discussion

The findings highlight a critical gap between awareness of disability prevention and knowledge of rehabilitation services. While attitudes toward disability were largely positive, structural and economic barriers limited service utilization. Similar trends have been reported in studies from other low- and middle-income settings [6,8].

The positive perception of healthcare providers and family support observed in this study is encouraging; however, affordability and accessibility remain major obstacles. Integrating rehabilitation into primary healthcare and expanding financial support mechanisms may help bridge this gap [9].

### Conclusion

PWPDs attending a tertiary care facility in Pakistan demonstrated moderate to high awareness regarding disability but suboptimal utilization of rehabilitation services. Addressing systemic barriers and enhancing awareness of available rehabilitation programs are essential to improve functional outcomes and quality of life among PWPDs.

**Conflict of Interest:** NIL

**Funding Sources:** NIL

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### Declarations:

#### Authors' Contribution:

- **All authors** Conceptualization, data collection, interpretation, drafting of the manuscript, Intellectual revisions
- The authors agree to take responsibility for every facet of the work, making sure that any concerns about its integrity or veracity are thoroughly examined and addressed

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