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Impact of Lower Back Pain on Functional Disability and Quality of Life

¹ Ayesha Khurshid, ² Fatima Khurshid, ³ Sabahat Nazir, ⁴ Hafsa Khurshid, ⁵ Ayesha Jamal

¹ Medical Student, Department of Physiotherapy, Mirpur University of Science and Technology, Mirpur, Azad Kashmir, Pakistan

² Medical Graduate, Mohi-Ud-Din Islamic Medical College, Mirpur, Azad Kashmir, Pakistan

³ Medical Graduate, University College of Medicine and Dentistry, Lahore, Pakistan

⁴ Research Assistant, Mirpur University of Science and Technology, Mirpur, Azad Kashmir, Pakistan

⁵ HOD, Department of Physiotherapy, Mirpur University of Science and Technology, Mirpur, Azad Kashmir, Pakistan

Corresponding Author: **Fatima Khurshid**

Abstract

Objective: This study aims to provide significant insights into the consequences of lower back pain on individuals' ability to perform and their general well-being within the local population by examining these parameters.

Methods: A cross-sectional study with 100 adult patients suffering from lower back pain was conducted. We used the Oswestry Low Back Pain Disability Questionnaire to collect data. The data was summarized using descriptive statistics, and the analysis was carried out using SPSS.

Results: According to the study findings, lower back discomfort has a substantial impact on daily activities such as self-care, movement, sleep, social contacts, and travel. Participants reported moderate discomfort and limits in

personal care, lifting duties, walking, standing, sitting, sleep quality, social contacts, and travel. Furthermore, the study revealed a variety of functional impairments, with subjects reporting varying degrees of disability.

Conclusion: The study revealed that a significant proportion of participants experienced chronic pain accompanied by neurological symptoms. Furthermore, the overall quality of life among the participants was found to be poor. These findings emphasize the detrimental impact of chronic pain and associated symptoms on individuals' overall well-being, particularly in relation to their ability to perform physical work and participate in daily activities.

Keywords: Lower Back Pain, Quality of Life, Musculoskeletal Condition, Chronic Pain, Disability

Introduction

According to estimates, up to 84% of people will experience lower back discomfort at some point in their lifetime. About 11–12% of persons may become disabled as a result of their chronic low back pain, which affects about 23% of the population. It is the primary cause of years lost to disability, years lived with disability, and absenteeism from work worldwide and affects people of all ages. Actually, according to the 2016 Global Burden of Disease Study, low back pain was one of the top 10 reasons for years spent disabled^[1, 2, 3].

Lower back pain has a significant negative impact on people's health-related quality of life. A patient with lower back pain not only has physical discomfort, but also functional limitations, which may result in impairment and interfere with their quality of life^[4]. Quality of life is a multifaceted notion that includes physical, social, and emotional well-being. Long-term research has revealed that back pain is connected with functional disability, inability to work, mental health difficulties, avoidance of specific activities, higher healthcare consumption, and unemployment. Extensive epidemiological research reveals that persistent back discomfort is a typical symptom that frequently leads to chronic disease. Chronic lower back pain is associated with greater rates of unemployment, impairments in daily functioning due to pain, increased healthcare seeking behavior, and decreased self-perceived health^[5, 6].

The purpose of this study was to investigate how lower back pain impacts people's capacity to perform and general quality of life after they sought treatment at an outpatient physiotherapy clinic at DHQ Hospital in Mirpur, AJK.

Methods

The data was collected from the middle of October 2023 until the end of November 2023. The measure used to assess low back

pain and disability was the Oswestry Low Back Pain Disability Questionnaire. The Oswestry Disability Index (also known as the Oswestry Low Back Pain Disability Questionnaire) is a valuable tool used by researchers and disability evaluators to assess the impact of back pain on a person's capacity to manage daily life. This questionnaire is intended to elicit information about how back discomfort impacts daily functioning. Each question has a possible score of 0 to 5, with 0 being the first response and 5 being the last. After answering all of the questions, we tallied total score and use the scale provided to determine the level of disability [7]. SPSS, a widely used statistical software application, was used to extract relevant insights and uncover patterns and relationships in the data. We made sure ethical standards were satisfied by obtaining the required clearances and licenses before starting the study. This involved getting approval from the institution where the study was conducted, certification from an ethical committee, and verbal consent from the participants. These precautions were taken to guarantee that the research was carried out ethically, respecting informed consent and safeguarding the participants' rights and welfare.

Results

Table 01 summarizes the demographic characteristics of survey participants. The frequency and percentages for each demographic category are shown in the table. Ages 35 to 54 accounted for 54% of participants, the largest age group of respondents. Of the participants, 21% were in the 15-34 age group, and 25% were in the 55-74 age group. Females were overrepresented in the study, with 92% of respondents identifying as female. The remaining 8% of participants were men. Graduates and persons with post-graduate degrees made up the largest education category, accounting for 28% and 25% of respondents, respectively. Other educational levels were also represented, including higher secondary (24%), secondary (14%), middle (7%), primary (0%), and ignorant (2%). The study covered both working and jobless people. 39% of those polled said they were employed, while 61% said they were unemployed.

Table 1: Demographic Characteristics of the participants (N=100)

Characteristics	Frequency
Age	
15-34	21%
35-54	54%
55-74	25%
Gender	
Female	92%
Male	08%
Education	
Uneducated	2%
Primary	0%
Middle	7%
Secondary	14%
Higher Secondary	24%
Graduation	28%
Post-Graduation	25%
Employment	
Employed	39%
Unemployed	61%

Table 2 depicts the distribution of low back pain severity across study participants. These findings, coupled with the values indicated, highlight the considerable influence of

lower back pain on numerous aspects of daily functioning, emphasizing the need for interventions to enhance the quality of life for those suffering from this disease. According to the findings of the study, participants reported an average pain intensity with a frequency of 58%, (2.10±0.927) this indicates that the patients were in moderate discomfort. The average score for personal care was 69.6% (1.52± 0.904) showing some restrictions in executing self-care tasks. 54% (2.76 ±1.558) of participants had moderate difficulty with lifting tasks. Walking was also negatively impacted, this factor was prevalent in 65.5% (2.07 ±1.233) of cases. Standing and sitting of the participants, 60.5% (2.37± 1.440) and 52.2% (2.39 ±1.197) respectively, had moderate limits in both activities. A further consequence of the disturbances to sleep was that 68.8% (1.87 ±1.220) of the subjects experienced disturbed sleep. Participants stated that they had limits when it came to interacting with others and participating in social activities. 61% (1.95± 1.123) of participants were impacted by this factor. It was shown that 59% (2.45± 1.500) of the participants considered traveling difficult. These findings show how lower back discomfort significantly affects a number of everyday activities, such as self-care, mobility, sleep hygiene, social interactions, and travel. It draws attention to how frequently these activities are limited, highlighting the need for therapies and methods to enhance the quality of life for people with lower back pain.

Table 2: Distribution of Intensity of Low Back Pain among the Studied Sample (N=100)

Dimensions	% Mean Score
Pain intensity	58%
Personal care	69.6%
Lifting	54%
Walking	65.5%
Sitting	52.2%
Standing	60.5%
Sleeping	68.8%
Social life	61%
Travelling	59%

The study's findings show that not a single individual claimed to be handicap free. Of the patients, thirty reported mild impairment and 42 patients reported substantial disability. Furthermore, significant disability was recorded by 23 patients, and full impairment was reported by 5 patients (Table 3).

The Oswestry impairment Index was utilized to ascertain these scores, which evaluate functional impairment associated with low back pain. A systematic way to assess how low back pain affects a person's capacity to carry out everyday tasks is to use the index.

The participants' varied levels of impairment are highlighted by the findings, which emphasizes the necessity for suitable treatments and management techniques to enhance their functional capacities and general quality of life.

Table 3: Scoring the Oswestry Disability Index

Disability Level	Score	Frequency
No disability	0 - 4	0
Mild disability	5 - 14	30
Moderate disability	15 - 24	42
Severe disability	25 - 34	23
Completely disabled	35 - 50	5

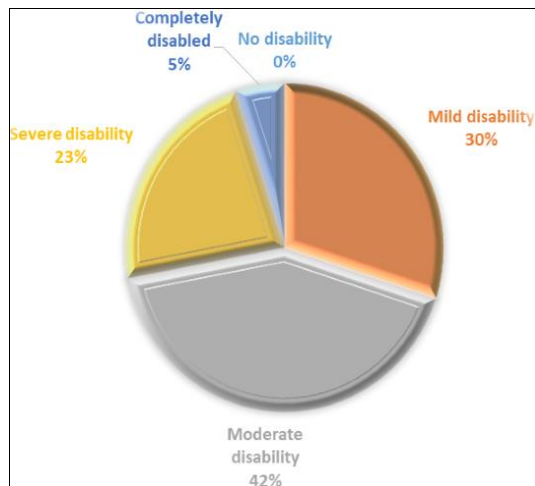


Fig 1: Scoring the Oswestry Disability Index

Discussion

Chronic lower back pain, defined as low back pain lasting more than 3 months, is a globally prevalent health problem with significantly high medical and economic burden on individuals and the society [8].

In order to increase functional capacities and improve the quality of life for people with lower back pain, our findings highlight the significance of putting suitable therapies and management techniques into practice. In order to create efficient strategies for controlling low back pain and the functional constraints it is connected with, further study and treatments are required [9].

A medical history, physical examination, and maybe further testing such as X-rays, MRI scans, and blood tests are used to diagnose back pain. Medication, nonsurgical treatments such as physical therapy, lifestyle modifications, and complementary and alternative therapies are all therapeutic choices. Surgery may be recommended in some circumstances. Back pain can be treated by healthcare practitioners such as pain specialists, orthopedists, and physical therapists. Following their advice and adopting appropriate posture, exercise, and lifting methods can aid in the management and prevention of back pain [16].

Several studies showed the detrimental effects of lower back pain on mobility, functional capacity, pain severity, and engagement in everyday activities. According to studies, people with lower back pain frequently find it difficult to carry out personal care activities like cleanliness and grooming because of discomfort and functional impairments [2].

People who suffer from lower back discomfort may find lifting jobs, which call for physical strength and flexibility, especially difficult. The limits stated by research participants underscore the influence lower back discomfort may have on their capacity to carry out these activities, hence affecting their degree of independence and general well-being [10].

Walking restrictions, such as difficulties walking long distances or walking pain-free, are frequent in those suffering from lower back pain. These constraints can have an impact on an individual's ability to participate in physical activities, attend social gatherings, and maintain an active lifestyle [11].

The difficulties participants experienced with standing and sitting reflect the influence of lower back discomfort on lengthy durations of static posture. Prolonged standing or

sitting can aggravate pain and suffering, making it difficult for those with lower back pain to go about their everyday lives or do their jobs [12]. Sleep disruptions are common in those who have lower back pain, and the findings of this study corroborate this. Sleep deprivation can cause exhaustion, decreased energy levels, and a diminished capacity to cope with discomfort, lowering quality of life and general well-being [13]. The restrictions in social interactions observed by participants show the impact of lower back pain on individuals' capacity to fully engage in social activities and sustain social connections. Social constraints might lead to feelings of loneliness and worse overall quality of life [14]. Furthermore, the difficulties described by participants with traveling indicate that lower back discomfort can interfere with persons' capacity to engage in travel-related activities, reducing their ability to participate in leisure activities or travel for professional or personal reasons [15].

These findings highlight the need of therapies and management techniques targeted at addressing the multidimensional impact of lower back pain on people's functional capacities and overall quality of life. Personalized treatment strategies, including pain management, physical therapy, and psychological support, are critical for increasing functional ability, lowering pain levels, and improving quality of life.

Conclusion

This study concludes that lower back pain significantly affects functional impairment and quality of life in patients. The results highlight the fact that low back pain is a major source of years lost to disability worldwide. The findings show that a significant fraction of individuals reported total impairment, whereas a larger percentage reported mild to severe disabilities. The study also shows how chronic pain and its related neurological symptoms have a detrimental impact on people's general health and capacity to carry out everyday tasks. In order to increase functional capacities and improve the quality of life for people with lower back pain, our findings highlight the significance of putting suitable therapies and management techniques into practice. In order to create efficient strategies for controlling low back pain and the functional constraints it is connected with, further study and treatments are required.

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