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Beliefs regarding low back pain and spine care amongst sub-urban communities of a lower middle-income country

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ABSTRACT

Back pain is a common health issue affecting people of all ages and demographics. Eighty per cent of adults are predicted to suffer from back pain at some point in their lives. Spine care is crucial in the management of back pain, and it is essential to understand the perception of spine care in different populations. People with varied incomes may have different available facilities, perceptions, and attitudes towards spine care. This may lead to disparity in treatment-seeking and outcomes. This study proposal aims to investigate the perception of spine care in the local population with back pain, along with factors creating differences. We surveyed 269 patients with back pain in two different communities in Karachi. We found out that usually, people with low monthly income do nothing for their back pain, while those with moderate income usually take analgesics and seek medical advice. The majority of the patients think that the availability of better healthcare facilities will improve their spine care.

INTRODUCTION

Back pain is a common medical condition that affects millions of people globally, regardless of their financial status. The number of patients suffering from back pain is expected to increase to 843 million by 2050 (1). In 2018, a study showed that 28% of men and 31.6% of women aged 18 and older experienced lower back pain (2). However, the burden of back pain and spinal care is especially noticeable in resource-constrained settings, including slum regions, for various reasons, such as substandard living conditions, restricted access to healthcare services, and physically demanding jobs (3). Gender also makes a significant difference in this regard, with women experiencing greater pain and less access to healthcare(4).

Urban communities with a high population density that are classified as slums are marked by poor living conditions, excessive congestion, poor sanitation, and restricted access to medical facilities. These residents frequently struggle with several aspects of maintaining good health, and orthopedic problems; particularly back pain, are prevalent among them. The risk of back pain and related spinal problems is further increased by the physically demanding employment that many

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people in slums participate in, including heavy lifting (5), manual labor, and extended hours of work in poor postures, which leads to the use of alternative pain-relieving practices and drug abuse (6).

Pakistan is a south Asian lower middle-income country (LMIC) with multiple healthcare challenges. The literature review failed to show any study in Pakistan regarding difference in seeking care for back pain based on income status and patients' personal beliefs. A study from Canada showed 28% of the people sought care for their back pain, with females, increasing age, lower income; and patients with greater frequency and severity of back pain more likely to seek care (7). A demographic study done in Ghana showed the influence of sociocultural factors on low back pain (LBP) and the late health-seeking behavior of patients (8).

A demographic study regarding low back pain has been reported in 2022 in Pakistan (2), but no study has been done comparing health-seeking behavior of patients with low back pain based on their socio-demographic and economic strata. The results of this study will highlight the importance of tailoring spine care programs to specific needs and constraints of these under-served communities. Based on the findings, strategies to enhance the delivery and accessibility of spine care services in low-income areas, with a focus on building sustainable, community-driven solutions, may be devised.

Therefore, this study aims to determine perceptions, beliefs, and associated factors regarding seeking care amongst patients presenting to primary care clinics with back pain in two suburban communities of Karachi.

METHODOLOGY

This is a cross-sectional study conducted in community primary care welfare clinics located in two suburban localities of Karachi (Landhi and Hijrat Colony).

Adults over the age of 18 with low back pain in the last 12 months were included in the study. Data were collected by trained interviewers through an online questionnaire translated into the local language (Urdu). The questionnaire included demographic information, history of back pain, perception about spine care, and healthcare utilization patterns for spine care. Close-ended Questions were asked regarding demographics and monthly income, and open-ended questions were asked regarding their

perception of back pain and spine care. The responses were categorized and reported after data collection into broad categories.

Descriptive statistics were used to summarize the demographic characteristics of the study population. Healthcare utilization patterns for spine care were compared between the different income groups using chi-square tests and the Fischer exact test.

RESULTS

A total of 259 complete responses were received and analyzed in this study. The median age of participants was 32 (IQR=25-54) years, with an age range of 18-75 years. Most of the study participants were females (89.1%). only 26 % of the patients were aware of a government or a funded facility for healthcare near their residence. Table 1 displays a summary of the socio-demographic profile of study participants.

Table 1. Sociodemographic profile of study participants

Variables	Frequency (%)
Age groups	
18-40 years	169(65.5)
40-59 years	74(28.7)
60 years and above	15(5.8)
Gender	
Male	28(10.9)
Female	230(89.1)
Monthly income in Pakistani Rupees	
<500	64(24.8)
500-1000	121(46.9)
1000-5000	42(16.3)
>5000	31(12)
Do you have any government-funded hospital or spine care unit available in your reach?	
Yes	68(26.4)
No	190(73.6)

Almost one-third of the participants said that they do nothing (31.9%), while the majority said they apply gel and use over-the-counter oral medications when they have back pain (57.7%). Only 10 % seek medical advice on the occurrence of back pain.

Table 2 displays a comparison of participants' features among different approaches opted by patients for healing back pain. Patients in the lower income group were more likely to "do nothing" when they had back pain. While those who had an income of more than 500 \$ were more likely to use local gels

and medications. The frequency of seeking medical advice for back pain was not significantly different among various socio-demographic groups.

Table 2. Comparison of patients' features among different approaches for healing back pain

Variables	Do Nothing n(%)	Apply gel and use medications n(%)	Seek medical advice n(%)
Age groups			
18-39 years	49(18.9)	103(39.9)	16(6.2)
40-59 years	19(25.7)	46(62.2)	9(12.2)
60 years and above	6(37.5)	8(50)	2(12.5)
p-value	0.761	0.549	†0.537
Gender			
Male	12(41.4)	14(48.3)	3(10.3)
Female	62(27)	144(62.6)	24(10.4)
p-value	0.105	0.136	1.000
Monthly income			
<500	34(53.1)	23(35.9)	7(10.9)
500-1000	22(18.2)	87(71.9)	12(9.9)
1000-5000	6(14.3)	28(66.7)	8(19)
>5000	12(37.5)	20(62.5)	0(0)
p-value	**<0.001	**<0.001	†0.051

Fisher-exact test is reported, *Significant at $p < 0.05$, **Significant at $p < 0.01$

The most common reason for not seeking medical help for back pain was financial restraints (64.5%), followed by lack of medical facility in their areas (61%), lack of time (33.6%), social construct (2.7%) and religious beliefs (3.1%). Figure 1 displays the opinions of patients regarding how their spine care may be improved. Almost half of them perceived that better healthcare facilities in their localities would help.

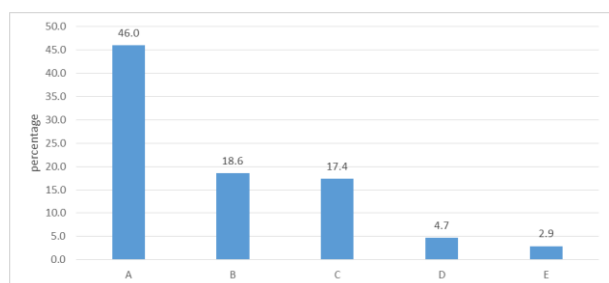


Figure 1. Response distribution for opinions regarding improved spine care

A: availability of better healthcare facility, B: No idea, C: medications, D: rest, E: exercise

DISCUSSION

Low back pain, or LBP, is a common, and debilitating medical disease with a high cost of care. For the last three decades, it has been the primary cause of "years lived with disability" worldwide (9). Among all population with disabilities worldwide, LBP-related disability is 57% and projected to rise in the upcoming decades (10). The majority of published data on LBP originate from high-income nations, while data from LMICs on prevalence LBP is sparse and low quality. 85% of the world's population lives in LMICs yet, data on burden of disease is primarily derived from modeled (calculated) data from developed countries due to unavailability of high quality research. Of all the regions in the world, South Asia is home to the greatest number of individuals with LBP (96.3 million). Despite 25% of the world's population residing in South Asia, only 2% country-level prevalence is reported from this region.

In Karachi, Pakistan, urban slums harbor residents enduring harsh living conditions and inadequate healthcare access. Neuromuscular disorders, particularly spinal issues, are widespread due to strenuous labor and substandard living conditions. This study therefore aimed to determine the associated factors and access to healthcare among patients with back pain among the underprivileged population, living in impoverished areas. Further we compared if there was a difference in accessibility to care among various income groups.

Interestingly, in this study there was no association of various age groups and gender with seeking care for back pain which is not consistent with previous studies. This finding may be due to the high proportion of female participation in this study (89%). Most of the low cost of free public and private sector primary care clinics are open during the daytime hours and this time is generally not feasible for male members of the house hold who are the bread earners of the family. Majority of females in Pakistan are home makers so they are more likely to attend clinics with back pain and hence seek care. This gender disparity although is not evident in this study but plausible. Similarly, although previous studies have shown that those with increasing age are more likely to seek care for LBP, however due to limited access, we were only able to find 6% of patients from the above 60 age group(11).

Only 26% of the participants in this study reported access to a healthcare or spine care centre which was affordable and accessible. This was further confirmed by the finding that among the participants, almost one-third reported that they do not get any treatment for their back pain while more than half indicated using gel and medications. It is alarming that only 10% seek medical advice when they encounter back pain. This treatment-seeking behavior was found to be associated with their socioeconomic status; the lower the income the less likely patients to seek care. These results are consistent with a systematic review, which also showed significant negative association of lower financial status with health care seeking behaviour (12). In contrast, a study from Canada reported that the low income group is more likely to seek care for backache (13).

LMIC where specialized healthcare is not free and readily accessible, patients with lower-income are more likely to delay seeking medical help. Majority of the participants in this study reported financial constraints, low access and lack of time as contributing factors for delay in seeking care. While a few said that the social construct and religious beliefs hamper seeking care. This delay in care for LBP may lead to complications and hence a higher cost of eventual treatment. Also individuals who can afford care may have the option to access a wider range of treatment, including physical therapy, chiropractic care, or even surgery. This can impact their decision-making process and hence reduce morbidity in this group.

Providing accurate and accessible information to the public about the importance of seeking timely treatment for back pain can help dispel misconceptions and encourage individuals to seek professional help when needed. Promoting early intervention and emphasizing the benefits of seeking treatment at the early stages of back pain can help prevent the condition from worsening and potentially becoming chronic. Ensuring that healthcare services for back pain are easily accessible and affordable can encourage individuals to seek treatment. Engaging in open and empathetic communication with patients and discussing their values, beliefs, and circumstances can help tailor treatment options to better align with their social and religious preferences.

Therefore, it is imperative to initiate targeted interventions within the underprivileged population to address the lack of access and awareness related to spine care and back pain. Further research is warranted to tailor interventions effectively and assess their impact on attitudes toward seeking help for spinal health issues among residents of Karachi's slum areas.

STUDY LIMITATIONS

This study has limitations. First, study participants represented a small convenience sample, so the findings may not generalize to the whole population of Karachi. The study may also have included individuals who feel more comfortable discussing spine health and illness compared to non-participants. The study was done in clinics, where only those patients who actually wanted to seek medical help visited. This could have diluted the participation of patients who do not seek care for spine symptoms. Interviews were conducted by volunteers who filled forms on behalf of participants which can introduce an interviewer bias. Finally, data was collected during daytime and office hours, making women the major respondents due to their presence in clinics.

CONCLUSION

In conclusion, addressing the burden of low back pain in underprivileged population necessitates multifaceted interventions. Despite being prevalent, LBP in low- and middle-income countries remains underrepresented in research and healthcare access. Gender disparities and socioeconomic factors significantly influence healthcare-seeking behavior, with financial constraints often leading to delayed treatment. Timely intervention is crucial to prevent complications and reduce long-term costs. By promoting awareness, improving access to affordable healthcare, and culturally tailoring interventions, we can mitigate the impact of LBP in marginalized communities. Further research and targeted interventions are essential to address the complex challenges surrounding spine care and back pain in the underprivileged population of LMIC.

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