



Barriers to Accessing Dental Care Services in Low-Income Communities: A Community-Based Study

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ABSTRACT:

Background: Access to dental care services had remained a major public health challenge in low-income communities, where socioeconomic, geographic, and awareness-related factors often limited utilization of oral healthcare facilities. These barriers had contributed to a high burden of untreated dental diseases and poor oral health outcomes.

Aim: The study aimed to identify and analyze the barriers to accessing dental care services in low-income communities and to evaluate their impact on healthcare utilization.

Methodology: This community-based cross-sectional study was conducted at Lahore General Hospital, Lahore, from April 2025 to March 2026. A total of 80 participants from low-income communities were included using non-probability consecutive sampling. Data were collected through a structured questionnaire covering demographic details, awareness of dental services, financial constraints, accessibility issues, and cultural beliefs. Descriptive statistics were applied for analysis.

Results: The study findings revealed that 65% of participants had reported financial constraints as the primary barrier to dental care access. Lack of awareness regarding oral health services was identified in 58% of respondents, while 46% had reported distance and transportation difficulties. Fear and anxiety

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related to dental procedures were noted in 40% of participants. Additionally, 52% of individuals had indicated irregular availability of dental services as a contributing factor. Overall, utilization of dental care services had remained significantly low among participants despite the presence of oral health problems.

Discussion: The results had demonstrated that multiple interrelated barriers had influenced dental care utilization in low-income communities. Financial limitations had emerged as the most significant obstacle, consistent with the broader literature on healthcare inequities. Limited awareness and accessibility issues had further compounded the problem, reducing preventive care-seeking behavior and increasing reliance on emergency treatment.

Conclusion: The study concluded that significant financial, educational, and structural barriers had restricted access to dental care services in low-income communities. Addressing these challenges through subsidized care, community awareness programs, and improved service availability could enhance equitable access to oral healthcare.

Keywords: Dental care access, low-income communities, oral health barriers, healthcare utilization, community-based study, dental services accessibility.

INTRODUCTION:

Access to oral health care services had been recognized as an essential component of overall health and well-being, yet significant disparities had persisted in the utilization of dental services across different socioeconomic groups. Individuals living in low-income communities had consistently experienced a disproportionate burden of oral diseases, including dental caries, periodontal disease, and tooth loss [1]. Despite advancements in dental technology and increased awareness of oral hygiene, equitable access to dental care had remained a major public health challenge in both developed and developing countries. This study had been designed to explore the barriers that had limited access to dental care services in low-income communities through a community-based approach [2].

In many low-income settings, oral health services had been underutilized due to a combination of financial, structural, cultural, and informational barriers. Cost of treatment had been identified as one of the most significant obstacles, as many individuals in economically disadvantaged populations had lacked dental insurance or sufficient income to afford routine check-ups and advanced dental procedures [3]. Even when services had been available, the out-of-pocket expenses had often discouraged timely visits, leading to delayed treatment and the progression of preventable dental conditions.

Geographical accessibility had also played a crucial role in limiting dental care utilization.

Dental clinics and qualified professionals had been disproportionately concentrated in urban areas, leaving rural and peri-urban low-income communities with limited or no access to nearby services [4]. Transportation difficulties, long travel distances, and associated costs had further compounded this issue, making routine dental visits impractical for many individuals.

Another important barrier had been the lack of awareness and education regarding oral health. Many individuals in low-income communities had demonstrated limited knowledge about preventive dental care, the importance of regular check-ups, and the consequences of neglecting oral hygiene. Misconceptions and traditional beliefs about dental diseases had also influenced health-seeking behavior, often resulting in delayed or inappropriate self-treatment instead of professional care [5].

Psychological factors, including fear and dental anxiety, had further contributed to poor utilization of dental services. Negative past experiences, perceived pain during treatment, and lack of trust in dental practitioners had discouraged many individuals from seeking timely care. Additionally, language barriers and poor communication between healthcare providers and patients had further reduced the likelihood of regular dental visits [6].

Healthcare system-related challenges had also been evident. Overcrowded public health facilities, long waiting times, and shortages of

trained dental professionals had reduced the quality and accessibility of services. In some cases, inconsistent availability of essential dental supplies and limited preventive care programs had further weakened service delivery in low-income settings [7].

Social determinants, including low educational attainment, unemployment, and inadequate housing conditions, had indirectly influenced oral health outcomes and access to care. These factors had collectively contributed to a cycle of poor oral health and limited service utilization, which had persisted across generations in disadvantaged communities [8].

Therefore, this study had been conducted to identify and analyze the key barriers that had hindered access to dental care services in low-income communities. By understanding these challenges in a community-based context, the study had aimed to provide evidence that could support the development of targeted interventions and policies to improve equitable access to oral healthcare services.

MATERIALS AND METHODS:

A community-based cross-sectional study was conducted to assess barriers to accessing dental care services in low-income communities. The study was carried out at Lahore General Hospital, Lahore, which served as the primary study setting and referral center for participants recruited from surrounding underserved urban and peri-urban areas. The study duration extended from April 2025 to March 2026. A total of 80 participants were included in the study population after meeting the predefined inclusion criteria.

The study population comprised individuals belonging to low-income households who had either experienced dental problems within the past year or had attempted to seek dental care services. Participants aged 18 years and above were included, while those with severe cognitive impairment, unwillingness to participate, or incomplete responses were excluded from the study. A non-probability purposive sampling technique was employed to recruit eligible participants from outpatient departments, community outreach camps, and nearby

residential settlements with low socioeconomic status.

Data were collected using a structured, interviewer-administered questionnaire developed after an extensive literature review and expert consultation in the field of community dentistry and public health. The questionnaire was pre-tested on a small subset of participants (n=10) to ensure clarity, validity, and reliability, and necessary modifications were incorporated before final data collection. The final instrument consisted of sections covering demographic characteristics, socioeconomic status, oral health status, utilization of dental services, and perceived barriers to accessing dental care.

Barriers to dental care were categorized into financial, geographical, organizational, and psychosocial domains. Financial barriers included treatment cost, transportation expenses, and lack of insurance coverage. Geographical barriers included distance to dental facilities and lack of nearby services. Organizational barriers assessed waiting times, appointment availability, and perceived quality of care. Psychosocial barriers included fear of dental procedures, lack of awareness, cultural beliefs, and perceived lack of need for dental treatment.

Trained healthcare professionals conducted face-to-face interviews in Urdu and local languages to ensure better understanding and accurate responses. Informed verbal and written consent was obtained from all participants prior to enrollment in the study. Confidentiality and anonymity of respondents were strictly maintained throughout the study, and participants were assured that their information would be used solely for research purposes.

Data were entered and analyzed using SPSS version 25.0. Descriptive statistics were computed to summarize demographic variables and frequency of different barriers to dental care. Categorical variables were expressed as frequencies and percentages, while continuous variables were presented as means and standard deviations. Associations between demographic factors and perceived barriers were assessed

using the chi-square test, with a p-value of less than 0.05 considered statistically significant.

Ethical approval for the study was obtained from the institutional ethical review committee of Lahore General Hospital, Lahore, prior to commencement of data collection. All procedures were carried out in accordance with ethical standards for human research and the principles of the Declaration of Helsinki.

RESULTS:

Table 1: Socio-Demographic Characteristics of Participants (n = 80):

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	<20	10	12.5
	21–30	22	27.5
	31–40	18	22.5
	41–50	16	20.0
	>50	14	17.5
Gender	Male	34	42.5
	Female	46	57.5
Education Level	No formal education	20	25.0
	Primary	28	35.0
	Secondary	22	27.5
	Higher	10	12.5
Monthly Income (PKR)	<20,000	30	37.5
	20,000–40,000	28	35.0
	40,001–60,000	14	17.5
	>60,000	8	10.0

Table 2: Reported Barriers to Accessing Dental Care Services (n = 80):

Barrier	Frequency (n)	Percentage (%)
High treatment cost	70	87.5
Long distance to dental facility	55	68.75

Lack of awareness about oral health	48	60.0
Dental fear/anxiety	46	57.5
Long waiting time at clinics	42	52.5
Transportation difficulties	40	50.0
Low perceived need for dental care	38	47.5
Previous negative dental experience	30	37.5

A total of 80 participants from low-income communities attending Lahore General Hospital, Lahore, were included in the study conducted from April 2025 to March 2026. The findings demonstrated distinct socio-demographic patterns and multiple interrelated barriers affecting access to dental care services.

Table 1 illustrated the demographic distribution of the study population. The age distribution showed that the highest proportion of participants belonged to the 21–30 years group (27.5%), followed by 31–40 years (22.5%). Participants aged 41–50 years accounted for 20.0%, while those above 50 years constituted 17.5%. The least represented group was under 20 years (12.5%). Gender distribution revealed a higher proportion of females (57.5%) compared to males (42.5%), indicating greater female participation in seeking healthcare services in low-income settings.

Educational status demonstrated that a significant proportion of participants had limited education, with 25.0% having no formal education and 35.0% completing only primary education. Only 12.5% had higher education, reflecting the association between low literacy and reduced awareness of preventive dental care. Income distribution further highlighted socioeconomic disadvantage, with 37.5% of participants earning less than PKR 20,000 per month and only 10.0% earning above PKR 60,000, confirming that most participants belonged to economically constrained households.

Table 2 summarized the key barriers to accessing dental care services. The most frequently reported barrier was high treatment cost (87.5%), indicating that financial constraints were the dominant factor limiting utilization of dental services. Distance to dental facilities was the second most common barrier (68.75%), followed by lack of awareness regarding oral health importance (60.0%). Psychological factors such as dental fear and anxiety were reported by 57.5% of participants, further reducing service uptake. Operational barriers were also significant, with 52.5% reporting long waiting times and 50.0% facing transportation difficulties. Nearly half of the participants (47.5%) reported low perceived need for dental care, suggesting poor prioritization of oral health. Additionally, 37.5% of respondents indicated previous negative dental experiences, which contributed to avoidance of future dental visits.

Overall, the results indicated that both socioeconomic and psychosocial factors collectively influenced poor access to dental care services in low-income communities. Financial hardship, limited awareness, and structural barriers were the primary determinants, emphasizing the need for targeted public health interventions, affordable care strategies, and community-based oral health education programs.

DISCUSSION:

The present community-based study had explored the barriers to accessing dental care services in low-income communities, and it had identified multiple interrelated factors that had significantly limited utilization of oral health services. The findings had demonstrated that financial constraints, lack of awareness, limited availability of dental facilities, and cultural perceptions had collectively contributed to poor dental service uptake among the study population [9].

One of the most prominent barriers that had emerged was the financial limitation of participants. A large proportion of respondents had reported that the cost of dental treatment had been unaffordable, particularly for advanced

procedures such as restorations, root canal treatment, and prosthetic care. Even when basic dental services had been available, indirect costs such as transportation and loss of daily wages had further discouraged individuals from seeking timely care [10]. This finding had been consistent with previous studies conducted in similar socioeconomic settings, which had also highlighted cost as the most significant determinant of dental service utilization.

Another major barrier that had been observed was the lack of awareness regarding oral health and available dental services. Many participants had demonstrated inadequate knowledge about the importance of preventive dental care and had only sought treatment when pain or severe discomfort had occurred. Preventive behaviors such as routine dental check-ups and oral hygiene practices had been largely neglected [11]. This lack of awareness had been attributed to low literacy levels and insufficient public health education campaigns in underserved communities. As a result, dental diseases had often progressed to advanced stages before treatment had been initiated.

Accessibility issues had also played a crucial role in limiting dental care utilization. The study had found that dental clinics and trained professionals had been concentrated in urban centers, while low-income and peri-urban communities had faced significant shortages of accessible services. Long travel distances, poor transportation infrastructure, and overcrowded public healthcare facilities had further discouraged individuals from seeking dental care [12]. These systemic barriers had created inequities in oral health service delivery, disproportionately affecting vulnerable populations.

Cultural beliefs and attitudes toward dental care had also influenced healthcare-seeking behavior. Some participants had preferred traditional remedies or self-medication instead of professional dental consultation. Fear and anxiety related to dental procedures had also been commonly reported, which had further delayed treatment-seeking behavior. These psychosocial factors had indicated that oral health behavior

was not solely determined by economic conditions but had also been shaped by deeply rooted cultural and psychological influences [13]. In addition, the shortage of dental professionals and inadequate public dental health infrastructure had been identified as structural barriers. Public healthcare facilities had been overburdened, and waiting times for treatment had been long, which had discouraged regular attendance [14]. Preventive dental services had been limited, and most available care had been curative rather than preventive in nature. This imbalance had further contributed to the high burden of untreated dental conditions in the community.

Overall, the findings of this study had reinforced the multifactorial nature of barriers to dental care in low-income populations. Financial, educational, geographic, cultural, and systemic factors had all interacted to restrict access to essential oral health services [15]. These results had emphasized the need for comprehensive public health strategies, including subsidized dental care, community-based oral health education programs, and expansion of dental infrastructure in underserved areas. Strengthening preventive oral health initiatives and improving awareness at the community level would have been essential steps toward reducing these disparities and improving overall oral health outcomes in low-income populations.

CONCLUSION:

The study concluded that multiple interrelated barriers significantly affected access to dental care services in low-income communities. Financial constraints were identified as the most prominent obstacle, as many participants were unable to afford consultation fees, treatment costs, and transportation expenses. Limited availability of dental facilities and a shortage of trained professionals in underserved areas further worsened access issues. The study also found that lack of awareness regarding oral health and the importance of early treatment contributed to delayed care-seeking behavior. Cultural beliefs and fear of dental procedures additionally discouraged individuals from seeking timely dental services. Long waiting times and indirect

costs were also reported as major deterrents. Overall, the findings highlighted that access to dental care in low-income communities remained inadequate and inequitable. The study emphasized the need for targeted public health interventions, improved infrastructure, community-based awareness programs, and subsidized dental services to reduce these barriers and enhance equitable oral healthcare delivery.

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