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Research Article

BARRIERS ENCOUNTERED BY ELDERLY INDIVIDUALS IN SEEKING DENTAL CARE SERVICES AMONG PATIENTS ATTENDING A TERTIARY CARE HOSPITAL IN WESTERN TAMIL NADU, INDIA: A MIXED-METHODS STUDY

SRIRAM BALAJI S[1], SHARAVANAN GM[1], NITHYAPRIYA C[2], JEEVITHAN S[3]*, RAMKISHORE K[1], SANKAMITRA G[1], RAMESH RATHINAMOORTHY[3]

[1]Department of Dentistry, KMCH IHSR, Coimbatore, Tamil Nadu, India. [2]Department of Ophthalmology, KMCH IHSR, Coimbatore, Tamil Nadu, India. [3]Department of Community Medicine, KMCH IHSR, Coimbatore, Tamil Nadu, India.
*Corresponding author: Dr. Jeevithan S; Email: dr.jeevithan@gmail.com

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ABSTRACT

Objective: The objective of the study is to identify the barriers which prevent the elderly population from seeking early dental care.
As our population continues to age, the oral health of elderly individuals becomes an increasingly important aspect of their overall well-being. However, a myriad of barriers often stands in the way of older adults accessing adequate dental care. These barriers can have a profound impact on their oral health, quality of life, and even their systemic health. Understanding these obstacles is crucial for developing strategies to ensure that elderly individuals receive the dental care; they need to maintain good oral health and overall well-being in their later years. To address this concern, we conducted a study that aimed at identifying the barriers in seeking early dental care among the elderly population attending a tertiary care hospital in western Tamil Nadu, India.

Methods: This mixed-methods study was done among 384 elderly adults and senior citizens who attended the dentistry outpatient department of a tertiary care center in Coimbatore, Western Tamil Nadu, India, after 5 days of onset of symptoms. A structured questionnaire was used to collect data.

Results: When questioned about the barriers to seeking dental care, 65.2% did not visit doctor due to anxiety and 50% did not feel the need to meet the doctor on time. 41.4% mentioned that accessibility issues were the main reason for delayed treatment. 56% reported financial constraints for delayed visits to the hospital. Anxiety and fear are prevalent emotions associated with dental visits and procedures in verbatims followed by availability, accessibility, and need.

Conclusion: By recognizing and actively addressing these barriers, we can strive toward a health-care system that ensures that elderly individuals receive the necessary oral health care; they need to maintain their well-being and an improved quality of life in their later years. In doing so, we not only enhance their oral health but also contribute to the broader goal of promoting healthier and happier aging.

Keywords: Oral health, Barriers, Dental anxiety.

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INTRODUCTION

Aging, influenced by demographic shifts, economic conditions, and cultural dynamics, is a multifaceted process. Modern health-care advancements and improved living standards have contributed to an extended lifespan globally, leading to a substantial increase in the elderly population. Within the spectrum of overall well-being, oral health emerges as a critical focal point in the aging process [1,2]. Seniors, however, face an elevated vulnerability to a range of oral health challenges including tooth loss, gum disease, dry mouth, and infections. These conditions not only impact fundamental functions such as eating and communication but can also precipitate serious systemic health issues, such as cardiovascular ailments and diabetes [3,4]. The neglect of oral health not only necessitates more extensive medical interventions, incurring higher costs but also disrupts nutritional intake and saps energy levels. Timely identification and intervention in oral health concerns, facilitated through regular dental check-ups, are of paramount importance. Yet, for many seniors, gaining access to sufficient oral health care remains a formidable hurdle, leading to significant disparities in health outcomes. The recognition and subsequent dismantling of these barriers are pivotal in devising tailored solutions that bolster dental well-being and overall quality of life in the elderly population [5]. This study is dedicated to pinpointing specific obstacles encountered by senior citizens seeking dental care at a tertiary care hospital in western Tamil Nadu, India. Through this endeavor, we aspire to pave the path toward enhanced oral health and an elevated standard of living in their later years.

METHODS

A mixed-methods study was conducted among 384 elderly adults and senior citizens who attended dentistry outpatient department of a tertiary care center in Coimbatore, Western Tamil Nadu, India, after 5 days of onset of symptoms. Ethical clearance was obtained from the Institutional Ethics Committee. After obtaining informed written consent, using a structured pre-designed questionnaire, the demographic data and disease characteristics were collected. Open-ended questions were also included to understand the reason for the delay in the initiation of treatment if any. The exact words uttered were captured. Senior citizens with special needs were excluded from the study.

In this research study, participants who met the inclusion criteria were examined in a private setting, either in the principal investigator's or co-investigator's room to ensure confidentiality. The initial step involved a thorough examination of the participants' oral cavities, which was conducted using wooden disposable tongue depressors. Subsequently, a structured interview approach was employed to collect data.

To determine the sample size for the study, we referred to a study conducted by Janto *et al*. [6] in which 20% of the study population were found to be impacted by poor oral health conditions. We calculated the sample size using the formula $4PQ/L^2$ that considers the desired relative precision of 20% and a confidence interval of 95%. This led to a sample size of 384 participants.

The data (both quantitative and qualitative) collected was compiled into an Excel spreadsheet. For the quantitative data, the statistical software SPSS 27 was used to perform analysis, presenting the findings in tabular form, including frequency and percentage distributions. Qualitative data, underwent a manual and theoretically driven thematic content analysis, guided by the well-established six-phase framework proposed by Braun and Clarke [7]. To ensure a comprehensive understanding of the data corpus, we read and re-read the interview transcripts. During this process, notes were taken and made initial impressions to gain a deeper familiarity with the content. The data were subsequently organized systematically by generating codes. Given the thematic nature of the open-ended questions, the data were initially sorted into themes. Throughout this process, due diligence was done to ensure that the themes made sense and were well supported by the data and that there was no over-extension or overlap between themes. Additionally, we remained open to the possibility of identifying new, previously unexplored themes within the data. In presenting the results of the study, we followed the identified themes, presenting them in an organized manner, supported by relevant codes and carefully selected verbatim quotations from the participants. This approach allowed us to provide a comprehensive and coherent account of the research findings.

RESULTS

The study included a total of 384 participants. The age and gender distributions of the participants were analyzed. The majority of the study population were in the age group of 51–60 years followed by the age group of 61–70 years. A smaller group of population fell in the age groups of 71–80 years and 36–40 years. Regarding gender, more than 50% of the participants were males and the rest were females. When the brushing frequency of the participants was examined, majority of the participants reported brushing their teeth once a day.

When questioned about the barriers to seeking dental care, 65.2% did not visit doctor due to anxiety and 50% did not feel the need to meet the doctor on time. 41.4% mentioned that accessibility issues were the main reason for delayed treatment. 56% reported financial constraints for delayed visits to the hospital (Table 1).

Based on the participants' responses, several distinct perspectives on dental treatment have emerged. First, anxiety and fear are prevalent emotions associated with dental visits and procedures. Additionally, some participants hold the belief that dental treatment is unnecessary, anticipating that dental issues will resolve naturally over time. Furthermore, the issue of accessibility to dental care was highlighted by a participant who pointed out the absence of a dental clinic in their village, making it challenging for them to access necessary dental services. Finally, financial constraints emerged as a common concern, with participants expressing worries about the high costs of dental treatments and, in some cases, prioritizing other expenses over dental care. These varied viewpoints reflect the complex landscape of dental health-care experiences and barriers (Table 2).

DISCUSSION

Barriers to oral health care in the elderly pertain to the factors that obstruct their capacity to uphold proper oral hygiene and obtain essential dental treatment [8]. These barriers can have long-term consequences on the dental health and overall well-being of the elderly. Many participants also gave multiple responses when they were asked about barriers seeking dental care. When questioned about the barriers to seeking dental care, 65.2% did not visit doctor due to anxiety and

Table 1: Barriers to seeking dental care

Barriers to seeking dental care	No		Yes	
	F	%	F	%
Anxiety to meet doctor	136	34.8	255	65.2
Did not perceive the need	196	50.1	195	49.9
Lack of accessibility	229	58.6	162	41.4
Financial issues	172	44.0	219	56.0

Table 2: General perception toward barriers

Codes	Participant responses
Anxiety	Verbatim 1.1.1 "I am anxious to visit the dentist" Verbatim 1.1.2 "I am scared to sit in the dental chair"
Need	Verbatim 1.2.1 "I don't think dental treatment is needed" Verbatim 1.2.2 "the problem will resolve on its own with time"
Accessibility	Verbatim 1.3.1 "we do not have a dental clinic near our place of residence"
Financial constraint	Verbatim 1.4.1 "I have less money to afford dental treatments" Verbatim 1.4.2 "other health/household expenses are there before dental treatment"

50% did not feel the need to meet the doctor on time. 41.4% mentioned that accessibility issues were the main reason for delayed treatment. 56% reported financial constraints for delayed visit to the hospital (Table 1).

Dental anxiety is a common emotional response experienced by many individuals when faced with dental appointments. It can manifest as nervousness, worry, or unease and may be triggered by various factors, such as fear of pain, past negative experiences, or the unknown nature of dental procedures [9].

The individual's use of the word "anxious" in verbatims suggests a level of discomfort or apprehension that they associate with dental visits. This anxiety might manifest in physical symptoms such as sweating, increased heart rate, or even avoidance behavior, where the person delays or avoids dental appointments altogether due to their anxious feelings. This statement goes beyond general anxiety and expresses a specific fear related to a key element of the dental experience – the dental chair. The dental chair is often associated with dental procedures and treatments, and for some individuals, it can be a source of considerable fear and discomfort.

The use of the word "scared" indicates a heightened emotional response, suggesting that the person may experience phobia of dental treatments. Dental phobia is an intense and irrational fear of dentistry, often leading to avoidance of dental care even when it is needed [10].

In both cases, these verbatim statements highlight the emotional challenges that individuals with dental anxiety or phobia face when it comes to seeking dental care. Such feelings can significantly impact their oral health, as the fear and anxiety may deter them from receiving necessary dental treatments and check-ups, potentially leading to more serious dental issues over time. It underscores the importance of addressing these anxieties and providing a supportive and understanding environment within dental practices to help individuals overcome their fears and access essential dental care.

The verbatim statement on need reflects a belief held by the individual that they do not require dental treatment for their current oral health condition. It suggests a perception of oral health that might either downplay the severity of the issue or indicate a lack of awareness regarding the importance of seeking dental care [11].

Individuals who hold this view might believe that their oral health concern is minor and does not necessitate professional intervention. Also, they may not fully comprehend the potential consequences of leaving a dental issue unattended and untreated [12]. This is based on the belief that certain oral health problems, such as mild discomfort or minor issues, can resolve spontaneously without professional intervention.

While some oral health concerns may indeed improve on their own, others may deteriorate or become more serious if left untreated. It is essential for dental professionals to educate and create awareness among individuals to identify differentiate between issues that might resolve without treatment and those that require professional dental care to prevent potential complications [13].

These verbatim statements highlight the importance of dental education and awareness among the common public. It is crucial for individuals to have accurate information about their oral health and to recognize when professional dental treatment is necessary [14]. Delaying or neglecting dental care when it is needed can lead to more significant and potentially unavoidable oral health problems in the future [15].

The verbatim statement on dental clinic availability indicates a geographical accessibility barrier to dental care services. These individuals are expressing a lack of proximity to a dental clinic in their residential area. In many cases, individuals may have to travel a significant distance to reach the nearest dental facility. This can be a substantial impediment, particularly for those who may not have easy access to transportation or face mobility challenges [16].

Financial constraints are the major barrier to accessing dental care. Participants expressed that their financial resources are limited, and as a result, they may struggle to cover the costs associated with dental treatments, which can include routine check-ups, procedures, and oral hygiene procedures [17]. This statement emphasizes the competing financial priorities that individuals may face. It suggests that, in the individual's view, other health-care or household expenses take priority over dental treatment expenses. This situation can occur when people have limited financial resources and must prioritize their spending on essential needs [18]. To overcome the financial barriers that impede elderly individuals' access to dental care, a multifaceted approach is essential which involves advocating for policy changes to expand dental insurance, raising awareness among the elderly about existing assistance programs, and encouraging the use of dental telehealth and teledentistry.

CONCLUSION

The barriers to oral health care among the elderly represent a multifaceted challenge with significant implications for both individual well-being and public health. The aging population faces a unique set of obstacles that hinder their access to essential dental services. These barriers include financial constraints, limited mobility and transportation, lack of awareness and education, communication difficulties, and dental anxiety. Addressing these barriers is not only a matter of promoting healthy smiles but also a crucial component of overall health and quality of life for senior citizens. It requires a concerted effort from policymakers, health-care providers, caregivers, and the elderly themselves. Strategies such as implementing outreach programs, providing mobile dental services, enhancing provider training, and addressing dental anxiety are essential steps in improving access to oral health care for the elderly.

AUTHORS CONTRIBUTION

S. Sriram Balaji and GM Sharavanan: Concept, Design of the study, data collection and manuscript writing. Nithyapriya: Data Compilation, manuscript editing. S. Jeevithan: Data Analysis and manuscript editing.

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