

Lived Experiences of Periodontal Disease and Dental Care among Aging Indian Adults in Luton, United Kingdom: A Qualitative Study

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Abstract

Oral health plays a central role in a person's overall well-being. However, the United Kingdom continues to face marked inequalities in this area, particularly among ethnic minority groups and older adults. Many experience a lower quality of life due to limited awareness and inadequate preventive care. Periodontal disease often results in tooth loss, nutritional difficulties, and further decline in quality of life. Older Indian adults living in Luton form an under-researched population, and insights from their experiences can help clarify how cultural, structural, and psychosocial elements shape oral health outcomes. This research aimed to explore the personal experiences of aging Indian adults in Luton regarding their periodontal health, their ability to access dental services, and how cultural, family-related, and emotional influences affect their oral health practices. The study adopted a qualitative approach, conducting semi-structured interviews with 10 aging Indian adults residing in Luton. The collected data were examined thematically using the health belief model, social cognitive theory, and an intersectionality framework to reveal recurring patterns and deeper meanings in the participants' accounts.

The findings indicated generally low awareness of periodontal disease. Most participants considered gum problems to be a normal and insignificant part of growing older. Key barriers to dental care included the belief that NHS services were costly, involved lengthy waiting times, and were overly complex to navigate. Although private dental care was viewed as high-quality, its expense made it inaccessible for many. Psychological factors such as fear, distrust, and embarrassment also reduced the likelihood of seeking professional help. The study concludes that cultural beliefs, systemic obstacles, and psychosocial influences interact in complex ways to affect the oral health of older Indian adults in Luton. Treatment for periodontal issues tends to occur only after symptoms appear rather than through preventive measures. Key recommendations include delivering culturally tailored oral health education, involving families and communities in interventions, improving affordability and access, and enhancing cultural competence within NHS dental services. This work adds fresh qualitative insights into the necessity for culturally sensitive, family-supported, and readily accessible dental care for older adults from ethnic minority backgrounds across the UK.

Keywords: Oral health, Well-being, Older adults, Quality of life

Introduction

Periodontal disease ranks among the most widespread non-communicable oral conditions worldwide.

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According to Global Burden of Disease statistics, severe periodontitis is the sixth most common health disorder globally [1]. This substantial burden is further intensified by ongoing demographic changes. Studies indicate that roughly two out of every three adults aged over 55 years are affected by periodontal disease [2]. Although keeping natural teeth later in life is beneficial, it also heightens vulnerability to periodontal problems [3]. This situation points to an increasing demand for long-term periodontal support that must take into account frailty and multiple health conditions common in older age groups [3]. The

widespread occurrence of the disease across broad sections of the population underlines the need for continuous monitoring and effective interventions.

Strong evidence demonstrates the wider systemic consequences of periodontal disease. Chronic periodontitis promotes inflammation by triggering the release of cytokines, including C-reactive protein and interleukins, which can harm vascular function [4]. Meta-analyses show that older adults suffering from periodontitis carry a higher risk of cardiovascular disease. Diabetes also shares a two-way relationship with periodontal disease. Ongoing gum inflammation can worsen blood sugar control, whereas better periodontal management is associated with lower HbA1c levels [5]. Some research further suggests a potential association with cognitive decline, though current findings are not yet definitive [6]. These connections highlight the intricate links between oral health and general physical well-being during later life.

Multiple intricate barriers hinder older adults from obtaining dental care. A UK scoping review identified the primary obstacles as cost, reduced mobility, dental anxiety, and limited service availability [7]. These difficulties are worsened by passive barriers, such as a low sense of need among denture wearers [7]. Socio-economic disadvantage and belonging to an ethnic minority group further intensify these challenges [8]. A survey conducted by The Guardian also highlighted that individuals from lower-income backgrounds face greater disadvantages when trying to access NHS dental and GP services. In addition, persistent workforce shortages and structural limitations within services persist. These findings suggest that poor oral health outcomes among older people stem not only from clinical factors but also from systemic, societal, and individual barriers.

Domiciliary dental care offers a valuable option for frail or less mobile individuals who are unable to attend conventional dental clinics. Such services are safe, clinically effective, and well-received by adults who depend on care [9]. However, significant access barriers remain, including limited provider availability, high costs, and poor service coordination. Existing policy frameworks for domiciliary care are fragmented and inadequately funded. Important enablers include caregiver education, better inter-professional collaboration, and appropriate commissioning arrangements [9]. Expanding domiciliary programs requires investment in workforce training and suitable contractual incentives. Ultimately, domiciliary care has

the potential to address critical access gaps, yet it remains underused because of systemic shortcomings.

Effective management of periodontal disease among older adults demands integrated public health strategies that tackle epidemiological, systemic, and access-related issues. While population-level measures such as water fluoridation offer limited advantages, they often fail to reach marginalized older groups [8]. Policies should promote the integration of oral health into broader chronic disease management pathways to capitalize on the links with general health [10]. Culturally and socio-economically sensitive approaches to outreach, workforce development, and service models are essential. In particular, domiciliary dental services need structured commissioning, adequate funding, and scaling up [9]. Ongoing monitoring and policy refinements will be necessary to ensure that oral health services keep pace with the growing older adult population.

The United Kingdom has acknowledged the significance of oral health within its public health agenda. Nevertheless, existing service models do not adequately address the distinct requirements of older ethnic minority groups. For example, the NICE Guideline NG48 emphasizes the importance of oral care in care homes but does not guide cultural adaptation or targeted outreach. Local data from Luton show that more than 12.5 percent of residents aged 55 and over are of Indian origin, and older Indian adults in this area often report feeling underserved [11]. Members of this group encounter structural obstacles, including language difficulties and a lack of culturally appropriate communication in dental settings. As a result, they are less likely to utilize NHS dental services.

Structural inequalities affecting older ethnic minorities further widen these gaps. Local NHS dental utilization figures reveal that adults over 55 in Luton access dental services around 30 percent less frequently than national averages [12]. This difference reflects broader infrastructure constraints, such as insufficient NHS providers in deprived neighborhoods, extended waiting times for appointments, and transportation difficulties experienced by less mobile older people [7]. Moreover, socio-economic pressures contribute to higher rates of oral disease even when services are available [13]. These structural factors demonstrate that current NHS arrangements frequently fall short for this segment of the older population.

Ethnic background plays a significant role in both disease development and engagement with healthcare. Research

conducted in East London found that South Asian adults, particularly those of Indian origin, exhibit greater periodontal pocketing compared with White British adults, even after accounting for socio-economic status [13, 14]. They are also more likely to retain their natural teeth while experiencing elevated levels of periodontal disease due to lower uptake of intensive treatment [13]. Contributing factors include cultural beliefs and practices, oral hygiene routines, fear of dental procedures, and reduced confidence in the healthcare system [14]. This interplay of biological, cultural, and social elements creates a heightened risk profile for this population.

The central aim of the study was to investigate the experiences of aging Indian adults in Luton regarding periodontal disease and its management.

In line with the overall aim, the following objectives were set:

To explore the lived experiences and perceptions of periodontal health among aging Indian adults in Luton, paying particular attention to how they understand oral health changes associated with aging.

To identify the structural and systemic barriers encountered by aging Indian adults in Luton when accessing dental services, and to understand how these barriers affect their decisions to seek or postpone care.

To examine the influence of cultural traditions, family dynamics, and community expectations on the oral health behaviors and choices of aging Indian adults in Luton.

Materials and Methods

Table 1. Inclusion and exclusion criteria for study participants.

Criteria type	Description
Inclusion criteria	Individuals aged 55 years and above, of Indian heritage, living in Luton, proficient in English, Hindi, or Telugu, mentally capable of giving consent and taking part, and who have accessed dental services within the past 2 years
Exclusion criteria	Individuals with significant cognitive impairment, those with terminal illnesses, or those who are unable to communicate

The selection process was designed to reflect a range of experiences within the Indian community in Luton. It included people who use NHS dental services, those who pay for private care, attendees of church-based outreach programs, and recipients of domiciliary care. Purposive sampling helped ensure diversity while keeping the central focus on experiences of periodontal healthcare. Participants were recruited through community networks to foster trust and maximize cultural accessibility.

Study design

The purpose of this study was to investigate the experiences of aging Indian adults in Luton in relation to periodontal disease and dental care. A semi-structured qualitative interview approach was adopted because it offers flexibility and allows for in-depth exploration [15]. This method strikes an effective balance between researcher guidance and natural conversation, enabling participants to elaborate on issues that matter to them while ensuring that all key topics are addressed.

Participant selection

The target population for this research consisted of Indian adults aged 55 years and over living in Luton. Participants could be at various stages of engagement with periodontal health services. The minimum age of 55 years was chosen to capture the early emergence of oral health inequalities that can begin before retirement. Epidemiological data indicate that periodontal conditions frequently worsen significantly from the mid-50s onwards, especially among ethnic minority groups who have experienced prolonged exposure to social and structural barriers in healthcare. The focus was on achieving diversity of lived experiences rather than measuring prevalence. The accessible population included individuals who attend community events, receive domiciliary care, or collaborate with healthcare organizations. This made purposive sampling practical while maintaining variety in living situations and lifestyles. Selection took into account factors such as gender, language preference, income level, and extent of service use (**Table 1**).

In qualitative research, sample size is guided by the principle of saturation, where no new themes emerge from additional interviews [16]. This differs from statistical power calculations used in quantitative studies. Saturation ensures sufficient depth and richness of understanding. Existing literature on oral health among ethnic minority older adults shows that most studies reach saturation with 10 to 20 interviews [16]. Therefore, conducting 10 interviews was considered appropriate to

capture meaningful insights without unnecessary repetition.

Purposive sampling was selected because it allows deliberate inclusion of individuals most likely to provide relevant and rich information [17]. A study flyer was created and distributed across social media platforms, including Telegram, Instagram, and Facebook. Snowball

sampling proved useful for reaching participants who might otherwise be difficult to access. This technique also helped build trust within the community. Stratification was applied according to gender and living arrangements, whether living independently, in multi-generational households, or in care settings (**Table 2**).

Table 2. Recruitment summary by source.

Recruitment source	Number contacted	Showed interest/responded	Qualified after screening	Took part (interviews completed)	Declined/withdrew	Response rate (%)
Community-based events (temples and cultural groups)	18	10	8	6	4	55.6
Home-based care services and health organizations	10	6	5	2	1	60.0
Online platforms (Telegram, Instagram, and Facebook)	25	7	4	1	3	28.0
Referral through participants (snowball method)	8	5	4	1	1	62.5
Overall	61	28	21	10	9	45.9

The most successful recruitment channel was 'domiciliary services and healthcare groups' due to its higher response rate.

Setting and data collection

The study took place in Luton, a town in southeast England with a substantial aging Indian population [11]. All data collection was carried out via teleconferencing platforms, with participants joining online interviews. This format offered greater flexibility and convenience. Interviews were arranged at times that suited each participant's availability and comfort level.

An interview guide was developed to facilitate the collection of relevant health-related information. It contained open-ended questions focused on access to

care, attitudes towards oral health, and cultural influences. Example questions included: "Can you describe a time when you decided to seek treatment for your gums?" The guide remained flexible so that promising leads from participants could be followed naturally. This approach supported the collection of authentic and meaningful data.

The guide's flow, timing, and clarity were tested through pilot interviews with two individuals who were not part of the main sample. These pilots lasted approximately 15–20 minutes and gathered feedback on question clarity. Adjustments were made based on participants' responses and level of understanding. Piloting also helped refine any translations and identify potentially confusing wording (**Figure 1**).

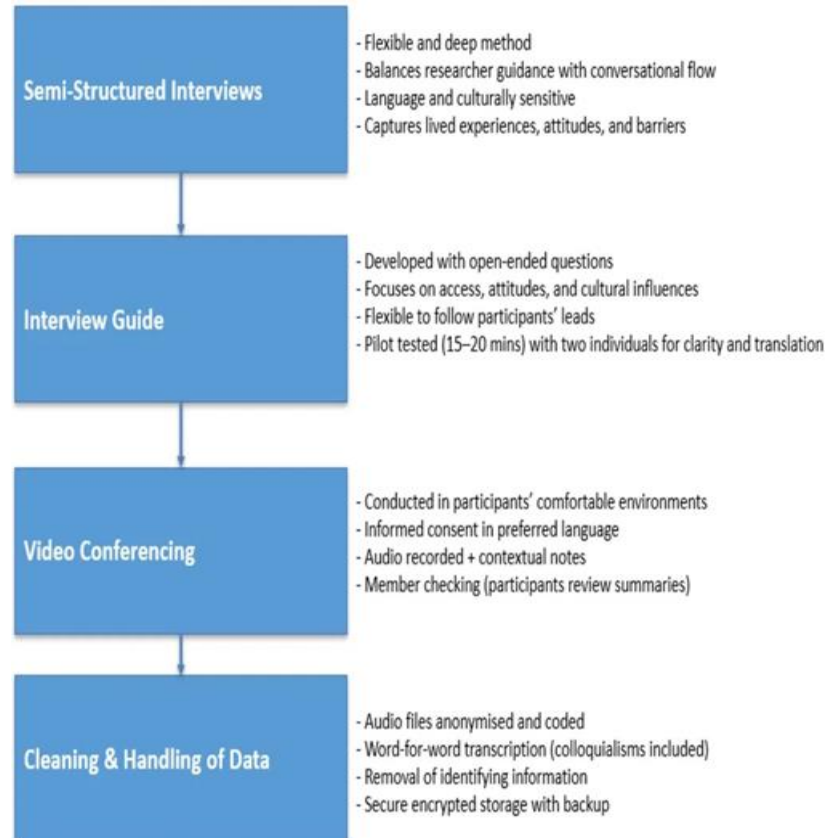


Figure 1. Study the data collection process.

Data analysis

The six-step thematic analysis framework proposed by Braun and Clarke was used to interpret the accounts provided by the aging Indian adults in Luton (**Figure 2**).

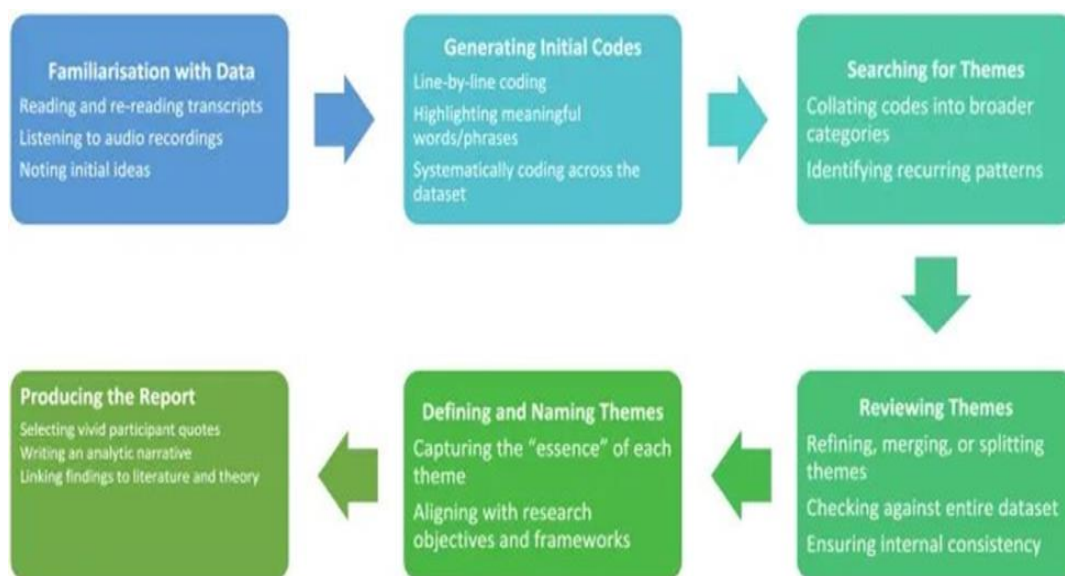


Figure 2. Data analysis process.

Thematic analysis followed the six-step process outlined by Braun and Clarke [18]. The first step involved repeated reading of the transcripts to achieve immersion and familiarisation with the data. Line-by-line coding was then carried out based on the surface (semantic) meanings expressed by participants. A set of codes was generated, drawing from both the collected data and the study objectives. These codes were grouped into preliminary themes, which were then reviewed, revised, and refined through an iterative process. This method facilitated the identification of patterns related to access, beliefs, and contextual factors. Final themes were clearly defined, named, and illustrated with direct quotations from participants. Overall, this systematic and reflexive approach ensured the analysis remained consistent with interpretive qualitative principles.

Ethical approval and participant protection

The research adhered to the core ethical principles of Respect for Persons, Justice, Beneficence, and Non-maleficence. Institutional oversight was secured through formal ethical approval granted by the University Ethics Committee. Informed consent was obtained both verbally before each interview and in written form. Participants were clearly informed of their right to withdraw from the study at any time without any repercussions. Attention was also paid to participants' emotional well-being, with interviewers prepared to pause or stop the session if signs of distress appeared. These measures ensured the ethical conduct and protection of all individuals involved throughout the study.

Results and Discussion

Steps followed for data analysis (**Table 3**).

Table 3. Steps followed for data analysis based on the thematic process by Braun and Clarke [18].

Thematic stage	Participant examples (Arjun → Kiran)	Preliminary themes
Familiarisation	Arjun: sought treatment for a cavity after encouragement from his wife; Ravi: experiences bleeding gums and is concerned about costs; Meera: reports gum bleeding but has confidence in her dentist; Anita: has sensitive teeth, underwent veneers, uses private care; Priya: occasional gum bleeding and tends to avoid dental visits; Sita: faces long NHS waiting times and gum discomfort; Lakshmi: has bleeding gums and avoids visiting the dentist; Shobha: reluctant to pursue dental care; Radha: avoids dentists due to financial concerns; Kiran: ongoing gum bleeding but hesitant to seek care.	Low awareness, barriers to access, influence of family, and emotional factors
Initial idea development	Shared patterns include gum bleeding, delays in seeking care, neglect, and dependence on family members; Differences observed between proactive individuals (Anita, Meera) and those who delay care (Priya, Radha)	Highlights a range of awareness levels and coping behaviors
Generating codes	Examples include: “bleeding during brushing,” “treatment is costly,” “encouraged by spouse,” “painful dental procedures,” “private dental care,” “postponing visits,” and “fear of dentists.”	Codes are organized into categories such as awareness deficits, financial and access issues, family influence, and emotional concerns.
Detailed (line-by-line) coding	Key excerpts: Arjun: “My wife pushed me”; Ravi: “dental care is expensive”; Meera: “advice from dentist was helpful”; Anita: “I floss every day”; Priya: “haven’t visited a dentist in years”; Kiran: “gum bleeding persists.”	Strong grouping around avoidance behaviors, cost concerns, family impact, and awareness levels
Theme identification	Observed patterns include: family acting as a motivator (Arjun, Meera); financial and waiting-time barriers (Ravi, Priya, Radha, Kiran); fear and hesitation (Shobha, Lakshmi); greater awareness among those using private care (Anita)	Emerging themes align with overall findings.
Reviewing themes	Cross-checked across all 10 interviews, confirming recurring issues such as access barriers, limited awareness, family influence, and fear; Unique cases include Anita (private care perspective) and Kiran (ongoing untreated symptoms)	Ensures themes are both consistent and reflective of variation
Defining and naming themes	“Limited Awareness” = interpreting gum bleeding as part of ageing (Priya, Radha); “Access Barriers” = long NHS waits and high costs (Ravi, Kiran); “Family Influence” = encouragement from spouses (Arjun, Meera); “Cultural Beliefs” = reliance on home remedies and stigma around seeking care; “NHS vs.	Themes are clearly linked to study objectives.

	Private Care” = illustrated by Anita; “Emotional Factors” = fear and avoidance (Lakshmi, Shobha)	
Report production	Selected illustrative quotes: Arjun: “My wife pushed me...”; Ravi: “dental care is expensive”; Priya: “haven’t seen a dentist for years”; Anita: “I floss daily”; Kiran: “gum bleeding continues”	Incorporated as supporting evidence in the analytical narrative

All names used in the tables and interview transcripts are pseudonyms.

Key findings

The collected data were analyzed using thematic analysis to identify the main emerging themes. The table below provides a summary of the themes identified from the data (**Table 4**).

Table 4. Themes in the data.

Theme	How the theme was derived from transcripts	Illustrative quotes (transcript excerpts)	Interpretation of findings
Limited awareness of periodontal health	Participants frequently interpreted symptoms like gum bleeding and tooth sensitivity as a natural consequence of aging, rather than recognizing them as signs of a preventable oral condition, indicating gaps in knowledge about periodontal health.	‘I do not know much about gum disease... I just brush twice daily.’; ‘They think it’s a small thing.’	Misunderstanding of symptoms leads to normalization of gum disease, reducing engagement with preventive dental practices.
Barriers to accessing dental care	Many individuals highlighted challenges in accessing NHS dental services, particularly the extended waiting periods and financial costs.	‘Getting an NHS appointment is really hard.’; ‘Even just the consultation is £90, too expensive.’	Practical constraints such as affordability and service availability act as major deterrents to timely dental care.
Influence of cultural beliefs and practices	Several participants reported turning to traditional or home-based remedies (e.g., turmeric, clove oil, salt rinses), which often postponed professional consultation.	‘They used to tell us some homemade tips, which were very helpful actually.’ ‘Using turmeric and lemon.’	Cultural health practices can compensate for limited access but may also unintentionally delay formal treatment.
Family influence	Choices around seeking dental care were often shaped by family members, who either encouraged action or contributed to inaction.	‘My wife convinced me to see the dentist.’ ‘My husband books for both of us.’	Family relationships play a dual role, acting as both motivators and barriers in oral health behaviors.
NHS versus private dentistry	Respondents compared public and private dental services, describing NHS care as overstretched, whereas private care was viewed as more efficient and better equipped, though less affordable.	‘Private ones have better equipment but are too costly.’ ‘NHS dentists are rundown and busy.’	Perceived disparities between NHS and private services point to inequalities in quality and accessibility.
Psychological and emotional dimensions	Emotional factors such as fear, anxiety, and embarrassment were commonly reported and influenced the avoidance of dental visits.	‘I feel quite scared of dentists.’ ‘It’s very painful, so I avoid going until I must.’	Emotional discomfort adds another layer of difficulty, reinforcing delays in seeking necessary dental treatment.

Limited awareness

Participants demonstrated limited awareness that periodontal disease is a preventable condition. They commonly attributed symptoms such as gum bleeding or tooth sensitivity to the normal process of aging. This pattern aligns with previous research showing persistently low oral health literacy among older South Asian populations in the UK [19]. Most individuals did not link early warning signs to an underlying disease process and instead viewed them as an inevitable part of growing older. This normalization undermined

preventive behaviors such as regular scaling, flossing, or timely specialist referral. According to the health belief model, failing to perceive personal susceptibility to illness reduces the likelihood of adopting positive health behaviors [20]. When participants had received information, it was often incomplete and came primarily from family members or community sources rather than from formal health promotion initiatives.

There was also a general lack of understanding of preventive dentistry. Participants typically defined good oral health maintenance simply as brushing teeth

regularly, rather than adopting a comprehensive approach. Only a small number mentioned interdental cleaning or recognized periodontal pocketing as indicators of disease progression. Instead, most described a reactive approach to care, seeking professional help only when pain or visible symptoms became severe. This reactive pattern is consistent with findings from other studies of South Asian groups, who frequently report visiting dentists solely in emergencies [14]. The absence of a preventive mindset was further reinforced by the lack of culturally tailored educational resources available in Luton.

Access barriers

The strongest and most frequently mentioned theme across all interviews was the difficulty in obtaining affordable and timely dental care. Financial constraints were cited as the primary obstacle, particularly regarding NHS charges, which many perceived as unpredictable and excessively high. Several participants reported delaying treatment due to concerns about unexpected additional costs, an issue previously documented in UK dental services [7]. Exemptions from NHS charges were not always clearly understood, and the eligibility rules appeared confusing to many. These findings indicate that barriers extend beyond purely financial matters to include informational gaps, which in turn perpetuate existing inequalities. Structural problems in service provision compounded these difficulties, with participants describing challenges in securing prompt appointments.

Language and cultural differences also played a significant role in deterring access. Some respondents expressed discomfort during interactions with dental staff, describing communication as rushed or lacking cultural sensitivity. For those with limited English proficiency, relying on family members for translation created issues around privacy and reduced personal autonomy in healthcare decisions. Organizational barriers, such as inflexible appointment systems and scheduling difficulties, further disadvantaged older adults with limited mobility. The combined impact of financial, linguistic, and structural obstacles illustrates how intersecting disadvantages restrict service utilization.

Cultural beliefs

Cultural beliefs and traditional practices strongly shaped how participants perceived and responded to symptoms of periodontal disease. Many reported using natural remedies such as clove oil, turmeric, or salt water rinses to relieve gum pain or discomfort. While these remedies

offered short-term relief, they often delayed seeking professional care and allowed the condition to progress. The preference for home remedies reflects longstanding intergenerational knowledge rooted in Indian cultural traditions, including Ayurvedic practices and family-based care. Although such approaches are not necessarily harmful in themselves, they tend to predominate when awareness of modern preventive dentistry is low, leading to reduced use of formal dental services.

Family influence

Family dynamics played a central role in shaping participants' oral health behaviors and decisions about accessing care. Female participants in particular noted that oral health choices often depended on the approval or support of their spouse, highlighting gendered patterns within South Asian households. Some women described postponing dental visits due to caregiving responsibilities, prioritizing family members' needs over their own health. These accounts reflect broader patterns of gendered health inequalities, where cultural expectations of duty and modesty can limit women's health-seeking behavior [14]. In contrast, other participants reported positive family support, such as spouses encouraging regular dental check-ups or adult children arranging appointments on their behalf.

NHS vs. private care

Participants reported mixed experiences with NHS dentistry, frequently highlighting its cost-effectiveness as a key advantage. Nevertheless, there was widespread dissatisfaction with NHS services, particularly concerning appointment availability and the perceived lack of individualized attention. Many described consultations as rushed, during which their concerns were not adequately addressed. In contrast, participants often viewed private dentistry as more attentive and reliable. However, private treatment was generally regarded as unaffordable for the majority, leaving lower-income households feeling excluded. The perceived superiority of private care generated frustration and eroded trust in NHS dental services. Some participants questioned whether NHS dentists prioritized financial efficiency over patient-centered care, reinforcing feelings of neglect. Private practitioners, on the other hand, were described as more communicative and culturally aware, although these services remained largely inaccessible to most.

The findings indicate that viewing NHS dentistry as rushed, impersonal, and difficult to access — in comparison with private care — weakens trust and fairness in service delivery. Participants' accounts of

extended waiting times, limited communication, and cultural insensitivity suggest underlying systemic under-resourcing rather than personal preferences. Policy reforms are required to bolster NHS dental capacity by increasing funding, improving workforce distribution, and enhancing cultural competence training [2]. Incorporating professional interpreter services and patient-centered communication standards could improve both accessibility and user satisfaction. Closing these structural gaps would foster equity, restore confidence, and ensure that high-quality oral healthcare does not depend on income level or cultural background.

Emotional dimensions

Fear and mistrust emerged as prominent emotional responses to dental care in participants' accounts and served as significant influences on their behavior. Dental anxiety often stemmed from previous negative encounters, including painful procedures or unprofessional interactions with practitioners. These experiences frequently resulted in long-term avoidance, reinforcing reliance on symptom-based or home remedies. Participants expressed concerns about both physical pain during treatment and the associated financial burden. The interaction of emotional and structural barriers thus created compounded obstacles to seeking professional care.

Shame also constituted a substantial emotional barrier. Several individuals reported feeling embarrassed about the condition of their teeth or gums and worried about being judged by dental professionals. This stigma contributed to the avoidance of regular visits. The feeling of shame was particularly pronounced among women, who associated oral health with personal hygiene and self-presentation. These narratives underscore the influence of cultural values related to modesty and social image on healthcare encounters. Shame remains an under-addressed emotional factor in oral health interventions, which have traditionally focused more on structural or behavioral issues.

The study revealed that participants possessed a limited understanding of periodontal disease beyond its obvious symptomatic signs, such as gum bleeding or pain. Most interpreted these symptoms as a normal consequence of aging rather than as preventable conditions amenable to clinical treatment. This perspective reflects a broader pattern of low oral health literacy within South Asian communities in the UK [13]. Preventive practices, including interdental cleaning, routine scaling, or monitoring of periodontal pockets, were rarely mentioned. Instead, participants tended to postpone dental visits until pain became severe, reinforcing a

reactive rather than preventive orientation. This pattern is consistent with the health belief model, which posits that low perceived susceptibility and limited recognition of benefits reduce engagement in preventive health actions [20]. Consequently, inadequate awareness acts as a major obstacle to early detection and management of periodontal disease among aging minority populations. Another dimension of limited awareness concerned the sources of information. Participants primarily relied on informal knowledge passed through family, community, or cultural networks rather than evidence-based health resources. While these networks provide important support, they can also sustain misconceptions or fatalistic attitudes toward oral health. For instance, many viewed gum bleeding as an inevitable part of aging, which discouraged timely professional consultation. Valdez *et al.* [19] highlight that ethnic minority groups often face disparities in access to culturally relevant oral health information, thereby sustaining inequalities. This situation is worsened by the scarcity of targeted public health campaigns aimed at older South Asians in Luton. Improving periodontal health outcomes, therefore, requires not only individual-level education but also systemic initiatives that deliver culturally appropriate oral health information.

Cost consistently surfaced as a major barrier to accessing dental care. Participants described NHS charges as substantial and unpredictable, leading them to delay treatment until problems worsened. This mirrors national findings that affordability remains one of the most significant impediments to oral healthcare in the UK [7]. The financial strain falls disproportionately on lower-income households, which are over-represented among ethnic minorities due to structural inequalities in employment and earnings [21]. In this context, economic barriers cannot be considered in isolation from other social determinants of health. Without reforms to NHS dental fees and subsidy mechanisms, cost will continue to hinder access for aging adults from minority backgrounds.

These financial challenges were intensified by structural and organizational obstacles. Participants frequently mentioned difficulties in securing NHS appointments, prolonged waiting lists, and brief consultation times. NHS Digital [12] has documented a decline in NHS dental capacity, particularly following the COVID-19 pandemic, alongside widespread unmet needs across England. The situation was further aggravated for those with limited English proficiency due to inadequate communication support and a lack of culturally sensitive interpretation services. Research by Power *et al.* [22] confirms that linguistic and cultural barriers contribute to

the marginalization of minority patients, fostering mistrust and lower service uptake. Overall, these results illustrate how financial, organizational, and cultural factors intersect to create multiple layers of disadvantage for aging Indian adults in Luton. Overcoming such barriers demands systemic changes that acknowledge the complex nature of oral health disparities.

Cultural beliefs exerted considerable influence on how participants understood and responded to periodontal health issues. Traditional remedies such as clove oil, turmeric, or salt rinses were commonly used as initial treatments for gum pain or sensitivity. These approaches are grounded in Indian Ayurvedic traditions and reflect the resilience and resourcefulness of migrant communities. However, reliance on such remedies often delays professional intervention, allowing periodontal disease to advance. According to Arora *et al.* [14], South Asians in the UK tend to retain more natural teeth than White British counterparts, yet they experience higher levels of untreated periodontal disease. The findings suggest that cultural practices should not be dismissed but rather integrated into educational strategies that bridge traditional beliefs and biomedical approaches. Recognizing and respecting cultural practices can help build trust and improve engagement with formal dental services.

Fatalism emerged as another recurring theme in participants' accounts. Many expressed the view that tooth loss and gum disease are inevitable aspects of aging, which reduced their motivation to engage in preventive actions. This sense of inevitability aligns with existing research on fatalistic attitudes toward chronic conditions within South Asian populations. Fatalism can be understood both as a cultural belief and as a coping strategy in the face of structural exclusion, where individuals feel they have little control over access to services.

Family dynamics played a significant role in shaping participants' oral health behaviors and decisions about seeking care. Women in the study frequently described prioritizing the health needs of their spouses and children over their own, often delaying dental appointments until family responsibilities allowed. This pattern is consistent with previous studies showing that South Asian women tend to place family needs ahead of their personal health. Spousal approval was also mentioned as an important factor influencing whether women sought dental care, indicating that oral health decisions were not always made independently. These findings highlight how oral health behaviors are deeply embedded in household dynamics, in which collective family priorities often take precedence over individual health-seeking behaviors.

Participants expressed dissatisfaction with NHS dental services, commonly citing rushed appointments, long waiting times, and a lack of personalized attention. These complaints correspond with national data indicating that NHS dentistry is under considerable strain, with widespread reports of unmet need and uneven service provision [12]. A lack of trust in the service was evident, with many viewing NHS care as focused primarily on efficiency rather than patient well-being. Those who had used NHS dentistry often felt that dentists were motivated by financial considerations to provide minimal care, which intensified feelings of neglect. Whether accurate or not, such perceptions weaken patient confidence and discourage the use of preventive services. In contrast, private dentistry was consistently described as more attentive, personalized, and culturally sensitive. Participants appreciated that private practitioners took time to explain procedures and discuss concerns. However, affordability remained a major barrier, particularly for lower-income individuals.

Psychological factors emerged as powerful influences on participants' oral health behaviors. Dental fear was common and usually rooted in past negative experiences, such as painful extractions or insensitive communication from practitioners. Dental anxiety is well recognized as a significant barrier to service use, especially among older adults [23]. In this study, fear was amplified by mistrust in NHS dentistry, where participants felt their concerns were not fully heard. These psychological barriers contributed to avoidance behaviors, which in turn reinforced reliance on emergency care and traditional remedies. Notably, fear was linked not only to physical pain but also to financial worries, illustrating the combined burden of psychological and structural obstacles.

Critical analysis of themes in relation to theoretical frameworks

The themes identified in this study collectively demonstrate the complex, multidimensional character of oral health behavior among older Indian adults in Luton. Individual beliefs, social contexts, and intersecting inequalities combine to influence patterns of care-seeking. The health belief model (HBM) offers a useful lens for understanding the limited awareness and reactive approach observed among participants [7]. Low perceived susceptibility — illustrated by the tendency to see gum bleeding as a normal part of aging — diminishes motivation for prevention. However, the HBM's emphasis on individual cognition does not fully account for the structural and cultural constraints evident here, including financial difficulties, language barriers, and

institutional mistrust. These results support critiques that the HBM underplays systemic and emotional factors such as fear and shame, which often outweigh rational assessments of risk and benefit in this population.

Social cognitive theory (SCT) sheds additional light on the influence of environmental and relational elements. Family encouragement and community norms strongly affected participants' actions, consistent with SCT's focus on observational learning and self-efficacy. Nevertheless, structural constraints — such as limited NHS appointment availability, inflexible systems, and socio-economic disadvantage — restricted participants' capacity to act on these social influences. This highlights a limitation of SCT: while it acknowledges social factors, it presumes a degree of personal agency that may not exist within highly constrained circumstances.

The Intersectionality framework is particularly valuable for explaining how ethnicity, age, gender, and socio-economic status intersect to create layered disadvantage. Cultural practices, such as the use of home remedies, reflect both resilience and marginalization stemming from language barriers and a lack of culturally tailored information [7]. Women's accounts of caregiving responsibilities and cultural expectations of modesty reveal gendered disparities in health prioritization. Meanwhile, the contrast between NHS and private care highlights class-based exclusion. Intersectionality thus locates individual beliefs and behaviors within larger systems of inequality that neither the HBM nor SCT fully addresses. Taken together, these theoretical frameworks underscore that improving periodontal health among older adults from ethnic minorities requires more than individual behavior change; it demands structural reform and culturally responsive service delivery.

Limitations

The small, non-representative sample of 10 aging Indian adults residing in Luton constitutes a limitation of this study, as it restricts the generalisability of the findings to broader South Asian or other minority populations across the United Kingdom. Although the qualitative design prioritized depth over breadth, the limited sample size may have overlooked important variations in experiences across socio-economic, linguistic, or religious subgroups within the Indian community. Additionally, reliance on self-reported data introduces the possibility of recall bias and social desirability bias, which could have influenced participants' descriptions of their oral health behaviors. The use of online interviews may also have constrained rapport-building and excluded individuals who lacked digital literacy or reliable access to teleconferencing technology.

Conclusion

Low health literacy and fatalistic attitudes restrict preventive behaviors because of insufficient awareness of periodontal disease. Structural barriers — including cost, limited NHS capacity, and language difficulties — further hinder access to care. Cultural practices can serve as sources of resilience and continuity, yet they may also impede engagement with biomedical services when used in isolation. Family influence acts as both a constraint, through gendered expectations, and a resource, through intergenerational support. Emotional responses such as fear and shame contribute to avoidance, while systemic differences between NHS and private care widen existing inequalities. Overall, these findings illustrate the complex interaction of cultural, structural, and psychological factors in shaping oral health outcomes.

Culturally and structurally sensitive public health approaches are essential to tackle these barriers and improve periodontal health among aging Indian adults. Policymakers should strengthen collaboration between dental services and community organizations while integrating oral health into wider policies on aging and chronic disease management. A shift toward greater equity and inclusivity can be achieved by embedding oral health within the broader social determinants of health.

To tackle the inequalities revealed through participants' experiences, three main policy recommendations are put forward:

- Boost funding to shorten waiting times and introduce more flexible appointment arrangements for older adults, such as domiciliary visits and weekend clinics.
- Require ongoing staff training in culturally sensitive communication, effective use of interpreters, and awareness of South Asian perspectives on oral health to build greater patient trust and comprehension.
- Collaborate with local Indian community organizations and places of worship to provide multilingual oral health education sessions, preventive screening events, and practical advice on accessing NHS entitlements. These partnerships would help decrease dependence on traditional home remedies and promote fairer access to professional care.

Further research into interventions is needed to evaluate the impact of culturally tailored oral health education programs, family-involved strategies, and community outreach initiatives. Community-based participatory research (CBPR) represents a valuable participatory method that can ensure affected communities are actively involved in designing interventions [24]. Involving

communities throughout the research process enables studies to produce findings that are both methodologically robust and socially relevant.

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