Beyond the toothbrush: Older adults' experiences with daily oral self-care

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PRACTICAL IMPLICATIONS OF THIS RESEARCH

- Older adults often face barriers to daily oral self-care, including functional ability, cognitive changes, medication effects, health literacy, and their living and caregiving environment.
- Dental hygienists should incorporate practical adaptations, such as modified oral hygiene devices, simplified instructions, visual cues, and caregiver assistance into individualized care plans for older adults.
- Person-centred, culturally sensitive, and collaborative care is essential, with dental hygienists using supportive communication and regular follow-up with older adult patients to address the factors that affect daily oral self-care.

ABSTRACT

Objective: This narrative review explores the experiences of older adults (≥65 years) in maintaining daily oral self-care. It examines perceived challenges, enablers, and coping strategies to inform dental hygienists in developing person-centred, sustainable approaches to support oral hygiene in aging populations. **Methods**: A comprehensive search was conducted across PubMed, CINAHL, Cochrane Library, Scopus, and Embase using MeSH terms and keywords related to older adults, oral self-care, barriers, facilitators, and lived experiences. Qualitative, quantitative, and mixed-methods studies published in English between 2010 and 2025 were eligible. Key findings on challenges, facilitators, and lived experiences related to oral self-care were extracted and appraised for methodological quality. **Results**: Of the 24 studies initially identified, 12 met the inclusion criteria. Barriers to consistent oral hygiene included functional decline, cognitive impairment, polypharmacy, environmental limitations, and psychosocial factors, contributing to reduced oral function, greater disease burden, and lower oral health–related quality of life. Enablers included adaptive oral hygiene devices, caregiver support, tailored education, and person-centred professional guidance. **Discussion**: Oral self-care among older adults is influenced by multiple physical, cognitive, social, and environmental factors. Effective strategies combine individualized interventions, professional guidance, and supportive routines. Gaps in methodological transparency, longitudinal data, and diverse population representation limit generalizability and highlight the need for further research. **Conclusion**: Older adults' oral self-care is shaped by interrelated factors requiring holistic, collaborative, and culturally sensitive approaches in dental hygiene practice. Strengthening the evidence base through rigorous long-term studies will support sustainable, person-centred strategies that enhance oral health and quality of life.

RÉSUMÉ

Objectif : Cette revue narrative explore les expériences des personnes âgées (≥65 ans) dans le maintien de l'autogestion quotidienne de la santé buccodentaire. Elle examine les défis perçus, les catalyseurs et les stratégies d'adaptation permettant d'aider les hygiénistes dentaires à élaborer des approches durables et axées sur la personne à l'appui de l'hygiène buccale au sein des populations vieillissantes. **Méthodes** : Une recherche exhaustive a été menée dans PubMed, CINAHL, la bibliothèque Cochrane, Scopus et Embase à l'aide de termes et de mots clés de MeSH liés aux personnes âgées, à l'autogestion de la santé buccodentaire, aux obstacles, aux facilitateurs et aux expériences vécues. Les études qualitatives, quantitatives et à méthodes mixtes publiées en anglais entre 2010 et 2025 étaient admissibles. Les principaux résultats associés aux défis, aux facilitateurs et aux expériences vécues liés à l'autogestion de la santé buccodentaire ont été extraits et évalués, afin qu'on en détermine la qualité méthodologique. **Résultats** : Parmi les 24 études initialement recensées, 12 satisfaisaient aux critères d'inclusion. Les obstacles à l'uniformité de l'hygiène buccale comprenaient le déclin fonctionnel, les troubles cognitifs, la polypharmacie, les limitations environnementales et les facteurs psychosociaux qui contribuent à la réduction de la fonction buccodentaire, à un fardeau accru de la maladie et à une qualité de vie liée à la santé buccodentaire plus faible. Les facilitateurs comprenaient des dispositifs d'hygiène buccodentaire adaptatifs, le soutien des soignants, l'enseignement personnalisé et l'orientation professionnelle axée sur la personne. **Discussion :** Chez les personnes âgées, l'autogestion de la santé buccodentaire est influencée par de nombreux facteurs physiques, cognitifs, sociaux et environnementaux. Des stratégies efficaces combinent des interventions personnalisées, des conseils professionnels et des routines de soutien. Les lacunes en matière de transparence méthodologique, de données longitudinales et de représentation diversifiée de la population limitent la généralisabilité et mettent en évidence la nécessité d'approfondir la recherche. **Conclusion :** L'autogestion de la santé buccodentaire des personnes âgées est façonnée par des facteurs interreliés qui exigent l'application d'approches holistiques, collaboratives et culturellement adaptées dans la pratique de l'hygiène dentaire. Le renforcement de la base de données probantes au moyen d'études rigoureuses à long terme appuiera des stratégies durables axées sur la personne qui améliorent la santé buccodentaire et la qualité de vie.

Keywords: aging population; barriers; community settings; coping mechanisms; facilitators; lived experiences; older adults; oral hygiene practices; oral self-care; supportive strategies

CDHA Research Agenda category: access to dental hygiene care and unmet needs

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Our annual writing competition, proudly sponsored by Philips Sonicare, encourages students in a diploma, baccalaureate or degree-completion program to develop a love for writing and research and to recognize the possibilities that such endeavours offer for personal and professional growth. The editorial board of the Canadian Journal of Dental Hygiene is delighted to publish the winning literature review entry from its 2025–2026 competition, which ably addresses the Canadian Dental Hygienists Association's Dental Hygiene Research Agenda category of "access to dental hygiene care and unmet needs."

INTRODUCTION

Oral self-care encompasses the daily habits individuals engage in to achieve and maintain optimal oral health, including toothbrushing, interdental cleaning, and other preventive measures.[1,2] These practices are essential for preventing common oral diseases, such as dental caries and periodontal disease, as well as mitigating systemic health conditions associated with poor oral health (e.g., diabetes and cardiovascular disease).[1-4] For older adults (≥65 years), maintaining daily oral hygiene practices is particularly important as age-related physiological changes, chronic health conditions, and cumulative effects of oral disease increase the risk of impaired oral function and reduced oral health-related quality of life (OHRQoL).[5,6]

Adults aged 65 and older account for nearly one-fifth of Canada's population and experience a substantially higher burden of oral disease.[7] National data show that approximately 21.7% of individuals aged 60 to 79 years are completely edentulous and nearly 47% have moderate-to-severe periodontal disease.[8] Research suggests that many older adults fail to maintain adequate daily oral hygiene, despite its well-established clinical benefits.[5,6,9] Poor oral health, in turn, can contribute to malnutrition, speech problems, and social isolation, which can further compromise independence and day-to-day functioning.[9-11]

Maintaining consistent oral self-care in later life is often hindered by a variety of age-related changes and challenges.[4,12,13] Physical limitations such as reduced manual dexterity, visual impairments, and arthritis can affect daily toothbrushing and flossing.[12-16] Cognitive decline may further complicate the ability to perform routine self-care, affecting one's capacity to plan, remember, and consistently perform oral hygiene tasks.[12-16] Socioeconomic factors, including limited dental insurance and fixed income, compound these challenges, restricting access to necessary care and resources.[12,13,17] These barriers can lead to inconsistent or inadequate oral hygiene practices, negatively impacting oral health, overall well-being, and quality of life among older adults.[11,18]

Addressing these challenges and barriers can significantly enhance older adults' ability to perform effective oral self-care.[4,19]Adaptive oral hygiene devices (e.g., floss holders, modified toothbrushes, timers) can compensate for physical limitations and make daily oral hygiene more manageable.[19] Supportive caregivers or family members can also provide assistance, reminders, and encouragement, strengthening adherence to daily routines.[19,20] Dental hygienists can further empower older adults to maintain consistent oral hygiene by offering individualized oral health education, based on the older adult's personal preferences, values, and needs.[19,21]

Exploring the subjective experiences of older adults and understanding individual patient perspectives provides a more comprehensive view of oral health status than quantitative research and clinical outcomes alone.[22] This qualitative lens is essential for identifying personal, social, and contextual factors that influence adherence to oral hygiene practices.[23] These insights can guide dental hygienists in developing individualized strategies that are realistic, sustainable, and responsive to the unique needs of aging populations.[22,24] This knowledge further enhances professional practice by strengthening evidence-based recommendations and expanding dental hygienists' capacity to address complex oral health needs. It also supports broader public health initiatives, highlighting necessary systemic changes to support older adults and promote equitable oral health outcomes.

The purpose of this literature review is to explore the experiences of older adults in maintaining daily oral self-care practices as they age. By examining their perspectives, this review will highlight the challenges, enablers, and strategies that affect oral hygiene behaviours later in life and provide insights to support dental hygienists in designing effective interventions to foster sustainable oral self-care.

METHODS

Search strategy

A comprehensive literature search was conducted to retrieve high-quality, peer-reviewed studies on older adults' experiences with daily oral self-care. The search aimed to capture research on the challenges, enablers, and lived experiences that shape oral hygiene behaviours in later life. Searches were performed across the following electronic databases: PubMed, CINAHL, Cochrane Library, Scopus, and Embase. The search strategy was developed using a combination of medical subject headings (MeSH) terms and keywords such as "older adults," "aging population," "lived experiences," "oral self-care," "oral hygiene practices," "barriers," "facilitators," "supportive

strategies," "coping mechanisms," and "community settings." Boolean operators (AND/OR) were used to refine results and ensure comprehensive coverage of relevant qualitative and quantitative literature.

Studies published between 2010 and 2025 were selected to capture recent developments in older adults' oral self-care practices and the evolving context of aging and oral health. Filters were applied to include peer-reviewed English-language publications only.

Inclusion criteria

Studies were included if they involved adults aged 65 years and older, focused on daily oral self-care practices, oral health behaviours, challenges, enablers or lived experiences, and examined OHRQoL. Qualitative, quantitative, and mixed-methods study designs were considered. Only peer-reviewed studies published in English between 2010 and 2025 were included.

Exclusion criteria

Studies were excluded if they did not address oral self-care or the experiences of older adults. Research focusing exclusively on clinical interventions or supportive strategies for individuals with specific medical conditions (e.g., stroke, cancer) that were not generalizable to the broader older adult population was also excluded. In addition, non-peer-reviewed studies, editorials, commentaries, grey literature, and studies published before 2010 or written in languages other than English were excluded.

Study selection and data extraction

Study selection was conducted independently by one researcher (AS) through a 2-step, structured screening process. Titles and abstracts were first screened to remove duplicates and identify potentially relevant studies. Full texts of eligible studies were then retrieved and further assessed based on inclusion and exclusion criteria.

RESULTS

Of the 24 studies identified, 12 met the inclusion criteria for detailed analysis. Data extraction captured information on population characteristics, oral self-care behaviours, perceived barriers and enablers, and key findings related to lived experience and daily oral hygiene practices. Methodological quality was evaluated based on study design, sample size, qualitative rigour, and risk of bias where applicable. Extracted data were synthesized to identify common themes, research gaps, and implications for practice.

DISCUSSION

Aging and oral health

Physiological changes, chronic health conditions, and long-term medication use that accompany aging alter the oral environment and contribute to a gradual decline in oral health.[5,6,9] Over time, tooth-supporting structures (i.e., gingival tissues and alveolar bone) become more susceptible to periodontal disease due to cumulative biofilm exposure, altered immune responses, and reduced tissue regeneration.[5,6] These periodontal changes often lead to gingival recession, exposing root surfaces that are more prone to decay, particularly in the presence of reduced salivary flow.[5,6] Xerostomia diminishes the mouth's natural buffering and antimicrobial actions, promoting decay, oral infections, and overall discomfort.[5,6] Age-related changes in the oral mucosa, such as thinning or decreased vascularity, further reduce tissue resilience, slowing healing and increasing susceptibility to injury.[5,6] For older adults living with chronic conditions such as diabetes or cardiovascular disease, these challenges progress more rapidly, reinforcing a cycle of functional decline and worsening disease severity.[3-5] Together, these processes contribute to tooth loss and advanced periodontal disease, which in turn impair mastication, swallowing, and communication.[5,6,9,10,18,21,25-31] Regular and effective oral hygiene practices, however, can help mitigate these effects and preserve oral function and overall health in later life.[1,2,4,5]

Oral health–related quality of life

Poor oral health is strongly associated with lower OHRQoL in older adults.[9-11,15,18,23,29,32] Age-related challenges extend beyond clinical outcomes, significantly impacting older adults' daily functioning and overall well-being. Functional limitations (e.g., difficulty chewing, swallowing, speaking) reduce comfort and nutritional intake, while missing teeth or aesthetic concerns affect self-esteem and social engagement.[6,10-13,28,29] These impairments contribute directly to a decline in OHRQoL by limiting the individual's ability to enjoy food, communicate confidently, and participate in social activities.[6,9-11] Ortiz-Barrios et al.[11] provide strong quantitative evidence of this relationship. Their latent class analysis identified 3 oral health groups with significant differences in Geriatric Oral Health Assessment Index (GOHAI) scores across groups: acceptable (57%), regular (16.7%), and poor (16.7%).[11] Compared to the "acceptable" class, those in the "regular" group had 3 times the odds of low OHRQoL (OR = 3.0), while the "poor" group had 5 times the odds (OR = 5.0).[11]

Qualitative findings by McKenzie-Green et al.[33] further demonstrate that older adults' perceptions of oral health are shaped by life experiences, cultural expectations, and past interactions with professional oral care. Seventy-two percent (72%) of participants reported that oral health affected their social interactions and confidence, while 65% associated oral health issues with prior negative oral care experiences.[33] Participants also described oral health as deeply intertwined with self-identity, social participation, and personal history.[33] These findings highlight that maintaining oral health supports emotional, social, and physical well-being, emphasizing its critical role in overall quality of life.

Barriers to oral self-care in older adults

Numerous interrelated factors influence the ability of older adults to maintain oral self-care.[12,13,16,19,21,23,25-28,30,34] Functional declines, including weakened grip strength, arthritis, vision loss, and reduced masticatory efficiency, are among the most commonly reported challenges.[6,10-13,21,25,27,28] Approximately 60% of older adults report difficulty performing oral hygiene tasks independently, and over half experience reduced hand function that impedes biofilm removal.[5] These functional limitations are compounded by age-related oral frailty (i.e., decreased bite force, reduced salivary flow, and diminished chewing efficiency), which increases susceptibility to dental caries, periodontal disease, and oral discomfort.[5,6,10-12,14,21,25,30] Impaired vision also hinders the detection of biofilm or signs of early disease, reducing the quality and consistency of self-care.[5,10,12,25]

Cognitive changes, including memory loss, executive function decline, and dementia-related visuospatial impairment, further compromise oral hygiene.[5,6,12,13,15,16,28,30] Xie et al.[16] found that older adults with cognitive decline exhibit significantly lower brushing and flossing frequency and require consistent caregiver assistance. Similarly, Huang et al.[28] reported that cognitive decline reduces adherence to oral care interventions and limits the effectiveness of educational programs, particularly when caregivers are untrained or overburdened.

Medications can also affect oral health status.[5,6,10-12] Polypharmacy, common among older adults, often induces xerostomia, altered taste perception, and swallowing difficulties, increasing the risk of dental caries, periodontal disease, and oral discomfort.[5,6,10-12,21] These side effects can reduce motivation to perform daily oral hygiene and affect dietary intake, further impacting oral and overall health.[5,6,11,12,21]

Environmental barriers, such as limited mobility, inaccessible dental facilities, and transportation challenges, also restrict access to professional oral care.[6,12,13,17,18,21,23,26-28,30,34] Institutionalized or homebound older adults are particularly vulnerable as they often depend on caregivers for daily oral care and transportation to necessary appointments.[12,13] Variations in caregiver knowledge, skills, and workload can significantly influence the quality of assistance provided.[6,13]

Finally, psychosocial factors, including limited awareness of the importance of oral health, cultural beliefs, dental fear, and low motivation, significantly shape oral self-care practices.[10-13,18,23,25-28,34] Research highlights that personal beliefs and lived experiences strongly influence oral hygiene habits and attitudes.[22,26] Qualitative findings from Wei et al.[26] demonstrate that rural older adults often prioritize general health concerns over oral hygiene. Sixty-two percent (62%) of participants reported delaying or skipping oral hygiene routines due to competing health priorities.[26] The study also noted that many participants lacked access to oral care services and reported limited knowledge about preventive oral care.[26]

Enablers to oral self-care in older adults

Several key enablers support older adults in maintaining effective oral self-care, reducing the impact of functional, cognitive, and environmental challenges.[12,19,20,28,34,35] Adaptive oral hygiene devices can significantly enhance autonomy and confidence in daily oral self-care.[12,19,28] Electric toothbrushes, for instance, reduce the need for fine motor control and have been shown to improve biofilm removal in individuals with limited dexterity.[19,28] Similarly, enlarged toothbrush handles, floss holders, and interdental brushes allow older adults with reduced grip strength or joint stiffness to maintain daily oral hygiene with greater ease.[19,28]

Caregiver support and family involvement are equally important.[12,19,20,28,32,35,36] In care home settings, Jones et al.[20] found that residents' oral hygiene routines improved when family members and friends were engaged in reminding, assisting or advocating on their behalf. For homebound older adults or those with medically complex needs, professional caregivers also play an essential role. However, their effectiveness depends on adequate training, time, and organizational support.[20,32,35] Idris et al.[34] interviewed caregivers in long-term care facilities and reported that structured oral care training increased caregiver confidence, improved knowledge of proper techniques, and enhanced consistency in daily oral hygiene support. Caregivers highlighted that training helped them overcome uncertainty and time constraints, ultimately enabling residents to maintain better oral health.[34]

Tailored oral hygiene, particularly for older adults with cognitive impairments, can further support consistent oral hygiene habits.[12,18,19,24,28,34] Repetition, visual demonstrations, simplified instructions, and task-segmentation techniques have been shown to improve comprehension and adherence.[12,19,24] In short-term care facilities, Koistinen et al.[25] found that residents with memory loss benefitted when staff provided daily coaching, used visual cues, and created predictable routines.

Professional guidance and empathetic communication are also strong facilitators of oral self-care.[12,18,24,28,34] Older adults are more responsive to oral hygiene recommendations when providers use clear instructions, demonstrate techniques, and offer encouragement rather than judgment.[12,19,24,28,34] Chan et al.[19] emphasized that preventive periodontal care in older adults is most effective when clinicians adopt a person-centred approach that accounts for functional limitations, cultural beliefs, and health literacy. Implementation strategies that include regular follow-ups, interdisciplinary collaboration, and supportive communication have also demonstrated measurable improvements in oral hygiene outcomes in long-term care settings.[12,19,32,34,36]

Implications for dental hygiene practice

Research highlights the need for dental hygienists to adopt a comprehensive, patient-centred approach that integrates both clinical findings and functional assessments when caring for older adults.[12,15,18,25,27,34,36] Patel and Gallagher[30] show that healthy aging requires preventive, tailored oral care strategies that account for the physical, cognitive, and environmental factors shaping daily self-care.[30] Such strategies must consider dexterity, cognition, medication effects, and living context to be realistic and achievable.[15,25,27] Promoting oral health in aging populations also requires culturally sensitive communication and ongoing reinforcement to support behaviour change.[10,12,18,24,33]

In addition, interprofessional collaboration is essential, particularly for clients with more complex care needs.[12,18,19,21,28,34,36] Dental hygienists play a critical role in coordinating care among nurses, occupational therapists, physicians, and caregivers to ensure consistent daily oral hygiene practices.[12] Oral health professionals also serve as advocates, addressing structural barriers (e.g., financial limitations, lack of transportation, and gaps in public dental coverage) that prevent many older adults from receiving necessary support.[10,12,17,30,33] Policy reforms that prioritize prevention, expand dental benefits for aging populations, and integrate oral health within broader healthy-aging initiatives are essential.[10,11,17-19,30,31,36]

Critique of the literature

The literature examining older adults' oral self-care offers valuable insights into the functional, cognitive, environmental, and psychosocial factors shaping daily oral hygiene behaviours. Many studies employ qualitative or mixed-methods designs that allow for a rich, contextualized understanding of lived experiences.[13,20,23-28,32-34,37,38] However, several limitations related to the transparency and consistency of methodological strategies exist.[37]

One strength across qualitative studies, such as those by De Vleeschauwer et al.[27] and Weening-Verbree et al.[35], is the use of semi-structured interviews that allow participants to explore personal experiences in depth.[37,38] These authors describe using investigator triangulation, which enhances confirmability by involving multiple researchers in coding and theme development.[27,35,37,39] However, other studies provide limited information about strategies to ensure rigour. For instance, Grönbeck Lindén et al.[13] offer detailed descriptions of functional challenges among older adults but do not indicate whether member-checking occurred to verify the accuracy of participants' experiences or interpretations. Similarly, few studies explicitly report achieving data saturation, leaving uncertainty about whether recruitment continued until no new themes emerged.[13,23,37,40]

Another limitation is the inconsistent reporting of pilot-testing interview guides.[20,23,24,26,32-34,37] Pilot testing contributes to dependability by ensuring questions are clear and aligned with study objectives.[37,41] However, several studies investigating cognitive or functional barriers do not disclose whether protocols were refined through preliminary testing.[23,26,33] Reflexivity was also minimally addressed across the literature, limiting transparency about researchers' assumptions and potential biases.[13,20,23,25-27,33,42]

Quantitative studies provide important insights through standardized assessments and statistical analysis, revealing complementary strengths and limitations.[11,16] The use of standardized instruments, functional assessments, and larger sample sizes allows for measurable comparisons across populations and enhances the generalizability of findings.[11,16,43,44] However, some studies do not explicitly discuss the validity or reliability of measurement tools for older adult populations, limiting their accuracy.[11,16,43] Cross-sectional studies draw conclusions about functional decline and oral self-care effectiveness without accounting for potential confounders such as comorbidities, caregiver support or socioeconomic status, reducing internal validity.[11,16] Additionally, frequent reliance on self-reported measures also introduces susceptibility to recall errors or social desirability bias, particularly among older adults with cognitive impairment.[16,45] The absence of longitudinal designs further prevents examination of how oral self-care behaviours evolve over time or respond to interventions.[11,16,46]

Gaps in research and future directions

Although the existing literature provides meaningful insights into older adults' oral self-care behaviours, substantial gaps remain. A primary limitation is the lack of longitudinal and mixed-methods research capable of capturing changes in oral hygiene behaviours, cognitive function, and caregiver support over time.[46] Most studies adopt cross-sectional or short-term qualitative designs, restricting the ability to observe causal relationships or track long-term behavioural change.[11,13,16,20,23-28,32-34,47] There is also a need for research involving more diverse populations across varied geographic, cultural, and socioeconomic contexts.[48] Much of the current evidence is concentrated in Western or urban settings, limiting the transferability of findings to Indigenous communities, immigrants, and rural populations.

Future research should also evaluate the long-term effectiveness of tailored interventions (e.g., adaptive devices, caregiver-assisted routines, individualized education) using repeated measures and longitudinal follow-up.[49] Strengthening this evidence base will enable dental hygienists and other oral health professionals to develop sustainable, person-centred strategies that prevent disease progression, support quality of life, and promote oral health equity among older adults.

CONCLUSION

Older adults face a unique set of challenges in maintaining daily oral self-care, arising from age-related physiological changes, chronic conditions, medication effects, and

functional or cognitive declines. These factors increase susceptibility to oral disease, which can impair mastication, speech, nutrition, and overall quality of life. Daily oral hygiene practices are further influenced by environmental limitations, socioeconomic factors, and psychosocial considerations. However, enablers such as adaptive oral hygiene devices, caregiver and family support, individualized education, and person-centred professional guidance can significantly improve adherence and help preserve oral health and well-being in later life.

For dental hygiene practice, adopting a holistic, culturally sensitive, and individualized approach is essential. Interdisciplinary collaboration, ongoing education, and supportive communication strategies empower older adults, strengthen preventive care, and promote healthy aging. Integrating older adults' lived experiences into care planning further enhances autonomy and fosters equitable oral health outcomes.

CONFLICTS OF INTEREST

The author has declared no conflicts of interest.

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