

AN AGING WORLD, A NEW DENTAL REALITY: THE EXPANDING ROLE OF ODONTOGERIATRICS

UM MUNDO EM ENVELHECIMENTO, UMA NOVA REALIDADE ODONTOLÓGICA: A EXPANSÃO DO PAPEL DA ODONTOGERIATRIA

UN MUNDO EN ENVEJECIMIENTO, UNA NUEVA REALIDAD ODONTOLÓGICA: LA EXPANSIÓN DEL ROL DE LA ODONTOGERIATRÍA



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ABSTRACT

Objective: To discuss the growing importance of odontogeriatrics in the context of global population aging and to examine the emerging challenges and responsibilities of dental professionals in managing the oral health of older adults.

Methodology: A narrative review of the literature was conducted to analyze current knowledge regarding oral health conditions in elderly populations and the expanding role of geriatric dentistry. Scientific articles were retrieved from electronic databases including PubMed, Scopus, and Web of Science using combinations of keywords related to aging, geriatric dentistry, oral health in older adults, and systemic diseases. Priority was given to epidemiological studies, clinical reports, systematic reviews, and policy-oriented publications addressing oral health challenges among aging populations.

Results: Global demographic trends indicate a rapid increase in the proportion of older adults, resulting in new demands for dental care. Unlike previous generations, many elderly individuals retain more natural teeth, which increases the prevalence of chronic oral

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conditions such as periodontal disease, root caries, xerostomia, and peri-implant diseases. Additionally, multimorbidity, polypharmacy, cognitive impairment, and functional limitations frequently complicate oral health management in this population. Evidence suggests that oral diseases in older adults are strongly linked to systemic conditions, nutritional status, and overall quality of life. The literature also highlights disparities in access to dental care, particularly among institutionalized and medically compromised elderly patients.

Conclusion: The expanding aging population requires a paradigm shift in dental practice, emphasizing preventive care, interdisciplinary collaboration, and patient-centered management strategies. Odontogeriatrics is emerging as a critical field within dentistry, demanding specialized training and healthcare policies aimed at ensuring adequate oral healthcare for older adults.

Keywords: Odontogeriatrics. Aging Population. Oral Health In Elderly. Geriatric Dentistry. Multimorbidity. Oral-Systemic Health. Dental Care Access.

RESUMO

Objetivo: Discutir a crescente importância da odontogeriatria no contexto do envelhecimento populacional global e examinar os desafios emergentes e as responsabilidades dos profissionais de odontologia no manejo da saúde bucal de idosos.

Metodologia: Foi realizada uma revisão narrativa da literatura para analisar o conhecimento atual sobre as condições de saúde bucal em populações idosas e o papel em expansão da odontologia geriátrica. Artigos científicos foram recuperados de bases de dados eletrônicas, incluindo PubMed, Scopus e Web of Science, utilizando combinações de palavras-chave relacionadas ao envelhecimento, odontologia geriátrica, saúde bucal em idosos e doenças sistêmicas. Foi dada prioridade a estudos epidemiológicos, relatos clínicos, revisões sistemáticas e publicações orientadas a políticas que abordam os desafios da saúde bucal em populações envelhecidas.

Resultados: As tendências demográficas globais indicam um rápido aumento na proporção de idosos, resultando em novas demandas por cuidados odontológicos. Diferentemente das gerações anteriores, muitos idosos mantêm mais dentes naturais, o que aumenta a prevalência de condições orais crônicas, como doença periodontal, cárie radicular, xerostomia e doenças peri-implantares. Além disso, multimorbidade, polifarmácia, comprometimento cognitivo e limitações funcionais frequentemente complicam o manejo da saúde bucal nessa população. Evidências sugerem que as doenças bucais em idosos estão fortemente associadas a condições sistêmicas, estado nutricional e qualidade de vida geral. A literatura também destaca desigualdades no acesso ao cuidado odontológico, particularmente entre idosos institucionalizados e com comprometimentos médicos.

Conclusão: O crescimento da população idosa exige uma mudança de paradigma na prática odontológica, com ênfase na prevenção, na colaboração interdisciplinar e em estratégias centradas no paciente. A odontogeriatria emerge como um campo crítico dentro da odontologia, demandando formação especializada e políticas de saúde voltadas para garantir cuidados adequados de saúde bucal para os idosos.

Palavras-chave: Odontogeriatria. População Envelhecida. Saúde Bucal em Idosos. Odontologia Geriátrica. Multimorbidade. Saúde Bucal-Sistêmica. Acesso ao Cuidado Odontológico.



RESUMEN

Objetivo: Discutir la creciente importancia de la odontogeriatría en el contexto del envejecimiento poblacional global y examinar los desafíos emergentes y las responsabilidades de los profesionales odontológicos en el manejo de la salud bucal de los adultos mayores.

Metodología: Se realizó una revisión narrativa de la literatura para analizar el conocimiento actual sobre las condiciones de salud bucal en poblaciones mayores y el papel en expansión de la odontología geriátrica. Los artículos científicos fueron obtenidos de bases de datos electrónicas, incluyendo PubMed, Scopus y Web of Science, utilizando combinaciones de palabras clave relacionadas con envejecimiento, odontología geriátrica, salud bucal en adultos mayores y enfermedades sistémicas. Se priorizaron estudios epidemiológicos, reportes clínicos, revisiones sistemáticas y publicaciones orientadas a políticas que abordan los desafíos de la salud bucal en poblaciones envejecidas.

Resultados: Las tendencias demográficas globales indican un rápido aumento en la proporción de adultos mayores, lo que genera nuevas demandas de atención odontológica. A diferencia de generaciones anteriores, muchos adultos mayores conservan más dientes naturales, lo que incrementa la prevalencia de condiciones orales crónicas como enfermedad periodontal, caries radicular, xerostomía y enfermedades periimplantarias. Además, la multimorbilidad, la polifarmacia, el deterioro cognitivo y las limitaciones funcionales complican con frecuencia el manejo de la salud bucal en esta población. La evidencia sugiere que las enfermedades bucales en adultos mayores están fuertemente relacionadas con condiciones sistémicas, el estado nutricional y la calidad de vida general. La literatura también resalta desigualdades en el acceso a la atención odontológica, particularmente entre adultos mayores institucionalizados y con condiciones médicas complejas.

Conclusión: El crecimiento de la población envejecida requiere un cambio de paradigma en la práctica odontológica, con énfasis en la prevención, la colaboración interdisciplinaria y estrategias centradas en el paciente. La odontogeriatría emerge como un campo crítico dentro de la odontología, requiriendo formación especializada y políticas de salud orientadas a garantizar una atención adecuada de la salud bucal para los adultos mayores.

Palabras clave: Odontogeriatría. Población Envejecida. Salud Bucal en Adultos Mayores. Odontología Geriátrica. Multimorbilidad. Salud Bucal-Sistémica. Acceso a la Atención Odontológica.



1 INTRODUCTION

Population aging represents one of the most profound demographic transformations of the twenty-first century. Advances in medicine, public health interventions, improved sanitation, vaccination programs, and socioeconomic development have substantially increased human longevity across most regions of the world. As a consequence, global life expectancy has risen considerably over the past decades, reaching approximately 71 years worldwide in recent estimates from the World Health Organization (WHO) (World Health Organization, 2024). Although temporary declines were observed during the COVID-19 pandemic, long-term demographic projections continue to indicate a steady expansion of the aging population, reflecting sustained improvements in survival and health care systems (World Health Organization, 2024). In parallel, individuals who reach older ages today often experience longer post-retirement life spans than previous generations, further reshaping the age structure of societies.

This demographic transition has resulted in a rapid expansion of the global elderly population. In 2020, more than 703 million individuals were aged 60 years or older, representing approximately 9% of the world's population, and this number is projected to double to 1.5 billion by 2050 (Poudel et al., 2024). Importantly, population aging is no longer restricted to high-income countries. Low- and middle-income countries are now experiencing the fastest rates of demographic aging, with projections indicating that over 80% of older adults will reside in these regions by mid-century (Poudel et al., 2024). This unprecedented demographic shift poses significant challenges for health systems, which must adapt to the complex clinical needs of aging individuals.

Aging is frequently accompanied by a higher prevalence of chronic systemic conditions, including cardiovascular disease, diabetes mellitus, neurodegenerative disorders, osteoporosis, and frailty syndromes. Multimorbidity, defined as the coexistence of two or more chronic diseases, has become increasingly common among older adults and represents a major determinant of functional decline, disability, and health care utilization (Prince et al., 2015). In addition, polypharmacy is widespread in geriatric populations, often leading to adverse drug reactions and physiological changes such as xerostomia, which may significantly affect oral health (Huang et al., 2025). These systemic and pharmacological factors interact with age-related physiological alterations, including reduced immune response, diminished salivary flow, and impaired tissue regeneration, thereby increasing susceptibility to various oral conditions.

Oral diseases are among the most prevalent noncommunicable diseases globally, affecting an estimated 3.5 billion people worldwide (Peres et al., 2019). Among older adults,



the burden of oral disease is particularly substantial, with high prevalence of dental caries, periodontal disease, tooth loss, oral frailty, and xerostomia (Huang et al., 2025). These conditions can significantly impair mastication, nutrition, communication, and social interaction, ultimately influencing quality of life and general health. Furthermore, emerging evidence suggests that oral health plays an important role in healthy aging, as oral diseases have been associated with systemic conditions such as cardiovascular disease, diabetes, aspiration pneumonia, and cognitive decline (Poudel et al., 2024).

Another notable epidemiological trend is that contemporary older adults are increasingly retaining their natural dentition compared with previous generations. While this reflects improvements in preventive dentistry and oral health awareness, it also results in a higher prevalence of chronic dental conditions requiring complex long-term management. Consequently, dental professionals are now confronted with a growing population of elderly patients presenting with complex medical histories, functional limitations, and multifactorial oral health needs. This scenario underscores the importance of odontogeriatrics as a specialized field within dentistry that integrates knowledge from gerontology, medicine, and public health to provide comprehensive oral care for older individuals.

Despite growing recognition of the importance of oral health in aging populations, significant disparities persist in access to dental care, particularly among institutionalized older adults and those with functional or cognitive impairments. Moreover, health systems in many countries remain insufficiently prepared to address the oral health needs of rapidly aging societies. Therefore, a deeper understanding of the evolving role of odontogeriatrics is essential for guiding clinical practice, research priorities, and public health policies.

Thus, the aim of this narrative review is to discuss the impact of global population aging on dental practice and to explore the expanding role of odontogeriatrics in addressing the complex oral health needs of older adults, highlighting future perspectives and emerging challenges in geriatric dental care.

2 METHODOLOGY

This study was conducted as a narrative literature review focusing on the oral health challenges associated with global population aging and the evolving role of odontogeriatrics in contemporary dental practice.

A comprehensive search of the scientific literature was performed in the PubMed, Scopus, and Web of Science databases. The search strategy included combinations of the following keywords: “geriatric dentistry,” “odontogeriatrics,” “aging population,” “oral health in older adults,” “elderly patients,” “oral-systemic health,” and “dental care for the elderly.”



The review included studies addressing oral health conditions and dental care needs among elderly populations. Publications in English from the past two decades were prioritized to capture recent developments in geriatric dentistry and demographic changes.

Articles were screened based on their relevance to the objectives of the review. Studies focusing on oral disease prevalence in older adults, systemic interactions, clinical management challenges, healthcare access, and preventive strategies were included. Publications unrelated to geriatric populations or focusing exclusively on pediatric or adult non-geriatric groups were excluded. The selected literature was analyzed qualitatively, and the findings were synthesized to highlight major epidemiological trends, clinical implications, and future perspectives for odontogeriatrics in an aging world.

3 RESULTS

3.1 GLOBAL DEMOGRAPHIC AGING AND ITS IMPACT ON ORAL HEALTH DEMAND

The analyzed literature consistently demonstrates that population aging represents one of the most significant structural transformations affecting global health systems, with direct and profound implications for oral healthcare delivery. The increase in life expectancy, coupled with sustained reductions in fertility rates, has led to an unprecedented expansion of the older adult population, particularly in low- and middle-income countries, where health systems are often less equipped to respond to complex chronic care demands (World Health Organization, 2024; Poudel et al., 2024).

This demographic shift is not merely quantitative but also qualitative. Older adults today are living longer with chronic diseases, functional limitations, and cumulative exposure to environmental and behavioral risk factors. As a result, the demand for dental care is becoming increasingly complex, transitioning from episodic, procedure-based interventions to continuous, long-term management of chronic oral conditions.

Furthermore, the heterogeneity within the elderly population represents a critical challenge. The spectrum ranges from functionally independent individuals with minimal healthcare needs to highly dependent, frail patients requiring comprehensive and often multidisciplinary care. This variability necessitates flexible care models capable of integrating preventive, restorative, and palliative approaches.

Importantly, current healthcare systems remain inadequately structured to address this evolving demand. In many settings, dental services are still fragmented and poorly integrated into general healthcare, limiting access for vulnerable elderly populations. Consequently, the literature highlights an urgent need for systemic adaptation, including



workforce training, service reorganization, and policy-level interventions aimed at aligning oral healthcare delivery with demographic realities (Campostrini et al., 2024).

3.2 RETENTION OF NATURAL DENTITION AND THE SHIFT IN DISEASE PATTERNS

A major epidemiological transformation identified across the literature is the progressive retention of natural dentition among older adults. This shift reflects decades of improvements in preventive dentistry, public health initiatives, fluoridation, and increased awareness of oral hygiene practices (Peres et al., 2019). However, this positive trend has paradoxically led to a more complex and demanding clinical scenario.

The maintenance of natural teeth into advanced age results in prolonged exposure to etiological factors such as biofilm accumulation, dietary sugars, and systemic influences, leading to cumulative tissue breakdown. Consequently, oral diseases in older adults are increasingly characterized by chronicity, multifactorial etiology, and recurrence.

Unlike previous generations, where edentulism simplified treatment needs to prosthetic rehabilitation, contemporary elderly patients require ongoing management of periodontal disease, root caries, tooth wear, and restorative complications. These conditions often coexist within the same individual, creating complex clinical scenarios that demand comprehensive and individualized treatment planning.

Additionally, the literature suggests that retained dentition is not necessarily synonymous with functional dentition. Structural compromise, reduced occlusal stability, and functional limitations may persist despite tooth presence. Therefore, clinical success in odontogeriatrics must be redefined beyond tooth retention to include function, comfort, and quality of life.

3.3 HIGH BURDEN OF PERIODONTAL DISEASE IN OLDER ADULTS

Periodontal disease remains one of the most prevalent and impactful oral conditions affecting older adults, with evidence indicating increased severity, extent, and complexity with advancing age (Huang et al., 2025). The chronic inflammatory nature of periodontal disease, combined with cumulative exposure to risk factors over time, contributes to significant periodontal breakdown in elderly populations.

The pathogenesis of periodontal disease in older adults is influenced by age-related changes in immune function, often described as immunosenescence. This altered immune response may impair the host's ability to control bacterial biofilm, leading to exaggerated inflammatory reactions and progressive tissue destruction. Additionally, systemic conditions



such as diabetes mellitus further exacerbate periodontal inflammation and impair healing capacity.

Behavioral and functional factors also play a crucial role. Declines in manual dexterity, visual acuity, and cognitive function can compromise effective plaque control, facilitating disease progression. Moreover, institutionalized individuals or those dependent on caregivers are particularly vulnerable due to inconsistent or inadequate oral hygiene practices.

Importantly, periodontal disease in older adults extends beyond local tissue destruction. It contributes to systemic inflammatory burden, with potential implications for overall health. This reinforces the need to conceptualize periodontal care as part of a broader health management strategy rather than an isolated dental intervention.

3.4 INCREASING PREVALENCE OF ROOT CARIES AND XEROSTOMIA

Root caries has emerged as a significant and growing clinical challenge in aging populations. The high prevalence of gingival recession in older adults exposes root surfaces, which are inherently more susceptible to demineralization due to their lower mineral content compared to enamel (Huang et al., 2025).

This susceptibility is further amplified by xerostomia, a condition highly prevalent among older individuals, primarily due to polypharmacy. Medications commonly prescribed for chronic conditions, such as antihypertensives, antidepressants, and anticholinergics, frequently reduce salivary flow, compromising the protective functions of saliva.

Saliva plays a critical role in maintaining oral homeostasis through mechanical cleansing, buffering of acids, and antimicrobial activity. Its reduction creates a favorable environment for cariogenic bacteria, increasing the risk of both coronal and root caries. Additionally, xerostomia contributes to mucosal discomfort, difficulties in speech and swallowing, and reduced tolerance to removable prostheses.

The literature emphasizes that xerostomia should be recognized not only as a symptom but as a central pathogenic factor influencing multiple oral health outcomes. Effective management therefore requires a multifaceted approach, including medication review, salivary stimulation, and preventive interventions such as fluoride application.

3.5 MULTIMORBIDITY AND ORAL-SYSTEMIC INTERACTIONS

A consistent and critical finding across the literature is the strong and complex relationship between oral health and systemic conditions in older adults. Multimorbidity is



highly prevalent in this population and represents a key determinant of both oral disease risk and treatment outcomes (Prince et al., 2015).

The interaction between oral and systemic health is bidirectional. On one hand, chronic oral infections, particularly periodontal disease, contribute to systemic inflammation through the dissemination of inflammatory mediators and bacterial products. On the other hand, systemic diseases such as diabetes, cardiovascular disorders, and osteoporosis influence oral health by altering immune response, tissue metabolism, and healing capacity.

This interplay creates a feedback loop in which oral and systemic conditions mutually exacerbate each other, complicating disease management. For instance, poorly controlled diabetes is associated with increased periodontal destruction, while periodontal inflammation may negatively impact glycemic control.

These findings highlight the inadequacy of isolated treatment approaches and underscore the necessity for integrated care models. Dental professionals must be equipped to understand and manage the systemic context of their patients, collaborating with medical professionals to optimize overall health outcomes.

3.6 FUNCTIONAL DECLINE, COGNITIVE IMPAIRMENT, AND ORAL HEALTH

Functional decline and cognitive impairment are major determinants of oral health outcomes in elderly populations. Conditions such as frailty, sarcopenia, and neurodegenerative diseases significantly reduce the ability of individuals to perform daily oral hygiene practices and to access dental care (Poudel et al., 2024).

Cognitive disorders, including dementia, introduce additional challenges, such as behavioral resistance, reduced cooperation, and impaired communication. These factors complicate both preventive care and clinical treatment, often necessitating modifications in dental approaches, including shorter appointments, simplified procedures, and increased reliance on caregivers.

Caregiver involvement emerges as a critical factor in maintaining oral health among dependent elderly individuals. However, the literature indicates that caregivers often lack adequate training in oral hygiene practices, leading to suboptimal care and increased disease risk.

The concept of oral frailty has gained attention as a framework for understanding the decline in oral function, including reduced masticatory efficiency, decreased tongue strength, and impaired swallowing. Oral frailty is closely linked to nutritional status and overall health, reinforcing the importance of maintaining oral function as part of healthy aging.



3.7 PERI-IMPLANT DISEASES IN AGING POPULATIONS

The increasing use of dental implants among older adults represents a significant shift in rehabilitative dentistry, offering improved function, aesthetics, and quality of life. However, this trend has also led to a rise in peri-implant diseases, which pose new clinical challenges in geriatric populations (Peres et al., 2019).

Peri-implant mucositis and peri-implantitis are commonly reported, with risk factors including poor oral hygiene, history of periodontal disease, smoking, and systemic conditions such as diabetes. In older adults, these risks are often compounded by functional limitations and reduced ability to maintain adequate oral hygiene.

Additionally, the long-term success of implant therapy in elderly patients is influenced by factors such as bone quality, systemic health, and adherence to maintenance protocols. The literature emphasizes the importance of careful patient selection and the need for individualized treatment planning that considers both clinical and functional factors.

Maintenance care is particularly critical, as peri-implant diseases are largely preventable with appropriate hygiene and regular professional follow-up. This underscores the importance of establishing long-term care strategies tailored to the needs and capabilities of older adults.

3.8 DISPARITIES IN ACCESS TO DENTAL CARE

Significant disparities in access to dental care remain a persistent issue affecting older adults worldwide. Vulnerable populations, including institutionalized individuals, those with low socioeconomic status, and individuals with physical or cognitive impairments, experience disproportionately high levels of unmet oral health needs (Poudel et al., 2024).

Barriers to care are multifactorial and include financial constraints, limited mobility, lack of transportation, and insufficient availability of trained professionals in geriatric dentistry. Additionally, the separation of dental services from general healthcare systems further exacerbates access issues, particularly for medically complex patients.

These disparities not only affect oral health outcomes but also contribute to broader health inequalities. Poor oral health can negatively impact nutrition, systemic health, and quality of life, reinforcing cycles of vulnerability and disadvantage. Addressing these challenges requires comprehensive policy interventions, including the integration of oral health into primary healthcare, expansion of community-based services, and targeted programs for high-risk populations.



3.9 IMPACT OF ORAL HEALTH ON QUALITY OF LIFE AND NUTRITION

The literature consistently highlights the significant impact of oral health on quality of life among older adults. Oral conditions such as tooth loss, pain, xerostomia, and impaired mastication have profound effects on daily functioning, social interaction, and psychological well-being (Peres et al., 2019).

Masticatory dysfunction, in particular, is closely associated with nutritional status. Difficulty in chewing can lead to the avoidance of certain foods, resulting in unbalanced diets, reduced intake of essential nutrients, and increased risk of malnutrition. This, in turn, may contribute to systemic health deterioration and increased morbidity. Beyond physical health, oral health also influences social participation and self-esteem. Dental problems can affect speech, facial aesthetics, and confidence, leading to social withdrawal and reduced quality of life.

These findings reinforce the concept that oral health is a fundamental component of overall well-being and should be considered an essential element of healthy aging. Consequently, maintaining oral function and comfort should be central objectives in the care of older adults.

4 DISCUSSION

The present narrative review highlights that global population aging is not merely a demographic phenomenon but a profound epidemiological transition that is reshaping the foundations of dental practice. The findings demonstrate that oral health in older adults must be understood within a complex, multidimensional framework that integrates biological aging, systemic health, social determinants, and healthcare system organization.

One of the central paradigmatic shifts identified is the transition from edentulism to the long-term maintenance of natural dentition. While historically tooth loss defined oral health in older populations, contemporary cohorts present with increasingly complex dentitions affected by chronic, cumulative diseases. This shift redefines clinical priorities: instead of replacement-focused care, dentistry must now emphasize long-term disease control, functional preservation, and risk management. Consequently, periodontal disease, root caries, and peri-implant conditions emerge not as isolated pathologies but as chronic conditions requiring continuous monitoring and individualized therapeutic strategies.

A critical aspect underpinning this complexity is the strong interrelationship between oral health and systemic conditions. Multimorbidity, highly prevalent among older adults, introduces bidirectional interactions in which oral diseases may exacerbate systemic inflammation, while systemic disorders, such as diabetes and cardiovascular disease,



modify host response and disease progression. This interplay reinforces the concept of oral health as an integral component of overall health, challenging the traditional compartmentalization of dental care. From a clinical perspective, this necessitates a shift toward medically informed dentistry, where treatment planning must consider systemic status, pharmacological profiles, and functional capacity.

Polypharmacy further complicates this scenario, acting as a key mediator between systemic health and oral conditions. The widespread use of multiple medications contributes significantly to xerostomia, which in turn amplifies susceptibility to caries, mucosal lesions, and prosthetic complications. Importantly, xerostomia should not be viewed merely as a symptom but as a central pathological driver in geriatric oral health, requiring proactive identification and management.

Beyond biological factors, the review underscores the critical role of functional and cognitive decline in shaping oral health outcomes. Frailty, reduced manual dexterity, and neurodegenerative disorders compromise the ability of older adults to maintain adequate oral hygiene and to seek or tolerate dental care. These limitations demand adaptations in clinical practice, including simplified treatment approaches, caregiver involvement, and the implementation of minimally invasive and preventive strategies. In this context, the concept of “oral frailty” emerges as a relevant construct linking oral function, nutrition, and systemic vulnerability.

Another key dimension is the persistence of significant disparities in access to dental care. Institutionalized older adults, individuals with low socioeconomic status, and those with physical or cognitive impairments are disproportionately affected by unmet oral health needs. These disparities reflect structural limitations in healthcare systems, including insufficient integration of dental services into general healthcare, lack of trained professionals in geriatric dentistry, and financial barriers. The findings suggest that improving access to care is not solely a clinical issue but a matter of health policy and social justice.

Importantly, the expanding use of dental implants in older populations introduces new clinical challenges. While implant-supported rehabilitation offers functional and quality-of-life benefits, it also increases the prevalence of peri-implant diseases, particularly in patients with compromised systemic health or inadequate maintenance. This highlights the need for careful case selection, long-term follow-up, and the development of geriatric-specific maintenance protocols.

From a broader perspective, the results emphasize the necessity of a paradigm shift in dental education and professional training. Traditional dental curricula, largely focused on



younger and systemically healthy individuals, are insufficient to prepare clinicians for the complexity of geriatric patients. Odontogeriatrics must be recognized as a core component of dental education, encompassing interdisciplinary collaboration, geriatric assessment, and patient-centered care models.

Finally, the integration of preventive strategies emerges as a cornerstone for sustainable oral healthcare in aging populations. Given the chronic and cumulative nature of oral diseases in older adults, preventive approaches, such as risk-based recall systems, fluoride therapies, and caregiver education, are essential to reduce disease burden and healthcare costs. Preventive care in this context extends beyond clinical interventions and includes behavioral, social, and environmental dimensions.

5 CONCLUSION

The global aging of the population represents a transformative force that is redefining the scope, priorities, and responsibilities of modern dentistry. The evidence synthesized in this review demonstrates that older adults present with increasingly complex oral health needs, driven by the interaction of retained dentition, chronic diseases, multimorbidity, and functional limitations.

Odontogeriatrics emerges as a critical and indispensable field within dentistry, requiring a shift from procedure-centered approaches to comprehensive, patient-centered care models that integrate systemic health, functional capacity, and quality of life. The management of oral health in older adults must be proactive, preventive, and interdisciplinary, recognizing the bidirectional relationship between oral and general health.

Moreover, addressing the oral health needs of aging populations extends beyond clinical practice and requires structural changes in healthcare systems, including improved access to care, integration of dental and medical services, and the development of public health policies tailored to older individuals.

In this context, the future of dentistry will increasingly depend on the ability of professionals, educators, and policymakers to adapt to the realities of an aging world. Investing in geriatric dental education, preventive strategies, and equitable healthcare delivery will be essential to ensure that longevity is accompanied not only by extended lifespan but also by preserved oral health, function, and overall well-being.



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