

## Thematic Dossier “Aging and Dentistry” \*

Dossier temático “Envejecimiento y Odontología”

Dossiê temático “Envelhecimento e Odontologia”

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### Abstract:

This editorial introduces the thematic dossier on “Aging and Dentistry” that is included in volume 41 of 2022 on *Universitas Odontologica*. Aging is a growing trend in human societies around the world for which institutions and services of all sorts need to be prepared to meet the needs of elderly populations. Research on aging ranges from laboratory experimental studies that look at understanding and modifying aging from cell to organism levels, to how care for individuals and communities should adapt and create the conditions to assist these populations. Three articles comprise the dossier that cover topics related to oral pathologies, use of prosthetic appliances, function, and professional experience when working with aging populations. Still, many questions on the topic were not addressed by the studies received. Therefore, we encourage researchers to continue sending their research to better serve the current and potential readers of *Universitas Odontologica*.

**Keywords:** aging, care services, communities, dentistry, elderly, function, oral pathologies, professional experience, prosthetic appliances.

### Resumen:

Este editorial presenta el dossier temático sobre “Envejecimiento y Odontología” que se incluye en el volumen 41 de 2022 de *Universitas Odontologica*. El envejecimiento es una tendencia creciente en las sociedades humanas de todo el mundo para la cual las instituciones y los servicios de todo tipo deben estar preparados para satisfacer las necesidades de las poblaciones de edad avanzada. La investigación sobre el envejecimiento abarca desde estudios experimentales de laboratorio que buscan comprender y modificar el envejecimiento desde niveles celulares hasta organismos, hasta cómo la atención a las personas y las comunidades debe adaptarse

y crear las condiciones para ayudar a estas poblaciones. Tres artículos componen el dossier que abordan temas relacionados con patologías orales, uso de aparatos protésicos, función y experiencia profesional al trabajar con poblaciones envejecidas. Aun así, muchas preguntas sobre el tema no fueron abordadas por los estudios recibidos. Por lo tanto, alentamos a los investigadores a continuar enviando sus investigaciones para servir mejor a los lectores actuales y potenciales de *Universitas Odontologica*.

**Palabras clave:** ancianidad, aparatos protésicos, comunidades, envejecimiento, experiencia profesional, función, odontología, patologías orales, servicios de atención.

## Resumo:

Este editorial apresenta o dossiê temático “Envelhecimento e Odontologia” que integra o volume 41 de 2022 da *Universitas Odontologica*. O envelhecimento é uma tendência crescente nas sociedades humanas em todo o mundo para o qual instituições e serviços de todos os tipos devem estar preparados para atender as necessidades das populações idosas. As pesquisas sobre envelhecimento vão desde estudos experimentais em laboratório que buscam entender e modificar o envelhecimento do nível celular ao orgânico, até como o cuidado de indivíduos e comunidades deve se adaptar e criar condições para ajudar essas populações. Três artigos compõem o dossiê que abordam questões relacionadas a patologias bucais, uso de próteses, função e experiência profissional em populações idosas. Mesmo assim, muitas questões sobre o assunto não foram abordadas pelos estudos recebidos. Portanto, incentivamos os pesquisadores a continuarem submetendo suas pesquisas para melhor atender os atuais e potenciais leitores da *Universitas Odontologica*.

**Palavras-chave:** comunidades, dispositivos protéticos, envelhecimento, experiência profissional, função, idoso, odontologia, patologias orais, serviços de cuidados, velhice.

Human aging has become an increasingly important issue globally due to the growth of people's life expectancy, the challenges it entails within communities and societies, the perception, and roles of the elderly in societal groups, the development of care and support systems, research on clinical practice, biomaterials and mainly restorative techniques, and the advancement of applied basic research to understand and intervene in the biological processes of ageing. As a phenomenon of demographic transition on a global scale, aging produces biological, physical, and emotional changes in people, transforms social structures and poses challenges in sectors such as health, social security, and the entire economy. In many health systems it is established that the dentist must be able to intervene on those alterations to restore functionality and improve the quality of life of the elderly. In this sense, Geriatric **Dentistry** or **Gerodontology** should also be part of multidisciplinary teams dedicated to the care of the elderly in community, hospitalization, institutionalized, palliative, and home services. On the other hand, in **Gerosciences**, that is, those disciplines that seek to identify the cellular and molecular mechanisms that regulate aging, the concept of **personalized aging** is seen more as a biological than chronological phenomenon. From this perspective, aging could also affect populations that are chronologically young, but biologically aged and that are susceptible to developing chronic inflammatory conditions such as cancer, diabetes, neurodegenerative diseases, cardiovascular disease, periodontal disease, and edentulism.

For the dossier on “Aging and Dentistry,” No. 21 in this series we started in 2010, we sent out to our networks and the international community a call for original studies with documentary, qualitative, observational, and experimental designs that explored questions such as: Which plans and programs can be designed/implemented to face the burden of oral disease in older adults? Have population analyzes been carried out on a local, national, regional, or global scale? Are there limitations to oral health care due to stereotypes such as ageism (age discrimination)? What is the nutritional status associated with masticatory function derived from tooth loss and the absence or dysfunction of dental prostheses? Are edentulism and pain/discomfort associated with dysfunctional rehabilitations affect people's self-realization, self-esteem, and socialization? What impact do habits (tobacco, alcohol), frailty syndrome (functionality, autonomy, sarcopenia), major cognitive impairments (dementia) and emotional states (depression) have on the maintenance of oral health in older people? What is the association of socio-family aspects that generate changes in the emotional state (depression, institutionalization, abandonment) with implications in services,

oral health care programs in the elderly? Is aging associated with the severity of some systemic conditions such as obstructive sleep apnea and how can this association affect the oral microbiome and the increase in periodontal disease? What are the changes in the immune response of oral tissues associated with aging? How might such changes explain susceptibility to oral diseases (dental caries and periodontal disease)? What biomarkers have been discovered in saliva as indicators of early aging? Have salivary biochemical changes been described in aging that constitute risk factors for caries, periodontal disease, and other pathologies? What medications frequently used in aging can alter the functioning of oral structures and tissues? How to counter them? What is the relationship between oral cancer and aging? What is the frequency of aging markers in oral tissues in young population with systemic conditions such as obesity and diabetes and what predisposes them to develop oral diseases?

We received four manuscripts of which three are part of the present dossier that was published in this volume (No. 41) of 2022 of *Universitas Odontologica*. The first article authored by Úsuga-Vacca, et al. (1), titled “Association Between Use of Removable Partial Dentures and Presence of Crown and Root Caries in Institutionalized Elders in Bogotá.” In the second article, Ernesto Luna (2) narrates his 29-year experience working in Gerodontology in Medellín, Colombia. The third article, “Oral Conditions, Occlusal Pairs, and Masticatory Function of Institutionalized Older People in Cali Colombia, 2019,” is authored by Ordóñez, et al. (2). The three articles come from authors affiliated to Colombian institutions.

It is important to clarify that, if in any case one of the authors was also as guest editor of this dossier, the evaluation of manuscripts followed a triple-blind peer-review model to maintain transparency in the process. Referees external to the institutions of authors in such circumstances, as is a regular practice of *Universitas Odontologica*, conducted the evaluations and neither the authors, the evaluators, or the guest editors’ identities were revealed during the process.

Lastly, articles included in the thematic dossier “Aging and Dentistry” responded to questions related to oral pathologies, use of prosthetic appliances, function, and professional experience when working with aging populations. Most of the questions proposed in the call for papers for this dossier are still open. We invite the community of clinical and community practitioners, administrators, and researchers to consider submitting their studies to *Universitas Odontologica* on aging and dentistry, thus we can continue providing top content in this topic of growing relevance and that will demand more action from dentistry to meet the needs of the increasing aging population.

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## Notes

\* Editorial.

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