

Ageing...Global Crisis for Poor Oral Health!

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Abstract

Most of the countries suffer increase in the old age population because of better improvements in prevention of disease and ultramodern medical treatments. But the association between oral health, general health, and quality of life of old population must be clearly understood. Dental professionals should be well versed with the oral conditions related with systemic disease and complex multiple medicines interaction in older adults. Furthermore, ageing will influence dental treatment planning. This article discusses the dental aspects of ageing and their impact on oral healthcare provision.

Keywords: Age; Dementia; Geriatric dentistry; Oral health; Xerostomia

Introduction

Most of the countries suffer increase in the old age population because of better improvements in prevention of communicable disease and ultramodern medical treatments available in the past few decades. United Nations proposed that 20% global population will be aged over 80 years by 2050 [1]. Ageing population is heterogeneous having the young-old, old-old, sick, non-ambulatory, frail, mentally and physically handicapped. Historically, most of the old population was edentulous with low use of dental treatments. However, currently complex restorative measures, aesthetic dentistry, and implants common used to preserve dentition [2]. We need to broaden the concept of aging to include chronologically young but biologically old population due to medically or developmentally disability. Dental professionals should be well versed with the oral conditions related with systemic disease and complex multiple medicines interaction in older adults. Furthermore, ageing will influence dental treatment planning. This article discusses the dental aspects of ageing and their impact on oral healthcare provision.

Ageing, multimorbidity, polypharmacy and oral healthcare provision

The growing younger population is surviving with significant chronic medical problems which may test the dentist's knowledge and skills. Furthermore, developmentally disabled population is also aging, causing concerns to caretakers and policymakers [3]. Because of increased life expectancy, the cognitive decline related to Alzheimer's disease (AD) developed into newer behavior management concerns [4]. Multimorbidity and polypharmacy, collectively cause changes in pharmacokinetics and pharmacodynamics, leading cascade of drug interactions. Also, adverse effect of polypharmacy that is several medications used for multimorbidity; specifically, the adverse effects of several medications in combination causes xerostomia and hyposalivation causes xerostomia and hyposalivation [5]. Furthermore, oral health may be jeopardized by frailty, disability, and dependency and limited access to dental care. Therefore, dentist should consider

the oral health impact of medications and associated conditions while treatment planning. Hence, they must have thorough acquaintance with geriatrics, pharmacology to communicate effectively with physicians, geriatricians and pharmacologists [6].

Most of geriatric dental studies have underreported oral disease prevalence and incidence by excluding cognitively impaired [7]. Studies [8,9] have reported that people with dementia have more coronal and root caries, retained roots, and missing and filled teeth. Dementia with Down syndrome aging population is increasing with demanding oral health care, however only some dentists are skilled to treat these patients. Many elders are either reluctant or incapable to obtain routine care, susceptible to general and oral complications. They may present with extensive oral disease with cumulative effects of lifetime, intricate situation with frail elders are homebound or institutionalized.

Modern oral treatment modalities during the past few decades lead to a reduced number of edentulous elders [10]. Furthermore, increasing number of dentate elders has caries, periodontal disease, substantial tooth wear, oral implants and dental prostheses. Hence, there is constant requirement of preventive and curative dental health care. The intricacy of oral health status, systemic diseases and polypharmacy make them more vulnerable to oral conditions [11,12].

Dental professionals should yield liability of social awareness for importance of complete oral health and the serious consequences of poor oral health of older people; otherwise poor oral health will develop a potential new geriatric syndrome [5]. The influence of polypharmacy on oral health is well recognized as effects on oral mucosa, taste and alveolar bone [13]. Use of several medications is reducing the whole saliva secretion rate and producing xerostomia, which is subjective feeling of dry mouth. Hyposalivation is an objectively decreased saliva secretion rate, which may lead to xerostomia, oral discomfort, burning sensations, soft tissue changes, halitosis, spicy food intolerance, poor retention of removable dentures, altered taste, difficulty in chewing, polydipsia, dysphagia, dysphonia, candidiasis, periodontal disease and caries [14,15]. Low salivary volume also leads to loss of antibacterial properties of saliva which can accelerate mucosal infection, dental caries, and periodontal disease [16-18]. The psychosocial effect of xerostomia may vary from a mild

effect on oral health to frustration, embarrassment, unhappiness, or considerable disruptions in quality of life [19]. Otherwise, coronal and root caries has been recognized to be major dental ailment for the elderly. The regular use of topical fluoride, meticulous oral hygiene, and a low-sugar diet are recommended for preventing hyposalivation-induced caries. In patients with severe xerostomia, the use of salivary substitutes might be required [20].

It has been reported that dental management of institutionalized geriatric patients is needed but inadequately performed [21]. The dental health status may be endangered by frailty, disability or care dependency and associated multiple medication use, challenging behavior, dietary preferences, and by limited access to professional dental care.

Recommendations for improvement in the oral healthcare provision for elderly:

- Better integration of oral health care into general health care,
- Implementation of community programs to encourage healthy behaviors and improve access to preventive oral health care, and assessing the feasibility of ensuring a safety net that covers preventive and basic restorative oral healthcare provision [22].
- Innovative oral healthcare provision alternatives like customized oral hygiene aids, domiciliary dental provision, visiting dental hygienists and oral hygiene telecare should be considered for homebound elderly.
- General dental professionals ought to provide oral health care to physically and cognitively compromised elderly. Consequently, dentistry will be transformed into medical oral health care and for dentists to be upgraded to oral physicians.
- There are numerous models of special care clinics and nursing home programs in dental schools, but not universally supported by dental administrators [23,24]. The contemporary literature shows that gerodontology is not a substantial component of present dental curriculum, so area of gerodontology must be stressed in dental curriculum content [25].

These recommendations will make a dentistry that can be ready to procure oral health services to the increasing numbers of medically compromised and cognitively impaired population complicated by functional, behavioral, and situational factors. Consequently, geriatric and special needs dentistry should be recognized as an independent specialty career [26].

Conclusion

Dental health care is a crucial part of primary geriatric health care. Providing comprehensive oral health care for the aged can face unique challenges in myriad of functional, behavioral and situational factors. Miserably, geriatric dentistry is conceived as simply involving dentures for patients. Radical changes in approaches dental professionals, policymakers, and social understanding about geriatric dentistry is obligatory.

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