Oral health in elderly: Assessment and current research status in Vietnam

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ABSTRACT
Vietnam officially entered the aging population in 2011 with the elderly accounting for 10% of the total population. Aging not only influences overall health but also affects oral health. To evaluate oral function, various studies suggested using the term oral hypofunction with several criteria linking to swallowing, chewing, pronunciation activities. This study aims to give an overview of the assessment of oral health in the elderly and the research status of this issue in Vietnam. Within the limitations of the database search, oral hypofunction was evaluated clinically through 7 criteria. However, there have been no studies documenting this issue in Vietnam recently. For the preparation of an aged society in the future, studies about oral hypofunction should be encouraged.

Keywords: geriatric dentistry, oral hypofunction, aging population

1. INTRODUCTION
Population ageing is one of the most significant trends of the 21st century. There has been a shift from Europe, North America to Asia, Latin America. Recently, Southeast Asia had an increasing proportion of the elderly population [1].

Vietnam's current population is 100.3 million people in March, 2024 according to the latest data from the United Nations. Average life expectancy is 73.7 years. The transition time for Vietnam from “Aging society” to “Aged society” might be shorter and faster than the developed countries: about 20 years. Life expectancy is expected to grow rapidly and the average population growth rate is expected to decrease.

Using the data from Viet Nam Population Projection for the Period 2019 - 2069, under the medium fertility variant, Viet Nam will end the period of the demographic window of opportunity by 2039.[3] Vietnam’s aging population will be growing rapidly, from 7.4 million in 2019 to 16.8 million in 2039 and 25.2 million in 2069. [3] The age pyramid in 2019, 2039, and 2069 clearly shows the change in the age structure of the Vietnamese population towards an aging population [2].

Although the average life expectancy can reach 74 years and is increasing, the healthy life expectancy is only 64 years. Elderlies must live up to 10 years with disabilities and diseases [3]. The need of new care models adapted to the aging society is rising. Among these, frailty syndrome describes a clinical state of increased vulnerability that is recognized by progressive multisystemic decline, reduced physiological reserve and ability to cope with acute stress, and increased adverse health outcomes.

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Attention should be paid to the rehabilitation of eating, chewing and swallowing disorders associated with long-term tooth loss. Therefore, there is a need for preparation for the aging wave in Vietnamese society. However, there have been no studies documenting this issue in Vietnam recently. For the preparation of an aged society in the future, studies about oral health in the elderly should be encouraged.
2. MATERIALS AND METHODS
This narrative review was conducted a bibliographical electronic search was carried out on the database research of Vietnamese dental universities.

2.1. Criteria for considering studies for this review
A PIO (Population, Intervention, and Outcome) framework was utilized to guide the inclusion and exclusion of studies. Patients had partially or completely edentulous mandible arches with age ranging from 60 years old (Population) were included. All kinds of dental treatment, such as dental filling, dental scaling, etc (Intervention) were included. All studies had to provide quality of life related to oral health (primary outcome) and the rate of periodontal disease, rate of tooth caries, rate of denture use (secondary outcome).

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2.2. Search methods for identification of studies
This narrative review was conducted a bibliographical electronic search was carried out on the database research of Vietnamese dental universities, selecting all articles mentioning quality of life related to oral health, from 2000 to now.
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3. RESULTS AND DISCUSSION
A bibliographical electronic search was carried out on the database research of Vietnamese dental universities, selecting all articles dealing with quality of life related to oral health, from 2000 to now. The results showed that 10 articles targeted the elderlies and evaluated oral health with primary and secondary outcomes (Figure 8). Geriatrics Research in Vietnam can be divided into three stages of period.

* Period 2000-2010
2. Pham Van Viet et al (2004), Research on the status and needs of oral health care and evaluate the results of two years of implementing primary dental care for the elderly in Hanoi. Doctoral thesis in medicine, Hanoi Medical University, 64-75.

* Period 2010-2020
4. Lam Kim Trien et al (2014), Impact of oral health on the quality of life of the elderly at some nursing homes in Ho Chi Minh City, Master’s thesis in medicine, University of Medicine and Pharmacy,
REFERENCES


From the research results about the oral health of the elderly in Vietnam, the following information was included:

The rate of tooth caries in the elderly was 34.4% (95%CI: 31.9%-37.0%), the rate of dental fillings was only 2.1% (95%CI: 1.3%-2.8%), the root caries rate was 8.15% (95%CI: 6.69%-9.61%) [9]. The tooth loss rate in people ≥60 years old ranged from 85.7 - 91% [6, 9]. This rate was 97.26% for the elderly over 75 years old. [1, 2] The rate of tooth loss in men was lower than in women [9]. The average number of missing teeth for people over 60 years old was about 10 teeth [6]. The percentage of elderly people with 20 natural remaining teeth was 64.4%, this percentage gradually decreases with age [9]. The edentulous rate in one upper or lower arch was 5.6% and in both arches was 6.9%[6]. The rate of using dentures was about 41% [7] On the contrary, the demand for dentures is very high at 83.5% [9] 59.5% of elderly people have difficulty eating and chewing due to not being able to get dentures (difficult economic conditions) [12]. In general, the situation in Vietnam’s elderly is that they lose teeth but do not have restorations, which may be due to difficult economic conditions and limited knowledge of dental care [8]. This affects overall health and quality of life.

About evaluation scales, most studies used subjective scales such as Oral health-related quality of life (OHRQOL), Geriatric Oral Health Assessment Index (GOHAI), etc. There has been no specific research focusing on objective scales for assessing oral health in elders until 2022. To evaluate oral health objectively, Japanese Society of Gerodontology proposed a new term, oral hypofunction, which was defined as a presentation of 7 oral signs or symptoms: oral uncleanness; oral dryness; decline in occlusal force; decline in motor function of tongue and lips; decline in tongue pressure; decline in chewing function; and decline in swallowing function in 2016. Oral hypofunction was diagnosed if 3 or more signs or symptoms were determined. This can be a new research field in aging society in Vietnam.

4. CONCLUSION

The results showed that 10 articles targeted the elderly and evaluated oral health with primary and secondary outcomes. About evaluation scales, most studies used subjective scales such as Oral health-related quality of life (OHRQOL), Geriatric Oral Health Assessment Index (GOHAI), etc. There has been no specific research focusing on objective scales for assessing oral health in elders until 2022. Geriatrics research in Vietnam still has a lot of potential, especially when the population is aging. Examination of oral function should be paid attention in clinical treatment.

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Sức khỏe răng miệng ở người cao tuổi: Đánh giá và thực trạng nghiên cứu ở Việt Nam

Phạm Nguyên Quân

TÔM TÁT
Việt Nam bước vào giai đoạn già hóa dân số vào năm 2011 với tỷ lệ người cao tuổi chiếm 10% tổng dân số. Lão hóa không chỉ ảnh hưởng đến sức khỏe toàn thân mà còn ảnh hưởng đến sức khỏe răng miệng. Nhiều nghiên cứu đề xuất sử dụng thuật ngữ suy giảm chức năng miệng để đánh giá các hoạt động nuốt, nhai, phát âm. Báo cáo này nhằm cung cấp một góc nhìn tổng quan về đánh giá chức năng răng miệng và tình hình nghiên cứu vấn đề này ở Việt Nam. Trong giới hạn搜集 dữ liệu, suy giảm chức năng miệng được đánh giá làm sàng thông qua 7 tiêu chí. Để chuẩn bị cho xã hội già hóa, cần khuyến khích các nghiên cứu về suy giảm chức năng răng miệng.

Từ khóa: nha khoa lão khoa, suy giảm chức năng miệng, dân số già

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