

Future dental health needs among the elderly

January 25 2024



My Tien Diep. Credit: University of Oslo

As the proportion of elderly individuals in the population continues to grow, the demand for various medical treatments may also increase. This includes the need for dental health services. But what kind of dental care will the elderly population require in the future?

"To be able to make predictions about the future, we must know something about the present," says My Tien Diep. She completed her

[doctoral degree](#) at the Faculty of Dentistry, where she participated in a research project focused on assessing the oral health of 65-year-olds.

The project was named OsloMouth65, with its main objective being to assess the oral health status among the youngest elderly residents of the capital. The project was conducted in 2019 and involved extensive clinical and radiological examinations, as well as the collection of questionnaire data, from a random sample of 65-year-olds living in Oslo.

"There are many different factors that affect oral health," explains Diep. Natural aging processes, medication use, and diseases can impact an individual's oral health.

"But before the project began, we knew little about the actual oral health among the youngest elderly," says Diep. That's precisely why it's so important to assess it.

Different aspects

In the research project in which Diep participated, the researchers examined various conditions and diseases in the [oral cavity](#). Diep's thesis focused on three different aspects of oral health: the occurrence of cavities, apical periodontitis, and [dry mouth](#).

"When it came to dental status, most of those we examined had nearly a full set of teeth," says Diep. However, an important finding was that they had experienced a lot of tooth decay, or "caries" in technical terms, which had been repaired with fillings.

"They belong to a generation that we often refer to as the 'filling generation,'" explains Diep. One reason this generation had many cavities and fillings could be that they got their permanent teeth at a time when [fluoride toothpaste](#) was not readily available. But fluoride

toothpaste came on the market when this generation was [young adults](#), and the use of fluoride toothpaste likely contributed to them retaining many of their own teeth, unlike earlier generations. So, it's a group with a lot of treatment experience, says Diep.

Apical periodontitis

The researchers also found that many had apical periodontitis, which is inflammation around the tip of the tooth root. This type of inflammation can be caused by a deep cavity attack, where bacteria have entered the nerve of the tooth. This infection can spread further down the root canal and lead to inflammation around the tooth root.

"We observed that some of the participants had not received treatment for this," says Diep. This could be due to them not being aware of having apical periodontitis because they had no symptoms and hadn't visited the dentist in a long time. It could also be due to them choosing to delay treatment for various reasons, such as limited finances.

Cavities and dry mouth

The researchers also found that untreated cavities were most common among the following groups: men, individuals born in non-Western countries, those with lower education levels, those who rarely visited the dentist, those who had to postpone dental treatment due to financial constraints, those who brushed their teeth less than twice a day, and those with reduced saliva production.

In the research project, the researchers also examined the prevalence of dry mouth in this population group. It turned out that one in 10 of the 65-year-olds felt dry mouth, but reduced saliva production measured by objective tests occurred less frequently.

"One possible explanation for some participants feeling dry mouth even though they had 'enough' saliva could be that the quality, and not just the quantity, of saliva may have an impact on lubrication. This is an interesting finding and should be further investigated," says Diep.

However, there were certain groups where dry mouth was more prevalent, including those with type II diabetes, rheumatic disease, those who had received radiation treatment in the head/neck area, or those taking four or more medications.

"This thesis highlights that the population group examined in this project, which can be referred to as younger elderly, had many restored teeth that will require maintenance in the years ahead to ensure good [oral health](#) in old age," says Diep. It is also important to emphasize that dental health professionals and other health care personnel should pay special attention to patient groups that may be particularly vulnerable to tooth infections or suffering from dry mouth.

Need for dental health services may increase

"One of the most important conclusions from this research project is that the younger group of elderly individuals has many restored teeth that will require follow-up, and the need for dental health services may therefore increase in the years ahead," concludes Diep.

"An additional factor that should not be underestimated is the increased use of medication among the elderly, which can lead to dry mouth, a factor that should also be emphasized in the planning of dental health services for this age group," Diep adds.

Provided by University of Oslo

Citation: Future dental health needs among the elderly (2024, January 25) retrieved 29 April 2024 from <https://medicalxpress.com/news/2024-01-future-dental-health-elderly.html>

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