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# Implementation of oral hygiene practices in nursing homes – a qualitative approach among supervisor nurses

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#### ABSTRACT

**Objectives:** This study describes daily oral health care in private enhanced service housing units and nursing homes in Finland using a qualitative method.

**Methods:** Nineteen supervisor nurses were interviewed in the six largest cities in Finland. The interviews consisted of semi-structured questions. The interviews were then transcribed and analyzed using inductive content analysis.

**Results:** The qualitative content analysis revealed five main categories: diet, education in the oral health of older people, oral care equipment and taking care of them, caring for the mouths of residents, and professional oral health care. The results revealed that sugary snacks were given daily in the units and there was a need for oral health care education. The dental equipment of residents was taken care of well and the oral health of the residents was taken care of moderately well. Furthermore, there was a need for co-operation between dental professionals and only half of the residents had an individual oral care plan.

**Conclusions:** It can be concluded that based on this qualitative study, the implementation of daily oral health care in most nursing homes and enhanced housing units seems to be at a sufficient level and more oral health-related practical and theoretical education is needed.

#### **ARTICLE HISTORY**

Received 13 April 2023 Revised 21 July 2023 Accepted 23 August 2023

#### KEYWORDS

Oral hygiene practices; nursing home; supervisor nurse; qualitative research

# Introduction

The prevention and treatment of dental diseases have improved oral health in most age groups. The prevalence of edentulousness among older people has also decreased [1]. However, the oral health of older people is often poor because multimorbidity and cognitive disorders impair the capacity for oral self-care. Poor oral health reduces the quality of life [2] and increases the risk of malnutrition [3] and general diseases like diabetes, cardiovascular diseases [4], pneumonia [5] and Alzheimer's disease [6]. Oral frailty, defined as poor oral status in terms of the number of natural teeth and various oral motor functions [7], also increases the risk for physical frailty, functional disability, hospitalization and falls [8].

Poor oral hygiene has been reported to be common among older people [9] and especially among residents in nursing homes [10]. Poor oral hygiene increases the risk of oral biofilm-mediated infectious diseases such as periodontitis [11], dental caries [12] and denture stomatitis [13]. Unsurprisingly, the prevalence of periodontitis [14,15] and dental caries [14,16] is the highest in older people. In particular, the risk of root caries is high among older people [17]. Both dental caries and periodontal disease can be controlled by careful oral hygiene and the use of fluoride toothpaste [18]. Further to control dental caries regular meals and the reduction of sugary snacks are recommended [19]. Furthermore, denture stomatitis is found in up to 40% of older people with removable dentures [20]. The high prevalence is affected by poor denture hygiene [21], the poor fit of the dentures, as well as the colonization of *Candida albicans* [22].

In Finland, a multi-professional team utilizes the International Resident Assessment Instrument (RAI)benchmarking system [23] to assess an older person's need for comprehensive care, including also daily oral care, in nursing homes or enhanced service housing units. It has been reported, however, that nurses and caregivers have various barriers to oral care. These include insufficient education, knowledge, training and confidence in oral care, resisting residents, lack of time and resources, as well as a negative attitude and general aversion to oral care [24-27]. In nursing homes and enhanced service housing units, supervisor nurses are responsible for the comprehensive management of the units. They organize the day-to-day activities of the units and are responsible for the continuing training and professional development of the nurses [28], including training in oral care.

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The research question: How is oral care carried out in the daily life of a unit

The research group formulated 15 semi-structured questions The interview was arranged with 23 supervisor nurses, with 4 drop outs Inductive content analysis: 62 subcategories and 5 main

Description of 5 nain categories

In our previous study, Finnish supervisor nurses completed a questionnaire on the implementation of oral care in private nursing homes and enhanced service housing units. Almost all supervisor nurses reported that removable dentures were cleaned daily, but residents' own teeth were rarely brushed twice a day. Mealtimes were regular, but sugary snacks were given in up to 80% of units. More than half of the supervisor nurses reported they had received information about oral health during their education but more education and information are still needed [29].

Based on our previous results [29] the aim of this study was to deepen the view of supervisor nurses' role in implementing day-to-day oral care in their units using a qualitative approach. The research question in the qualitative study was: How is oral care carried out in the daily life of a unit? The long-term goal is to find out what kind of education, training and support supervisor nurses need when implementing day-to-day oral practices in their units.

## **Materials and methods**

### Study informants and collection of data

The qualitative research data were collected by interviewing 19 supervisor nurses in Finnish private nursing homes and enhanced service housing units. All the interviews were made by one of the authors (HJ). The care units were located in the six largest cities in Finland. The interviews were conducted in June–November 2021. Informants were selected based on convenience sampling and their participation was voluntary. The interviews were conducted face-to-face and recorded and transcribed afterwards. One interview lasted about 20 min [30].

Interviews included 15 semi-structured questions about how the oral care of residents was implemented in care units' everyday lives. Supervisor nurses answered the questions from their own points of view.

The following questions were asked during the interview:

- 1. Please describe how oral care is carried out in your daily life.
- 2. What kind of dental equipment do you have in use?
- 3. Who takes care of dental equipment?
- 4. How often and in what way are removable dentures cleaned?
- 5. Are mealtimes regular in the unit?
- 6. Do you give sugary snacks in the unit?
- 7. In the event an older person has oral symptoms or pain, how quickly is help obtained?

- Is there an individual oral care plan for every older person?
- 9. How do you provide support to an older person to perform independent oral self-care?
- 10. How often are the topics of education related to oral health?
- 11. Has there been practical training in oral health care in the unit?
- 12. What are the daily oral health care practices in the unit?
- 13. Has the nursing staff received enough education in oral care?
- 14. Has the unit its own nurse who is responsible for oral health?
- 15. Is there co-operation between the unit and a dentist or dental hygienist?

The interviews continued until the saturation of the answers was achieved in terms of questions [30]. The study design is shown in Figure 1. Examples of responses and comments are provided in Results.

# **Background variables**

The supervisor nurses were asked about sociodemographic data and oral health habits. In addition, the supervisor nurses were asked whether they had received instruction in personal oral hygiene and oral health education during nursing studies for cleaning the patient's mouth and any other oral health education. (Table 1).

## Analysis of data

The analysis of the interviews followed the procedure of inductive content analysis. Inductive content analysis is a method in which interviews, speech documentation and written material are analyzed [30]. First, the responses were read carefully several times and then similar answers were reduced to open codes. Open codes with similar contents were grouped into subcategories (n=62) and further into main categories (n=5) (Table 2). The suband main categories were named according to the content. The stages of inductive content analysis are shown in Table 3.

## **Ethical consideration**

The participation in this survey was voluntary. Informants signed informed consent forms before the interviews. Approval for the interviews was received from Northern Ostrobothnia Hospital District 7.1.2021 (298/2020).

# Results

A sufficient number of supervisor nurses (n=19) were interviewed, confirming the validity of a qualitative study.

# Characteristics of the study nurses

The characteristics of the study supervisor nurses are shown in Table 1. All of them were female. The majority of the supervisor nurses were aged over 30 years (95%) and had more than 10 years of experience working as a nurse (74%) and less than 10 years as a supervisor (63%). Two-thirds of supervisor nurses also had a second education. Most commonly, the second education was related to administrative

**Table 1.** Descriptive statistics of the supervisor nurses (n = 19).

Sociodemographic variables	n	%
Age (year)		
<30	1	5.3
30–39	5	26.3
40–49	4	21.0
>50	9	47.4
Gender		
Female	19	100.0
Male	0	0.0
Other education		
Yes	13	68.4
No	6	31.6
Working experience (year)		
<5	1	5.3
5–10	4	21.0
>10	14	73.7
Working experience as a supervisor nurse (year)		
<5	10	52.6
5–10	2	10.5
>10	7	36.9
How often do you brush your teeth?		
Twice a day	18	94.7
Once a day	1	5.3
Less often than once a day	0	0.0
How often do you clean your interdental spaces		
Twice a day	2	10.5
Once a day	10	52.6
Less often than once a day	7	36.8
Never	0	0.0
How often do you visit the dentist?		
Regularly	16	84.2
Irregularly	3	15.8
Only when necessary	0	0
Have you received personal oral care instructions?		
Yes	18	94.7
No	1	5.3

sciences, but one supervisor nurse said she was a baker. Most of the supervisor nurses brushed their teeth twice a day (95%). About half of the nurses cleaned their interdental spaces at least once a day (53%) and about eighty-five per cent visited the dentist regularly. Almost 80% had received education in cleaning the mouths of older people during nursing education but 70% had not received any other education about the oral health care of older people. The majority of supervisor nurses (95%) had received personal oral care instructions.

## Oral care in the daily life of the older people care unit

The experiences of supervisor nurses concerning oral care were divided into five main categories: Diet, Education in the oral health of older people, Oral care equipment and taking care of them, Caring for the mouths of residents and Professional oral health care. (Table 2).

**Diet** included mealtimes and sugary snacks. Mealtimes in each unit are regular and include five meals a day: breakfast, lunch, afternoon coffee, dinner and evening snack. The daily rhythm is largely built around mealtimes. There can be some individual variation because some residents sleep longer in the mornings. Snacks are also offered when residents are awake and hungry during the night. Usually, the meals come from the unit, but some residents may also have their own food which they can eat freely. Relatives may bring juices and other sugary snacks to the residents' own refrigerators, which is challenging to control.

"Mealtimes are regular. Breakfast, lunch, a snack that is afternoon coffee style, dinner and evening snack. Sometimes residents of units also have something to eat at night if they are awake."

Sugary snacks are given in several units. There may be a bun with afternoon coffee or a dessert after lunch, which can be for example fruits or flummery. Breakfast may contain flummery, curd or yoghurt, but not a type that includes a large amount of excess sugar. Those who do not drink milk are offered sugary juice with food. Usually, the units try to think about everything in accordance with the national nutrition recommendations. One thing to mention is that this generation clearly likes to drink coffee black, so they often consume two sugar cubes with their coffee. Some units have their own chef, which makes it possible to limit the amount of sugar.

#### Table 2. Main categories and categories of content analysis.

Main category	Diet	Education in the oral health of older people	Oral care equipment and taking care of them	Caring for the mouths of residents	Professional oral health care
Category	The mealtimes are adapted to the needs of the residents Residents' snacks vary	Education in oral health care varies Knowledge of oral health care produced by basic education	Equipment used in daily oral care Acquisition of equipment used in the oral care of older people The nurse responsible for oral care of older people	Oral care in the resident's everyday life Challenges in daily oral care practices Cleaning the resident's removable dentures Supporting the resident in oral self-care Observe the need for oral care	Access to dental professionals in case of dental symptoms Managing a dental emergency Personal oral care plan Cooperation with oral healthcare professionals

Main category	Category	Subcategory
Diet	The mealtimes are adapted to the needs of the residents	The mealtimes of residents are regular Individual variation in mealtimes Variation in mealtimes according to sleep patterns
	Residents' snacks vary	Sugary snacks are given from time to time. A bun is served with coffee Personalized nutrition solutions Fruits are offered as a snack Follow the nutritional recommendations
Education in the oral health of older people	Education in oral health care varies	No information about education There has been no training in oral care. There has been no hands-on training in oral care. Dental hygienists implemented oral care guidance A
	Knowledge of oral health care produced by basic education	mobile dental clinic made training possible nursing staff trained in oral health care. Oral care training for nursing staff from basic studies There is not enough training in oral health care. There could be more training in oral health care
Oral care equipment and taking care of them	Equipment used in daily oral care	Manual toothbrushes are used by residents Residents use a denture brush Some residents use an electric toothbrush
		Soaking tablets are used for cleaning removable dentures Interdental cleaning with dental floss Some residents use interdental brushes Toothpicks are used
		The residents use toothpaste and special toothpaste
		Other oral care products for the residents
	Acquisition of equipment used in the	The nurses are taking care of the equipment
	oral care of older people	Resident's own nurse takes care of the dental care equipment
		The nurse in charge of the unit takes care of the equipment The unit takes care of oral care equipment for the residents
		The supervisor nurse takes care of oral care equipment for the residents
		Resident's relatives acquire oral care equipment
	The nurse responsible for the oral care of older people	The unit doesn't have a designated nurse in charge of oral health An oral health nurse is needed The unit has a nurse responsible for oral health
Caring for the mouths of residents	Oral care in the resident's everyday life	Cleaning of the mouth and teeth is performed daily Assisted with oral hygiene care
	Challenges in daily oral care practices	Caring for the teeth of a resident with dementia is difficult Taking care of teeth is not easy for a resident Observing pain in the oral cavity in everyday activities
	Cleaning the resident's removable dentures	Daily cleaning of removable dentures Deep cleaning of removable dentures with soaking tablets After eating, removable dentures are cleaned Removable dentures are not cleaned
	Supporting the resident in oral self-care	Residents take care of their teeth under guidance Residents are assisted with dental care The nurses are responsible for cleaning the residents' teeth Residents are not supported in oral self-care
	Observing the need for oral care	Moistening of the mouth Rinsing the mouth after taking medicine Observing removable dentures during eating
Professional oral health care	Access to dental professionals in case of dental symptoms	An appointment is obtained quickly when a resident has a toothache Residents use a private dentist Cooperation with different actors in the event of dental pain
	Managing a dental emergency	Identifying a toothache is challenging getting an appointment for emergency dental care is challenging In cases of pain, contact the doctor in charge first
	Personal oral care plan	Residents have an oral self-care plan An oral self-care plan has been made for each resident Ambiguity about the resident's oral self-care-plan
	Cooperation with oral healthcare professionals	Cooperation with oral healthcare professionals More cooperation with professionals

Table 3. The stages of inductive content analysis.

"Yes, we have some bun or something like that at afternoon coffee."

"We have our own chef so the amount of sugar can then be limited."

Education in the oral health care of older people varies and knowledge of oral health care is based mainly on basic nursing education. In some units, the supervisor nurse was not aware of any oral health education. In most of the units, there has been no theory or practical oral health education. In some units, there has been some cooperation and instruction with an oral health care professional. Before COVID-19, dental hygienists visited some units once a year, but municipalities no longer have the resources to do so. In two units a nursing student who had previously received training to be a dental nurse has instructed others in dental care. Altogether, more practical instruction on oral health care is desired.

"We were sometimes visited by dental hygienists from the health center, once a year, when they also guided the nurses, but that cooperation has ended."

In the unit, the topics of education are rarely related to oral care, or something related to dental care may be dealt with in another context such as in team meetings. One unit requested more education in dental care because it is known that dental care is a challenge, especially for residents with memory disorders. Most nurses only have the education in oral care that they have received during their basic nursing studies. The school of nursing does not teach oral health separately. It is instead assumed that everyone realizes through common sense that even the mouth and teeth need to be taken care of daily. Many supervisor nurses would like to have more dental education and although there is more training in oral care, there is a desire to receive more practical training and advice on residents' oral care more individually. On the other hand, there are units where oral health is not perceived as an important topic and some supervisor nurses say that they have not received any requests from nurses for dental care training either.

"Well, since they have not received any additional education, then they have the knowledge that they have received during basic nursing education."

"Yes, I think that you can always give more education and especially hands-on training."

Oral care equipment and taking care of them in units. Manual toothbrushes are usually used, but in some units, some residents also have electric toothbrushes. Soaking tablets are usually used once a week for cleaning removable dentures. Flossing is usually challenging due to memory disorders but residents in better health may use dental floss. Toothpicks and interdental brushes are more commonly used. It is also common not to clean interdental spaces. Some units also purchase special toothpaste. Xylitol products are used less often.

"We have toothpicks, dental floss, toothbrushes and then there are these soaking tablets."

"Cleaning of the interdental spaces occurs with varying degrees of success. Dental floss is used."

Caring for oral care equipment is the responsibility of either the relatives or the unit. It is usually the responsibility of the nursing staff of the unit to inform relatives if something is missing. It is desired that relatives would buy electric toothbrushes as their use would be easier with memory residents.

"Some (equipment) are cared for by relatives. As a rule, it is the responsibility of nurses."

"Yes, the nurses take care of (equipment) well, but the overall job is up to me."

Few units have their own nurse responsible for oral health.

Caring for the mouths of residents in the care units of the supervisor nurses included oral care such as daily brushing of the resident's teeth, challenges in daily oral care practices, cleaning the resident's removable dentures, supporting the resident in oral self-care and observing the need for oral care. A treatment plan for every resident is recorded and oral care is always included in the plan. Oral care can be seen in a unit's everyday life in the form of brushing resident's teeth in the mornings and evenings. More and more residents have their own teeth.

"Teeth are brushed at least in the morning and evening but also at other times if necessary."

"I bet that in the evenings it may be that not everyone necessarily brushes their teeth, but in the mornings."

Most residents in the care units of the supervisor nurses need physical help with oral self-care. Oral care is very challenging for some of the residents because of memory disorders and because, they may refuse to open their mouths. For residents with memory disorders, who are nevertheless able to function, oral care equipment is placed ready in such a place that they remember to brush their teeth after breakfast. It is important that functional capacity is maintained and the resident her/himself is given the opportunity to brush his/her own teeth. If necessary, toothpaste is put on the toothbrush and the resident's hand is brought to the mouth. Because everyone has the right to self-determination, not all residents want to brush their teeth more than once a day. Some supervisor nurses feel that daily oral health care is completely up to the nurses. "Of course, some people find it challenging so that they refuse to open their mouths due to illness, for example."

"A person with an early-stage memory disorder is still able to brush his/her own teeth in a guided manner when the nurse gives a toothbrush to the hand and provides guidance."

Removable dentures are also cleaned daily, and attention is paid to the fact that the denture is in use in the mouth. Removable dentures are deep cleaned once a week with soaking tablets. Some residents want to keep their dentures in their mouths at night as well. After taking inhaled medicines, the resident's mouth is always rinsed. If necessary, the mouth is also moistened.

"Every day (removable dentures) are washed with a brush and once a week put in soaking tablets."

"The advice is that you should wash (removable dentures) at least once a day, but this is not necessarily the case".

During meals, nurses monitor for signs of throwing up that could be related to a toothache or other oral symptoms. If there are any problems, the unit's nursing staff or supervisor nurse makes an appointment with the dentist and informs the resident's relatives about the issue.

Professional oral health care included access to dental professionals in case of dental symptoms, managing dental emergencies, a personal oral care plan outlined by dental professionals, and cooperation with oral healthcare professionals. If the resident has a toothache or a broken tooth, then emergency dental care is usually obtained quickly, sometimes even on the same day. Municipal dental treatment is usually used for emergencies. If a resident has his/her own dentist in the private sector, they are also quickly reached.

"Well, if there is some pain or a tooth chipped, we get an appointment pretty quickly."

"Usually, you can get an appointment for the same day."

Older people sometimes find it very challenging to point out the pain or the origin of symptoms, which can delay the right treatment. Another challenge is agreeing with a relative to accompany the resident to the dentist because no one from the unit can go there.

"If the resident is not able to express the pain himself/herself, then it may probably take longer to discover that the origin of the pain is in the mouth."

COVID-19 has also affected this. Several regions used to offer private dental services visiting the units on site. In one unit, a physician always needs to be contacted first, and not the dentist, even in case of a toothache. The nurse will contact the physician and assess the need for urgent care. The physician is a general practitioner or a geriatrician. One supervisor nurse said that help is received poorly, the municipal public health care resources are quite sparce, and they do not automatically offer help.

Half of the units have an individual oral care plan drawn up for the residents. Usually, it is included in some way in every treatment plan. If the individual oral care plan is made in the private dental sector, it is of course more expensive. "It's (oral health care plan) in that care and service plan."

#### "Everyone is entitled to such a basic one (oral health care plan)."

Most of the units cooperate with dental professionals. Professionals are from both the municipal and private sectors. Due to COVID-19, cooperation has decreased. In previous years, several units have been visited by a dental nurse or dental hygienist every year. The supervisor nurses hope that dental professionals will be able to access the units on-site, as it can be very challenging to go to the dental clinic with the residents.

"There is some cooperation with oral health professionals. They are from both the public and private sectors."

"Perhaps more cooperation would be desired, so it would be all the time."

## Discussion

To our knowledge, this was the first qualitative study to investigate how oral care is carried out in the daily life of the private enhanced service housing units and nursing homes in Finland. Qualitative content analysis revealed five main categories: diet, education in the oral health of older people, oral care equipment and taking care of them, caring for the mouths of residents and professional oral health care, which also describe key themes in efforts to improve the oral health of older people. The results revealed that sugary snacks were given daily in the units, there was a need for oral health care education, dental equipment was taken care of well and oral care of the residents was taken care of moderately well. Furthermore, there was a need for co-operation between dental professionals and units, and only half of the units had an individual oral care plan for the residents.

The mealtimes of the units are regular, which is important for oral health. However, in every unit, snacks are given daily. It is known that the frequency and amount of sugar intake are directly proportional to the occurrence of dental caries in adults [31]. On the other hand, snacks are needed to prevent malnutrition among older people and improving the nutritional intake of older adults is a multifactorial challenge [32]. Therefore, it would be important to reduce other caries risk factors among older people, such as poor oral hygiene and reduced salivary secretion [33] by improving oral hygiene, enhancing the use of fluoride and carefully considering the use of drugs that reduce saliva secretion.

Oral health care education in the units varies and education is usually received in the undergraduate degree of nursing education. Most of the units have had no theoretical or practical training in oral health care, contrary to a previous study in which 43% of nursing homes offered education in oral health care [34]. However, oral care training would be important in all care units because increased oral health-related knowledge among nurses has been found to improve residents' oral health [34] and increase nurses' willingness to perform oral care for the residents [35].

In our study, the units use a wide range of dental care equipment. In some units, dental care equipment is part of

the unit's service, while in others it is taken care of by the residents' relatives. Some units have a caregiver in charge of oral health. In our study, most residents used a manual toothbrush, which is parallel to a study by Weening-Verbree et al. 2021 in which 97% of the residents in nursing homes used a manual toothbrush [34]. However, the use of an electric toothbrush was rare in our study when compared to Weening-Verbree et al. 2021, in which 54% of residents used an electric toothbrush [34]. Interdental brushes had been purchased for several units, but the use was perceived as challenging due to the poor cooperation of residents. However, in the units, the aim is to support residents as much as possible in oral self-care, as evidenced by the fact that dental care equipment is looked after carefully in many units, and nurses guide and assist the residents in daily oral self-care.

In our interview, it became clear that the oral care of residents with memory disorders is perceived as challenging. An approach called *Mouth Care Without a Battle* for the oral care of older people with memory disorders and physical impairment has been proposed earlier [36]. According to that approach, oral care should be individually planned and suited to meet individual needs. In addition to that, the nursing staff must receive sufficient counselling and instructions and it is recommended that the same person always does the dental care of a resident with a memory disorder in a peaceful environment [36]. These perspectives should be included in training nurses for oral care in nursing homes and enhanced service housing units.

Dental professionals are usually contacted when the residents have oral symptoms and residents get an emergency appointment quickly. Taking residents to the dental clinic is considered challenging, and supervisor nurses hope that dental professionals will be able to access the units on-site to treat the residents. However, visits by dental professionals in the units are rare and our results are similar to the results found in a previous study in which 58% of nursing home managers said that the units do not have an oral healthcare professional, but if a resident has problems in the oral area, they are taken to a dental clinic [34]. More cooperation with dental professionals is also needed for making an individual oral care plan for all residents as only half of the units have such one for the residents. Including oral hygiene practices in a daily treatment plan has been previously suggested to improve the oral care of older people [27,37].

To support the reliability of the study, the qualitative research questions were carefully designed by experienced professionals and the questions were unambiguous and comprehensible. The reliability of the study is further supported by the fact that all the interviews were conducted by one of the authors (HJ) and all the interviewees were asked the same questions.

A sufficient number of supervisor nurses (n=19) were interviewed, confirming the validity of the qualitative study. Furthermore, a saturation of answers was achieved, which also supports the validity of the results. The internal validity of the study is supported by the fact that the interviews were conducted within a short period of time and carried out in the nursing homes or enhanced housing units in which the

supervisor nurses were working. Further, all the supervisor nurses knew about the interview about a week before.

The content validity of the study is supported by the fact that the reader can follow the stages of qualitative content analysis and deduce how the open codes and main categories have been formed (Table 3). The content analysis showed the main categories that centrally measure the daily implementation of oral care, which supports the face validity of the study. The main categories identified in this study correspond to the categories of daily oral care implementation obtained in our previous study, [29] which supports the content validity of our qualitative study and the instrumental utility of the study.

Interviews were originally scheduled for 23 supervisor nurses but 4 cancelled the interview at the last minute due to a sudden reason and one refused to be interviewed entirely. Participating nurses may have had a more positive attitude toward oral health than the dropouts. Furthermore, supervisor nurses may have given socially desirable answers, which is more likely to occur especially in a face-to-face interview. From the point of view of predictive validity, the fairly positive picture of the oral health care of older people that emerged in this study is somewhat questionable, as the oral health of older people has previously been found to be poor, especially in nursing homes [21,38]. In addition, about one-third of the supervisor nurses did practical work, and also performed oral hygiene for the residents. The perceptions held by supervisor nurses concerning the oral health of older people may be too positive if it has been a long time since they last did practical nursing work in units. Altogether, there may be a variety of factors which have inclined the results of the reported oral care in the units in a too positive direction.

The strengths of the study are the sufficient number of respondents needed for qualitative content analysis and carefully processed content analysis that reveals reasonable main categories. Other strengths of this study are the fact that the interviews were conducted in Finland's six largest cities, so geographically the respondents came from a wide area and the results of the interview describe the organization of oral care in nursing homes and enhanced service housing units in various parts of Finland. In addition, the respondents were of all ages and possessed various levels of working experience, so the topic of the study was looked at from several different perspectives.

## **Practical implications**

The units follow national nutritional recommendations, but it would be beneficial to pay attention to the sugary snacks that are given in each unit. Oral hygiene of the residents should be improved, and the use of fluoride and xylitol should be boosted if snacks are given to prevent malnutrition. In nursing homes and enhanced housing units, both theoretical and practical training in oral health care are needed.

Residents are challenged due to, among other things, memory disorders, and interaction with these residents may be demanding. However, everyone is entitled to good daily oral hygiene and regular dental visits and managing these goals requires multi-professional cooperation between care units and dental health care.

#### Conclusion

It can be concluded that based on this qualitative study, the implementation of daily oral health care in most nursing homes and enhanced housing units seems to be at a sufficient level. It can also be concluded that the prevention of dental caries should be emphasized due to daily snacks in the units, more oral health-related practical and theoretical education is needed, and more cooperation between nursing homes and public and private dental care is desirable.

## **Disclosure statement**

No potential conflict of interest was reported by the author(s).

# Funding

This study was supported by the Suomen Naishammaslääkärit ry.

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