## ORIGINAL ARTICLE



# Factors influencing home health care providers' performance of oral health care for older people: A qualitative study

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## **Abstract**

Aim: To examine factors that affect the performance of oral health care (OHC) for older people receiving nursing care at home.

Background: Oral health is often neglected by health care providers caring for older people. Research shows that health care providers' provision of OHC may be influenced by various factors (barriers and facilitators). When this research was conducted, health care providers from home healthcare services (HHCS) and nursing homes were grouped together despite setting differences; therefore, this study focuses on the performance of OHC by home health care providers (HHCPs) as a single group.

**Design:** Explorative design with a qualitative approach.

Methods: The managers of four HHCS units recruited 17 HHCPs to participate in focus group interviews. One interview was conducted per unit, and there were four to five participants in each interview. The analysis of interviews was based on theoretical thematic analysis and the PRECEDE constructs in the PRECEDE-PROCEED model. Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were used in reporting this study.

Findings: The analysis resulted in two themes with predisposing factors (HHCPs' professional responsibilities, older people's attitude), five themes with enabling factors (knowledge and skills, older people/carer trust, available time, available equipment and collaboration with public dental service (PDS)), and two themes with reinforcing factors (routines and OHC focus on the workplace) that affect the provision of OHC. The factors were categorised as individual, organisational and collaboration factors. Conclusions: In addition to individual factors found in previous studies, factors related to the organisation of services and communication between HHCPs and PDS seem to affect HHCPs' provision of OHC for adults receiving HHCS.

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**Implications for Practice:** This study provides in-depth knowledge that can contribute to increasing HHCPs' provision of OHC and thereby prevent oral and dental disease among older people receiving HHCS.

#### **KEYWORDS**

home healthcare services, older people, oral health care, PRECEDE-PROCEED model

## 1 | INTRODUCTION

This study addresses factors that may affect the performance of oral health care (OHC) for older people receiving nursing care services at home (hereafter described as home healthcare services (HHCS)). Some older people may need help with oral care due to functional and cognitive impairment (Tuuliainen et al., 2020). Good oral hygiene is important for older people's quality of life, as poor oral hygiene can lead to a high frequency of general, oral and dental diseases (Yellowitz & Schneiderman, 2014), which, in turn, can lead to pain, discomfort, teeth deformity and even death (World Health Organization, 2022). A recently conducted scoping review highlights that improvement of oral health is essential among older people receiving HHCS (Henni et al., 2023).

Mechanical removal of dental plaque, such as the brushing of teeth, may improve general health conditions in medically compromised older people (Robertson & Carter, 2013). Daily routines for oral hygiene are therefore recognised as the most important means of maintaining good oral health. Even though maintaining good oral hygiene can be considered a person's basic need, previous studies have found that health care providers who work in HHCS and nursing homes express a lack of knowledge about assessing and following up on older people's oral health (Aro et al., 2018; Ek et al., 2018).

A systematic review by Gostemeyer et al. (2019) showed that several barriers and facilitators influence health care providers' provision of OHC to older people. They identified that the main facilitators for the provision of oral hygiene and oral treatment were the presence of a dental professional in daily care, oral hygiene training and education, health care providers' own awareness about oral care, regular visits to the dentist and routine assessment. The main barriers were refusal of care, non-cooperative next of kin, and lack of time, knowledge, skills, experience, information on dental service availability and routine examinations. These findings are supported by Ek et al. (2018), who found that lack of knowledge, attitudes, inadequate procedures, and time influenced and constrained health care providers' performance of oral health assessments. In some cases, ethical dilemmas related to the next of kin's and older people's attitudes, integrity, and autonomy occurred when health care providers assessed that an older adult needed help with oral care. Sometimes, the next of kin suggested that help should be provided but the person did not want or refused it.

Both Gostemeyer et al. (2019) and Ek et al. (2018) grouped health care providers from HHCS and nursing homes together;

# What does this research add to existing knowledge in gerontology?

- This study illustrates the factors that influence the provision of oral health care (OHC) by home health care providers (HHCPs) to older people living at home.
- The PRECEDE-PROCEED framework provided a structure that unfolded the complexity of factors at individual and organisational levels in and across organisations.

# What are the implications of this new knowledge for nursing care with older people?

- The findings can contribute to increasing HHCPs' provision of OHC and thereby prevent oral and dental disease among older people receiving home healthcare services (HHCS).
- HHCS units must analyse how they can be organised to facilitate oral care.

# How could the findings be used to influence policy or practice or research or education?

- The findings indicate that there is a need for better communication and collaboration between HHCS and the public dental service to improve OHC for older people living at home.
- The findings indicate that there is a need to clarify HHCS' professional responsibility for oral health.

however, older people receiving HHCS are more likely to have poorer oral health than those living in nursing homes (Czwikla et al., 2021). One possible explanation for the differences in oral health between the two groups may be related to the different settings of the services. For example, in nursing homes, health care providers can go back and forth and assist older people around the clock, while in HHCS, health care providers only visit and assist older people for a limited time and at set hours. Therefore, this study aimed to identify health care providers' experiences with factors that influence their performance of OHC for older people receiving HHCS.

# 1.1 | Theoretical framework

The PRECEDE constructs from the PRECEDE-PROCEED model developed by Green and Kreuter (2005) have previously been used as a framework by studies within different scientific fields, including oral health, that have examined factors that precede a behaviour (Dharamsi et al., 2009; Mallen et al., 2021). PRECEDE in the model stands for Predisposing, Reinforcing, and Enabling Constructs in terms of Educational Diagnosis and Evaluation, while PROCEDE stands for Policy, Regulatory, and Organisational Constructs in Educational and Environmental Development (Green & Kreuter, 2005). According to Green and Kreuter (2005), a behaviour can be influenced by predisposing, reinforcing and enabling factors. Predisposing factors refer to people's motivation for behaviour change. Enabling factors facilitate the occurrence of a behaviour, and reinforcing factors refer to incentives and rewards that increase the likelihood that the behaviour will repeat itself at the next opportunity.

In this study, predisposing factors are understood as factors that address health care providers' motivation to carry out OHC and can include factors such as their knowledge, skills, beliefs, values and attitudes. Enabling factors are understood as the resources and skills required to perform OHC, such as training, materials, available space and professional collaboration. The last set of factors is reinforcing factors, which are understood as factors that follow the performance of OHC and increase the probability that health care providers will perform OHC again at the next opportunity. Reinforcing factors can be factors such as support, incentives and rewards that can result in the improvement of efficiency. Furthermore, different types of factors can be categorised as individual, organisational and collaboration factors.

## 1.2 | Aim

The overall aim of this study was to examine the factors that affect the performance of OHC for older people receiving nursing care at home. In particular, this study addresses predisposing, enabling and reinforcing factors.

## 2 | MATERIALS AND METHODS

## 2.1 | Design

We conducted an explorative study design with a qualitative approach as we sought to examine the participants' experiences related to the delivery of OHC. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were used in reporting this study (Tong et al., 2007) (Appendix S1).

## 2.2 | Setting

The present study was conducted in Norway. The Norwegian healthcare service has a three-level organisational structure (Sperre

Saunes et al., 2020): the national level, which is responsible for specialist health care and provides hospital care and outpatient clinics; the county level, which is responsible for dental care; and the municipality level, which is responsible for planning and providing primary healthcare services. These services include HHCS, which mainly consist of nursing care, occupational care and physiotherapy; nursing homes, general practitioners and rehabilitation services; and public health and intermediate care services.

Inhabitants who are eligible for HHCS receive these services free from home health care providers (HHCPs) (Sperre Saunes et al., 2020). HHCPs in Norway are registered nurses (RNs), who hold a bachelor's degree, and nursing assistants. Nursing assistants are either auxiliary nurses (ANs), who are educated to upper secondary school level with 2 years of practical placement in the healthcare service, or assistants, who have little or no formal training in the healthcare service. In this article, we use the term HHCP to refer to these three groups. Older people (i.e. those aged over 67 years) are the largest population group to receive HHCS (Statistics Norway, 2022), and they receive help as formalised tasks based on individual assessments of their needs. The allocation of individual help may vary between municipalities as there are no national procedures for individual assessments of inhabitants' needs.

Entitlement to receive free dental care from the public dental service (PDS) is triggered by receiving, or being formally approved to start receiving, nursing care at least once a week for a period of more than 3 months. The municipalities are responsible for providing information to each person about their legal rights. The PDS, on the contrary, is obligated to provide OHC training for HHCPs and provide dental care. It is up to each PDS unit and HHCS unit to decide how they will collaborate to ensure that oral health is taken care of and that persons receive the oral health help to which they are entitled by law.

## 2.3 | Participants

The participants in this study were recruited by their managers between June and August 2021. The managers of four HHCS units in three municipalities in Norway with different population and organisation models were asked to recruit two RNs, two ANs and two assistants who had worked for at least 1 year at the workplace to participate in a focus group interview. As employees in the Norwegian HHCS are largely a heterogeneous group in terms of culture, work experience and further education, the managers were informed that the researchers sought diversity within the focus group to ensure maximum variation (Patton, 2015). All the managers agreed to recruit employees who freely wanted to participate in a focus group interview. A total of 17 employees wanted to participate:

- Unit 1: One RN, one AN and two assistants.
- Unit 2: Two RNs and two ANs.
- Unit 3: Two RNs, two ANs and one assistant.
- Unit 4: One RN and three ANs.

## 2.4 | Data collection

One semi-structured focus group interview about the provision of OHC was conducted per HHCS unit. The interviews were led by the first author, and another researcher acted as moderator. The interview guide consisted of three topics: (1) the participants' focus on dental and oral health in older people and the organisation of the HHCS; (2) factors that must be present for the provision of dental care and OHC to older people; and (3) factors that make it challenging to perform dental care and OHC for older people. The specific questions related to each topic were relatively open so that participants could share and discuss their unique experiences and views. The interviews lasted an average of 53 min (min 47 min, max 60 min) and were conducted online via Zoom from June to August 2021. Interviews were audio recorded. One participant was at home, and the other participants sat together in a conference room at the workplace and communicated with the interviewer and moderator remotely using Zoom. The interviewer and moderator used the chat function in Zoom to communicate with each other to avoid interruptions during the interview. The decision to use Zoom was made due to the ongoing COVID-19 pandemic.

## 2.5 | Data analysis

The researchers carried out a deductive theoretical thematic analysis (Braun & Clarke, 2006). This approach was regarded as useful because we were searching for certain aspects of the data, such as barriers and facilitators in performing OHC, which are the focus of this study. The deductive analysis process was based on the PRECEDE constructs (Green & Kreuter, 2005), which were used to gain an understanding of whether the HHCPs' experiences related to barriers and facilitators in performing OHC may affect (1) their motivation for performing OHC; (2) the necessary resources and skills to perform OHC; and (3) the likelihood that they will perform OHC at the next opportunity.

The first author transcribed the interviews verbatim. The authors started the analysis process by reading the transcripts several times to familiarise themselves with the data. For each reading, the authors gained new insight into the data and organised the data according to whether they could be identified as predisposing, reinforcing or enabling factors (PRECEDE constructs). After several further readings, the researchers grouped data related to each of the three factors into themes based on the content of the text. The names of the themes were developed based on the condensation of the text that described the content of the text. Thereafter, the authors reviewed the themes and grouped text with similar content into factors named as specific barriers or facilitators for the performance of OHC for older people receiving HHCS. In this study, a barrier is considered something that makes it difficult for HHCPs to perform OHC, while a facilitator is considered something that makes it easy for HHCPs to perform OHC. The analysis process is shown in Table 1. The entire research group discussed the analysis process

and interpretation of the data to ensure that there was consensus on the study's findings. During the analysis process, NVivo version 12 (QSR International Pty Ltd, 2020) was used as an organisational tool to structure the transcribed text.

## 2.6 | Ethical considerations

The project was reported to the Norwegian Centre for Research Data (Reference number: 981705). Data were stored and managed according to the guidelines provided by the University of Oslo. Participation was voluntary and only allowed with written consent.

## 3 | FINDINGS

## 3.1 | Predisposing factors

Predisposing factors include considerations that influence the HHCPs' motivation to perform OHC. In this study, we identified two themes with predisposing factors, both of which were categorised as individual factors: one relating to the HHCPs and how they assess their professional responsibility and one relating to how the HHCPs assess older persons' attitudes to oral health.

# 3.1.1 | HHCPs' perception of professional responsibilities

The HHCPs expressed on their own initiative that they consider it important to take care of their own oral health. Some participants also described that some older persons might find it shameful not to have a 'pretty smile'. Despite this attitude, the participants conveyed that they rarely talked about oral health in their workplace. HHCPs reported that oral health is often overlooked in the HHCS setting, even though they recognised oral health as an important aspect of care and said that they wanted to increase the focus on oral health at their workplace. Furthermore, the participants conveyed that they only examined persons' mouths when the latter complained about pain. We identified different attitudes among the participants from different workplaces regarding who should take care of persons' oral health. In addition, there were contradictory attitudes among the HHCPs regarding their role in relation to oral care. Some HHCPs saw themselves as responsible for persons' oral health: 'It's really us who [are responsible], taking care of their health and the mouth is a big part of it (...) Even if we only assist with compression stockings (...) one always asks how everything is going' (Group 3, RN 2). Other HHCPs saw themselves as not responsible for persons' oral health: 'If we have patients where we only assist with compression stockings, then I must admit that I don't feel that I have a very large responsibility for their teeth (...) they must take care of their own teeth' (Group 2, RN 2). Another expressed that persons should take care of their own oral health: 'They live at home, they are in a

TABLE 1 Summary of themes and factors by PRECEDE constructs.

		Factor	
Construct	Theme	Specific facilitator	Specific barrier
Predisposing factors Addresses HHCPs' motivation for performing OHC	HHCPs' perceptions of professional responsibilities	Want to raise the focus on oral health at the workplace	Oral health is not in focus unless it becomes ar issue
		Recognise oral health as an important aspect of care	Ambivalent recognition of oral health as an important aspect of care
		Perceive that they are responsible for older people's oral health	Perceive that they are not responsible for olde people's oral health
		Work to promote good oral health	
	Older peoples' attitudes to oral health	Older persons are concerned about oral health	Older persons do not prioritise their own oral health
		Older persons want help with oral health	Older persons do not want help with oral heal
Enabling factors Addresses the resources and skills required to perform OHC	Oral health knowledge and skills	Evaluate own oral health knowledge as sufficient	Evaluate own oral health knowledge as very band not sufficient
		Have access to oral health courses at the workplace	Have no access to oral health courses at the workplace
		Want more oral health knowledge	
			Insufficient focus on oral health in the educat of registered nurses and auxiliary nurses
	Establishing trust with older people	Trust to perform OHC can be created	Trust to be allowed to perform OHC is lacking
		Oral health can be a topic along with nutrition	Difficult to find the right time to talk about or health
	Available time to perform OHC is essential	Make enough time by creating OHC as a task	Lack of time and proper description of older persons' OHC needs
			Visit the older person at an inconvenient time conduct OHC
	Available equipment	Available equipment	Lack of available equipment
	Collaboration with the PDS	Have some interaction with the PDS	Insufficient interaction with the PDS
		Interaction with the PDS can give the HHCPs credibility among the older people to perform OHC	
			Lack a communication tool to communicate w the dental clinic
Reinforcing factors Increase the likelihood that HHCPs will continue to provide OHC	Routines in the HHCPs' workplace	Daily follow-up routine of older people who need help with oral hygiene	Lack oral health mapping routines
		Routine to map and report to the dental clinic on who has free OHC	
		Routine to inform older people about free OHC	
		Routine when detecting impaired oral health and pain	Unclear routine when detecting impaired oral health and pain
	Focus on oral health in		Lack of support to focus on oral health from management
	the HHCPs' workplace		Lack of oral health interest among HHCPs

Abbreviations: HHCPs, home health care providers; HHCS, home healthcare services; OHC, oral health care; PDS, public dental service.

way responsible for themselves, we can of course encourage and assist if they need it, but in the end, they are responsible for themselves. HHCS isn't' (Group 1, RN 1). Despite the uncertainty about

responsibilities related to their role, all the HHCPs expressed that part of their role was to offer help and motivate the person to either maintain their own oral hygiene or let HHCPs help them.

## 3.1.2 | Older people's attitudes to oral health

The participants also reflected on different attitudes towards oral health among the older persons receiving HHCS, which ranged from taking care of to not prioritising oral health. Furthermore, the HHCPs reported that persons differed in their willingness to receive help with oral health from HHCPs. HHCPs reported that differences in attitude exist not only between persons, but also between persons and HHCPs. In the words of one RN: 'They live at home on an equal footing with the rest of us, so in the end, the choice is theirs. So, it can be difficult because we see there's a need, but maybe the patient doesn't experience it in the same way' (Group 4 RN 1). The HHCPs also described that they cannot force persons to do something, for example, brush their teeth, if they do not want to. Furthermore, all the HHCPs reported that they provided care to persons whom they thought needed help with oral hygiene but refused to receive help.

## 3.2 | Enabling factors

Enabling factors address the resources and skills required to perform OHC. In this study, we identified five themes with enabling factors that are essential for the performance of OHC: two individual factors related to the HHCPs' oral health knowledge and skills and their establishment of trust with older persons; two organisational factors related to the availability of time and dental equipment; and one collaboration factor related to collaboration between HHCS and the PDS.

## 3.2.1 | Oral health knowledge and skills

Knowledge and skills appeared to be both facilitators and barriers to performing OHC, depending on whether the participants evaluated their knowledge and skills as sufficient or lacking. The HHCPs reported that there were differences in the availability of courses about OHC between different workplaces, and both RNs and ANs expressed that there was little focus on the topic of oral health in their education. Some participants believed their own knowledge was sufficient. On the contrary, those who believed their knowledge was limited or very basic found it difficult to perform OHC. In particular, the participants expressed that they wanted more oral health knowledge as they lacked knowledge related to the discovery of abnormalities. As one AN said: 'I have no competence about oral health or older people... if I'm to look into my mouth then in the older person's mouth and their mouth may look a little strange, but then it's really completely normal (...) And I think we can learn about that at a course' (Group 3, AN 2). Overall, the HHCPs' descriptions gave the impression that knowledge and skills are essential to perform OHC.

## 3.2.2 | Establishing trust with older people

The HHCPs reported that establishing trust with older persons is an essential part of performing OHC. When the person trusted them

and a stable patient–carer relationship had been created, the person would let the providers help with oral hygiene. In the words of one RN: 'In the beginning, you may not assist with very much. But as you form a relationship and you get to observe the patients, how they function in their own home, then slowly but surely one can try to provide more and more help' (Group 4, RN 1). Furthermore, the HHCPs gave the impression that while it was challenging to talk about OHC as a topic with older persons, it was appropriate to do so as part of talking about nutrition with them.

## 3.2.3 | Available time

All the HHCPs said that they needed time to assist older persons with OHC. HHCPs from some workplaces conveyed that they had time to help persons with OHC because they 'created time' if they saw that a person needed this type of help. In the words of two RNs in Group 2: '...there is time, and we get that, we get time' (RN 2) ... 'Yeah, create OHC as a formal task (...) because if it has not been made clear earlier, it must be made clear that they have problems with it [oral health]' (RN 1). However, some HHCPs from other workplaces expressed that they tended to prioritise and make time for tasks other than OHC. The participants expressed that it was important that the formalised task included a detailed description of the job that needed to be done. Furthermore, time also needed to be created on HHCS visits where they only observed whether the person performed oral hygiene instead of assisting with it. The HHCS visits also needed to be made at a time when it felt suitable for the person to be given help with oral hygiene. As one RN said: 'We leave the office at 8 in the morning and from then and until 11.30, we have about 15 patients (...) it's a lot, so we don't have the opportunity to wait for them to finish eating before they naturally go to the bathroom to brush their teeth' (Group 1, RN 1).

## 3.2.4 | Available equipment

Most of the participants expressed that the older persons had the necessary equipment, such as toothbrushes and toothpaste, to perform oral hygiene. Furthermore, the HHCPs described that if they needed equipment, the person or their next of kin would usually provide what was required. The HHCPs at one workplace expressed that in situations where persons, for various reasons, do not have the necessary equipment to perform oral hygiene, the HHCS could offer what was needed.

## 3.2.5 | Collaboration with the PDS

Most of the participating HHCPs reported that they needed regular contact with the PDS. However, they also expressed that they had little collaboration with the PDS in their regular practice. A few participants described that it was easy to collaborate with the PDS, but the majority described the collaboration with the PDS as

challenging in terms of both communication and the physical transportation of an older person to the dental clinic. For example, the participants expressed frustration when a person's need for oral health treatment was reported to the dental clinic but the clinic did not give feedback to HHCPs about the consultations that had been provided to persons receiving HHCS. Furthermore, the HHCPs expressed that they communicated with the different dental clinics by phone, but that they needed to communicate electronically with such clinics as they currently do with hospitals, nursing homes and physicians. The HHCPs also described wanting to work more closely with the PDS as doing so could lead to increased trust and credibility among the patients and thereby allow the HHCP to perform OHC: '...we could have a properly written action plan that we can show comes from the dentist, because then you have something to refer to and then it may be easier to be allowed to assist' (Group 3, RN 2).

## 3.3 | Reinforcing factors

Reinforcing factors address the likelihood that HHCPs will perform OHC at the next opportunity. In this study, we identified two themes with reinforcing factors, both of which were categorised as organisational factors: OHC routines in the HHCPs' workplace and an oral health focus in the HHCPs' workplace.

## 3.3.1 | Routines in the HHCPs' workplace

All HHCPs described having a routine in which the HHCP who helps the older person with his/her personal hygiene needs also assesses and takes care of daily oral hygiene. In addition, they document any oral health abnormalities in the patient record. Furthermore, they described routines involving persons that are eligible for OHC free of charge from the PDS that included giving them information about such eligibility and, if the person agreed, reporting their agreement to the PDS. However, participants reflected that, despite having daily follow-up routines that could increase the likelihood that they would perform OHC, they lacked oral health mapping routines. In addition, there was uncertainty among some participants related to what procedure should be followed when oral health issues were detected. Some HHCPs expressed that it was logical to contact the PDS when a person has oral health issues, but they were uncertain how exactly to proceed when a person had such issues due to a lack of established routines. However, some participants expressed that they had established routines when oral health issues were detected. As one RN said:

In the same way as with other discomfort and pain, one will ask if one can be allowed to look into the oral cavity, observe for deviations, ask about how long they have been in pain, how long the pain has lasted, if the pain has changed, and, of course, encourage them

to get a dental appointment or ask if we should assist in booking a dental appointment.

(Group 4, RN 1)

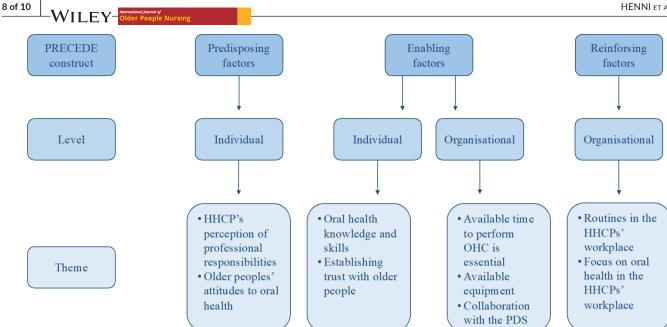
# 3.3.2 | Focus on oral health in the HHCPs' workplace

Overall, the participants conveyed that oral health is not a topic that is focused on in their workplaces. Their descriptions gave the impression that this was the case not only among the HHCPs, but also among the management and that the topic of oral health was only prioritised for older persons who were already experiencing oral health issues: 'It's somehow not a topic or a priority' (Group 2, RN 1) (...) 'if you discover that someone has issues with teeth, I think we might be better at initiating a formal task related to OHC; maybe it's only when it has gone so far that they have ailments that they get help' (Group 2, RN 2).

## 4 | DISCUSSION

We identified several predisposing, enabling and reinforcing factors that affect the performance of OHC for older people receiving HHCS by using the PRECEDE-PROCEED framework (Figure 1). The identified factors could act as facilitators and/or barriers and were apparent across individual and organisational levels in the municipalities. At the individual level, predisposing factors were linked to the HHCPs' professional responsibility while enabling factors were linked to knowledge and skills as well as being able to establish trust with the older people. At the organisational level, the enabling factors of time, available dental equipment and interprofessional and interorganisational collaboration were prominent while reinforcing factors addressed routines and prioritisation in daily care. Below, we discuss the individual and then the organisational level across the factors.

The HHCPs' awareness of older persons' needs and their own professional responsibility to assist in relation to daily oral care were characterised as predisposing factors. In line with previous studies, some of the HHCPs expressed that oral health is part of their responsibilities and is included in their duties (Aro et al., 2018; Ek et al., 2018) while others expressed that oral health is not part of their responsibility. Such ambiguous views of professional responsibility have not, to our knowledge, been reported in previous studies. In nursing science, it has been emphasised for decades that RNs should have a holistic view of patient needs (Jasemi et al., 2017). It is reasonable to ask if those HHCPs who expressed that oral health was part of their role may hold such a holistic view of older people and their care. However, caring for older people at home has changed in recent decades and become increasingly advanced; hence, HHCPs have become responsible for providing comprehensive care (Melby et al., 2018). Thus, it is likely that oral health has a lower priority than other tasks.



HHCPs = home health care providers OHC = oral health carePDS = public dental service

FIGURE 1 An overview of the PRECEDE constructs structured in levels and themes that affect the performance of OHC for older people receiving HHCS.

Those who expressed that oral health was not part of their professional responsibility could have done so due to a blurring of the borders of oral care responsibilities (Melby et al., 2018) or an understanding that older people living in their own homes are expected to take care of their own oral health. The participants in our study reported that there was a conflict regarding what they assessed as their professional responsibility and their perceptions of older people's attitudes towards oral health care needs. The perception that older people most often do not need help with oral health care acts as a barrier to providing oral care in home care situations and contributes to the tension between professional responsibility for and the feasibility of oral health care. This tension also creates ethical dilemmas regarding what can be considered adequate health care. In such situations, the creation and lack of trust are, respectively, regarded as facilitators and barriers. In addition, knowledge and skills are observed as enabling factors at the organisational level and work as both facilitators and barriers in our material. This may reflect the importance of integrating oral health care into nursing education (Ek et al., 2018; Garry & Boran, 2017; Gostemeyer et al., 2019). Overall, the extent to which lack of clarity about HHCPs' responsibility may impact their readiness to provide oral care should be elaborated on in future studies.

Facilitating oral health care at older people's homes and collaboration between municipalities and the PDS were presented as enabling and reinforcing factors. This is substantiated by the participants' reflections on the lack of focus on oral health or arenas where oral health care issues could be discussed in their daily work. The

participants conveyed that lack of time could be a problem; however, most of them conveyed that they could find additional time to help older people if needed. The lack of emphasis on time contradicts previous studies that have described time as a common barrier to attending to persons who refuse care (Gostemever et al., 2019). When talking about time in the current study, the main focus of the participants was that the HHCS visits were conducted at times that are not suitable for OHC. In line with this, Ek et al. (2018) describe older people as being reluctant to receive oral health treatment in the mornings due to nausea or other personal problems.

It became obvious that the current collaboration between the HHCS and the PDS is not satisfying and that HHCPs want to improve the relationship between the two services. Overall, the HHCPs portray a fragmented healthcare system when it comes to caring for oral health. This has received little attention in the previous literature. However, Gostemeyer et al. (2019) and Amerine et al. (2014) portray that the presence of a dental professional in long-term care settings is a facilitator for the provision of OHC as it can be a motivator and can facilitate the delivery of OHC. The results of a recent systematic review focusing on the integration of OHC into primary health care support these findings and highlight the need to improve collaboration between the two services (Prasad et al., 2019). In this context, the current study highlights the need to enhance digital communication across the HHCS and the PDS as HHCS already communicate digitally with other healthcare services, such as hospitals, nursing homes and physicians. The two services currently communicate via telephone, letters, emails and meetings, which may be time-consuming, create vulnerability and reduce efficiency (Melby

et al., 2015). Overall, it seems that there is a need to develop new collaborative models that connect HHCS and the PDS in Norway.

## 4.1 | Strengths and limitations

The strength of this study is the variability of the data collected from four HHCS units across three municipalities in Norway with different population and organisation models. However, the recruitment procedure may have affected the study as the managers of the participating HHCS could decide whom they wanted to recruit for the study. Additionally, the interviews were conducted via Zoom due to COVID-19; however, none of the participants gave the impression that they felt uncomfortable in that setting.

During the analysis process, it became obvious that the constructs from the PRECEDE-PROCEED framework were not mutually exclusive categories, and the authors struggled to categorise some of the identified factors into the three different constructs. The factors related to the participants' knowledge and skills are examples of those that could be argued to fit into several constructs. HHCPs' motivation to perform OHC can be affected by having sufficient or lacking knowledge and skills (predisposing), but the ability to recognise oral health problems is also a necessary resource and skill required to perform OHC (enabling). Despite these challenges, the framework provided an analytical approach to uncover facilitators and barriers in all three constructs, and several of the factors identified have been little discussed in previous studies.

## 5 | CONCLUSION

This study illustrates that managing oral care in HHCS is not straightforward. The identified individual and organisational levels show the complexity at different levels in and across organisations. The PRECEDE-PROCEED framework provided a structure that unfolded the diversity of factors that influence the integration of oral health care in HHCPs' daily work.

## 6 | IMPLICATIONS FOR PRACTICE

To overcome the identified barriers to OHC experienced by HHCPs, there is a need to:

- Clarify HHCS' professional responsibility regarding oral health.
- Conduct more research to analyse and contextualise how HHCS may be organised to facilitate oral care.
- Develop sustainable communication structures that facilitate collaboration between HHCS and the PDS to avoid a fragmented healthcare system.
- Advocate for OHC to establish oral health awareness among older people, next of kin, HHCP and HHCP students.

Reducing barriers to care by implementing the above suggestions can result in enhanced oral health status for older people receiving HHCS.

#### **AUTHOR CONTRIBUTIONS**

SHH wrote the first draft of the manuscript and led the review process. SHH, VA, EASH and RH determined the design and focus of the study. All authors were involved in the data analysis and interpretation of data. All authors reviewed and edited the manuscript and approved the final version of the manuscript.

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## **CONFLICT OF INTEREST STATEMENT**

The authors declare no conflict of interests.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available in Norwegian from the corresponding author upon reasonable request.

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#### SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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