**Title**: Nurse preceptors' perceptions of the fundamentals of nursing knowledge gained by students in clinical rotations at nursing homes: A qualitative study (R1)

## Abstract

*Background:* International evidence suggests that clinical nurses and nursing students perceive fundamental care as not being important, not complicated and even not a nurse's responsibility, thus resulting in negative patient outcomes.

*Aim*: To explore nurse preceptors' perceptions about the factors that influence nursing students' gaining of knowledge about fundamental care during their clinical practice at nursing home.

*Methods*: A qualitative descriptive study using individual interviews was conducted from September 2020 to April 2021. Nine nurse preceptors employed at five nursing homes participated. The data were analysed by employing an inductive qualitative content analysis. *Findings*: The analysis generated one main category—'Fostering students' knowledge and understanding of fundamental care'—supported by two categories: (i) 'Nurse preceptors – enablers of nursing students' learning fundamental care' and (ii) 'Nursing home – a learning environment that facilitates students' learning about the delivery of fundamental care', which can be interpreted as the preconditions that may contribute to fostering students' knowledge and understanding of fundamental care.

*Conclusion*: The study reveals that nurse preceptors' attributes, an effective preceptorship and a social learning environment can create opportunities for nursing students learning the provision of fundamental care in nursing homes. Furthermore, Vygotsky's theory of sociocultural learning may be applied when teaching in clinical nursing education.

**Key words:** clinical learning, fundamental care, nursing homes, nurse preceptors, nursing students, qualitative content analysis

## Introduction

In Norway, as well as in other European countries, nursing education complies with the European Union's (EU) directives (EU, 2005, 2013) and is completed over a period of three years. Nursing education consists of at least 4,600 hours, including theoretical knowledge and clinical practice, in which clinical practice represents one-half of the education period; therefore, clinical practice must cover a minimum of 2,300 hours. Students who complete the programme are awarded a bachelor's degree in nursing (Bachelor of Nursing) (EU, 2005; Norwegian Ministry of Education and Research, 2012).

Nursing is a profession in which practical and theoretical knowledge need to be integrated, and clinical practice is significant for the professional development of undergraduate nursing students (OsloMet, 2022). During several clinical practice periods, students learn about nursing and the delivery of care to patients, families and communities as a way to improve their theoretical and clinical competencies (Kristiansen et al., 2019).

In Norway, clinical learning is organised as a dyadic relation between clinical nurses and students (Lauvås & Handal, 2014). Clinical nurses guide and support students' learning as they engage in real-life patient care, practice and refine skills, explore ethical issues, experience nursing roles, process clinical information and connect theoretical content learned in the classroom to real-life practical activities (Oermann & Shellenbarger, 2020). The integration of theoretical knowledge into practice is usually facilitated by clinical nurses, socalled preceptors, who provide individualised education within a learning environment where theoretical knowledge is linked to practical skills (Carlson et al., 2009). Therefore, the nurse preceptor is a nurse who is up to date when delivering evidence-based practice, competent in facilitating knowledge, objective when providing feedback and aware of their role as a preceptor and the student's role as a preceptee (Martínez-Linares et al., 2019).

#### Literature review

The act of performing a procedure with the intention of demonstrating it to students becomes a qualified action because it acquires the teaching character (Ferreira et al., 2018). Over the years, this qualified action has been labelled clinical supervision (Jones, 2006), preceptorship (Bain, 1996; Billay & Myrick, 2008; Bohnarczyk & Cadmus, 2020), mentorship (Andrews & Wallis, 1999), coaching (Lewis & Zahlis, 1997) and clinical instruction (Cederbaum & Klusaritz, 2009), among other terms. In clinical nursing education, preceptorship is key to workforce sustainability (Lafrance, 2018); therefore, several studies have been conducted to explore nurse preceptors' experiences of preceptorship and their strategies and teaching techniques in clinical nursing education. Preceptorship has been given the attribute of enhancing nursing students' practical wisdom (Myrick et al., 2011) and learning outcomes (Phuma-Ngaiyaye et al., 2017). Hilli et al. (2014) emphasised that the process of learning and development among students is supported by a caring student-preceptor relationship, which includes a safe and supportive learning environment where the theory complements praxis and vice versa. Omer et al. (2016) assessed the roles and responsibilities of preceptors as perceived by both preceptors and their preceptees, revealing, among other things, that preceptors take the role as protector, evaluator, educator and facilitator. Carlson et al. (2009) demonstrated that a preceptorship is a continuous process that integrates three overall strategies: adjusting the level of precepting, performing precepting strategies and evaluating precepting. Other preceptors' strategies were revealed in a study conducted by Nielsen et al. (2017), who found that, by being together, by doing together and by getting along together, preceptors and nursing students will enhance students' learning outcomes. For the purposes of the current study, nurse preceptors refer to clinical nurses employed at nursing homes, and the term 'preceptorship' will be used throughout the text, referring to the strategy that maximises the benefits of clinical education in terms of assisting students in the acquisition of skills and knowledge, enhancing confidence and professional socialisation (Happell, 2009).

Clinical placement contributes to enhancing students' confidence in clinical practice, teamwork and organisational skills and readiness to help the student become qualified for the profession (Stenberg et al., 2020). Several studies focusing on preceptorship have been conducted in specialised units or acute care within a hospital context (Macey et al., 2021; Widiawati et al., 2021), in a mental care setting (Vuckovic et al., 2019; Vuckovic & Landgren, 2021) or in ambulance services (Wallin et al., 2021).

In Norway, nursing homes are run by the municipalities and are close to the home communities of the residents (Jacobsen & Mekki, 2012). Compared with other European countries, the staff coverage in Norway is more than double, and most of the staff are formally qualified (Jacobsen & Mekki, 2012). Safe and secure services are a primary goal, and quality services mean that the probability of errors and adverse events occurring is reduced to a minimum. To achieve this goal, the provision of care in nursing homes is regulated by the 'Regulation of Quality of Care' (HOD, 2003); this act ensures that the nursing home residents' fundamental physiological and psychosocial needs are met and that the preservation of their dignity and self-respect and the degree of choice within the daily routine are supported.

Nursing home residents have complex presentations of illnesses, with an average of four to five active diagnoses (Jørgensen et al., 2018), which may challenge the provision of fundamental care. With the increased need for educating competent nurses who can meet patients with complex healthcare needs, several studies focusing on preceptorship in the context of primary care have been conducted (Frøiland et al., 2021; Gonella et al., 2019; Ong et al., 2021; Plathe et al., 2021) that convey the idea that nursing homes offer students learning opportunities. Recently, a Norwegian study conducted by Dalsmo et al. (2022) concluded that nursing homes are an enriched learning arena and, therefore, can offer students learning situations that are aligned with their professional development as future nurses.

Care is the essence of the nursing profession and refers to the provision of the necessary assistance required based on scientific principles in a way that supports patients' comfort and relieves them from suffering (Loke et al., 2015). Regardless of the care setting in which a nurse chooses to work, there will be a set of fundamental needs that every patient must have addressed to ensure their physical and psychosocial health, safety and well-being. These needs and the activities undertaken to address them represent the core of nursing and are known as 'fundamental care' (Feo et al., 2020). Fundamental care has been defined as 'those caring actions that respect and focus on a person's essential needs to ensure their physical and psychosocial well-being' (Feo et al., 2018b, p. 2295). These caring actions are described as nurses' actions performed to meet patients' physical and psychosocial (well-being and mental health) needs, including nurses' transactional and relational behaviours (Feo et al., 2018b).

The lack of provision of fundamental care is a contested area (Kitson et al., 2010) and has been the subject of several debates in the literature (Kitson, 2016). The reasons why fundamental care is less prioritised can vary; however, international evidence has indicated that nurses and students perceive fundamental care as 'just common sense', not important and not requiring knowledge and skills (Feo et al., 2019). A systematic literature review and metaanalysis conducted by Bagnasco et al. (2020) revealed that fundamental care is frequently overlooked, especially when resources are low (Blackman et al., 2020). Moreover, some nurses do not always consider fundamental care to be part of their role and responsibility because healthcare assistants often carry out these activities (McGuire et al., 2017). The lack of interest in providing fundamental care has resulted in nursing care being left undone (Ausserhofer et al., 2014), resulting in poor patients' outcomes (Feo et al., 2018; Zwakhalen et al., 2018). However, the past decade has been characterised by studies focusing increasingly more on fundamental care (Feo et al., 2018). In their study, Pavedahl et al.

(2021) revealed that nurses identified patients' fundamental care needs and provided nursing care, but the organisational structure and physical environment of the emergency room limited nurses' ability to meet patients' needs. Another study that was conducted within the field of oncology (Muntlin Athlin et al., 2018) revealed that some patients with a cancer diagnosis had to strive for help and support from nurses and that nurses need to focus on the patients' fundamental care needs to optimise recovery. Recently, Sugg et al. (2021) have demonstrated that, because of the pandemic caused by the SARS-CoV-2 virus, several areas of fundamental nursing care were regularly missed, leading to poor patient outcomes and patients reporting having unmet needs at the post discharge time.

To provide high-quality fundamental care that meets patients' fundamental needs, it is important to raise awareness of the importance of fundamental care from the beginning of nursing education. Therefore, lately, learning about fundamental care has been the subject of several studies in nursing education. Two studies conducted by Jangland et al. (2018) and Huisman-de Waal et al. (2018) revealed that nursing students have faced challenges in identifying patients' fundamental care needs, thus highlighting educators' responsibility in emphasising these aspects of care. Voldbjerg et al. (2018) revealed the need for collaborative approaches between research, practice and education as a way to introduce the fundamentals of the care framework into the nursing curriculum, which may contribute to reducing the theory–practice gap. A reduction of the theory–practice gap when it comes to fundamental care has also been supported by the findings from a study conducted by Lillekroken (2019a, 2019b, 2020). The study demonstrated that the collaboration between students, nurse educators and nurse preceptors, has a positive impact on student's development of skills, thus facilitating students in enhancing their knowledge about the delivery of fundamental care in a simulated learning environment.

As demonstrated above, both preceptorship in nursing homes and fundamental care have been the subject of various studies separately, but no single study has focused on the factors influencing nursing students when it comes to them gaining knowledge about fundamental care during their clinical practice at nursing homes; therefore, more research is needed in this area.

## **Theoretical framework**

Worldwide, the shortage of nursing faculty and rising faculty-to-student ratios in classroom and clinical settings have led to an increasing interest in pedagogical strategies to optimise student learning (Jarosinski et al., 2022; Mariani, 2022). An effective nurse educator is aware of learning theories and identifies and tailors teaching strategies that can support students' learning. Lev Vygotsky's (1978) sociocultural development theory proposes that the construction of knowledge occurs in the interplay between the learner (the student) and more knowledgeable others (i.e., nurse educators, clinical nurses, experienced peers). Vygotsky (1978) stated that social interactions lead to cognitive development as students actively participate in the learning process by using speech, memory and writing. Central to Vygotsky's theory is the zone of proximal development (ZPD), which is defined as 'the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined by problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky, 1978, p. 86). Essential to the ZPD model is the social context of learning, in which interaction enables more learning than when students learn on their own. Student learning takes place through nurse preceptors' clinical instructions; therefore, students are the most receptive to instruction when instruction triggers students' ZPD because it represents a potential phase for learning. The role of the nurse preceptor is to stimulate and support the student and, through interaction, encourage the student to 'reach' towards higher levels in the ZPD. However, there is limited work in

undergraduate nursing education addressing what may underpin fostering knowledge about fundamental care in nursing students and, thus, help them reach higher levels in the ZPD; therefore, for the purposes of the present study, Vygotsky's theory was chosen as the theoretical framework. The theory is used to discuss the findings, thus strengthening the understanding of how knowledge about fundamental care is constructed during the interplay between the student and nurse preceptor.

#### Aim of the study

The current study aims to explore nurse preceptors' perceptions about the factors that influence nursing students' gaining of knowledge about fundamental care during their clinical practice at nursing home.

#### Methods

#### Study design

The study employed a qualitative descriptive design using individual interviews.

# Participants and setting

The sample strategy employed included maximum variation based on the number of years of nursing experience and preceptorship, along with snowball sampling. In total, nine registered nurses (RN) employed at five different nursing homes participated. The criteria included that each participant (i) had a minimum experience of two years as an RN employed at a nursing home, (ii) acted as a preceptor for undergraduate nursing students and (iii) agreed to be recorded during the interview.

The first author, the researcher conducting recruitment and data collection, had no prior relationship with the participants; she formally sent an application and information about the study to seven different nursing homes and asked for permission to conduct the study and help recruit the participants. Only five nursing homes gave their approval. After approval had been given, the potential participants were recruited by the nursing homes' leaders. The first

author then contacted the participants to schedule a time for conducting the interviews. From each nursing home, one nurse was recruited, and each participant recruited, in turn, a new participant from among their colleagues. Only one participant failed to recruit a colleague; therefore, the sample consisted of nine participants, eight female and one male. The sample size was not determined by saturation but instead by the number of participants who agreed to participate. The participants' demographic characteristics are presented in Table 1.

Table 1 should be inserted here: \_\_\_\_\_

## Data collection

Because of the SARS-CoV-2 virus pandemic and Norwegian government's social distancing requirements, accessing the clinical field and conducting research were challenging. However, nine individual interviews were carried out over an eight-month period, from September 2020 until April 2021. The interviews were guided by a semi-structured interview guide (Table 2) based on the literature on preceptorship and fundamental care and that had been developed prior to data collection. The participants were asked about their experiences in promoting and teaching fundamental care to undergraduate nursing students. Three participants were interviewed using videoconferencing, and four were interviewed at another location they had chosen. The interviews lasted between 25 and 55 minutes. Each interview was conducted by the first author. The interviews were audio-recorded using a digital recorder. The questions asked during the interview are presented in Table 2.

Table 2 should be inserted here: \_\_\_\_\_

In addition to these 10 main questions from the interview guide, several follow-up questions were asked to stimulate the informants to provide details about their experiences, opinions and perceptions, while other questions were asked to clear up potential misunderstandings.

#### Ethical considerations

Prior to starting data collection, the approval of the Norwegian Centre for Research Data (NSD) (Project number 391556) and of the leaders of nursing homes was secured. All the participants were given detailed written and verbal information about the study, how the researcher would ensure their confidentiality and that they had the right to withdraw from the study without negative consequences for their employment. They were assured that their names and audiotaped interviews would be confidentially managed throughout the study and that their identities would be removed and replaced by numbers. In addition, to protect the participants' confidentiality, the digital records of the interviews were stored on a password-protected personal computer, and the written transcripts were stored in a locked cabinet. Written consent was obtained prior to data collection. The participants did not receive any financial or other benefits from participating.

# Data analysis

The first author transcribed all nine interviews verbatim; transcription resulted in 88 pages (29,040 words). For analysis and insight, the data were analysed by hand. The analysis was performed by using an inductive qualitative content analysis, as described by Kyngäs (2020), which includes three steps: preparation, organising and reporting the findings. In the first step, preparation, the researcher listened to the audio records, read and reread through the text sentence by sentence to determine whether each sentence was related to the research questions and classified as an open code. This process of reading raw data and marking instances of open codes led to data reduction. During the next step, organising, the researcher compared the similarities and differences between open codes and determined which codes could be organised together. Some of the open codes identified from the text are shown in Table 3. In the final step, reporting the findings, the researcher presented the findings by describing the content of the categories as supported by participant quotes.

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# Rigour of the study

To ensure study rigour, several strategies were employed. First, to prevent the loss of important details, the interviews were transcribed immediately after being carried out. Second, the first author had no prior relationship with the participants, but she shared the nature of their nursing experience from the nursing home and preceptorship of undergraduate nursing students. Therefore, it is important to acknowledge that her clinical experience and preceptorship experience shaped the follow-up questions asked during the interviews, thus influencing the amount of data obtained. However, to avoid an early interpretation of the data, the first author was aware of her preunderstanding and own role as researcher, especially during the data collection process. Third, the first author was involved in all stages of the research process; therefore, to provide credibility, the sample, data collection and analysis methods have been presented as thoroughly as possible. Moreover, to ensure credibility, the findings are presented with the support of quotations from the data (Kyngäs et al., 2020).

# Findings

The data analysis generated one main category—'Fostering nursing students' knowledge and understanding of fundamental care'—interpreted as the nurse preceptors' overall purpose for their preceptorship, thus conveying the overall idea of what the aim of the current study. The analysis also revealed that the main category was supported by two categories (i) 'Nurse preceptors—enablers to nursing students learning of fundamental care' and (ii) 'Nursing home—a learning environment that facilitates students' learning about the delivery of fundamental care', which have been interpreted as the factors that influence nursing students gaining knowledge about fundamental care during their clinical practice at nursing home. In the following section, the findings are presented with excerpts from the participants'

statements. Each statement ends with a number representing the code each nurse preceptor (NP) was given before conducting the interviews.

#### Nurse preceptors—Enablers of nursing students' learning of fundamental care

Through their formal preceptor education or courses, nurse preceptors gain knowledge about models of preceptorship and, thus, can develop flexibility regarding their preceptor role, which is supported and reinforced by their own clinical experience. The participants identified their personal and professional attributes as important factors in facilitating student learning. Many of the preceptors mentioned the importance of being confident when conveying knowledge, but also being open and admitting if they did not know the answers to the students' questions. Being professional and confident contributed to enhancing student's confidence. Several participants admitted that their openness helped support student's openness. One of the participants said the following:

It is important to be professional and confident regarding my tasks. It is crucial for students' learning that I am confident about my knowledge and practice; this will make them dare to come to me and bring issues up. It ruins learning if they don't dare to do so. (NP2)

Another gave a similar sentiment:

A confident preceptor transmits her confidence to the students. The fact that I am open to my students about issues I don't know opens the door to good communication between us. (NP8)

It was also seen as important to speak positively about providing fundamental care and to perceive this task as an important nurse task, one necessary for the residents' well-being and that they perceive themselves as being respected. One of the participants explained this as follows:

... they [the students] should not lose the focus that the nursing home residents are human beings like you and me, with different fundamental needs. I expect from myself being able to transmit the positive aspects and benefits for the residents by helping them provide personal hygiene so that they [the students] can learn watching me and reflect over the diverse aspects of the profession. (NP6)

Most of the participants identified empathy as the driving force for supporting students' learning about how to provide fundamental care. One participant stated the following:

I have myself graduated not so many years ago, and I remember very well how important it was for me as a student in practice, feeling welcome and that my preceptor was always there for me. This was really motivating for students to learn fundamental care skills during their practice. (NP7)

The participants also mentioned the importance of being flexible towards the possibility of adjusting their expectations to each and every student as an individual with different resources and needs. This was perceived as a dynamic process that required time. One of the participants explained this as follows:

The more experience as a preceptor that I get, the more changes in expectations to myself occurs ... I have learned to meet the students on their level and start to create the right motivation to drag them up towards achieving the desired learning outcomes. (NP3)

Many participants agreed that the way they interacted with the students at the beginning of their clinical practice defined their professional relations throughout the entire practice period. The preceptors must possess not only theoretical knowledge and clinical experience, but must also be pedagogical and aware of the influence and consequences of their interactions with the students. Different aspects, such as the preceptor's attitudes and nonverbal language, can impact students when it comes to achieving the learning outcomes. Many nurse preceptors

claimed that displaying empathy helped them be open and supportive and may motivate the students to reflect and involve themselves in different learning activities, thus building a relationship stimulating students' learning. One participant stated the following:

I empathise with my students because I know this is a scary period for many of them who haven't been in a nursing home before. So, I am concerned about their experience of being in practice because I know how important this is for their perceptions of the profession, specifically learning how to provide fundamental care. (NP9)

Openness was seen as one of the main methods for encouraging the students to have good collaboration between the student and nurse preceptor. By ensuring the students that no question was silly, the nurse preceptor always left the door open for the students to ask questions, thus creating a bond of trust. This was seen by some participants as being the most important aspect that facilitated students in learning fundamental care. Additionally, some participants thought that challenging the students to reflect on their practice could encourage them to provide adequate individualised fundamental care:

When I have some formal discussions with the student, I challenge the student to see the progression they made during the learning process from the beginning to the end of clinical practice. At the end of the day, I ask them, 'What did you learn today?' and they barely articulate something ... and then, I have to remind them what we did today ... However, I especially focus on students being able to observe and assess the level of the resident's functional status and adapt the care they provide. The more they observe when they actively participate in patient care, the more they will be able to adequately evaluate the residents' needs. Challenging the students to think outside the box when performing fundamental care will help them find their own voices as future nurses. (NP6)

Several of the participants agreed that they should be aware of the learning opportunities that facilitate students' learning about how to provide fundamental care and become better at providing it each day. This facilitation may stimulate students' reflection on their future nursing profession, as one of the participants stated:

I wish to be able to convey not only information, but also that each and every patient is equally important, regardless of their accommodation reasons at nursing home. It's about dignity, about every resident being seen ... The students have to understand that clinical practice is training for providing fundamental care. (NP3)

# Nursing home—A learning environment that facilitates students' learning about the delivery of fundamental care.

Nursing homes are the first clinical arena for undergraduate nursing students. The nurse preceptors were aware of the students' needs to learn to implement theory about fundamental care into practice when they were at a nursing home during their clinical placement. The curriculum for clinical practice was presented by the nurse educators prior to the students entering the nursing home; hence, the nurse preceptors were informed about the learning outcomes. The preceptors were also aware that they must help students find learning opportunities that could reduce the gap between theory and practice. Before the students entered the clinical field, they were being taught theoretical knowledge about fundamental care and had a short preparation period in the faculty's simulated learning environment to learn how to provide fundamental care on each other or on mannequins, thus improving their skills. Therefore, the students were able to enter the clinical field with the necessary theoretical knowledge and adequate professional language.

However, the bridge between theory and practice in fundamental care was seen differently by the participants in the current study. Some compared the theoretical knowledge the student entered the clinical field as 'luggage'; the bigger the luggage, the bigger the chances the students have to learn to provide fundamental care. However, they were aware that the 'luggage' every student brings into the practice was different and needed to be adapted to practice and learning situations by reflecting together throughout the learning situation. Three moments were important to reflect on while the students carried out a procedure, as one of the participants stated:

The students have to ask themselves: 'Why I do what I do?'—the purpose—then to observe changes with the patient—observations—and be aware of possible risk moments—'What can go wrong?' (NP1)

For all the participants, the preceptorship started with asking students to observe how they provided fundamental care to nursing home residents and then asking the students performing these procedures under supervision. By the end of their practice, they expected that the students would be able to perform the procedures independently.

All of the participants agreed that when the students mastered fundamental care, they may have perceived the procedures as an important part of nursing and could provide fundamental care properly. One of the participants shared the following:

Maybe the clinical placement at a nursing home is, for some students, the best clinical practice ... the nursing home residents have complex needs ... the students can learn everything regarding how they can meet fundamental needs ... However, to perceive providing fundamental care as part of the nurse job, you need knowledge ... theoretical as well as practical. I challenge the student to reflect on the importance of providing fundamental care for a particular resident ... why is this important for her [the resident] ... (NP4)

Factors such as not having the necessary time for preceptorship or adapting the preceptorship to learning opportunities, as well as students having too high expectations, could hinder the students' own learning of fundamental care. The necessary time to preceptorship was seen by several participants as the main threat to student learning, especially fundamental care, which required that the student be followed up on over time by the same preceptor:

When acute situations occur or when there are fewer employees than usual, I suddenly get many other responsibilities that steal the time I allocated to my student. (NP1)Another participant agreed that the problem of time could lead to incomplete learning and might hinder students from developing the 'clinical gaze'. Over time, this can lead to weak clinical competence. One participant said the following:

Not having necessary time makes it impossible to teach and demonstrate how to provide proper fundamental care ... that is the main goal of student's practice at nursing home. Here, they learn to observe the patient's needs ... If I don't have the necessary time to follow up, I may lose track of the student's progression, and I cannot assess the student properly. (NP4)

Although some of the participants complained about the lack of time and discontinuity in preceptorship, most of the participants believed that nursing homes can provide opportunities to experience learning and practice in real-life situations what they learned at school. If the students were sceptics of what they could learn at nursing homes, the nurse preceptors had to ensure that the students were given learning opportunities. Many of the participants believed that good content planning, good routines and supervising or teaching methods would contribute to students perceiving positive and successful learning in nursing homes.

According to several of the participants, positive learning occurs when the student uses the current learning situation to generate new learning situations, to pose questions and to reflect before, during and after the procedure. One of the participants explained this as follows:

Before we start the day, the student and I plan what we shall do and what are the goals for the day; hence, the student will know in advance what they will learn ... For

instance, if one of the residents needs to change his urine catheter, although the procedure needs advanced skills and knowledge, and it's not part of their curriculum, I ask the student to assist me during the procedure, to watch and learn. Before we enter the resident's room, I ask the student, 'Why do you think the residents need a urine catheter?' or 'Which of the resident's fundamental needs do we meet by inserting a urine catheter?' In this way, the procedure becomes a learning activity ... and I think that I help the student reflect on and implement the theory into practice. This is positive learning, I think ... (NP7)

The participants mentioned that clinical placement at nursing homes can facilitate students to practice the professional language acquired from theory. Nursing homes are the context where the students act as professionals; therefore, using professional language when the nurse preceptors and students hold a discussion was important to students' learning in clinical placement at nursing homes, as one of the participants explained:

We are professionals, and we speak a particular language, just like other professionals. A carpenter will not understand what decubitus wound [pressure ulcer] means, as well as I don't have knowledge about the name of all his tools ... [laughter]... A nursing student must learn that we don't feed the patient, but we provide care, we facilitate ... or we help the patient to meet his/her need for nutrition and intake of fluids... For me it is a big difference! (NP5)

### Discussion

The aim of the current study was to explore the nurse preceptors' perceptions about the factors that influence nursing students' gaining of knowledge about fundamental care during their clinical practice at nursing homes. If the goal of clinical placement at nursing homes is to foster students' knowledge and understanding of fundamental care, then it is important to explore nurse preceptors' perceptions about the factors that influence the students' learning of

the delivery of fundamental care. First, this means focusing on their attributes in terms of the professional knowledge, attitudes and skills that may enable students' learning of the delivery of fundamental care and, second, to preceptorship in nursing home, focusing on nursing home as a learning environment that facilitates students' learning and that promotes teaching opportunities for nurse preceptors.

Vygotsky (1978) focused on the sociocultural context and interplay between people and how this facilitates the construction of knowledge. The findings from the current study have revealed that, within the clinical environment of nursing homes, the sociocultural context can facilitate students' sharing experiences with each other, but also with their skilled nurse preceptors, thus contributing to learning. Similar findings supporting the idea that nursing homes are a positive learning environment for nursing students have also been revealed by Gonella et al. (2019) and Dalsmo et al. (2022).

According to Ferreira et al. (2018), nurse preceptors are the professionals responsible for students gaining knowledge in a given learning environment. Their teaching happens through scientific knowledge with creative and improvisation skills, which serve as the references for students. Vygotsky (1978) argued that student's learning occurs when a more experienced learner or instructor guides students with scaffolding through their ZPD, a zone in which the student is unable to learn the material without some form of guidance (i.e., scaffolding). Similar to Vygotsky's (1978) argument, the participants in the current study argued that the students acquired practical knowledge after they observed how they should perform a procedure and, then, with verbal instruction, were guided through performing the same procedure; hence, the nurse preceptor provided a scaffold and 'pushed' the student into their most proximal level of development. The students were gradually able to perform the procedure independently and achieve their learning outcomes. However, the process of a student entering the ZPD supposes not only a nurse preceptor leading the student into a

learning activity, where the student is passive and only benefits from the support, but it shows that both the student and nurse preceptor should actively engage in the teaching–learning activities if the goal of learning to deliver appropriate fundamental care is to be achieved. Nurse preceptors expect students to be motivated to learn (Courtney-Pratt et al., 2012). According to Vygotsky (1978), this does not occur if the students' learning needs are not addressed.

The findings from the present study have revealed that what happens during the interaction between the nurse preceptor and student influences the students' learning, which is also in accordance with Spouse (2001), who stated that the key element for students' learning is the collaborative nature of the interaction between the nurse preceptor and student. According to Vygotsky (1978), learning occurs first interpsychologically, or at the social level. If this occurs, the quality of the interaction between the nurse preceptor and nursing student developed during clinical practice is critical. Ong et al. (2021) also emphasised the importance of interaction and dialogue for students' learning. Moreover, nurse preceptors should offer a type and level of scaffold that takes into consideration the student's learning needs while making sure to adapt the scaffold to the situation and context. As stated by the participants, nurse preceptors' professional and personal attributes, such as being confident, open, emphatic, flexible, pedagogical and creating learning opportunities, can promote interpsychological learning in students. On the other hand, a lack of personal attitudes, personality differences, disinterest and knowledge deficits have been described by Ong et al. (2021) as factors limiting the development of a positive relationship between the nurse proctors and students.

Interpsychological learning alone will not lead the student to the next proximal level of development. Therefore, there is a need for intrapsychological learning, or at the individual level. Once the student has passed the social level, where they have acquired social learning,

the functions will appear a second time, this time being more developed and, thus, leading the student to the next proximal level of development.

Clinical learning in nursing homes involves learning through hands-on situations with residents (Berntsen et al., 2017). Nursing students enter clinical placement with relevant theoretical knowledge of fundamental needs and how to provide care to meet the patients' fundamental needs. However, although the students developed fundamental care skills in a simulated learning environment at school, they did not see it applied in real life. The students need help from experienced and knowledgeable others, such as nurse preceptors, to connect this knowledge to practice.

According to Vygotsky (1978), learning is also facilitated by language. The participants in the current study were concerned with developing a professional language. Professional language can be developed by acquiring theoretical knowledge. When nurse preceptors challenge students to implement theoretical knowledge in practice, they must engage in a dialogue about knowledge. However, integrating theoretical knowledge in clinical practice is not possible if the nurse preceptor does not create a context of learning (Berntsen & Bjørk, 2010), thus offering students learning opportunities where they can rehearse their professional language.

A nurse preceptor's ability to teach the delivery of fundamental care also depends on the available resources and learning environment in which students gain knowledge (Spouse, 2001). The findings from the current study have revealed that nurse preceptors ensure learning opportunities by specifically adapting situations to be perceived by students as learning opportunities. This helps the students develop knowledge of the situation at hand (e.g., inserting a urine catheter and thus meeting the patient's elimination need) and learn how to implement theory in practice. Through such learning activities, students may be able to

enter the ZPD; hence, they can develop the knowledge and skills of how to deliver adequate fundamental care, thus achieving the learning outcomes.

# Limitations of the study

The present study has several limitations. First, by its qualitative nature, the study offers the possibility of alternative explanations for what researchers have perceived as factors that may influence nursing students' gaining knowledge about fundamental care. Second, the findings describe the experiences of a small number of participants recruited from only five nursing homes. The findings point to subjective descriptions of experiences rather than to statistically verified knowledge and absolute truths. Third, because of the pandemic caused by the SARS-CoV-2 virus and the Norwegian government's social distancing requirements, individual interviews were used as the sole data collection method. Participant observation could offer first-hand experience and, thus, enhance the researcher's understanding of the context within which participants interacted, allowing her to be open and to see things that may have escaped the participants' awareness during the interview. Therefore, the findings are grounded only in the nurses' descriptions of their experiences, which may introduce bias because of the participants being reluctant to share fewer positive experiences.

# Areas for future research

Further studies are suggested to emphasise the importance of nursing curricula in enabling students to value and develop the skills needed to deliver high-quality fundamental care. We also suggest that future studies should explore different models of teaching and learning strategies of fundamental care (i.e., gamification) in a simulated learning environment at the faculty. Another research focus should be the role nursing educators, nurse preceptors, nurse leaders and policymakers have in ensuring fundamental care is valued and prioritised within nursing education and healthcare systems.

#### Implications for nursing education

Nurse preceptors play a critical role in clinical nursing education; therefore, to strengthen the cooperation between faculties and the clinical field, it is important that faculties support nurse preceptors for effective preceptor experiences by providing them with information about nursing curriculum and students' learning objectives, encouraging them to attend formal preceptor training, and offering regular contact with the faculty's staff.

Teaching students the provision of fundamental care contributes to students' development of collaborative skills while enhancing their awareness of the importance of the provision of fundamental care for patient's well-being and recovery process. To support students' reflective practice and their ability to assess planned and performed activities, it is paramount that nurse preceptors provide students with examples of theory implementation in practice. Furthermore, nurse preceptors should present students with clear instructions on how to provide fundamental care. Moreover, to raise awareness of the importance of fundamental care to patients, nurse preceptors should communicate to students that learning to provide fundamental care is the foundation for the rest of the care they will provide to different patient groups in different healthcare contexts.

# Conclusion

The current study has revealed the importance of fostering knowledge and understanding of fundamental care in nursing students during their clinical practice at nursing homes. Providing fundamental care to patients will help nurses offer patients a holistic care approach. If the universities' ambition is to educate highly qualified nurses who are able to meet the healthcare services' future challenges, the education should emphasise the idea that all good nursing starts with providing fundamental care to patients. Currently, the literature offers few studies focusing on fundamental care and featuring factors that influence nursing students' gaining of knowledge about fundamental care during their clinical practice at nursing homes. Being more knowledgeable, nurse preceptors' attributes and a learning environment that

offers learning opportunities contribute to students entering the ZPD, thus demonstrating that Vygotsky's theory of sociocultural learning may be applied when teaching in clinical nursing education.

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# **Author contributions**

D-N S-Y made substantial contributions to the conception, design of the study and data collection.

D-N S-Y and DL were involved in analysing and interpreting the data and drafting the manuscript.

D L gave feedback on methodology, revised the manuscript critically for important intellectual content and approved the final revision to be published.

D-N S-Y and DL agreed to be accountable for all aspects of work and take public responsibility for appropriate parts of the content.

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## **Declaration of competing interest**

The authors declare that they have no conflicts of interest.

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