## Baccalaureate Nursing Students' Reflections on Professional Development Within the Nursing Leadership Role When Participating in Student-run Teams: A Qualitative Content Analysis of Student's Reflection Notes

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### Abstract

**Introduction:** Studies show that nursing education institutions do not sufficiently prepare newly graduated nurses for the challenges they face when it comes to the leadership role. The direct relationship between leadership and quality of care makes it imperative to explore what contributes to prepare undergraduate nursing students to be effective future leaders. **Objective:** To explore how second-year nursing students experience development of nursing leadership competence when participating in student-run teams (SRTs).

**Methods:** We used a qualitative approach with a descriptive, exploratory design to examine 37 reflective notes with a scope of 1000 words each, written while undertaking leadership training in 14 medical and surgical wards. An inductive, qualitative content analysis inspired by Lindgren et al. was used to give meaning and content to the students' experiences.

**Results:** One overarching theme emerged when analyzing the reflective notes; nursing leadership skills are developed in a safe authentic clinical environment. This main theme evolved from an interpretation of three subthemes: (1) Discovery and recognition of the leadership role contributed to development of nursing identity, (2) Being challenged and given responsibility in the SRT contributed to development of nursing leadership skills, (3) The way nursing services are organized affects the quality of care and satisfaction in one's own work situation.

**Conclusion:** SRTs can be a way of organizing clinical placement studies to strengthen nursing students' competence in the nursing leadership role and may counteract the reality shock when transitioning from the student role to the professional role.

#### **Keywords**

medical/surgical practice, nursing education, leadership, student-run teams, reflective notes

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## Introduction

There is international concern about the quality of leadership in nursing practice (Scammell et al., 2020), and the World Health Organization urges governments and stakeholders to strengthen nurse leadership to ensure that nurses have an influential role in health policy formulation and decisionmaking, and contribute to the effectiveness of the health and social care systems (World Health Organization, 2020). The direct relationship between leadership and quality of care makes it imperative to understand preparation for leadership roles to support undergraduate nursing students to be effective future leaders (Scammell et al., 2020). Kling (2010) states that nursing students lack management skills because of limited opportunities to practice different leadership skills, as they "follow" and "observe" instead of "lead" and "do." In Norway, practical training accounts for

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Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (https://creativecommons.org/licenses/by-nc/4.0/) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access page (https://us.sagepub.com/enus/nam/open-access-at-sage). 50% of the 3-year baccalaureate nursing program of 180 European Credit Transfer System points. The new national curriculum regulations regarding professional leadership, quality, and patient safety, are supposed to facilitate an education in line with the patients' and services' needs (Ministry of Education and Research, 2019). In clinical practice studies, nursing students lay the foundation for their transition from education to professional practice (Kårstein & Caspersen, 2014). It is therefore essential that students gain experience and develop competence in the nursing leadership role before entering professional practice. Benner et al. (2009) emphasize that the purpose of clinical studies is to learn by doing, observing, and participating in the practice community where key aspects of the work are exemplified, articulated, and made available.

## Review of Literature on the Nursing Leadership Role

The concept of clinical nursing leadership has been explored with regard to registered practitioners, but minimal attention has been paid to nursing students (Jack et al., 2022). A concept analysis of clinical leadership in nursing students highlighted interpersonal communication skills in contrast to task focused skills, which might be more readily linked with the development of management competence (Jack et al., 2022). Leadership may be defined as influencing others to improve the quality of care (Al-Dossary et al., 2016). The nursing leadership role consists of a number of different activities, such as observing, assessing, and documenting the patient's need for nursing, coordinating, prioritizing, and delegating tasks, and collaborating with colleagues and other health professionals (Stubberud et al., 2017). However, studies show that newly qualified nurses experience a practice shock, and that the education does not prepare students adequately for the challenges they face in professional practice (Alvsvåg & Førland, 2007; Higgins et al., 2010; Murray et al., 2019). Newly qualified nurses especially are overwhelmed by the great responsibility, many competence requirements, and high expectations from their employer (Odland et al., 2014; Pedersen & Tingvoll, 2019; Sneltvedt et al., 2010). According to Curtis et al. (2011), leadership is something that should permeate nursing practice, and should therefore begin early in the education. Likewise, Terum et al. (2005) claim that students are not given enough responsibility or training in working under pressure during education. Student-run teams (SRTs) is one way to organize clinical studies to ease the transition from the student role to the professional nursing role (Pedersen et al., 2018). Our university has implemented SRTs in the 4th semester in medical and surgical hospital wards since year 2010. Each SRT consists of two to four students taking care of three to six patients, under guidance of one nurse supervisor. The students alternate between being in charge of the team and being out in the ward nursing patients. The students collaborate and give each other feedback. Similar projects have been carried out by others, but over a shorter period, later in the education program or in nursing homes (Blekken et al., 2013; Pedersen et al., 2018; Tingvoll et al., 2018). Two publications describe implementation of SRT in hospitals, but in the last year of education (Bakke-Erichsen & Øvrebø, 2004; Strand & Nondal, 2012). Learning outcomes in SRT relate to strengthened theoretical and practical competence, problem-solving and decision making competence, and work management-, interaction-, documentation-, and ethical-competence (Western Norway University of Applied Science, 2019). In SRT students are supported by a nurse supervisor who is available for medication control and professional support.

There is a limited amount of research on the preparation of undergraduate nursing students for leadership roles (Scammell et al., 2020). Learning how to be a leader is a personal embodiment of knowledge or transformation that requires situational awareness of knowledge, skills, and attitudes and time for the student to form this leadership being (Melina et al., 2013; Pollard & Wild, 2014). Knowledge about how students can gain understanding of the complex contexts that exist in the field of practice through reflection on self-experienced situations is in demand (Epp, 2008). Reflective notes can give a deeper understanding of students lived experience about this topic. Therefore, the purpose of our study is to explore nursing students' reflections on professional development within the nursing leadership role in SRT.

## Methods

## Design

We used a qualitative approach with a descriptive, exploratory design (Polit & Beck, 2017) to suit to the purpose of the study. This design is appropriate when the research goal is to understand and describe a phenomenon (Polit & Beck, 2017), but also to understand the experiences of individuals or groups and the contexts in which these experiences are situated (O'Brien et al., 2014). To gain a deeper understanding of students lived experience undertaking leadership training in SRT, students' reflective notes on self-experienced situations were analyzed. The study has been carried out in accordance with standards for reporting qualitative research (O'Brien et al., 2014).

## Research Question

How does baccalaureate nursing students' reflections on taking part in SRT give meaning and content to professional development within the nursing leadership role?

## Sample and Setting

Participants were second year nursing students in their 4th semester recruited from clinical practice studies in 14 medical and surgical wards at a large university hospital located in the western part of Norway. The SRT period lasted for 3 weeks and took place at the end of a 10-week clinical practice period. The nurse supervisors were trained before welcoming the students. The training consisted of information meetings, written information, and group guidance along the way. During the first 7 weeks of clinical placement, nurse supervisors acted as role models to provide examples of nursing leadership skills in the delivery of nursing care. As the three weeks of SRTs started, the nurse supervisors were supposed to take a lesser role, offering trust in the students to step forward and experience being in charge of a group of three to six patients.

According to requirements in the curriculum the reflective notes had a scope of 1000 words and were a mandatory work asking for students' own reflections on their experiences when undertaking leadership training in SRT.

## Inclusion and Exclusion Criteria

Based on the three reflection levels described in Dahl and Alvsvåg (2013), the "non-reflective," the "reflected," and the "critically reflected," we chose to include reflective notes that met the levels of "reflected" and "critically reflected." The teachers received both verbal and written information about the inclusion criteria, and an independent researcher carried out a second opinion to ensure reliability to the three reflection levels.

The "reflected" notes show attention in the situation, associate by relating previous knowledge, feelings, or attitudes to the new, integrate it into the old and seek connections between experience and knowledge. The "critically reflected" notes assess the content of new and old knowledge, consider biased assumptions, challenge truths, and gain a new perspective on the experience, which can result in changed action or the creation of new ideas.

### Institutional Review Board Approval

The students received written information about the study and were invited to participate after their practical training period had been assessed as passed, so that they would not experience being in a reliant relationship with the teacher. The teachers who graded the reflective notes asked students who had notes that met the criteria for being "reflective" or "critically reflective" about participating in the study. Participation was voluntary, and those who wanted to participate sent a written consent form and a copy of their reflective note to one of the members of the research team, who anonymized them and gave each note a number. Participants were informed that they could withdraw from the study at any time, although no one did so. Since participation was voluntary and anonymous, demographic data are not available. The Norwegian Centre for Research Data approved the study (No. 574343).

## Data Analysis

An inductive, qualitative content analysis inspired by Lindgren et al. (2020) was used. This method is characterized by a systematic analysis of the text to understand how the text gives meaning and content to a particular phenomenon. To gain an overview of the data, all the authors read the 37 reflective notes. We identified patterns that emerged from the students' experiences on development of skills in nursing leadership when participating in SRT.

Text from the reflective notes which aligned with the aim of the study was highlighted and put into a spreadsheet. The manifest content refers to the direct statements of the participants, "Meaning units," which were condensed into summary statements, "Condensation," which were allocated to "Codes" according to different topics. On the next level, we delved deeper into what the text was about, the latent content, on a more abstract or interpretive level, and an overarching "Theme" and "Subthemes" were established. As transparency is important in qualitative research (Malterud, 2017), an example of the analysis process for one subtheme is presented in Table 1.

## Results

## Sample Characteristics

Out of 88 eligible students who had written "reflected" or "critically reflected" notes (Dahl & Alvsvåg, 2013), 37 students (42%) agreed to participate and share their notes with the researchers.

## Research Question Results

The qualitative content analysis resulted in one overarching theme and three sub-themes (Table 2). Results are presented underpinned by the students' direct statements ("meaning units"). For the full analyse see supplemental material (S1).

## Nursing Leadership Skills are Developed in a Safe Authentic Clinical Environment

The main theme that emerged from the students' reflections was that nursing leadership skills are developed in a safe authentic clinical environment. Their reflections mirrored findings in relation to both the content and scope of the nurse's leadership role. By being included in the SRT they were given access to concrete examples of nursing leadership tasks every day. It turned out that this insight and these tasks had so far not yet been clear. The fact that they were included in a team and were supervised by skilled professional nurses who gradually gave them more responsibility, contributed to a safe learning environment, and to the development of nursing leadership skills. The experiences they gained contributed to a better understanding and recognition of their future professional role.

## Table I. Example of Analysis of One Sub-theme.

The manifest content			The latent content	
Meaning units	Condensation	Codes	Sub-theme	Theme
"It impresses me how the nurse apparently has full control over what is going to happen and when. Every day I'm in practice, I see how much more a nurse does than many might imagine. Not least, I get to experience day by day how incredibly much responsibility a nurse has, and how dependent patients are on us	Impressed by nurses' control over what should happen and when.	Discovery of all aspects of the professional role	Discovery and recognition of the leadership role contributed to development of nursing identity.	Nursing leadership skills are developed in a safe authentic clinical environment.
doing a good and holistic job" (S7). "Patients must be reported to the municipality early, short-term rehabilitation must be applied for and patients must be transferred to other wards. Notes should also be written, when the patient enters the ward, when they are to be transferred, and when they are going home."(S5)	Discovery of the nurses' great responsibility	Impressed by skilled role models		
		Experience the responsibility		
"One of the best things about SRT is that you kind of get an answer as to whether you are ready to stand on your own two feet. Of course, you're not done yet, but you get a little clue as to where you are. I was thinking: how would she (my contact) do this? Am I doing it right now? But now in retrospect, I think everyone works differently, and as long as you get the priority done, that's the most important thing (S13).	Surprised by time spent on managing and coordinating.	Gaining insight by making experiences in an authentic environment		
<ul> <li>"Sometimes we can't do everything we want for our patients. I think this is important to acknowledge, but we have to try not to take too much bad conscience home with us" (S32).</li> <li>"I found it very valuable to get to know what it's like to be a real nurse by taking part in SRT, to experience what the leadership role of the nurse comprises. I really saw the progress I've had from first to second hospital practice, how much more independent I've become and confident in what I'm doing." (S2).</li> <li>"I feel that student-driven team have made me a better nurse and made me more confident in my actions." (S13)</li> </ul>	SRT made the students more confident	Nursing identity is linked to mastery of the leadership role.		

Table 2. Theme and Sub-themes.

Theme	Nursing leadership skills are developed in a safe authentic clinical environment.		
Sub-themes		Discovery and recognition of the leadership role contributed to development of nursing identity. Being challenged and given responsibility in the SRT contributed to development of nursing leadership skills. The way nursing services are organized affects the quality of care and satisfaction in one's own work situation.	

## Sub-theme I. Discovery and Recognition of the Leadership Role Contributed to Development of Nursing Identity

Students were impressed by nurses' complete control over work tasks during a work shift and were also amazed over how much more a nurse does than they earlier had imagined. In a way students were overwhelmed by the responsibility assigned to the nurse's role, and on how dependent patients are on nurses being competent in their job;

Every day I'm in practice, I see how much more a nurse does than many might imagine. Not least, I get to experience day by day how much responsibility a nurse has, and how dependent patients are on us doing a good and holistic job (S7).

The students were especially surprised by the huge amount of documentation as part of the nurse's role.

Patients must be reported to the municipality early, shortterm rehabilitation must be applied for, and patients must be transferred to other wards. Notes should also be written when the patient enters the ward, when they are to be transferred, and when they are going home (S5).

Some tasks were demanding, and time often ran short, but the students got to know themselves and the administrative part of the professional job as a nurse;

One of the best things about SRT is that you kind of get an answer as to whether you are ready to stand on your own two feet. (S13).

They also discovered the importance of staying professionally up to date, to give patients evidence-based care, but also to show compassion and commitment when caring for the patient. Ethically difficult situations that a nurse must face on a daily basis were described;

Sometimes we can't do everything we want for our patients. I think this is important to acknowledge, but we must try not to take too much bad conscience home with us (S32).

The experiences the students gained in the SRT helped them expand their understanding of what is required when they graduate as nurses and gave them a taste of their future professional role. Several students described that security and mastery of nursing leadership skills contributed to the emergence of nursing identity;

I found it very valuable to get to know what it's like to be a real nurse by taking part in SRT, to experience what the leadership role of the nurse comprises. I really saw the progress I've made from first to second hospital practice, how much more independent I've become and confident in what I'm doing. (S2).

The students' reflections show that they became more confident in their role as administrator and that they understood more of what it meant by participating in the SRT;

I feel that the student-run team has made me a better nurse and made me more confident in my actions (S13).

## Subtheme 2. Being Challenged and Given Responsibility in the SRT Contributed to Development of Leadership Skills

The nurse supervisors played an important role to empower the students when taking responsibility for a group of patients and acted as safe role models guiding the students in the right direction.

I've decided to use SRT as training to experience responsibility while having 'support wheels,' so that 'riding into it' after graduation doesn't get as scary as it feels when I think about it now (S23).

The mechanisms behind evolvement of leadership skills are well described and reflected upon;

The last few weeks of the student-driven team have made me better equipped for the role as professional nurse, as I have really got to try my best at coordination, planning and administration. I have learned techniques to get a better overview and have been trained to be confident to speak in large gatherings. I did pretty well, and I feel mastery. I'm ready to take on new challenges (S3).

Another important issue was to be found worthy of the trust of the nurse supervisor allowing students to perform nursing tasks independently.

It was a good feeling when my nurse supervisor stuck his head in the door of the patients' room and said, 'Today my student is the boss, that's going to be fine!' In this way, the patients were assured of having me in charge. I experienced both responsibility and security at the same time (S17).

Communication, collaboration, and delegation were both challenging and rewarding areas in the development of leadership skills. Students felt it challenging to lead the work of others, including the nurse supervisor.

I'm used to explaining why we do what we do, but it's an unfamiliar situation to have to tell the nurse who has taught you everything in the ward what to do (S32).

The students described the professional growth that took place through many of the challenges they faced in SRT. The feeling of being under time pressure could feel chaotic and difficult to handle in the time but felt good afterwards.

When I look back on the situation today, I feel that we solved the tasks in a good way. We did what was necessary to get the wheels going round (S5).

To get an overview and prioritize tasks, several students used to-do lists.

There were a million thoughts in my head at the same time, but I always made checklists for what to do (S2).

The students realized that they needed further practice on the leadership role, thereby manifesting a learning need.

However, it helps that I have now developed a better and more efficient system, I see that the most important thing comes with training and experience. This is what I know makes my practice better (S12).

Good teamwork between students in the team and between students and staff was highlighted as particularly valuable to get the wheels turning round. When they were not in control of everything, it was safe to have the nurse supervisor as a backup. The experiences they made revealed specific learning needs and led to professional growth.

I have learned the importance of good and precise communication between the students and the staff. We are one team, and everyone is responsible for ensuring that we work well together. I have also learned that there is no shame in asking for help when one has a lot to do. This will contribute to less stress and a more manageable everyday working life (S6).

When communication, coordination, and delegation were impaired, this caused challenges regarding time constraints.

The day we took over responsibility for the team, we all became very occupied with our own patients and periodically forgot to pass on the plan with our patients to the leader of the team. We also took on a little too much responsibility, and we forgot to delegate tasks to others to get the job done on our shift (S16).

The cooperation with the doctor and being well prepared for the doctor's visit was particularly important for the students, both because of the responsibility for representing the patient's voice and the responsibility for reporting significant data to help the doctor's decision making on patient treatment.

It is the doctor's point of view that determines the patient's plan, so it is quite important that I can tell them about the condition of the individual patient. It is not necessary to dread being in charge, but you must be well prepared. (S9).

## Sub-theme 3. The Way Nursing Services are Organized Affects the Quality of Care and Satisfaction in One's Own Work Situation

Several students were surprised by how much of the nurse's time was spent managing and coordinating. Students quickly learned the difference between being "out" in the ward and being "inside" administrating, and they discovered that the administrative work could come at the expense of direct patient contact. Doubt about being pulled between the leadership role and patient centered care was portrayed.

It is a bit sad that this means that there will be less time for patient contact. I sometimes think that I would like to tell the patient that 'even though I might just be in your room for a few minutes, I want you to know that I really see you' (S7).

The students discovered the importance of continuity in patient care to increase both the quality of care and their own job satisfaction. They experienced how much easier it was to relate to the same patients over their time in hospital.

I have learned that continuity is important for the working environment, and that everyday work becomes easier as one does not have to 'start over' every day. It is first now when taking part in the student-driven team that I have understood why it is frustrating for the nurses to have to change groups repeatedly over the course of a week (S4).

Continuity contributed to the students becoming better acquainted with the patients' habits and how they would like to take care of themselves or to be taken care of, which is also an important issue when it comes to quality of care. Organizing the team to contribute to the continuity of care at the morning meeting was deemed worthwhile, also to make the students better prepared for the doctor's visit. It is important that I am well prepared and know my patients, so that I can talk about the condition of the individual patient to the doctor. For the doctor, good feedback regarding the patients is essential, which the nurses can do to a greater extent if they know the patients better (S8).

Continuity of care also contributed to less stress among the students and greater satisfaction with one own's work situation.

I am calmer during the day when I have the same group of patients (S9).

When the students did not delegate, but tried to do everything themselves, it had consequences on their personal wellbeing. Wanting to do everything oneself is often a beginner's mistake, as one wants to show others that one manages, without considering that one spends more time on tasks as a beginner.

I ended up working far too many hours before I could have lunch, which in turn had a negative impact on my mood and energy level (S6).

Students highlighted the importance of quality of care and emphasized that patients and relatives should experience as good care from students as from registered nurses.

The patients and relatives we have taken care of during this period I think are left with a good impression of the care that has been provided by students (S14).

The students also experienced how quickly the situation can change.

Despite the fact that at the start of the shift I thought that it looked okay, I quickly learned how unforeseen things can happen or that something takes longer than expected, and thus the whole schedule is shifted. That's important learning (S27).

Students discovered the importance of knowing the patients they were in charge of to ensure quality of care and patient safety. This continuity of responsibility was highlighted in several reflections.

It becomes easier to remember everything around the patient when continuity is possible, and it is easier not to make mistakes as changes are made to the treatment (S4).

The following example also underlines the importance of being experienced and familiar with the routines of the department to ensure patient safety. The night shift nurse had prepared a dalteparin (Fragmin) syringe for a patient who had had surgery. This patient was waiting for a new operation, and according to the guidelines she wasn't supposed to have Fragmin. The nurse supervisor knew this and took away the syringe. What would have happened if she had not? In recent weeks, I've really understood why newly qualified nurses can feel overwhelmed (S9).

Making mistakes when delivering medications provided deep learning;

For me, giving the wrong medicine (Paracetamol) has burned into my memory, and I will always avoid making this mistake again. I also felt that the other patients in the room became skeptical of the medication they were given by me during the medication round. The nurse and I discussed how this could happen as long as two nurses had controlled the medication ahead of the round (S10).

## Discussion

The main theme that evolved when we interpreted the students' reflections was that nursing leadership skills are developed in a safe authentic clinical environment. Students participated in both patient-centered care and leadership activities, described as being either "out" in the ward or "inside" administrating. Orvik (2002) emphasizes the importance of this dual competence in nursing, the clinical competence, and the leadership competence. He claims that newly qualified nurses lack leadership competence, especially in the areas of coordination and work management. This is in line with findings from studies of newly qualified nurses which show that they experience a practice shock, and that the education does not sufficiently prepare the students for the challenges they are faced with in professional practice (Alvsvåg & Førland, 2007; Murray et al., 2019; Norvoll, 2002).

Kling (2010) states that nursing students lack leadership skills because of limited opportunities to practice these skills, as students "follow" and "observe" instead of "lead" or "do." Students' learning thus depends on what role they have in the community of practice. This can be seen in the light of the situated learning theory of Lave and Wenger (1991), where the student moves from the periphery of the community to the center of the community as they gain expertise, and engages and participates actively in the sociocultural practices of the community. In SRTs, students are given a role corresponding to a full-fledged nurse, and the reflections show that they want to appear as nurses and that patients should experience that they receive the same care and treatment by students. However, students highlight the need for more training in the nursing leadership role, which is in line with Terum et al. (2005), who have emphasized that students are not given enough responsibility or training in working under pressure during training. Scammell et al. (2020) states that it is imperative for nurse educators to facilitate preparation for the leadership role to support undergraduate nursing students to be effective future leaders. In a longitudinal study by Solli (2008), newly qualified nurses did not acquire sufficient competence in the leadership role until after almost 3 years, but employers expected this competence

already from the start. However, employers have a responsibility to ensure that employees receive the practical training necessary to carry out the work in a safe manner (Arbeidstilsynet, 2006).

Furthermore, to systematically discuss all our results, we will use the three subthemes as structure.

## Discovery and Recognition of the Leadership Role Contributed to Development of Nursing Identity

The fact that the students were welcomed into a wellprepared authentic team and gradually given more responsibility while being supervised by an experienced nurse that facilitated reflection, was of great importance and contributed to an ideal learning environment. In the team they were given access to real examples of nursing leadership tasks every day. It turned out that some of these tasks had so far not yet been fully understood by the students, and they were surprised and impressed by what their supervisors handled. These discoveries made them proud, and recognition of their professional role started to evolve. The registered nurses facilitated reflection both before and after the learning situations, as it is well known that learning outcomes are best achieved when students have personal experiences of the situation where thoughts, actions, and emotions are involved (Dewey, 1938).

Reflection after action must contain three elements; to review the experience, treat the emotions associated with the experience and re-evaluate the experience (Boud et al., 2013). Several of the students' reflections stated that the experiences they made in the SRT helped to expand their understanding of what is required when they graduate as nurses and gave them valuable insight and experience for their future professional role. This re-evaluation of the experience led to a new recognition of the route to mastery. Writing a reflective note can thus be a tool for processing and systematizing the experiences one makes at work (Stiklestad, 2020), and the reflections one makes when one has a distance to the situation can contribute to personal and professional insight (Schön, 1987).

## Being Challenged and Given Responsibility in the SRT Contributed to Development of Nursing Leadership Skills

The students were included in authentic team collaboration with peers and clinical supervisors. This safe authentic learning environment empowered them to take on more responsibility for groups of patients. This is in line with research that shows being together makes it safer to learn (Barrington & Street, 2009; Tveiten, 2013), and that learning in authentic situations is ideal (Raaheim, 2016). Students used SRT as a form of responsibility training while still having what they called "support wheels." This view can be understood in light of Vygotsky's proximal developmental zone, which is the distance between what a student can do on their own, and what they can do with the support of someone more knowledgeable (Vygotsky & Cole, 1978). This kind of learning environment makes it safe to take on more responsibility in the team.

To provide optimal learning outcomes for the students, the nurses were given guidance in relation to the more hands-off role they had to play to give students the opportunity to become more independent. Great emphasis was placed on creating a safe learning environment so that students would have confidence to talk about their learning needs, or about lack of knowledge and skills. By giving continuous feedback, the nurse supervisors contributed to a learning process in line with formative assessment (Lauvås, 2016). Further, learning how to be a leader is a personal embodiment of knowledge, skills and attitudes and it requires time for the student to form this leadership role (Melina et al., 2013; Pollard & Wild, 2014).

Communication, collaboration, prioritization, and delegation were experienced as both challenging and rewarding for the students. Rewarding in the sense that the students felt responsible for patients in their care, in addition to feeling a sense of mastery of the leadership role. Challenging when they felt they lacked control over the situation. According to Curtis et al. (2011), leadership is something that should permeate nursing practice and should therefore begin early in the bachelor program. Nursing students do not fully understand the great responsibility nurses have and they worry about not mastering this responsibility (Rognstad, 2006). A Swedish study of newly qualified nurses also emphasizes the need for expanded competence in the areas of planning and prioritization of nursing (Lofmark et al., 2006). Other studies show that newly qualified nurses are overwhelmed by the great responsibility, many competence requirements, and high expectations from the employer (Odland et al., 2014; Pedersen & Tingvoll, 2019; Sneltvedt et al., 2010). In the SRT our students experienced having the responsibility for a larger group of patients and thus being better prepared for this role when they graduate. This is in line with Strand and Nondal (2012), who found that SRTs contributed to the development of independence.

## The Way Nursing Services are Organized Affects the Quality of Care and Satisfaction in One's Own Work Situation

The students' reflections showed that they very soon learned that organizational aspects such as continuity of nursing care and of nursing leadership affect both the quality of care and satisfaction in their own work situation. The importance of having talked to the patients before the doctor's visit was emphasized as necessary to get to know the patient and achieve a good overview of the patient's situation. Talking to patients gives the patient a face and one often gather much more information than just reading about the patient in the medical record, besides that you get first-hand knowledge of the patient. According to Higgs et al. (2004), clinical practice experience is a cornerstone of the nursing profession and is developed through reflective processes where practitioners learn from experience. By integrating research-based knowledge, nurses clinical experience and the patient's knowledge and needs, the quality of the services is improved (Nortvedt et al., 2021). The example with the dalteparin (Fragmin) syringe shows the importance of nurses' clinical experience for the quality of the services. For healthcare professionals who administer medication, competence, and vigilance are key factors. The student who experienced administering Paracetamol to a patient to whom it was not prescribed, describes this situation as an experience that had "burned into the student's memory." Fischer et al. (2006) claim that one learns most from the mistakes one makes oneself and relates this to the emotional impact such situations have. According to Merleau-Ponty (2012), the body is primarily experiential, and he does not distinguish between consciousness and body, but that consciousness is both in the body and in the world.

According to Benner's five-step model for competence development, nursing students are educated at the novice level, and when completing their education they are at the advanced beginner level (Murray et al., 2019). What characterizes practitioners at these levels is that they act in a regulated manner, are task-oriented, and have difficulty sorting out what is most important to prioritize. Similarly, Duchscher (Murray et al., 2019) has developed a transition theory and a transition shock model which describes how newly qualified nurses develop their competence during the first 12 months after graduation. For the first 3 months the nurses have idealistic expectations without roots in reality. After 3 months, they gain greater confidence in their own competence, and after 8 months the focus has shifted from themselves to the system they are part of and what it means to be a nurse. Our findings indicate that development of nursing identity is acquired when students receive guidance in safe authentic clinical situations in practice. This is also supported by the study of Walker et al. (2014), who identified five key elements for the development of nursing identity: good role models, experience of belonging, support from colleagues, confidence in one's own competence, and opportunities for critical thinking and problem solving.

### Strengths and Limitations

Using the criteria from Dahl and Alvsvåg (2013) for inclusion of reflective notes provided us with a rich data source

with a high reflection level. A strength in the analysis process is that four researchers read all the reflective notes and contributed to the data analysis looking for meaning units representative for the sample to draw out codes and themes. A high degree of consensus emerged between the researchers during the data analysis. This process has contributed to increasing the study's credibility and quality (Malterud, 2017). Potential bias should be acknowledged as all researchers have a nurse education background, with a prior understanding of the context. A limitation is that the study was conducted in one educational institution only. However, we have reflective notes from 14 different hospital wards, which gives breadth to the data. Nevertheless, our findings are relevant in national and international nursing education programs that apply the preceptorship model for clinical placement, or similar models.

## Implications for Practice

Nursing education is organized with learning activities that take place both in the educational institutions and in the clinical field. According to Smeby and Heggen (2014), coherence is about how the education program contributes to creating integration and connection between teaching and practical training. This entails special requirements for creating a connection (coherence) between the theoretical understanding of the nurse's role and the practice situations to which the student has access. If nurse education is to meet the requirements to educate candidates who take care of the patients' and services' needs (Amundsen et al., 2021; Ministry of Education and Research, 2019), the leadership role should be given more focus. SRT provide nursing students with a learning environment consisting of authenticity, responsibility, and collaboration as essential factors. In this way, the introduction of a SRT in all 3 years of the bachelor's education may help reduce the practice shock that many newly qualified nurses experience in the transition from the student role to the professional nurse role.

## Conclusion

SRTs can be one way of organizing clinical placement studies to strengthen bachelor nursing students' insight and competence in the nursing leadership role and may counteract the reality shock when transitioning from the student role to the professional nursing role. Students' active participation in the community of practice lead to development of nursing identity where key aspects of the leadership role were exemplified and made available. Students discovered the importance of continuity in both patient care and nursing leadership to improve quality of care and satisfaction with one own's work situation. SRTs made the students better equipped to master having responsibility for groups of patients in the transition to professional practice.

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### **Supplemental Material**

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#### References

- Al-Dossary, R. N., Kitsantas, P., & Maddox, P. (2016). Residency programs and clinical leadership skills among new Saudi graduate nurses. *Journal of Professional Nursing*, 32(2), 152–158. https://doi.org/10.1016/j.profnurs.2015.10.004
- Alvsvåg, H., & Førland, O. (2007). Commitment and learning: critical perspectives on nursing. Akribe.
- Amundsen, M., Rasmussen, I., & Sverdrup, S. (2021). Equal final competence — vision or reality? V. Analyse.
- Arbeidstilsynet (2006). Arbeidsmiljøloven-aml. https://www. arbeidstilsynet.no/regelverk/lover/arbeidsmiljoloven/4/4-2/.
- Bakke-Erichsen, A., & Øvrebø, R. (2004). From observer to active participant — the importance of the working community for nursing students' knowledge development in practice. *Vard I Norden*, 24(1), 36–41. https://doi.org/10.1177/ 010740830402400109
- Barrington, K., & Street, K. (2009). Learner contracts in nurse education: Interaction within the practice context. *Nurse Education in Practice*, 9(2), 109–118. https://doi.org/10.1016/j.nepr.2008. 10.004
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2009). Educating nurses: A call for radical transformation (Vol. 15). John Wiley & Sons.
- Blekken, L. E., Medby, A. O., & Forbord, T. (2013). Learning outcomes in nursing management after implementation of clinical studies organized by teams of nursing students. *Sykepleien Forskning*, 8(4), 344–352. https://doi.org/10.4220/sykepleienf. 2013.0140
- Boud, D., Keogh, R., & Walker, D. (2013). *Reflection. Turning* experience into learning. Taylor and Francis.
- Curtis, E. A., de Vries, J., & Sheerin, F. K. (2011). Developing leadership in nursing: Exploring core factors. *British Journal of Nursing*, 20(5), 306–309. https://doi.org/10.12968/bjon.2011. 20.5.306
- Dahl, H., & Alvsvåg, H. (2013). Promoting students' ability to reflect a pedagogical challenge. *Uniped*, *36*(03), 32–45. https://doi.org/10.3402/uniped.v36i3.22724

- Dewey, J. (1938). Experience and education. Macmillan.
- Epp, S. (2008). The value of reflective journaling in undergraduate nursing education: A literature review. *International Journal of Nursing Studies*, 45(9), 1379–1388. https://doi.org/10.1016/j. ijnurstu.2008.01.006
- Fischer, M. A., Mazor, K. M., Baril, J., Alper, E., DeMarco, D., & Pugnaire, M. (2006). Learning from mistakes. *Journal of General Internal Medicine*, 21(5), 419–423. https://doi.org/10. 1111/j.1525-1497.2006.00420.x
- Higgins, G., Spencer, R. L., & Kane, R. (2010). A systematic review of the experiences and perceptions of the newly qualified nurse in the United Kingdom. *Nurse Education Today*, 30(6), 499– 508. https://doi.org/10.1016/j.nedt.2009.10.017
- Higgs, J., Richardson, B., & Abrandt Dahlgren, M. (2004). Developing practice knowledge for health professionals. Butterworth & Heinemann.
- Jack, K., Bianchi, M., Costa, R. D. P., Grinberg, K., Harnett, G., Luiking, M.-L., Nilsson, S., & Scammell, J. M. E. (2022). Clinical leadership in nursing students: A concept analysis. *Nurse Education Today*, 108, 105173. https://doi.org/10.1016/ j.nedt.2021.105173
- Kårstein, A., & Caspersen, J. (2014). Practice in health and social sciences: A literature review. https://nifu.brage.unit.no/nifuxmlui/handle/11250/280127.
- Kling, V. G. (2010). Clinical leadership project. *Journal of Nursing Education*, 49(11), 640–643. https://doi.org/10.3928/01484834-20100831-02
- Lauvås, P. (2016). Formativ vurdering i undervisningen. *Når læring er det viktigste: undervisning i høyere utdanning*. Oslo: Cappelen Akademisk Forlag.
- Lave, J., & Wenger, E. (1991). Situated learning : legitimate peripheral participation. Cambridge University Press.
- Lindgren, B.-M., Lundman, B., & Graneheim, U. H. (2020). Abstraction and interpretation during the qualitative content analysis process. *International Journal of Nursing Studies*, 108, 103632. https://doi.org/10.1016/j.ijnurstu. 2020.103632
- Lofmark, A., Smide, B., & Wikblad, K. (2006). Competence of newly–graduated nurses–a comparison of the perceptions of qualified nurses and students. *Journal of Advanced Nursing*, 53(6), 721–728. https://doi.org/10.1111/j.1365-2648.2006.03778.x
- Malterud, K. (2017). Qualitative research methods for medicine and health sciences: an introduction. Universitetsforlaget.
- Melina, L. R., Burgess, G. J., Lid-Falkman, L., & Marturano, A. (2013). The embodiment of leadership: A volume in the international leadership series, building leadership bridges. John Wiley & Sons.
- Merleau-Ponty, M. (2012). *Phenomenology of perception (D. A. Landes, Trans.)*. Routledge.
- Ministry of Education and Research (2019). National guidelines for the health and social sciences educations (RETHOS). https:// www.regjeringen.no/no/tema/utdanning/hoyere-utdanning/utviklingav-nasjonale-retningslinjer-for-helse–og-sosialfagutdanningene/ id2569499/.
- Murray, M., Sundin, D., & Cope, V. (2019). Benner's model and duchscher's theory: Providing the framework for understanding new graduate nurses' transition to practice. *Nurse Education in Practice*, 34, 199–203. https://doi.org/10.1016/j.nepr.2018.12.003
- Nortvedt, M. W., Graverholt, B., Jamtvedt, G., & Gundersen, M. W. (2021). *Jobb kunnskapsbasert!: en arbeidsbok*. Cappelen Damm Akademisk.

- Norvoll, R. (2002). Gap mellom utdanning og yrke. *Tidsskriftet Sykepleien*, 5(5), 52–56. https://doi.org/10.4220/sykepleiens.2002. 0013
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, 89(9), 1245– 1251. https://doi.org/10.1097/ACM.000000000000388
- Odland, L.-H., Sneltvedt, T., & Sörlie, V. (2014). Responsible but unprepared: Experiences of newly educated nurses in hospital care. *Nurse Education in Practice*, 14(5), 538–543. https://doi. org/10.1016/j.nepr.2014.05.005
- Orvik, A. (2002). Organisatorisk kompetanse motvirker realitetssjokket. Sykepleien, 90(8), 42–46. https://doi.org/10.4220/ sykepleiens.2002.0023
- Pedersen, K. R., & Tingvoll, W.-A. (2019). Managers' expectations of newly qualified nurses require collaboration with the education. https://munin.uit.no/handle/10037/16867.
- Pedersen, K. R., Tingvoll, W.-A., & Nymo, R. I. J. (2018). They come as nurses, not as students. *Geriatrisk sykepleie*, 01(13), 52–56.
- Polit, D. F., & Beck, C. T. (2017). Nursing Reseach: Generating and Assessing Evidence for Nursing Practice (Tenth ed.). Wolters Kluwer.
- Pollard, C. L., & Wild, C. (2014). Nursing leadership competencies: Low-fidelity simulation as a teaching strategy. *Nurse Education in Practice*, 14(6), 620–626. https://doi.org/10.1016/j.nepr.2014.06.006
- Raaheim, A. (2016). Eksamensrevolusjonen. Råd og tips om eksamen og alternative vurderingsformer. *Nye perspektiver på evalueringsformer i universitetspædagogik*, 87.
- Rognstad, M. (2006). Nursing students' motivation and socialization. A prospective, unbalanced cohort study of nursing students from study time into working life.(Doktorgradsavhandling, Universitetet i Oslo.).
- Scammell, J. M. E., Apostolo, J. L. A., Bianchi, M., Costa, R. D. P., Jack, K., Luiking, M. L., & Nilsson, S. (2020). Learning to lead: A scoping review of undergraduate nurse education. *Journal of Nursing Management*, 28(3), 756–765. https://doi.org/10.1111/ jonm.12951
- Schön, D. A. (1987). Educating the reflective practitioner. Jossey-Bass San Francisco.

- Smeby, J.-C., & Heggen, K. (2014). Coherence and the development of professional knowledge and skills. *Journal of Education and Work*, 27(1), 71–91. https://doi.org/10.1080/13639080.2012.718749
- Sneltvedt, T., Odland, L.-H., & Sørlie, V. (2010). Standing on one's own feet: New graduate nurses' home health care challenges and work experiences study. *Home Health Care Management & Practice*, 22(4), 262–268. https://doi.org/10.1177/1084822309341256
- Solli, H. (2008). Nyutdannede sykepleieres utvikling fra handlingsberedskap til handlingskompetanse. *Klinisk Sygepleje*, 22(3), 4–13. https://doi.org/10.18261/ISSN1903-2285-2008-03-02
- Stiklestad, S. S. (2020). Refleksjon som metode. In Amble, Amundsen, & Rismark (Eds.), *Medarbeiderdrevet innovason*. Gyldendal Norsk Forlag AS.
- Strand, K., & Nondal, K.-M. (2012). Nursing students development of professional independence during clinical practice organized as student-run teams. *Vard I Norden*, 32(4), 4–8. https://doi. org/10.1177/010740831203200402
- Stubberud, D.-G., Grønseth, R., & Almås, H. (2017). Clinical nursing (Vol. 5.utgave). Gyldendal Norsk Forlag AS.
- Terum, L. I., Smeby, J.-C., & Vågan, A. (2005). Chronic dissatisfaction. Sykepleien, 93(15), 28–29. https://doi.org/10.4220/ sykepleiens.2005.0031
- Tingvoll, W.-A., Pedersen, K. R., & Nymo, R. I. J. (2018). New practice model improved students' leadership and organisational skills. *Norwegian Journal of Clinical Nursing/Sykepleien Forskning*, 13(13). https://doi.org/10.4220/Sykepleienf.2018.73575
- Tveiten, S. (2013). Veiledning: mer enn ord Fagbokforlaget.
- Vygotsky, L. S., & Cole, M. (1978). Mind in society: Development of higher psychological processes. Harvard university press.
- Walker, S., Dwyer, T., Broadbent, M., Moxham, L., Sander, T., & Edwards, K. (2014). Constructing a nursing identity within the clinical environment: The student nurse experience. *Contemporary Nurse*, 49(1), 103–112. https://doi.org/10.1080/10376178.2014.11081960
- Western Norway University of Applied Science (2019). Continuation of clinical practice of nursing in somatic hospitals. https://www.hvl.no/studier/studieprogram/emne/bss3d1.
- World Health Organization. (2020). State of the world's nursing: investing in education, jobs and leadership. World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/ 331677/9789240003279-eng.pdf?sequence=1&isAllowed=y.