

Nursing students' experiences of the clinical learning environment in Norwegian nursing homes: a cross-sectional study

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Abstract

ROSENBERG, A. – HUSEBØ, A. M. – LAUGALAND, A. K. – AASE, I. Nursing students' experiences of the clinical learning environment in Norwegian nursing homes: a cross-sectional study. In *Ošetrovateľstvo: teória, výskum, vzdelávanie* [online], 2019, vol. 9, no. 2, pp. 70-78. Available on: http://www.osetrovatelstvo.eu/archiv/2019-rocnik-9/cislo-2/nursing-students-experiences-of-the-clinical-learning-environment-in-norwegian-nursing-homes-a-cross-sectional-study.

Aim: The aim of this study is twofold: (1) to explore nursing students' learning experiences and satisfaction with the learning environment in nursing homes in a Norwegian context and (2) to compare perceptions of the learning environment related to socio-demographic characteristics (age, gender, nationality, previous work experience) and supervisory conditions (organisation of supervision, frequency of supervision in the department).

Methods and sample: The study used Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale to investigate nursing students learning experiences and satisfaction with the clinical learning environment in nursing home placements and explore relationship with socio-demographic characteristics and supervisory conditions. The sample consisted of first-year nursing students completed 8-weeks nursing home practice period in 2018.

Results: The analysis revealed statistically significant differences in evaluating the clinical learning environment between students with or without previous healthcare work experience. The results indicate that the students placed in in small-scale nursing homes (i.e., <40 beds) to be significantly more positive than those in large-scale nursing homes. The analysis revealed significant differences in evaluation of clinical learning environment between female and male students for the subscale. Older students felt more comfortable taking a part of discussion on ward, younger students reported more positive interaction in the supervisory relationship.

Conclusions: The students reported overall satisfaction with the learning environment. We substantiated that ward-based factors such as the culture of the clinical workplace appeared to have the strongest influence on student satisfaction. Students' characteristics affect their learning experience, and supervision should be adapted to each student.

Key words: nursing students, clinical learning environment, Norwegian nursing home

Introduction

Teaching in clinical environment is most frequently researched in the context of the traditional acute hospital environment which consequently continue the importance of its assessment in nursing homes. Practice in clinical settings hold a central position in nursing study curriculum, which aim to prepare students for a clinical work life as competent and professional nurses. Nursing homes are often the first clinical learning environment the nursing students encounter, and the introduction to nursing care affects students' choice of future health care workplace (Liaw et al., 2017). Although early introduction to professional nursing care of older patients might prevent ageism and help nursing students consider a career in aged care, few students want to work in aged care when they graduate (Van Iersel, Latour et al., 2016). Relative little attention has been given to nursing homes as learning environments in clinical studies. Hence, there is a need for nurse educators to improve the clinical learning environment for nursing students providing care for older people (Cheng et al., 2015). Poor clinical learning environment and supervision have a direct impact on nursing students' learning, career ambitions, and perceptions of the nursing profession (Koskinen et al., 2012). The complexity of nursing for older patients requires a holistic approach and may provide nursing students with a valuable learning environment where they can acquire basic nursing skills and improve their reflective thinking and problem-solving skills (House, Goetz, Dowell, 2015). This calls for attention on how nursing students perceive clinical learning environments in nursing homes.

In Norwegian nursing education programs, as in most other nursing educations, 50 % of the curriculum is dedicated to practical studies within a variety of clinical settings and in campus-based clinical training (Framework for nursing education, 2019). This provides the students with valuable insights into the nursing profession and aids in the process of becoming a competent nurse. Registered nurses (RN) hold a multifaceted role in nursing homes, and nursing academics are encouraged to aid nursing students' recognition of clinical placements in nursing homes as challenging and complex (Dellefield et al., 2015). A recent review by Husebø et al. (2018) pointed out that learning during nursing home placement is influenced by the interaction of various factors related to students' characteristics, ward environments, and student—mentor relationships. Among students' characteristics; age, when entering nursing studies, ethnicity, and earlier work experience in health care



services affect students' experience of learning during clinical placements in nursing homes (Husebø et al., 2018; Struksnes, Engelien, 2016).

A review by Koch et al. (2015) indicated that gender, age, non-native language speaker, and ethnicity are characteristics that influence nursing students' clinical experience.

We replicated the literature search of our recent systematic review on learning environments in nursing homes (Husebø et al., 2018), which revealed that studies published between 2015 and 2018 mainly focused on other clinical placement sites for undergraduate nursing students than aged care facilities. Taking into account the need to strengthen the position of aged care facilities for the future as valuable learning arenas for nursing students, further investigation of nursing students' experiences of the learning environment in nursing homes is needed to inform improvement measures and develop future practice models.

Aim

The aim of this study is twofold: (1) to explore nursing students' learning experiences and satisfaction with the learning environment in nursing homes in a Norwegian context and (2) to compare perceptions of the learning environment related to socio-demographic characteristics (age, gender, nationality, previous work experience) and supervisory conditions (organisation of supervision, frequency of supervision in the department).

Methods

Design

This study used quantitative method that included a cross-sectional survey of nursing students.

Sample

First-year nursing students (N = 248) that were enrolled in the subject of nursing practice at a university in western Norway were invited to participate. This means that all students having their clinical practice in nursing homes in first year of their bachelor nursing education in 2018 were invited to participate. There were no exclusion criteria for this study. A preceptor model was used wherein each student was allocated to a registered nurse (RN) on the ward, known as a nurse supervisor. In addition, the nursing teacher (NT) was present on the ward for the initial meeting, mid-term evaluation, and final evaluation. Each NT decided how to organise supervision, either in groups or individually, and the frequency of supervision in the department. The NT earned 1,5 hours a week for each student they supervised in clinical studies. Most of the RN have received specific training course from the university. This training course include topic regarding supervision of students and information about content and learning outcomes for the students. It is not mandatory for RN to have this course before they can supervise students, but the university recommend it.

Participants' Characteristics

Of the 248 eligible nursing students, 155 completed the questionnaire, giving a response rate of 62 %. The participants were between 19 and 53 years of age (mean 24), and more than half of the participants were in the 18-24 years old age group. The majority were female (87.7 %) and of Norwegian origin (88.4 %). Fourteen (9.3 %) were of an origin other than Norwegian. One hundred three nursing students (66.5 %) reported previous work experience as health care assistants versus 49 nursing students (31.6 %) with no previous work experience in health care services. Most students (78.7 %) were allocated to a large-scale nursing home (i.e., > 40 beds), and the majority of students (72.3 %) were supervised by a registered nurse (RN) or student responsible nurse (20 %; Table 1).

Tab. 1. Demographic Characteristics of Nursing Students Responding to CLES+T

Characteristics	N (%)		
Gender			
Female	136 (87.7 %)		
Male	19 (12.3 %)		
Total	155		
Age (years)			
Mean 24			
Range	19–53		
SD	6.7		



Tab. 1. - continue

Characteristics	N (%)
Nationality	
Norwegian	137 (88.4%)
Other	14 (9.3 %)
Missing	4 (2.3 %)
Total	155
Work experience as health care assistan	ts
Yes	103 (66.5 %)
No	49 (31.6 %)
Missing	3 (1.9 %)
Total	155
Size of nursing home	'
Large scale (< 40)	122 (78.7 %)
Small scale (> 40)	33 (21.3 %)
Total	155
Supervisor title	,
Nurse	112 (72.2 %)
"Student responsible" nurse	31 (20 %)
Ward manager	4 (2.6 %)
Missing	8 (5.2 %)
Total	155

Legend: N – number

Instruments

This was a cross-sectional study utilising the *Clinical Learning Environment, Supervision and Nurse Teacher evaluation scale* – CLES+T (Saarikoski, Leino-Kilpi, 2008).

The study was approved by the *Norwegian Social Science Data Services* (NSD) and by the Dean of the Faculty of Health Sciences at a university in western Norway. The students received information about the purpose of the study, including the guarantee of confidentiality and anonymity. They gave informed consent by marking a box on the questionnaire and by completing and returning the questionnaire.

Permission to use the Norwegian version of the CLES+T was granted by the copyright holder, Mari W. Skaalvik. The Norwegian version of the CLES+T used in this study consists of 10 socio-demographic variables and variables related to supervisory conditions as well as the 34 items of the CLES+T evaluation scale, resulting in 44 items. Reliability (internal consistency) scores for the Norwegian version of the CLES+T evaluation scale varied for sub-dimensions from 0.73 to 0.96 (Henriksen et al., 2012; Saarikoski et al., 2008). The items included statements related to the pedagogical atmosphere on the ward (nine items), leadership style of the ward manager (four items), nursing care on the ward (four items), content of supervisory relationship (eight items), and the role of the nurse teacher (NT; nine items). For each statement, students were asked to choose the option on a 5-point Likert scale that best described their own perception, with higher values representing higher agreement with the statements. Students' options were specified as (1) fully disagree, (2) disagree to some extent, (3) neither agree nor disagree, (4) agree to some extent, and (5) fully agree.

Data collection

Students submitted their completed questionnaire in a sealed box at the nursing homes. The sealed collection boxes were located in a locked office that were accessible during daytime. 40 nursing homes were in included and all the chiefs of staff were informed and conceded to their wards participation. None of the seals on the boxes were broken. The teacher brought the sealed box back to the university at the end of the practice period. Then the researchers collected and entered data into SPSS. Students in our study evaluated the supervision conditions (organisation and frequency of supervision) in the nursing home clinical setting for a continual 8 weeks of placement, from March to April 2018.

Data analysis

The results were analysed using the statistical programme SPSS (version 21, 2015). Basic descriptive statistics, bivariate correlations, and Cronbach's alphas were analysed. We examined if any statistical differences existed between male and



female students and between students with or without working experience in evaluating of clinical learning environment. For this purpose, the non-parametric Mann-Whitney U-test (M-W) was used.

We calculated Cronbach's coefficient alpha for internal consistency of the total scale as well as the five sub-scales. The internal consistency reliability showed that the Cronbach's alpha values for the subscales ranged from 0.71 (for *Premises of nursing on the ward*) to 0.95 (for *The supervisory relationship*). The Cronbach's alpha-value was 0.94 for the total scale.

Results

Student Satisfaction with Clinical Learning Environment

Overall, the students evaluated the clinical learning environment as satisfactory. The mean values for the subscales (ranging from 1 to 5) varied between 4.08 for *Premises of nursing* to 4.34 for *Supervisory relationship* (Table 2).

Tab. 2. Total Scores of Nursing Students on CLES+T subscales

Subscales	Mean	SD
Pedagogical atmosphere	4.28	0.78
Leadership style of WM	4.28	0.80
Premises of nursing	4.08	0.72
Supervisory relationship	4.34	0.87
Role of nurse teacher	4.15	0.71

Legend: SD - standard deviation

The Pearson correlations between the five subscales ranged from small at 0.252 to large at 0.704. All factors were positively and significantly correlated (p=0.01), and the results support an association between subscales. The results supported a large correlation (r=0.70; p=0.01) between content of supervisory relationship and pedagogical atmosphere. A medium correlation (r=0.522; p=0.01) was found between pedagogical atmosphere and leadership style, indicating that they play a mediating role for premises of nursing on the ward. The influence of the NT was significantly related to pedagogical atmosphere (r=0.390; p=0.01) and leadership style (r=0.387; p=0.01) on the ward and to the premises of nursing on the ward (r=0.252; p=0.01).

In the bivariate correlation analysis, the student's age was not significantly correlated with the learning environment, except for two single items. The item "During staff meetings students felt comfortable taking part in discussions (e.g., before shifts) (subscale *Pedagogical atmosphere*)" proved to be significantly correlated with positive evaluations for older students (p = 0.046). The item "There was a mutual interaction in the supervisory relationship" (subscale *The supervisory relationship*) proved to be significantly correlated with more positive evaluations for younger students (p = 0.048; Table 3).

Tab. 3. Correlations between age and subscales

		Pedagogical atmosphere	Leadership style	Premises of nursing on the ward	The supervisory relationship	Role of the nurse teacher
	r	0.092	-0.158	-0.036	-0.056	-0.033
Age	р	0.262	0.057	0.657	0.510	0.693
	N	149	146	152	139	145

Legend: r – Pearson correlation; p – p-value

The Mann-Whitney U-test was used to examine differences in the students' experience with the clinical learning environment according to gender and previous work experience. The analysis revealed significant differences (p = 0.045) in the evaluation of the clinical learning environment between female and male students for the subscale *Role of the nurse teacher*, indicating that male students evaluated the nurse teachers' role as more valuable to the learning environment than female students (Table 4).



Tab. 4. Total Score in Subscales according to Gender

	Female		Male		P (M-W)
Role of the nurse	Mean	SD	Mean	SD	
teacher	4.12	0.80	4.52	0.75	0.042

Legend: SD - standard deviation; P (M-W) - Mann Whitney U-test

Statistically significant differences (p = 0.05) in the evaluation of the clinical learning environment between native-and non-native-speaking nursing students were identified for eight items in two subscales: Pedagogical atmosphere and The content of supervisory relationship. In the subscale Pedagogical atmosphere, non-native-speaking students scored more positively on the following items: staff were easy to approach (p = 0.044); there were sufficient meaningful learning situations on the ward (p = 0.023); the learning situations were multidimensional in terms of content (p = 0.019); the learning situations learning learn

The analysis revealed statistically significant differences in evaluating the clinical learning environment between students with or without previous work experience as a health care assistant, as identified in the subscale *Supervisory relationship* (Table 5). Thus, students with previous experience scored more positively on the item: *the supervisory relationship was characterized by a sense of trust*.

Tab. 5. Total Score in Subscale according to Previous Work Experience

		Mean	SD	P (M-W)
Supervisory relationship	Yes	4.43	0.88	
	No	4.17	0.86	0.050

Legend: SD - Standard deviation; P (M-W) - Mann Whitney U-test

The results indicate that the students placed in 40 nursing homes perceived the pedagogical atmosphere in small-scale nursing homes (i.e., < 40 beds) to be significantly more positive than those in large-scale nursing homes. The evaluation of the clinical learning environment according to the size of the nursing homes indicated that three single CLES+T items from the *Pedagogical atmosphere* subscale stood out as being significantly correlated with nursing home size (p < 0,05). The results indicate that students perceived the ward's pedagogical atmosphere in small nursing homes (i.e., < 40 beds) as significantly more positive (p = 0.044). Here, staff were generally more interested in student supervision (p = 0.018); the students also reported more sufficient and meaningful learning situations on the ward (p = 0.012).

Most of the nursing students (83.9%) had one supervisor shared between two students, while 16.1% had one personal supervisor throughout the 8 weeks of clinical placement. For nearly 10% of the students, there was a change of supervisor, and four of those students reported having an unfavorable experience during their clinical placement.

Discussion

This study aimed to explore satisfaction regarding the learning environment in Norwegian nursing homes from the perspective of first-year nursing students during clinical placements and to explore the relationship with socio-demographic characteristics and supervisory conditions (form and frequency of supervision).

Overall, the students experienced a satisfactory clinical learning environment. Our findings are in line with those of Berntsen et al. (2017), who studied students' learning opportunities in Norwegian nursing homes. Our findings are in line with the results of Doyle et al. (2017), who highlighted that nursing students value a welcoming workplace atmosphere where staff and supervisors are happy to help and have a positive attitude towards students' presence on the wards. The situational awareness and socio-cultural contextual view of learning in nursing have shifted from the individual to a learning collective; this is important to our students who will be tasked with shared responsibilities. Interaction and cooperation are fundamental skills, but crucial for learning to evolve (Tveiten, 2016).

Students in the study reported that staff were generally more interested in student supervision by giving more sufficient and meaningful learning situations on the ward in small-scale nursing homes. This could be explained by closer interpersonal



relationships among the student, supervisor, ward staff, and patients. Our findings support those of Backhaus et al. (2018) and Dellefield et al. (2015), who studied nursing staff relationships and their effect on the quality of the learning environment. Adaptation to small-scale nursing homes might also be easier as the physical conditions are more manageable and not as overwhelming.

Older students reported feeling more comfortable taking part in staff meeting discussions than younger students. One explanation may be that older students have more life and clinical experiences than younger students and find it easier to take part in such discussions (e.g., reports, doctor's rounds, ward meetings). Berntsen et al. (2017) described similar findings in their study. Students with no formal experience in health care settings may feel some insecurity, thereby decreasing their attentiveness and involvement in daily activities compared to students with earlier health care experiences. Although younger and less experienced students may experience this as demanding and challenging, these clinical complexities hold the potential to create multidimensional learning situations during clinical placement in nursing homes. The aim of both clinical and academic supervision during clinical practice studies is to motivate, inspire, and make the students aware of which learning situations should be focused on as well as how to demonstrate resilience and emotional intelligence information flowing from and to the clinical supervisor to give an enriched experience (Doyle et al., 2017). By sharing their professional experience and values, and via the pedagogical and interpersonal interactions, the clinical supervisor can help students improve their coping competence, cognition, effectiveness, and decision-making process (Karseth, Solbrekke, 2016; Saarikoski et al., 2013; Tveiten, 2014).

Our study also showed that students with prior work experience in health care services experienced more mutual respect and prevailed approval from their supervisor. This can be due to their familiarity with clinical settings as well as having met with and cared for elderly people, thereby gaining invaluable basic know-how (Carlson, Idvall, 2014). Gaining experience through education and during work placements reduces stereotyping by allowing nursing students to develop a richer and more nuanced view of the profession and variety of work settings (Van Iersel et al., 2016). Skaalvik et al. (2010; 2012) suggested that the systematic use of a shift's oral rapport as a learning arena can enable students to learn and reflect on current clinical practice. Compared to students without health care work experience, students with prior experience may feel that they are more included in the professional team due to their experience with the benefit of teamwork and being used to sharing information/experiences and challenges in a clinical setting. Nursing students with previous job experience tend to be more used to discussing and clarifying what attributes and competencies are required for specific clinical learning tasks in clinical settings (Haraldseid, 2017). Students without previous health care jobs may need more careful supervision on, for example, ethical norms, communication, and teamwork skills (interest, personal initiative, responsibility, self-reflection, motivation to incorporate into the team, documentation, and record keeping), time management, flexibility, professional expertise evident in practical skills, theoretical knowledge, patient safety (justification and rationalization of the intervention, following the criteria of the procedure, structure, process, and outcome) standard styling, and barrier care/regimen (McMullan et al., 2002; Salminen et al., 2009). Students who experience the teachers as being present and supportive of their autonomy and self-determination during clinical placements perceive themselves as being more competent and creative, with stronger and more personal involvement in the learning tasks (Deci, Koestner, Ryan, 1999; Haraldseid, 2017; Raaheim, 2013).

Our results suggest that, compared to ethnic Norwegian students, international students (n = 14) were more positive towards the learning environment by reporting more multidimensional learning situations, a trustworthy supervisory relationship, and easily approachable staff. The results indicate that, by feeling welcomed and safe and experiencing the practice as meaningful, international nursing students may more easily adjust to and thrive in the nursing home learning environment. Doyle et al. (2017) confirmed that teachers and clinical supervisors who included a positive work ethic and team morale significantly contributed to successful clinical placements, where students perceived the staff as modelling a positive and constructive attitude (Mitchell et al., 2017). Clinical supervision and support include advocating for the international nursing students' experience of clinical practice to ensure access to learning opportunities as well as a safe environment. Warne et al. (2010) found that students valued a safe working environment as the most important feature of the clinical placement, as students could learn in an atmosphere where mistakes were considered in the context on ongoing learning. These findings are consistent with the results of previous studies focused on the relationship between supervisory approaches and students' perceptions of the clinical learning environment (Gurkova, Zelenikova, 2018; Saarikoski, Leino-Kilpi, 2002; Saarikoski et al., 2013; Warne et al., 2010). In Norway's clinical learning environment, supervisors have different cultural backgrounds who have moved to Norway for safe working conditions, which may strengthen and enrich the collective nursing competence (language, profession, culture) and cooperation in the nursing home (Betancourt, Green, Carrillo, & Park, 2005; Tjoflåt, Razaonandrianina, Karlsen, Hansen, 2017). Clinical supervisors are known to be role models who are supportive, have sound reasoning skills and the ability to be empathetic, and uphold personal and nursing values (Hayajneh, 2011; Severinsson, Sand, 2010) The facilitation of international supervisors in a culturally and learning competent manner supports inclusion within the new education and learning experience to create a sense of belonging. In addition, it is important to discuss and clarify the tasks that nursing students will perform as well as learning outcomes they will achieve during clinical placements to an even greater extent than before. Yet it is also important to clarify expectations related to the supervisor's role (Caspersen, Kårstein, 2013).

The influence of the nurse teacher was significantly related to the pedagogical atmosphere and leadership style on the ward and to the premises of nursing on the ward. This is highlighted by the results of Saarikoski et al. (2013), who identified



the supervisor as the lead expert in clinical practice while the nursing teacher provided a more theoretical perspective on clinical situations. The main role of the nursing teacher is to provide preceptors with educational guidelines, strategies, methods, and assessment forms prior to students arriving in clinical practise and then later support preceptors during final assessment, discussing and evaluating learning outcomes (Saarikoski et al., 2013). The NT facilitates the students' translation of needs into learning activities that are clear, feasible, specified, meaningful, and measurable (Haraldseid, 2017). The NT has no formal pedagogical responsibility towards the clinical staff (Carlson, Idvall, 2014). Papstravrou et al. (2016) claimed that students who have a named mentor may be more satisfied with the supervisory relationship. There is considerable empirical support for the positive impact of individualized supervisory approaches on students' professional development in clinical practice (Saarikoski et al., 2013; Warne et al., 2010).

The major limitation of this study concerns the convenience sample. The generalizability of results may be questioned as respondents were selected from the population of only one university in Norway, although one prominent feature of the current study is that students' experience with the supervisory relationship can be compared between students with culturally diverse characteristics and their clinical learning experiences in the national context. The sample of students with a nationality other than Norwegian was small; in addition, out of 155 students, only 14 students were non-native-speaking/international students from one university. Finally, our study included only 19 male students, out of 155 students who participated, so the results cannot be generalized to the general population of male nursing students.

Conclusions

This study contributes to a deeper understanding of students' learning experiences in nursing homes and compares socio-demographic factors and supervisory conditions. The students reported overall satisfaction with the learning environment. We substantiated that ward-based factors such as the culture of the clinical workplace appeared to have the strongest influence on student satisfaction. Older students found it easier to take part in discussions (e.g., reports, doctor's rounds, ward meetings), and younger students felt more insecure in clinical settings and, therefore, more dependent on closer follow-up and interaction with their supervisors. Compared to students without health care work experience, students with prior experience felt more included in the professional team due to their experience benefitting from teamwork and being used to sharing information/experiences and challenges in a clinical setting.

This study highlights the need for study program development and the central role of supervisory relationships between students and supervisors from a socio-cultural contextual view of learning in nursing homes, paying more attention to the interpersonal processes of nursing care. Such an approach is believed to foster work environments supportive of person-centred care, emphasizing flexibility in providing care that is responsive to patients' preferences and values.

Students' characteristics affect their learning experience, and supervision should be adapted to each student. Educational institutions are in a central position to collect data about students and help prepare clinical placements to meet them and integrate them into a working team. In addition, supportive learning interventions for nursing students should be implemented as part of mentorship programs.

Finally, for international students, it can be useful to organize reflection groups or reading groups as a form of support to ease the learning process and familiarize them with terminology and clinical practice. Further studies should focus on identifying students' individual approaches to learning in clinical environments.

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Received: 14th October 2018
Accepted: 15th November 2018