

This is a postprint version of the article published as:

Johannessen, A.-K. et al. (2021). Nursing students' evaluation of clinical learning environment and supervision in a Norwegian hospital placement - a questionnaire survey using CLES+T scale. Nurse Education Practice.

Abstract

Aim

The clinical learning environment and supervisor-student relationship play vital roles in the learning outcomes of nursing students. The aim of this study is to evaluate nursing students' experiences with the clinical learning environment and supervision in a hospital placement organised with a *dual preceptor team* – preceptors holding dual positions both in the clinic and the nursing faculty – in addition to the standard one-to-one supervision by a clinical preceptor.

Design

The study is a paper-based survey based on a validated questionnaire developed and tested in hospital settings in various European countries, including Norway.

Method

The Norwegian version of the CLES+T Evaluation Scale, was distributed to all second-year students in three different years (2015–2017) at a nursing faculty.

Results

A total of 61% students ($n=261$) returned the questionnaire. Overall, the students considered that their hospital placement provided a good clinical learning environment. The results suggest that the dual preceptor team on top of one-to-one supervision did not interfere negatively with the clinical learning environment in a negative way. Nevertheless, the dual preceptor model did not compensate for a poor relationship with the clinical preceptor. Thus, the association

between a reported ‘strained relationship’ with the clinical preceptor and low scores on the CLES+T, reported on by other studies, remained in our data.

Conclusions

To better grasp the complexity in this area, various methods are needed, such as in-depth interviews with students, nurse teachers and clinical preceptors. Further studies need to elaborate on students’ experiences of clinical learning environment according to how supervision is organised.

Keywords

Nurse education; Clinical Learning Environment; Supervision; Student satisfaction
Questionnaire

Highlights

- Nurse students evaluated clinical learning environment with dual preceptor team as positively
- Stable one-to-one supervisory relationships were highly valued
- Future studies about organising of supervision and clinical learning environment is recommended

Word count: 6347 words including abstract and references

Abstract: 254 words

Number of tables: 4

1. INTRODUCTION

1.1. Clinical learning environment - crucial for nursing students' learning outcome

In Norway, as in other Western European countries, clinical practice constitutes 50% of the bachelor's education (BA; 90ECT) in nursing (Warne et al., 2010). Clinical placement during the education is reported as the most stressful part for the students, particularly in the initial periods when the students lack competence and knowledge (Chesser-Smyth and Long, 2013). Nonetheless, the *clinical learning environment* (CLE) plays a vital role in the learning outcomes of nursing students (Andrews et al., 2006; Löfmark et al., 2012; Papp et al., 2003). The importance of a supportive CLE is well documented in the literature (Kristofferzon et al., 2013). The CLE encompasses all that surrounds the nursing students in a clinical placement, including the clinical setting, staff, patients, clinical nurse preceptor, and nurse teacher (NT) (Papp et al., 2003). Wilkes (2006) argues that the CLE, in conjunction with the supervision support the development of the clinical competence of future healthcare professionals. Hence, striving towards conditions that strengthen these aspects is crucial.

1.2. Supervision of nursing students – clinical nurse preceptor versus nurse teacher

The relationship between the student and the preceptor, i.e. the supervisor from nursing faculty and clinical practice, has a major impact on the student's learning (Clynes and Raftery, 2008; Dale et al., 2013; Dimitriadou et al., 2015; Pitkänen et al., 2018; Wilkes, 2006). Clinical nurse preceptors have their qualifications as registered nurses working in a clinical setting. Clinical preceptors typically report that the supervision of students in clinical practice is inspiring (Shannon et al., 2006), but also stressful (Hautala et al., 2007), and they often struggle

to balance the delivery of patient care and the supervision of students (Gray and Brown, 2016). Moreover, many clinical nurses are unprepared for the role of preceptor and often lack support from the nursing faculty (Kristofferzon et al., 2012). Support, partnership, and contact with NT is found to be important for the clinical preceptor to feel confident in the supervisor role and in the creation of a positive CLE for the students (Hallin and Danielson, 2009).

The nurse teacher's supervisor role for students during clinical practice periods is described as both complex and multifaceted, demanding, and frustrating (Gillespie and McFetridge, 2006; Kristofferzon et al., 2013). NT is perceived as more able to provide additional support to the students but less able to convey updated knowledge about practical patient care (Papp et al., 2003). The increasingly academic focus of nurse education has led to a debate about whether the nurse teacher's clinical competence as a supervisor meets the expected level (Barrett, 2007; Fisher, 2005; Ousey and Gallagher, 2010).

1.3. Supervision models in nursing education – better integration of theoretical knowledge and clinical skills

The integration of theoretical knowledge and clinical skills is understood as essential for high learning outcome (Ajani and Moez, 2011; Benner, 2010). In order to achieve solid knowledge and clinical skills in nursing as a whole, the students need supervision enabling them to integrate theory and practice (Lambert and Glacken, 2005).

How the supervision in nursing education is organised varies. In Scandinavia and other European countries, registered nurses working in the practice site usually carry out the daily clinical supervision of students during the students' practice periods (Henriksen et al., 2012). In Norway, the supervision of nursing students standardly assigns a one-to-one clinical

preceptor for the clinical practice. The clinical practice comprises eight 32-hour weeks, during each of the three years of the RN BA programme.

In order to strengthen the collaboration between educational institution and clinical placement and reduce the theory-practice gap (TPG), different hybrid supervision models have been applied and tested, e.g. various forms of practitioner-teacher models or preceptorship models, as well as peer-assisted learning (Glomsås et al., 2019; Grongstad et al., 2020; Kleinpell et al., 2015; Ousey and Gallagher, 2010; Skaalvik, 2015; Warne et al., 2010).

Preceptors representing both academic education and clinical practice have been found to contribute to building bridges between theory and clinical practice in vocational education (Fowler et al., 2008; Hartigan et al., 2009; Russell et al., 2007), making the theory and practice more tangible and interwoven (Andre et al., 2013). So-called *dual preceptor* teams, representing both the educational institution and the clinical placement institution, have been introduced as part of the supervision model in a few Norwegian nursing faculties, amongst other in Tromsø (Grongstad et al., 2020).

In the literature, various concepts are used to describe preceptors associated with education, e.g. mentor, tutor, supervisor, or preceptor. To clarify, the terms employed in this paper are: *nurse teacher (NT)* for the academic staff at the educational institution, *clinical preceptor* for the nurses employed at the health institution of placement that take on the role as clinical supervisor for the nurse students, and *dual preceptor or preceptor team* for preceptors that hold both an academic position at the nursing faculty and in the hospital.

There is extensive literature investigating how nursing students assess and perceive the clinical practice period of their BA education (Dimitriadou et al., 2015; Flott and Linden, 2016). To our knowledge, there is limited research-based knowledge of how nursing students evaluate the clinical learning environment and supervision in a hospital organising supervision with a dual preceptor team on the top of one-to-one supervision.

2. AIM

This study describes and discusses results from a questionnaire survey investigating nursing students' experiences with the clinical learning environment (CLE) and supervision in a Norwegian hospital placement that organised supervision with a dual preceptor team on the top of one-to-one supervision (see below). We aim to compare the students' satisfaction with results from previously reported studies, and to explore and discuss associations between satisfaction on the measured CLES+T-dimensions in our data.

3. METHOD

3.1. Study setting and design

During a three-year period (2015–2017), all second-year nurse students at a nursing faculty in the capital of Norway were invited to participate in a paper-based questionnaire survey after completion of their clinical hospital placement at a large teaching hospital. The questionnaire used was the 2008 version of a validated Norwegian-language instrument used to measure students' self-reported satisfaction with the clinical learning environment: *The Supervision and Nurse Teacher Evaluation Scale (CLES+T)* (Saarikoski et al., 2008; Henriksen et al., 2012).

When we carried out the questionnaire study, a supervision model organised with preceptors holding dual positions (i.e. preceptor team) on the top of one-to-one supervision by a clinical preceptor from the hospital placement was piloted by the nursing faculty. This implied that a preceptor team consisting of two nursing teachers from the faculty and two clinical nurses from the hospital supported the clinical preceptors in their daily one-to-one supervision of the

students. The most common support consisted in organizing meetings and reflection groups with the clinical preceptors and the students. The preceptor team was also responsible for the students' simulation and clinical procedure training at the faculty prior to their clinical practice. These dual preceptors held an employment position with both the faculty and the hospital placement, i.e. 20% position at the hospital and 80% position at the faculty for the two nurse teachers, and 80% positions in the hospital and 20% positions at the faculty for the two clinical preceptors. This arrangement was a cooperation between the nursing faculty and the hospital, applied to the placement for all the included students, and as such implemented an added resource for the integration of theoretical knowledge and clinical practice skills.

3.2. Data collection and the research instrument

The data collection was carried out between May 2015 and June 2017. The project staff handed out and collected the questionnaire on the last teaching session at the end of the second-year. A total of 429 second-year students received the questionnaire.

The questionnaire applied was the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T), a validated instrument that combines aspects of the CLE and nursing teacher liaison functions within the same scale. The instrument was developed and tested in Finland in the early 2000s and has since been translated and validated among nursing students in different institutional settings in several European countries (Henriksen et al., 2012; Mikkonen et al., 2017; Muller et al., 2018; Saarikoski et al., 2008; Warne et al., 2010). For the psychometric properties of the CLES+T used in our study, see Henriksen et al. (2012). Approval to use the Norwegian version was granted by Henriksen and co-workers.

The questionnaire record five background variables: age, sex, ward type, frequency, and mode of supervision (see Table 2 for details). Furthermore, the CLES+T questionnaire consists

of 34 items, worded as statements regarding five dimensions: *Pedagogical atmosphere* (9 items), *Leadership style of the ward* (4 items), *Premises of the nursing ward* (4 items), *The supervisory relationship* (8 items), and *Role of the nurse teacher* (3 items each on the three sub-dimensions *NT as enabling the integration of theory and practice*, *Cooperation between clinical placement and NT*, and *Relationship among students, clinical preceptor and NT*). Each item is rated on a five-point Likert scale: completely disagree (1), disagree to some extent (2), neither agree nor disagree (3), agree to some extent (4), fully agree (5) (Henriksen et al., 2012, p. 3). The sub-dimensions of Leadership and Premises will not be addressed in this article.

3.5. Data analysis

The mean of the single items' scores was computed within respondents for each (sub-) dimension. Descriptive statistics, i.e. percentages, mean, standard deviation (SD) and similar, were tabulated for the background variables and the item scores on the included CLES+T dimensions as appropriate. Differences in scores between mode- and frequency of supervision for each analysed item was assessed using the non-parametric Kruskal-Wallis test (Kruskal, 1952). All analyses were carried out with the statistical software SPSS (version 23) or R (version 4.0.2).

3.6. Ethical approval

The study followed the Declaration of Helsinki on ethical principles for medical research involving human subjects and was approved by the Norwegian Social Science Data Services (ref. no. NSD-2015/43462) and the Privacy Ombudsman at Akershus University Hospital HF (ref. no. 2014/15-001). The students received written and oral information about the study

before data collection. They were informed that their identities and the collected data would be kept confidential, and that they could withdraw from the study at any time.

4. RESULTS

A total of 261 students submitted their questionnaires, for a response rate of 61% (see Table 1). About 67% of the respondents belonged to the youngest age group (< 25 years), and 88% of the respondents were female (Table 2). As such, the sample reflects the age and sex composition of nursing education in Norway (Statistics Norway, 2019).

A majority of the students (69%) had the same clinical preceptor throughout the practice period and described this as a good relation (Table 2). About one quarter of the students (27%) estimated their meeting frequency with the clinical preceptor to be 1-2 times during their eight weeks of practice, while a similar share (28%) reported that they had more than one weekly meeting with the preceptor. Almost 13% of the respondents reported that they never had spontaneous meetings with their clinical preceptor during the course of the placement period. Furthermore, 9% of the students reported 'a strained relation' to their clinical preceptor but few students (4%) reported that they had changed preceptors during the practice period. Moreover, 11% of students answered that they had 'situational supervision', i.e. *ad hoc* meetings with their clinical preceptor, and 4% reported 'group supervision', i.e. one clinical preceptor supervising two or more students in a group.

<Table 1. Questionnaire response rate among 2nd year nursing students, 2015-2017>

<Table 2. Descriptive statistics of demographics and supervision conditions of the study participants (i.e. respondents)>

Table 3 presents the students' ratings (mean and [SD]) on the CLES+T sub-dimensions' aggregate scores, and their single items, related to the CLE and by the reported type of supervision received during the placement period. CLES+T dimension score means in relation to sex, ward type, and frequency of spontaneous supervision is tabulated in table 4.

4.1. Pedagogical atmosphere

Overall, table 3 shows that the students evaluated items on the dimension Pedagogical atmosphere positively (4.05), and specifically indicated that the ward of placement represented a good learning environment (4.29). The items 'there was a positive atmosphere on the ward', 'I felt comfortable going to the ward at the start of my shift', and 'the staff was easy to approach' had item mean scores in the range 4.23 to 4.36. The responses were, however, lower for the items 'the staff was generally interested in student supervision' (3.91), 'the staff learned to know the student by their personal name' (3.67), and especially 'during staff meetings (e.g. before shifts) I felt comfortable taking part in the discussions' (3.31).

When stratifying the averages according to the students' description of the organisation of their supervision, the picture became more nuanced. There was a clear association between this variable ($p < 0.001$) and overall satisfaction with the Pedagogical atmosphere (Table 3). As a group the students who reported a strained relationship with their supervisor, scored this dimension lowest (3.39), while students with a good relation to their clinical preceptor scored highest (4.20). There were no notable associations between mean score on the Pedagogical atmosphere dimension and other variables like Ward type or sex (Table 4), neither with year nor age (latter two not shown).

<Table 3. Differences between nurse students' experiences of clinical learning environment in relation to how the supervision was organised about here>

4.2. The supervisory relationship

The students were mainly satisfied with the supervisory relationship (Table 3). Mean scores for single items varied from 4.05 to 4.38. The highest score (4.38) was given to the items 'my supervisor showed a positive attitude towards supervision' and 'I felt that I received individual supervision'. Also, the items 'the supervisory relationship was characterized by a sense of trust' and 'mutual respect and approval prevailed in the supervisory relationship' had overall high scores, with mean values 4.35 and 4.32, respectively.

As for associations between this CLES+T dimension and the other variables, there was a clear association between supervisory relationship and all of the items, and the difference between students with a strained relation with their clinical preceptor and those reporting a good report is striking (Table 3). Again, we find an association also between the supervisory relationship and frequency of supervision, but not with the other background variables (Table 4).

4.3. The role of the nurse teacher

The students mean scores for the items of the Role of nurse teacher dimension were in the range 3.29–4.38, and the overall mean was 4.01 (Table 3). There was most disagreement about the item, 'in our common meetings, I felt we were colleagues', and this item also had the lowest mean (3.29). However, the students were generally satisfied with the cooperation between the NT and clinical hospital placement. The highest scoring item on the cooperation sub-dimension

was ‘the nurse teacher was like a member of the nursing team’ (4.05). The items ‘the nurse teacher was able to give his or her expertise to the nursing team’ and ‘the nurse teacher and the clinical team worked together in supporting my learning’ had somewhat lower scores, i.e. 3.80 and 3.89, respectively.

The sub-dimension ‘the role of the nurse teacher’ scored high. The statements ‘the nurse teacher was capable of operationalizing the learning goals of this placement’ (4.26) and ‘in my opinion, the nurse teacher was capable of integrating theoretical knowledge and everyday practice of nursing’ (4.23) scored highest. However, the statement ‘the nurse teacher helped me to reduce the theory-practice gap’ had a somewhat lower mean score (3.90), demonstrating a more mixed response from the students.

We note that the association between Role of the nurse teacher and organization of supervision is significant, but only for the second and third sub-dimension, which regards the cooperation between NT and clinical placement, and the cooperation in the NT - clinical preceptor-student triad respectively (Table 3). This pattern is similar for association between these sub-dimensions and frequency of supervision (Table 4). No other background variables were associated with Role of the nurse teacher.

<Table 4. Differences between nurse students’ experiences of the clinical learning environment and satisfaction with the clinical placement in relation to spontaneously, individual supervision, ward type, and student’s sex>

5. DISCUSSION

5.1. Students' satisfaction with the clinical learning environment and supervision

Overall, the second-year nursing students evaluated the CLE in the hospital placement as positive, and few students reported being dissatisfied with the relationship with their clinical preceptor. As such, our results align with several studies that have used the CLES+T instrument (Carlson and Idvall, 2014; D'Souza et al., 2015; Dale et al., 2013; Skaalvik et al., 2011; 2015; Sundler et al., 2014; Warne et al., 2010). Our study found a similar average score (4.05) with the CLE satisfaction in hospital placement among the nursing students compared to the scores (4.0 and 4.1 respectively) from two Swedish studies (Sundler et al., 2014; Bisholt et al., 2014), but was higher than in another Swedish study (3.63) of Carlson and Idvall (2014). Warne et al. (2010) reported a similar score to the present study from the nine European countries included in their evaluation of nursing students' learning experiences. They found that students who had at least seven weeks of hospital placement were more satisfied than those who had a six-week placement. There were no correlations between background variables such as age, sex, or study year (Warne et al., 2010), which matches our findings from hospital placements of eight weeks duration.

While Skaalvik et al. (2011) reported that first year nursing students evaluated the CLE in nursing homes more negatively than for hospitals, Bisholt et al. (2014) found that the CLE satisfaction among nursing students in their last semester did not differ between clinical settings. Nevertheless, nursing homes are often regarded as a less-stressful atmosphere with fewer staff members to relate to for the students compared to hospital placements (Skaalvik et al., 2011).

The CLE has been described as a complex social context consisting of important factors such as communication, attitudes and behaviour displayed by staff affecting the student's learning and their self-esteem (Flott and Linden, 2016). Various studies emphasize that hospital environment involves more complex issues such as advanced medical technologies, acute and severe health and disease processes, and, not least, interaction with a multitude of other professionals in this process (Carlson and Idvall, 2014; Skaalvik et al., 2011). Thus, our respondents' hospital placements were most likely more challenging to the responding nursing students from second-year compared to their first year's placement in a nursing home. Still, their responses reflected that they experienced the CLE as safe and characterized by mutual respect and professional approval from their preceptors.

5.2. The importance of the supervisory relationship with the clinical preceptor

Our data show that the students mainly had the same supervisor throughout the practice period. The students reported that they had individual supervision, and only to a limited extent report group supervision where the clinical preceptor supervised more than one student.

We found a clear association between the nursing students' satisfaction with the organisation of supervision and the CLES+T items for Pedagogical atmosphere in the hospital ward. To our best knowledge, except for the Swedish study of Sundler et al. (2014), none of the studies that have employed the CLES+T questionnaire have explored the association between CLE and the organising of supervision. Sundler et al. (2014) reported that the organization of the supervision was of significance with regard to Pedagogical atmosphere and the students' relation to their clinical preceptors. Moreover, they found that students who had the same clinical preceptor during their clinical placement were more satisfied with the supervisory relationship than those who had different preceptors (Sundler et al., 2014).

Similarly, Carlson and Idvall (2014) found that the supervisory relationship to the clinical preceptor had the greatest impact on how nursing students experienced the CLE in nursing homes. Other studies have found that regular feedback, reflection sessions, and practical advice from the clinical preceptor is important for improving the students' motivation, practical competence, and confidence in their own abilities to perform their duties and tasks (Dale et al., 2013; D'Souza et al., 2015). Pitkänena et al. (2018) and Glomsås et al. (2018) report that students who had regular supervision during their clinical placement experienced more growth in clinical competence and greater satisfaction with the CLE compared to students that had irregular contact with their preceptors.

In the present study, we found clear association between supervisory relationship and all of the CLES+T items. The difference between students with a strained relation with their clinical preceptor and those reporting a good relationship with their clinical preceptor is striking. Worryingly, 13% of the respondents reported that they *never* had spontaneous meetings, i.e. *ad hoc* supervision, with their clinical preceptor during the course of the placement period.

Nonetheless, those who reported a strained relationship with their clinical preceptors and hardly ever received spontaneously supervision still did not score items regarding the NT particularly low. This indicated that the students were able to discriminate well between the CLES+T items regarding their clinical preceptor and the items that pertained to their NT. Furthermore, it might indicate that the support given from the NT was good enough to compensate for difficulties in one-to-one supervision from the clinical preceptor.

5.3. Dual preceptor team – an initiative reducing the theory-practice gap in nursing education?

In this study, most students reported that NT and clinical preceptor collaborated in a way that strengthened their learning. However, their responses also suggest some weaknesses regarding co-ordinated and integrated interaction between the nursing faculty and hospital placement.

A stable student-supervisor relationship might likely have been an important factor contributing to the students' positive answers, confirming that the NT was capable of operationalizing the learning goals of the hospital placement for the students. Yet, the students reported that the NT only partly succeeded in reducing the theory-practice gap (TPG). Results reported by Skaalvik et al. (2015), Bisholt et al. (2014), and Carlson and Idvall (2014) were all in the range 3.5–3.7, and as such lower compared to our study (3.9). Overall, the respondents rated the item 'the nurse teacher was capable to integrate theoretical knowledge and everyday practice of nursing' with a high score (4.23) compared to e.g. Warne et al. (2010), who reported scores of 3.58 and 3.49 for this item depending on the experience of the NT.

The TPG is a well-known challenge in nursing education, extensively discussed in the literature (Hartigan et al., 2009; Williamson, 2004), and described as the disparity between 'nursing taught' and 'nursing practiced' (Freeling and Parker, 2015). European studies have shown that organising supervision of nursing students' clinical training with a dual preceptor model may strengthen collaboration and coherence between the nursing faculty and the institution of the clinical placement (Fowler et al., 2008; Grongstad et al., 2020; Hartigan et al., 2009). A Norwegian study piloting dual preceptor team in addition to one-to-one supervision concluded that this model strengthened collaboration between the nursing faculty and clinical placement (Grongstad et al., 2020), and that healthcare professionals holding dual preceptor positions had an important role in motivating and supporting the clinical preceptors.

Dual preceptor teams may have a greater ability to grasp the complexity of the education as a whole (Fowler et al., 2008). However, preceptors holding dual positions are rare (Kristofferzon et al., 2013). Some studies have described the dual preceptor role as demanding, not least because it depends on clarity of expectations, responsibilities, support and follow-up towards employees in dual preceptor positions from both institutions (Fowler et al., 2008; Hancock et al., 2007).

Results from this study indicates that dual preceptor team as a supplement to standard one-to-one clinical supervision does not impact the students' assessment of their CLE in a negative fashion. We cannot demonstrate any significant improvement in the scores on CLES+T items compared to other studies; but we believe our results indicate that the model can be safely continued, and that future, more specifically designed studies, can shed light on the model's strengths and weaknesses. Nevertheless, the dual preceptor model does not change that low scores remain associated with scarce follow-up from the clinical preceptor. Fowler et al. (2008) and Kleinpell et al. (2016) argue that if a dual preceptor model is to succeed, efforts to ensure clear role clarifications with regard to tasks and responsibilities, necessary competence, flexibility, and a thorough planning of the dual position programme is needed to contribute in reducing the TPG. Studies that further elaborate on students' experiences of CLE in relation to how supervision is organised would be important.

5.4. Methodological considerations

Above, we have presented the second-year nurse students' answers on statements regarding their experiences with the CLE and supervision organised with a dual preceptor team on top of one-to-one supervision by a clinical preceptor during clinical placement of students to a Norwegian hospital. We have focused on the nursing students' perceptions of the CLE and supervision as measured by the CLES+T – viz. the dimensions for Pedagogical atmosphere on

the wards, Supervisory relationship, and Role of the nurse teacher – and considered their association with other salient background variables.

The study is based on a validated questionnaire developed and tested in hospital settings in various European countries, including Norway (Henriksen et al., 2012; Mikkonen et al., 2017; Muller et al., 2018; Saarikoski et al., 2008; Warne et al., 2010). This enabled us, in theory, to compare our results with other studies that have employed the CLES+T to evaluate the quality of clinical training in nursing education. Of course, an important caveat regards the fact that different settings and cultural backgrounds could mean that the students interpret and answer differently.

The response rate of 61% ($n=261$) can be regarded as adequate, although the non-participation of 39% cannot be disregarded as negligible. The questionnaire includes questions concerning organisation of supervision but does not include questions specific to the novel dual preceptor team arrangement in place for the responding nursing students' placement period. Hence, the students were not asked to evaluate the preceptor team model as such, and we have no baseline scores – i.e. without the dual preceptor team – available for direct comparison. For some questions related to organisation of supervision it is difficult to assess whether the nursing students report on the one-to-one clinical preceptor or on the dual preceptor team, e.g. how they interpret terms like 'group supervision' when answering the CLES+T (Table 2). As emphasized by Warne et al. (2010), it could be argued that a questionnaire survey does not yield the kind of detailed information needed to understand the nurse students' scoring of fixed statements on fixed gradations. We agree: without actually talking with the students, we are unable to access their more nuanced reflections about their CLE.

6. CONCLUSION AND IMPLICATIONS

The results showed that the nursing students considered that their clinical placement offered a good learning environment and that mutual respect, recognition, and trust characterized the supervising relationship for the most part. The students reported that the clinical preceptors and the nurse teachers collaborated in a way that supported their learning. We cannot demonstrate any significant improvement regarding scores on CLES+T items, but there is at least no deterioration of the students' experience of supervision with this organisation model; if there is a difference it appears to favour the dual preceptor team model. Nevertheless, the dual preceptor model did not change that low scores on the relevant CLES+T items remain associated with scarce follow-up from the clinical preceptor. To better grasp the complexity in this area, the application of various research methods, such as qualitative in-depth interviews with the students, clinical preceptors, and NT may be needed. In future evaluations, we believe it would be prudent to let students elaborate more in detail on their reflections regarding how the CLE and the organization of supervision impact on their learning experience.

7. CONFLICT OF INTERESTS

None.

8. FUNDING AND ACKNOWLEDGEMENT

This research received no specific grant funding from agencies in the public, commercial, or not not-for-profit sectors. We would like to thank the nursing students who answered the questionnaires.

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