The nurse teacher’s role in clinical practice
Norwegian nursing students’ experiences. A cross-sectional survey

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The role of the nurse teacher in clinical parts of nurse education is subject for an ongoing debate and is described as unclear and ill-defined. The purpose of this study was to measure and discuss the role of the nurse teacher as reported by a sample of Norwegian nursing students. The Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale was distributed to nursing students in five university colleges. Statistical analyses were performed using the SPSS software package, release 15.0. Descriptive procedures were used for demographic data (frequency, cross tabulations, mean, standard deviation, per cent and range). Differences in scores between study years were compared using the Kruskal–Wallis test. Significance level for statistical tests comparing scores between study years was set to 0.05. The participants in this study reported that the importance of the role of the nurse teacher declined throughout the curriculum. The role of the nurse teacher is important for NSs undergoing clinical practice and especially for novice students. The role of the nurse teacher role is vital regarding reduction of the theory–practice gap, being like a member of the nursing team and to give pedagogical expertise to the nursing team.

Keywords CLES+T, clinical practice, nursing student, role of the nurse teacher
Clinical practice is an acknowledged part of nursing education (1, 2, 3). The quality of the clinical learning environment is fundamental for nursing students’ (NSs) clinical experiences (4). A good learning environment is based on the establishment of strategies and approaches to support the students’ learning process and academic progress (5) and accords with perspectives in socio-cultural learning theory (6). Students’ subjective evaluation of their clinical learning experiences has been subject to both qualitative and quantitative studies (4,7,8). Although there are many studies about the role of the nurse teacher (NT) in clinical practice (9,10,11) few studies have addressed the issue from the NSs’ point of view.

The clinical learning environment is constituted by psychological, physical and organizational factors (12,13,14) and encompasses a number of factors such as patients (15), peer student (16), clinical supervisors (17), nursing teachers (18,19,2) and the social environment (20). This paper examines how a sample of Norwegian NSs, experienced the role of the NT in clinical practice. The concept «nurse teacher» (NT) in clinical practice is ambiguous (21) as several terms (7) are used to describe it interchangeably within different countries (19). In Norway the term NT refers to a person holding a position in an educational institution that involves both theoretical and clinical teaching (22). A NT is supposed to have a master’s degree and formal pedagogical training (ibid). The roles and functions of the NT differ throughout Norwegian nursing education institutions. However, the overall responsibility of the NT is to contribute to the integration of theory and practice through mapping and facilitating the clinical learning process of the nursing students in co-operation with the supervising nurse(s) and other clinical placement staff. The degree of involvement and participation in the clinical sites vary.

The role of the NT in clinical parts of nurse education is subject for an ongoing debate (23,24,11), and is described as unclear and ill-defined (2). Clinical credibility holds to be clinical competent and to be updated (25) and is one of the issues debated as nursing education has become part of higher education (26). This has resulted in NTs having multiple roles (27) connected to research and scientific work, teaching theory and carrying responsibilities for the students’ clinical learning. This represents challenges regarding time, commitment and credibility for their role in NSs’ clinical practice (28).

Benner et al. (29) state that few NTs are able to convey nursing knowledge in a manner that allows NSs to understand and translate it to practice. In a Norwegian study (30) among 2623 students in professional programs including nursing students, 24 variables were found that explained their satisfaction with the education. «Good teachers» was one of the variables.

Although there are differences regarding how the role of the NT is outlined an exercised in clinical practice
(24) some overall perspectives seem to be common. The NT knows nursing education and the goals for each placement (cf. 15) and hence holds an important role in supporting the students’ qualifying process by contributing to a clinical learning environment conducive to learning and by providing appropriate support to the students’ learning process. This includes contributions to bridge the connection between theory and practice (31) and sustain a continuous collaboration between the nursing education and clinical placements to enhance learning experiences according to students’ learning goals and needs. Finally, NTs carry responsibilities in assessment of NS’s when they finalize their clinical placements (cf. 2).

Norwegian nursing education

In Norway nursing education is a three-year bachelor programme covering 180 European Credit Transfer System (ECTS) points. Norwegian nursing education is outlined in national guidelines (22) all of which are binding for curriculum development. The education is approved by the European Community. The number of NSs in Norway is about 90000 (ibid) and encompasses both public and private university colleges. Clinical practice and theoretical studies each amounts to 90 ECTS. In the first year general nursing is focused, medical and surgical nursing is covered in the second year and community and mental health care in the third study year. In clinical practice the NSs experience mainly acute care and long-term residential care (22). Learning and developing skills in clinical practice skills is primarily connected to processes situated in clinical practice communities (cf. 32).

Clinical placements for NSs are established through mutual agreements between university colleges and health care institutions (22). In the general plan for nursing education, the Ministry of Education and Research (22) states that each student shall receive expert advice, supervision and support to promote learning. How supervision is organised vary between the different university colleges and clinical sites. The most common is that during clinical practice, the students on a daily basis receive continuously individualised supervision and guidance from an appointed supervisory, registered staff nurse (33). It is not given that NTs meet with students in clinical practice on a regular basis and Kjersheim (34) found that students experience scarce presence of the NT in clinical practice as negative for their learning.

Aim

The current paper reports findings from a quantitative questionnaire survey and aims to measure and discuss the role of the nurse teacher as reported by a sample of Norwegian nursing students.

Method

This cross-sectional study involved a quantitative questionnaire analysis (CLES +T) of nursing students at five university colleges in Norway. They were selected at a non-random basis.
The instrument
For the purpose of this study, the Norwegian version (33) of the CLES+T evaluation scale was applied. The scale was developed by Saarikoski and Leinokilpi (4), with further refinements in 2008 with good psychometric properties reported (35). The Norwegian version has been tested and found to have properties suitable for evaluation of clinical learning environment in a Norwegian context, with all factor loadings well beyond 0.40 and Cronbach’s alpha score for internal consistency of sub-scales varying from 0.73 to 0.96 (36). The scale CLES+T consist of 34 statements, arranged as five sub-dimensions: (i) pedagogical atmosphere on the ward (9 items); (ii) supervisory relationships (8 items); (iii) leadership style of the ward manager (4 items); (iv) premises of nursing on the ward (4 items) and (v) role of the nursing teacher in clinical practice (9 items) (35). In this paper the results from the sub-dimension «Role of the nurse teacher in clinical practice» are reported regarding the following liaison functions: 1. Nurse teacher as enabling the integration of theory and practice (3 items), 2. Cooperation between clinical placement and nurse teacher (3 items) and, 3. Relationship among student, mentor and nurse teacher (3 items). The students responded using a 5-point Likert-type scale: (1) fully disagree, (2) disagree to some extent, (3) neither agree or disagree, (4) agree to some extent and (5) fully agree (4, 35). The other sub-dimensions in the questionnaire have been presented in a previous study (33). In the present study a principal component analysis for the 9-item Role of Nurse Teacher subscale was undertaken, with a component structure for the nine items corresponding well to the three dimensions of the subscale, and with internal consistency for all three dimensions well beyond 0.70 tested with Cronbach’s alpha (results not shown).

Table 1. The instrument.
The Clinical learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale used in this study
Sub-dimension five: The role of the nurse teacher in clinical practice

<table>
<thead>
<tr>
<th>Nurse teacher as enabling the integration of theory and practice</th>
</tr>
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<tbody>
<tr>
<td>– In my opinion, the NT was capable to integrate theoretical knowledge and everyday practice of nursing.</td>
</tr>
<tr>
<td>– The NT was capable to operationalize the learning goals of this clinical placement</td>
</tr>
<tr>
<td>– The NT helped me to reduce the theory-practice gap.</td>
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<table>
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<th>Cooperation between the clinical placement and the NT</th>
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<td>– The NT was like a member of the nursing team</td>
</tr>
<tr>
<td>– The NT was capable to give his or her pedagogical expertise to the clinical team.</td>
</tr>
<tr>
<td>– The NT and the clinical team worked together in supporting my learning.</td>
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</tbody>
</table>

<table>
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<tr>
<th>The relationship between student, mentor and NT</th>
</tr>
</thead>
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<td>– The common meetings between myself, mentor and NT were comfortable experiences.</td>
</tr>
<tr>
<td>– In our common meetings I felt that we are colleagues.</td>
</tr>
<tr>
<td>– Focus of the meetings was in my learning needs.</td>
</tr>
</tbody>
</table>
Translation procedure

The original questionnaire (CLES+T) (35) was translated from English into Norwegian and blindly back-translated by two bi-lingual independent translators as recommended in the procedure described by Polit and Beck (37). There were no words with specific cultural bearing in the original questionnaire items and the translation was done with loyalty to the original scale items (CLES+T). Before completing the Norwegian version of the questionnaire, a group of university lecturers assessed the translated version. To pre-test the questionnaire a pilot study was conducted among health care profession students at a university college before the major study. The pre-test was ensued by minor refinements that did not alter the items significantly.

Participants and context of study

The study included all first-, second- and third-year nursing students from five non-randomly selected university colleges located throughout Norway (n=1229) representative for Norwegian nursing education according to geography and size. The students were invited to reply to the questionnaire according to their latest clinical placement in their nursing education at the time of the completion of the questionnaire. The convenience sample size followed the recommendation by Polit and Beck (37) to include at least 10 participants per item (i.e. 340 participants). Altogether 511 students returned the questionnaire. The response rate was 41.6 %.

The sample comprises 5.4 % of nursing students in Norway. This cannot be regarded as reflective of the whole population of nursing students. Due to varying missing rates for single items 407 cases are included in the analysis.

Data collection

The data were collected from NSs at five university colleges throughout Norway. The principals at the university colleges allowed the study to take place in releasing the names and addresses of the NSs. The questionnaire was mailed to the participants with a covering letter and a pre-paid return envelope. A reminder was posted to non-responders two weeks after the originally reply date.

Statistical analysis

Statistical analyses were performed using the SPSS software package, release 15.0. Descriptive procedures were used for demographic data (frequency, cross tabulations, mean, standard deviation, per cent and range). Differences in scores between study years were compared using the Kruskal-Wallis test. Significance level for statistical tests comparing scores between study years was set to 0.05.

Ethical considerations

The study was approved by the Norwegian Social Science Data Services (NSD). A letter that described the study with a request of a list with the names and addresses of the students was sent to the principals at the university colleges. They were informed that no de-
tails referring to university colleges or clinical sites would be disclosed. The participants were informed about the purpose of the study. Their informed consent was given by completing and returning the questionnaire. Confidentiality and anonymity were guaranteed.

**Findings**

The response rate was 41.6 %, and the mean age of the respondents was 27.4 years (range 7.9 years) and 88 % was female. 24.7 % of the students were in their first year of study, 42.4 % in their second and 32.9 % in their third year of study. The respondents had undertaken clinical practice in respectively acute care hospital settings (35.4 %), home based nursing (16.4 %), mental health care institutions (16.2 %), nursing homes (28.9 %) and other (3.0 %). The mean length of the clinical placements was 8.62 weeks. The factor analysis showed that items loaded on factors as presupposed from theory and with all factor loadings exceeding 0.4. The students evaluated their perceptions of the role of the nurse teacher according to the sub-dimensions «Nurse teacher as enabling the integration of theory and practice», «Cooperation between clinical placement and NT» and «Relationship among student, mentor and nurse teacher».

**Table 2. Comparison of average score on items (1=fully disagree, 5= fully agree) regarding role of nurse teacher (NT) among 1st, 2nd and 3rd study year Norwegian nursing students (n=401).**

<table>
<thead>
<tr>
<th>Role of NT (n)</th>
<th>1st (99)</th>
<th>2nd (170)</th>
<th>3rd (132)</th>
<th>Total (401)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse teacher as enabling the integration of theory and practice:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my opinion, the nurse teacher was capable to integrate theoretical knowledge and everyday practice of nursing</td>
<td>3.91</td>
<td>3.93</td>
<td>3.81</td>
<td>3.88</td>
<td>0.431</td>
</tr>
<tr>
<td>The teacher was capable to operationalise the learning goals of the clinical placement</td>
<td>3.92</td>
<td>3.89</td>
<td>3.74</td>
<td>3.85</td>
<td>0.229</td>
</tr>
<tr>
<td>The nurse teacher helped me to reduce the theory-practice gap</td>
<td>3.53</td>
<td>3.63</td>
<td>3.28</td>
<td>3.49</td>
<td>0.042</td>
</tr>
<tr>
<td>Cooperation between clinical placement and nurse teacher:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse teacher was like a member of the nursing team</td>
<td>2.53</td>
<td>2.34</td>
<td>1.80</td>
<td>2.21</td>
<td>0.001</td>
</tr>
<tr>
<td>Nurse teacher was capable to give his or her pedagogical expertise to the nursing team</td>
<td>2.81</td>
<td>2.65</td>
<td>2.23</td>
<td>2.55</td>
<td>0.001</td>
</tr>
<tr>
<td>The nurse teacher and the clinical team worked together</td>
<td>2.85</td>
<td>2.91</td>
<td>2.59</td>
<td>2.79</td>
<td>0.104</td>
</tr>
<tr>
<td>in supporting my learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship among student, mentor and nurse teacher:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The common meetings between myself, mentor and nurse teacher were comfortable experiences</td>
<td>3.86</td>
<td>4.14</td>
<td>3.94</td>
<td>4.00</td>
<td>0.278</td>
</tr>
<tr>
<td>In our common meetings I felt that we are colleagues</td>
<td>2.76</td>
<td>3.07</td>
<td>3.01</td>
<td>2.97</td>
<td>0.121</td>
</tr>
<tr>
<td>Focus of the meetings were in my learning needs</td>
<td>3.99</td>
<td>4.28</td>
<td>4.13</td>
<td>4.16</td>
<td>0.300</td>
</tr>
</tbody>
</table>
For the sub-dimension «Nurse teacher as enabling the integration of theory and practice» one out of the three items proved statistically significant. This was for the item «The nurse teacher helped me to reduce the theory-practice gap» (p-value = 0.042). On the sub-dimension «Cooperation between clinical placement and nurse teacher» the items «Nurse teacher was like a member of the nursing team» and «Nurse teacher was capable to give his or her pedagogical expertise to the clinical team» were statistically significant with p-value = 0.001 (Table 2). For these items there was a decline throughout the curriculum. For the sub-dimension «Relationship among student, mentor and nurse teacher» none of the three items proved statistically significant. Running the procedures Principal Component Analysis and General Linear Model gave virtually identical results.

Discussion

It is acknowledged that NTs should contribute to NSs’ clinical learning (23, 38, 2). There is however an ongoing debate about how the role of the NT in clinical practice is to be practiced (10, 39). Gillespie and McFetridge (23) found that the role of the NT is a dynamic one in supporting the needs of the student.

The overarching outcome in this study indicates that the participating nursing students experienced that the importance of the role of the NT declined throughout the curriculum. Underlying findings were that the role of the NT was important to reduce the theory-practice gap, to contribute to the clinical site in being like a member of the nursing team and to transfer pedagogical expertise to the nursing team. These items proved statistically significant in the CLES+T questionnaire, and students in their first year of study evaluated the role of the NT as more important compared to NSs in their third year of study (Table 2).

The NT may play an important role by supporting the NS in becoming familiar with health care settings as learning contexts through functioning as a door opener into an environment and a professional culture unfamiliar for the student. Saarikoski et al. (19) suggest a future role of the NT from an educational rather than apprentice perspective and state that this requires the development of a link role, promoting co-operation with clinical placements. This perspective may be conducive to create a good learning environment and should be considered as an important task for NTs. Regarding the role of the NT as contributing to integrate theoretical knowledge and everyday practice of nursing, the question about clinical credibility has been raised in several studies (23, 38). Brennan and Hunt (40) describe clinical credibility as applying scholarship in the field and ability to integrate theory to practice in both classroom and practice settings. The NTs’ dual roles and responsibilities may represent challenges hard to overcome for NTs as practice settings undergo rapid changes. Tingvoll and Sæterstrand (41) state that clinical
credibility as holding «clinical competence» is hard to fulfill and puts forward the importance of «being updated» as a realistic goal and a prerequisite for bridging theoretical and clinical elements in nursing education. As nursing education has become part of higher education, the role of NTs has changed as theoretical instruction, research and administration have become major activities representing challenges in being up to date with current practice (42, 38). The nurse teacher plays an important part in designing, implementing, evaluating and revising nursing education programs as well as assuring that NSs experience appropriate learning experiences during clinical placements (15). In holding a liaison role between research and theoretical teaching and clinical placements for NSs the NT can contribute to reduce the gap between theory and practice (cf. 43) through linking nursing theory to patient care in reflective sessions with the NSs. This may contribute to NSs viewing nursing theory as underpinning nursing practice rather than as decontextualized theoretical knowledge (cf. 31) This corresponds with the meaning of reflexive dialogue as an essential part of learning in practice (cf. 44, 45).

Based on how the role of the NT in clinical practice has been changed due to nursing education becoming part of higher education it is interesting that the respondents in this study experienced the NT to be like a member of the nursing team. This may be due to a NT role made visible for the students through support to the clinical supervisor(s) and implementation of reflective discussions (cf. 34). According to McSharry et al. (39), the NT plays a more indirect role in relation to the nursing team through being a resource to clinical staff through transfer of their pedagogical expertise. From the findings in this study the respondents to a decreasing degree experienced the NT like a member of the nursing team (p-value = .001) throughout the curriculum. This corresponds with findings in a study by Saarikoski et al. (19). Due to senior students’ increasing competence and clinical skills, the role of the NT should be adapted to the students’ level in the study program.

As argued by several researchers (17, 38) quality in clinical practice for NSs relies upon collaboration between clinical sites and the academic institution. A strong and conducive partnership between the NT and supervisors in clinical sites will contribute to the NSs’ clinical learning if they experience the two parties’ roles as complementary rather than overlapping. The findings in this study imply that the NSs experienced that the NT played an important role in transferring pedagogical expertise to the clinical team. As NTs often have a somewhat peripheral role to clinical sites, it is pivotal that the NT contributes in patterning the learning process in clinical placements by supporting the supervising nurse(s) (18, 39, 46) and facilitating the student-supervisor relationship (2). One cannot take for granted that nurses in practice are pedagogically orientated and familiar with the
content of the curriculum. The NT has an important role to play to support supervising nurses and NSs in identifying how the curriculum content accord with appropriate learning experiences (7) in clinical placements. Solvoll and Heggen (47) found that students across different clinical contexts and study years reported unmet learning needs in patient encounters. The authors criticize current learning practice for under-exploitation of learning potential in students’ clinical experiences. Such findings support the impact the NT may have on students’ learning in clinical practice through transferring pedagogical expertize to the clinical team about how patient encounters when discussed and reflected upon represent enhanced and in-depth learning. Due to continuous changes in the clinical field, clinical credibility in the meaning of clinical competence may be too complex to fulfill for NTs. To be updated (cf. 25) is more realistic pointing towards a NT role that patterns appropriate learning experiences, facilitate the learning process and contributes to a good learning environment in cooperation with the practice field.

**Study limitations**

The results are interpreted in view of the limitations attached to cross-sectional study design and self-reporting on variables. Generalisations cannot be made to all Norwegian nursing students due to the low response rate. However, we find that the Role of Nurse Teacher subscale displays satisfactory construct validity and reliability, and that the study offers valuable insights into nursing students’ experiences of the role of the nurse teacher in clinical practice. These insights may contribute to the ongoing debate and further research about the role of the NT and through which approaches they can contribute to the clinical learning environment and support the learning process for nursing students.

**Conclusions and recommendations**

Based on the findings from the current study we argue that the role of the NT is important for NSs undergoing clinical practice. From NTs’ dual roles and the multiple aspects that are important in learning in practice, it appears as important with an appropriate division of tasks between NTs and supervisors in the clinical sites. With students’ learning as priority, cooperation and complementary roles is pivotal. Further research is recommended to develop a liaison role of the NT where the particular competences are used for the benefit of appropriate learning experiences in a good clinical learning environment.

**Conflict of interest**

No conflict of interest has been declared by the authors.

**Funding**

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Notes
1 n may vary slightly due to differing missing rates for single items
2 Kruskal-Wallis test
3 Clinical supervisor (authors’ specification)

References