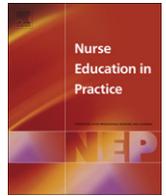


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Students' experiences of cooperation with nurse teacher during their clinical placements: An empirical study in a Western European context

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ABSTRACT

In many European countries during the last decade, the clinical role of the nurse teacher has changed from a clinical skilled practitioner to a liaison person working between educational and health care provider organisations.

This study explored pre-registration nursing students' perceptions of cooperation with nurse teachers during their clinical placements in nine Western European countries. The study also assessed the type and range of e-communication between students and nurse teachers and whom the students' perceived as their most important professional role model.

The study is a descriptive survey. Quantitative data were collected from 17 higher education institutes of nursing located in the northern, middle and southern parts of Europe. The purposive sample ($N = 1903$) comprised students who had participated in courses which included clinical placements. The data were analysed using descriptive statistics. Comparisons between the groups were made using cross-tabulation.

The majority (57%) of students met their nurse teacher 1–3 times during their placement while 13% of the students did not meet their nurse teacher at all. Additionally, 66% of respondents used some form of e-communication (e-mail, mobile text messages etc.) to communicate with their nurse teacher.

It is important to clarify the division of labour between nurse teachers and Mentors. There are both opportunities and challenges in how to utilise information technology to more effectively promote cooperation between students and nurse teachers.

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Introduction

Nurse educational systems have undergone a notable European-wide transformation as the locus of educational programmes has shifted from hospital school or vocational college systems to higher education institutes (HEI). This transformation has occurred at different times between the 1960s and 2000's in different parts of Europe, and many differences continue to exist between countries

in the execution of nursing educational programmes (Warne et al., 2010; Salminen et al., 2010).

In Europe, the HEI system for nurse education includes universities, university colleges and higher professional colleges (termed polytechnics in this paper). The polytechnic system is typical of the approaches to be found in Belgium, Finland and the Netherlands. Polytechnics tend not to have a tradition of being research-led in the same way as traditional universities generally do. The transition to HEI has presented nurse teachers with additional challenges in how to do their work in clinical placement programmes (Warne et al., 2010). In this paper, the term nurse teacher (NT) is used to describe an educationally certified lecturer who is employed by a university or a polytechnic, and covers all the variations in the roles and functions of a teacher in nursing education. With the

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transfer of nursing education to a more academically orientated educational system, NTs have come under increasing pressure to become more involved in a fuller range of scholarly activities such as producing publications, leading research and obtaining external research funding. The consequence for many NTs has been erosion of their traditional role in clinical practice of facilitating the practice-based learning of nursing students, so that they are spending less time on clinical teaching than in the past (Gillespie and McFetridge, 2006; Watson and Thomson, 2008; Saarikoski and Leino-Kilpi, 2009). The role of the NT has thus changed from being a *clinical skilled practitioner* to a *liaison* person working between the education and health care provider systems (Andrews et al., 2006; Saarikoski et al., 2009).

This study was a part of wider research project (Warne et al., 2010) aimed at testing the Clinical Learning Environment, Supervision and Nurse Teacher (CLEs + T) scale (Saarikoski et al., 2008) in a Western European context. The questionnaire also included a number of items linked to cooperation between student and NT during clinical placements. The results of the instrument testing study have been reported elsewhere, but the results presented here reported for the first time.

Literature review

The role of the NT in the clinical practice of nursing students has been much debated since nurse education was transferred to HEIs (Watkins, 2000; Maslin-Prothero and Owen, 2001; Barrett, 2007). The discussion has focused on the competencies they are required to have in clinical practice. One of the most often discussed themes has centred around clinical credibility. In earlier studies, credibility was seen in relation to the currency of the NT's practical nursing skills (e.g. Clifford, 1993; Baillie, 1994). However, in more recent studies, the emphasis has shifted towards their ability to apply theory to practice and to promote the use of research-based evidence in various clinical situations (Fisher, 2005; Lambert and Glacken, 2005; Milner et al., 2005).

It has been suggested that individuals perceive their professional identity as this is experienced in relation to those with whom they associate, those who have related roles, and those who affect or are affected by an individual's identity (Smith, 1991; Gillespie, 2002). Such professional socialisation and role modelling of nursing students has been explored elsewhere (see for example Cotanch, 1981; Olsson and Gullberg, 1987; Goldenberg and Iwasiw, 1993; Campbell et al., 1994). Interestingly, in many of these studies, NTs and mentors have been considered to be good examples of a desirable professional role model. However, Andrews et al. (2006) argue that the importance accorded to NT can vary. For example, within clinical settings where there is a perception of inadequate mentorship or staff support, the role of the NT becomes extremely important to students (Ramage, 2004).

Whilst the frequency with which NT and nursing students meet is a clear indicator of the extent of their co-operation, few studies have considered this aspect of the relationship. Wills (1997) noted that by the end of the 1990s in the UK, the frequency and time spent by NTs with students had decreased, with many students expressing great dissatisfaction with their experiences (of their mentoring). Later, in a Finnish study, Saarikoski and Leino-Kilpi (2009) explored the frequency of meetings of NTs with nursing students in clinical practice during the transition of nurse education from vocational colleges to polytechnics. Over a ten-year period (1997–2007), the frequency of meetings decreased dramatically: in 1997, 77% of the students met their NT three times or more during their placement. The same meeting frequency was reported by only 47% of polytechnic students in 2007. The duration of placements was 4.6 weeks at both measurement times.

Whilst the frequency of meetings and communication between NT and students is usually assumed to mean face-to-face, physical encounters, changes in communication technologies have raised the possibility of replacing face-to-face contact by the use of some form of e-communication. These emergent communication technologies (e-mail messages, mobile messages, virtual learning environments and so on) are increasingly familiar methods of communication for the current generation of nurse students. However, research evidence on how modern information technologies have been used in this relationship is limited (Sitzman and Leners, 2006; Ward and Moule, 2007). MacKay and Harding (2009) used mobile technology during students' clinical placements in primary health care settings in New Zealand. Their results showed that mobile-based communication is an acceptable, cost-effective form of support to motivate, encourage and communicate with nursing students during their placements.

In Europe, there are fundamentally 3 different kinds of models in Europe:

- (1) NTs work only in clinical practice (*clinical teacher*, a piloted model in e.g. some Scandinavian countries).
- (2) NTs work both in the HEI and in clinical practice (Saarikoski and Leino-Kilpi, 2009). This has been the traditional model in many European countries, and in the UK this approach underpinned the *lecturer practitioner* model (Watkins, 2000; Williamson, 2004).
- (3) A less used approach is found in Ireland, where NTs do not work regularly in clinical practice at all. In Ireland, they are available only where difficult situations need to be resolved. In hospital or community settings, however, Clinical Placement Co-ordinators (CPC) are used. These are experienced nurses with post-graduate qualifications but who are not qualified teachers. They act as clinical supervisors and tutors to nursing students in clinical settings (DCU, 2007).

The study

Aim

The overall aim of the study was to explore pre-registration nursing students' perceptions of co-operation with NTs during their clinical placements in nine Western European countries. The research questions were:

- (1) What NT-related organisational working model did students encounter during their clinical placement?
- (2) How often did students meet their NT during their clinical placement?
- (3) What range of e-communications were used by students and their NT?
- (4) Who did students perceive as their most important professional role model?

Design, setting and sample of the study

The study was a descriptive quantitative survey. The data were collected from 17 HEIs located in the Northern, Middle and Southern parts of Europe. The purposive sample ($N = 1903$) comprised nursing students who were undertaking their pre-registration studies in Belgium, Cyprus, Finland, Ireland, Italy, the Netherlands, Spain, Sweden and the United Kingdom (UK), during the academic years 2007 and 2008. The survey was carried out utilising a web-based data collection system. A contact person, who

Table 1

NT's working model by the geographical areas ($N = 1768$, Irish students are excluded due to use of the CPC model in Ireland).

	Clinical teacher n (%)	NT teaching in hospital and HEI n (%)	Some other system n (%)	Total n (%)
Northern Europe	282 (44)	312 (48)	54 (8)	648 (100)
Middle Europe	74 (14)	158 (30)	289 (56)	521 (100)
Southern Europe	214 (36)	226 (38)	159 (26)	599 (100)
Total	570 (33)	696 (39)	502 (28)	1768 (100)

was on the academic staff of the HEI in each participating country, translated the items of the study from English into his or her own language. The items were translated using a specific three-step procedure to ensure semantic equivalence (Behling and Law, 2000). The questionnaire did not include open-ended questions.

Research ethics

The study protocol was evaluated by the government of each country and written permission to proceed with survey was given. Appropriate approvals were also sought and granted by the authorities of each HEI. The authorities were assured that they would be informed of the results of the study and were also informed of the intention to publish the findings in academic journals. The research process conformed to the principles outlined in the Declaration of Helsinki. After receiving permission to proceed, the contact lecturer in each HEI e-mailed the electronic questionnaire's web-link to the students at the end of their clinical placement in a hospital environment. This e-mail message acted as an information letter to the participants and contained enough detailed information about the study to enable students to give their informed consent to participate. The students were asked to evaluate only one placement, that which they had just completed. The study design did not require personal identification of the participants.

Data analysis

The data were first analysed using descriptive statistics (Table 2). Country-specific frequencies and percentages are given, but no comparisons are shown between the countries using e.g. statistical tests. This is because in some cases the sub-samples were collected from only one HEI and consequently cannot be considered as representing the situation across the country as a whole. Cross-

Table 2

Meeting frequency (NT with students) by sub-sample (14 missing cases).

Country	No meetings at all n (%)	1–2 times during placement n (%)	3 times during placement n (%)	More often n (%)	Total n (%)
Belgium	21 (12)	72 (41)	50 (29)	31 (18)	174 (100)
Cyprus	5 (4)	15 (12)	10 (8)	96 (76)	126 (100)
Finland	20 (4)	252 (49)	216 (42)	29 (5)	517 (100)
Ireland ^a	4 (3)	12 (10)	14 (12)	88 (75)	118 (100)
Italy	18 (5)	106 (32)	45 (14)	162 (49)	331 (100)
Netherlands	11 (10)	43 (38)	17 (15)	41 (37)	112 (100)
Spain	20 (14)	30 (22)	31 (22)	58 (42)	139 (100)
Sweden	7 (5)	65 (48)	17 (13)	45 (34)	134 (100)
UK	140 (59)	69 (29)	8 (3)	21 (9)	238 (100)
Total	246 (13)	664 (35)	408 (22)	571 (30)	1889 (100)

^a CPC in Ireland.

tabulation was used for comparison between the groups of meeting and communication types. The statistical software used was SPSS 15.0.

Results

Participants

The majority of the respondents were female (89%) and the mean sample age was 24.6 years. The student sample represented students from each of the three years of the preregistration programme: first year (10%), second year (46%), and third/fourth year (44%) students. These proportions indicate the higher prevalence of clinical placements in the last two years of the nursing programmes. The majority (57%) of the respondents were studying at a university and the rest at a polytechnic. Each of the various preregistration programmes varied in length from 3 to 4 years.

Working model of NT

The students were asked how their NT operated whilst they were in their placements. The options were: (1) The *clinical teacher* model, where the NT worked mainly in clinical practice; (2) The NT was teaching both in clinical practice and in the HEI; and (3) Some other system.

In Ireland, the Clinical Placement Co-ordinator (CPC) is not a certified teacher, and hence in the Irish version of the questionnaire, the term CPC was used and not NT. We excluded CPCs from the working model analysis because the Irish model differs so obviously from the others. In the remaining sample, the option *Some other system* ($n = 502$) was reported by 28% of the respondents. The students from Northern and Southern Europe reported a 50/50 split between the first and second options. In Middle Europe, the option *Some other system* was the most frequently reported. A breakdown of each of these approaches is presented by geographical area in Table 1.

Face-to-face meetings between students and NTs

The variation in the frequency of meetings between NTs and students was wide: 30% of the students met their NT 4 or more times, 22% met 3 times, 35% met once or twice during the placement, and 13% did not meet their NT at all. Meeting frequency by country is shown in Table 2.

Meeting frequency was associated with the working model, and consequently was high in the countries where NTs were predominantly clinical teachers or CPCs (Cyprus, Ireland and Spain).

E-communication between students and NTs

The e-communication tools employed by the student and NT also varied widely (e-mail, mobile text-messages, and virtual learning environment): 34% of students did not use e-communication at all, 49% of students used it 1–3 times during their placement, and 17% more often. Also, the variation between countries was considerable. E-communication was used most frequently in Belgium and the Netherlands and least often in the Southern European countries.

The associations between NT meetings and the e-communication tools used were analysed using a four-column cross-tabulation (Table 3). The results showed that a number of students did not meet their NT at all or use any e-communication ($n = 141$ or 7% of all respondents). The majority (70%) of the students who had face-to-face meetings also used e-communication tools, while 6% of students had e-communication acts only. The Pearson Chi-square

Table 3
Connection between NT meeting frequency and use of e-communication tools
($N = 1887$, missing 16).

	Meeting with NT:		Total
	No meetings at all	1 or more meetings	
Use of e-communication tools:			
No e-communication	141 57%	498 30%	639
At least one e-communication act	105 43%	1143 70%	1248
Total	246 100%	1641 100%	1887

Chi-square tests p -value < 0.001 (the difference between the groups is statistically highly significant).

0 cells (0%) have expected count less than 5; the minimum expected count is 82.88.

test p -value was statistically highly significant ($p < 0.001$). However, there were highly deviant cases in the British student sample: a clear majority (59%) did not meet with their NT at all, and approximately the same proportion (59%) did not utilise e-communication.

Professional role modelling of students

The questionnaire contained a question designed to explore the extent of students' exposure to the student to good role models. Students were asked to state whom they experienced as being the most important person to help them better understanding the core concepts and practice of nursing during the placement. The options offered were: (a) Mentor most important; (b) NT most important and (c) Both equally important. The student responses varied. The mentor option was the most frequently selected (59%), 27% selected both the mentor and NT, and only 14% selected the NT. There were wide differences between countries. Nomination of the mentor varied from 4% (Spain) to 81% (Finland) and nomination of the NT varied between 5% (UK) and 55% (Spain).

Discussion

The main results contribute to the literature, in particular to the studies (Ramage, 2004; Barrett, 2007; Saarikoski and Leino-Kilpi, 2009) in which it has been argued that the clinical role of the NT has changed and that e-communication has become an important mode of contact between clinical teachers and students. This study adds to our understanding of the extent of these changes; for example, there is no one model of working that is clearly felt to be the most effective. It is clear that the approaches in the 17 schools participating in the study are still situated on a continuum where at one end the emphasis in the role of the NT is *hands-on care* and at the other end the NT's role is more about working as a *liaison* person between the HEI and service provider.

The use of e-communication appears problematic in our study. While some have claimed that e-communication is beginning to replace face-to-face contact during students' clinical placements (Ward and Moule, 2007; MacKay and Harding, 2009), the present results indicate that the high use of e-communication was actually found among the students who also experienced high levels of face-to-face meetings. Only 6% of the students in this study reported that face-to-face meetings had been replaced with virtual communication.

However, useful as these outcomes are, the study has its limitations. First, the sample used does not enable generalisation of the results. For example, while for some countries (Sweden, Ireland and

the Netherlands) data are given, this is done for reference purposes only, as these country sub-samples are small and the data collected represent just one HEI. The second limitation is linked to the concepts used in the data collection tool. Although considerable care was taken in the questionnaire translation (into seven different languages) a considerable risk for misunderstanding exists. Mistakes are possible simply as a result of the differences in how clinical practice is organised and what dimension of the NT's role is emphasised in a particular country. The large number of different concepts describing the clinical role of NTs that can be found in the literature supports this interpretation.

Conclusions and implications

The study provides a snapshot of the clinical role of NTs in 17 HEIs located in nine European countries. Wide variation exists in the organisational and educational structures that shape the NT's role. Likewise, how NTs communicate with their students can vary enormously as well. Our results do not support the assertion that e-communication can easily be used as a substitute for face-to-face contact. It seems that while e-communication strategies reinforce communication in the relationship, only little evidence was found to suggest that e-communication acts as an effective substitute for face-to-face meetings. A small number of students, did not see their NT at all, but then they did not communicate via e-communication either, a situation which can be regarded as highly problematic.

Communication in professional relationships contributes to the processes of professional identification. The opportunity for role modelling is always present when nursing students are learning nursing skills and attitudes in clinical practice. Professional identification and role modelling is a core element in becoming a nurse. The results of this study provide additional evidence that the nurse education system in European countries is still in transition and that achieving the harmonisation of these systems is still a long way off. Educational systems for nursing are clearly still becoming more academically based, and hence it is possible that interest in developing clinical teaching methods has decreased in the course of this strongly academically oriented process. The processes of transition have seen a shift in the competencies NTs towards teaching and research. There is a need to consider how professional identification can most effectively be facilitated through these changes.

It is important to clarify the division of labour between NT and clinical staff nurses. The practice-based mentor is often the lead expert in clinical practice, while NTs often provide a more theoretical perspective on clinical situations. They cannot only help students to find the theory underlying the clinical practices of the unit but also promote a research-based culture in the provision of health care services.

The study reveals the complexity of the NT's clinical role, especially if it is considered from the international perspective. According to the results, there are many differences between countries studied which makes it difficult to highlight any particular role-dimension; rather the study reveals the existence of several challenges. One of the most important of these concerns the use of modern information technology as a tool in facilitating the education of students. The results of this study indicate that an obvious need exists to fully explore the potential of e-communication in the context of clinical practice of nursing students. In addition, in the health care sector generally, we need to monitor current technological developments in the field of communications so as to benefit from innovative multi-dimensional and easy-to-use mobile solutions, as they become available. NTs should thus develop their e-communication skills alongside their theoretical knowledge base. Communication is a basic element in teaching and

learning about nursing in clinical practice. However, more European co-operational and comparative studies in this area, using also qualitative and cultural approaches, are needed.

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