

## Clinical practice models in nursing education: implication for students' mobility

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**Background:** In accordance with the process of nursing globalization, issues related to the increasing national and international mobility of student and qualified nurses are currently being debated. Identifying international differences and comparing similarities for mutual understanding, development and better harmonization of clinical training of undergraduate nursing students is recommended.

**Aims:** The aim of the study was to describe and compare the nature of the nursing clinical practice education models adopted in different countries.

**Methods:** A qualitative approach involving an expert panel of nurses was adopted. The Nominal Group Technique was employed to develop the initial research instrument for data collection. Eleven members of the UDINE-C network, representing institutions engaged in the process of professional nursing education and research (universities, high schools and clinical institutes), participated. Three data collection rounds were implemented. An analysis of the findings was performed, assuring rigour.

**Results:** Differences and homogeneity are reported and discussed regarding: (a) the clinical learning requirements across countries; (b) the prerequisites and clinical learning process patterns; and (c) the progress and final evaluation of the competencies achieved.

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**Conclusions:** A wider discussion is needed regarding nursing student exchange and internalization of clinical education in placements across European and non-European countries. A clear strategy for nursing education accreditation and harmonization of patterns of organization of clinical training at placements, as well as strategies of student assessment during this training, are recommended. There is also a need to develop international ethical guidelines for undergraduate nursing students gaining international experience.

*Keywords:* Clinical Placements, International, Nursing Education, Qualitative Study, Student Mobility

## Introduction

Clinical nursing education is a vital part of any undergraduate programme aimed at preparing nurses for competent practice but represents a challenge for higher education institutions (HEIs) and healthcare services in terms of European harmonization. Notwithstanding the provisions of Directive 2013/55/EU as well as outcomes of the Bologna Process relating to nursing education, the philosophy around the organization of clinical training remains the responsibility of each member state (Collins & Hewer 2014; Palese et al. 2014). A complete standardization of clinical education structures across Europe would be difficult to achieve. Cultures, traditions and patients' expectations vary widely across the member states and these factors are built into nursing competency frameworks within individual countries.

According to the Bologna goal, by 2020, more than 20% of students in European HEIs should spend period of time studying or training abroad. The Erasmus programme established in 1987, aiming at promoting students' mobility, skill development and employability has gained popularity with the international nursing student populations, confirmed recently by the latest statistics of the European Commission (2014). In the academic year 2012–2013, nearly 270 000 students spent time abroad with an Erasmus grant; 6.1% of students studied in the field of health and welfare and 11.5% had a clinical placement experience abroad in this field (European Commission 2013, 2014).

Similar exchange programmes within the USA, Australia and other non-European countries are also in place with the aim of developing opportunities for global exchanges within nursing and non-nursing HEIs (Hornberger et al. 2014).

In accordance with the process of nursing globalization, issues related to growing nursing students' mobility and nurses' international recruitment inside and/or outside Europe (European Commission 2014; Collins & Hewer 2014; OECD 2010) must be explored. Identifying differences and comparing similarities for mutual understanding, development and better harmonization of clinical training of undergraduate nursing

students is recommended. Therefore, to contribute to the advancement of knowledge in the field, the aim of this study was (1) to comparatively analyse chosen elements of the organization of the process of undergraduate nurses' clinical education across countries, (2) to understand differences and (3) to identify implications for successful student exchange.

## Background

Clinical nursing education is aimed at the development of professional competencies based on acquired theoretical knowledge and the development of personal characteristics such as the capacity for reflection in order to function effectively as a competent nurse (Cassidy 2009). Clinical placements are considered a vital part of the process as they can have a huge impact on learning experiences (Henderson et al. 2007). Placements may also influence students' confidence, their sense of belonging and being respected in a professional team, their motivation for professional self-development, organizational skills and preparedness to qualify to enter the profession (Edwards et al. 2004; Murphy et al. 2012).

Clinical placements are complex environments with a mixture of political, institutional and social structures. Many actors from both HEIs and healthcare provider settings are involved in establishing the optimum learning setting, requiring collective vision and commitment through effective communication and mutual support (Andrews et al. 2006). The most critical factors influencing the effectiveness of the clinical placement process have been identified by several authors: pressure to find high quality of placement, the level of cooperation between HEIs and healthcare providers, the nurse-to-students ratio, the education and experience of ward nurses, as well as the quality of mentorship, to mention a few (Cassidy 2009; Courtney-Pratt et al. 2012; Edwards et al. 2004).

With increased expectations of student mobility across European Union (EU) and non-EU countries, the HEIs help students establish closer links with foreign colleagues across the spectrum of clinical practice, management and academia in

order to raise the profile of nursing as a graduate profession and impact positively on migration, careers, nursing management policies and research opportunities (Zabalegui et al. 2006). Thus nursing students' clinical placements are a new challenge.

The process of placement organization for international students is often more complex than for local students (Myhre 2011). It is expected that visiting students will gain not only new learning experience and new competencies but that they also will be able to follow their own curricula and the standards of their individual HEIs. Institutions both sending and hosting students should discuss elements of preparation, facilities and organization of clinical training early in the placement process in order to facilitate consolidation of knowledge and skills and also to gain new skills from the host country (Bearnholdt et al. 2013).

According to the study by Myhre (2011), during international course delivery, students develop their self-confidence, gain a better understanding of core concepts of nursing and develop the ability to overcome communication challenges. In addition, they become more culturally sensitive and are better prepared to deliver multicultural nursing care (Bearnholdt et al. 2013; Button et al. 2005; Hagen et al. 2009).

## Material and methods

### Aim

The aim of the study was to describe and compare the nature of the nursing clinical practice education models adopted in different countries.

### Study design

A qualitative approach involving an expert panel of nurses (clinical and academic) was adopted (Burns & Grove 2005, p. 400; Polit and Tatano-Beck 2014). The Nominal Group Technique (NGT) was employed to develop the initial research instrument for data collection (Bruce et al. 2008).

### Participants

The study aim and processes were stated during the annual meeting of the UDINE-C international network in Belgrade in 2011. The UDINE-C group was established in 2007 and is aimed at understanding the similarities and unique differences in nursing education, promoting nursing research in this field, exchanging knowledge and sharing current best practice for the continuous improvement of academic careers in nursing across Europe. Currently, there are 13 members of the group who represent institutions engaged in the process of nursing professional education and research (universities, high schools and clinical institutes): Croatia, Czech Republic, England, Iceland,

Ireland, Italy, Poland, Serbia, Slovenia, Spain, Switzerland, Ukraine and USA. All representative members agreed to participate in the research.

### Data collection process

The NGT approach used by the research group was aimed at achieving a primary consensus regarding the tool through the identification of those elements of interest concerning clinical practice models in all participating countries. The NGT helped members to agree to include those elements of clinical education considered relevant for quality of clinical training and competencies according to the opinions of members and the studies available in the field (e.g. Bearnholdt et al. 2013; Courtney-Pratt et al. 2012; Edwards et al. 2004). These elements were taken as a basis for the research tool development, which resulted in a questionnaire containing both quantitative and qualitative elements. The instrument development was completed during 2011–2012. The questionnaire was piloted in two countries before being considered for the data collection process.

The process of collecting data was carried out during 2012–2013 utilizing three cycles of collection and analysis. During the first cycle (2012), the questionnaire was sent to 13 countries within the UDINE-C network. A participant expert was identified in each country as a member of the UDINE-C network able to provide current data on nursing clinical practice models. Responses were received from 11 countries (85% response rate).

After analysing the first cycle of collected data, additional questions were identified for individual countries where incomplete answers had been provided and descriptors were added where answers were not considered to have a unified meaning at an international level. In the third cycle, all data collected in the first two cycles were sent to respondents for verification and updating (2013).

### Data analysis and rigour

All data were aggregated and independently analysed by two researchers to achieve unbiased interpretation of findings. Any differences of interpretation were discussed until agreement was reached. In accordance with each element highlighted by the NGT (Bruce et al. 2008) and therefore reported in the data collection tool, answers were categorized and analysed independently by two researchers. Data were coded and a content analysis (Polit and Tatano-Beck 2014) was performed for descriptive answers; quantitative answers (e.g. the number of hours spent in clinical practice) were collected and reported in a comprehensive grid including all responding countries (see Table 1).

Table 1 Clinical learning placement duration and requirements across countries

Country	Length of standard general nursing course in years	Length of standard general nursing course in h	% of time (and h) spent in clinical practice by each student on average	National agreed process/standard for direct patient care placements in the country	Local clinical placement accreditation system available (e.g. annual review of care offered)	Attended settings
Croatia	3	4600	50 (2300)	Yes	Yes	H + C
Czech Republic	4	4600	50 (2300)	Yes	Yes	H + C + S
England	3	4600	50 (2300)	Yes	Yes	H + C + general practice + voluntary sector + public health experience + prison
Iceland	4	6000	30 (1800)	No	Yes	H + C + PC + primary schools
Ireland	4	4600	64 (2900)	Yes	Yes	H + C + general practice
Italy	3	5400	30–40 (1800)	No	Yes	H + C
Poland	3 or 3.5	4815	50 (2300)	Yes	Yes	H + C (including PC + occupational medicine) + disabled children institutions (not each student)
Serbia	3	4600	60 (2800)	No	Yes	H + C + PC + PD
Slovenia	3	5400	44.4 (2400)	No	Yes	H + C + PC + S
Spain	4	6000	33.3 (2400)	No	No	H + C + PC
USA	4	2400	41 (1000)	Yes	Yes	H + C + PC + PD + S + ambulatory care + veteran care

C, community settings (home care, residential care, nursing homes, districts, palliative care, mental health centres); H, hospital (units and clinics); PC, primary care (primary and secondary schools); PD, prevention departments; S, social care sector.

## Findings

### Clinical learning requirements across countries

Taking provisions of the Directive 2013/55/EU as a basis for assessment of the formal aspects of nursing education in Europe, the majority of the respondents have implemented or are in the process of implementing (Croatia) the minimum year (3 or 4) and minimum hour (4600) requirements for nursing education even though not all study participants are part of these regulations (Iceland, USA). The time dedicated to clinical practice ranges between 30% and 60% of total number of programme hours or, more specifically, between 1000 and 2700 hours.

In some countries, organization of clinical placements for nursing students is based on nationally agreed standards (Croatia, Czech Republic, England, Ireland, Poland, USA) that also provide formal requirements for placements. These standards are developed in cooperation between different bodies responsible for nursing education (nursing regulatory bodies, health ministries or other, e.g. nursing associations). Other countries (Iceland, Italy, Serbia, Slovenia, Spain) have locally developed standards, for example, at the HEIs.

In the majority of countries, as reported in Table 1, direct patient care placements must receive some kind of accreditation or must be monitored before any clinical training placement is approved. Placements accreditation is part of the accreditation process of the nursing programme provided by each HEI or it is included in the accreditation of the healthcare institution. In order to be recognized as clinical placements, healthcare institutions must demonstrate some specific criteria related to (a) hospital facilities, including equipment and human resources (e.g. Croatia, Czech Republic), (b) the quality of the educational environment determined through audits repeated every 2 years (e.g. England), (c) positive feedback received from independent accreditation bodies, which monitor the whole process of nursing education (e.g. Poland). It is common practice to develop contracts with healthcare organizations and usually such contracts are signed each academic year and state the obligations for both parties. Generally, healthcare providers are not paid for the provision of clinical placements (Czech Republic, Iceland, Italy, Serbia, Spain, USA) but this is an open issue under discussion. In England, Croatia, Ireland, Poland and Slovenia, institutions receive payment for hosting clinical placements.

Direct patient care placements are generally offered in a range of hospital and community settings. In some countries, placements in other organizations are also offered. For example, England sometimes offers placements in the field of prison nursing; in the Czech Republic, non-governmental organiza-

tions dealing with healthcare needs and social care facilities offer placements; the USA offers the opportunity to gain international experience and offers placements, for example, in Kenya, Peru or Ireland. Similarly, some EU countries offer students the opportunity to gain clinical experience abroad under the Erasmus exchange programme (but this is often arranged locally by individual HEIs rather than by those in any given country).

Where possible, HEIs aim to organize placements in the close vicinity, so that students do not have to travel far from their place of residence. However, when this is not possible because of placement capacity, there may be a need for students to travel to placements (e.g. England, USA).

### Prerequisites and clinical learning process patterns

In the majority of the countries surveyed, students are required to respect the principles included in national codes of conduct for nurses or standards defined by the HEI. In some countries, for example, England, there is special code of conduct specifically for nursing students and some universities also formulate regulations, which include the principle of professional behaviour for their students, which they have to sign and are obliged to follow during their education (Table 2).

Students are generally expected to achieve specific competencies in their clinical training. These are formally/nationally agreed statements of knowledge, skills and values that all nurses should have in order to carry out the role. Such competencies are usually developed by a special body under the Ministry of Health, the Ministry of Higher Education or the Nursing and Midwifery Chamber. However, in Italy and Serbia, these competencies are developed locally under national guidelines. International guidelines (e.g. International Council of Nurses (ICN) 2009; Tuning Project 2000) and the list of competencies included in Directive 2013/55/EU were considered in the process of competency identification and development.

Nursing students usually start their first direct patient care placement in the second term of the first year (often towards the end). Before they start in the clinical setting, they have to practise some basic skills in simulated environments. In a few countries, simulated learning hours can be included as part of the compulsory 2300 h of practical training (e.g. in England up to 300 h of simulated teaching is permitted; in Slovenia, 10–15% of clinical education can be through simulation).

Students' shift patterns in placements vary from country to country. On average, shorts shifts are expected in Ireland (4 h) and Serbia (5 h); slightly longer shifts are expected in Italy and Spain (7 h), the Czech Republic, Iceland, Poland, Slovenia (8 h) and the USA (9 h). In Croatia, student shifts are dependent on

Table 2 Set of competencies, attitudes and other organizational aspects of clinical placements across countries

Country	Code of practice/ethics for nursing students; if yes, defined by	Set of competencies expected to be learnt in the clinical practice	Defined at level <sup>‡</sup>	Direct care placement on daily basis (h/day) on average	Night shift included	Direct care placement on weekly basis (h/week) <sup>†</sup>	Clinical supervisor nurse-to-student ratio on average
Croatia	Yes, Croatian Nursing Council	Yes	N = Ministry of Science and Higher Education with cooperation of Ministry of Health	4 (first year) 4 (second year) 7 (third year)	Yes	20 20 35	1:9–10
Czech Republic	No code specifically for students	Yes	N = Ministry of Health	8	No	8	1:3; 1:2 ICU
England	Yes, Nursing and Midwifery Council (NMC) (2007); some universities have codes of conduct	Yes	N = NMC	7.5–12	Yes	37.5	NMC recommends up to 3 but this varies in reality (1:1)
Iceland	No code specifically for students but code for nurses is used	Yes	L = by each university under professional guidelines with clinical placements provided by setting	8	No	24–40	1:3
Ireland	Yes, defined by the Nursing and Midwifery Board of Ireland	Yes	N = Nursing and Midwifery Board of Ireland	4	No	35	1:1
Italy	No code specifically for students but some universities have codes of conduct	Yes	L = by each university under professional guidelines and laws	7	Yes	34–36	1:1; 1:2
Poland	No code specifically for students but code for nurses and midwives is used, as well as university regulations	Yes	N = Ministry of Science and Higher Education with cooperation of Ministry of Health	8	Yes	40	1:5
Serbia	No code specifically for students but Serbian nurses' code is used	No	L = by each school/university	5	No	28	1:10–12
Slovenia	Yes, by Nurses and Midwives Association of Slovenia	Yes	I = ICN	8	No	26.6 or 40	1:1; 1:2
Spain	No code specifically for nursing students, but Spanish Council of Nurses' code is used; individual universities may have additional standards and codes	Yes	N = national agency (the general competencies); and L = each university (the specific competencies)	7	Yes	35	1:12
USA	Yes, the American Nurses Association Code of Ethics and Standards of Practice govern the conduct of nurses and student nurses; individual universities may have additional standards and codes	Yes	L = by each university under professional guidelines and education laws; state board for nursing and state education departments may also regulate	6–8	Yes	Varies per program	1:6–8; 1:1 in preceptorship course

<sup>†</sup> Usually block system.

<sup>‡</sup> I, international level; N, national; L, local.

ICN, International Council of Nurses; ICU, intensive care unit.

year of studies: first and second year students are required to attend placement for 4 h/day, while third year students are required to attend for 7 h/day. Weekly hours also vary: for example, in England, students spend 37.5 h per week in placement, but the shift pattern may vary and students are usually expected to mirror the shift pattern of the host organization (e.g. 12-h shifts). Night shifts are offered by Croatia, England, Italy, Poland, USA and Spain.

In general, students do not receive any payment for their clinical learning as this is an expected component of their education. However, in Croatia and England, students can apply for bursary and travel costs. The only country surveyed, which offers a payment in the final year is Ireland, where nursing students receive 50% of staff salary.

It is difficult to estimate the average number of students under one clinical supervisor/mentor at any time. There are often no fixed rules about maximum or minimum capacity. However, typically in England, Iceland and Italy, there may be only one or two students per supervisor. Whereas in Croatia and Serbia, there are often nine to 12 students under a single

supervisor at any given time. The number of students also depends on the clinical field of the placement, for example, smaller groups are often seen in intensive care units or operating theatres.

#### Progress and final evaluation of the competencies achieved

During the entire period of clinical training, it is common practice to use a form of student diary (or ongoing achievement records) to assess students' developments in competencies and professional attitudes. This document follows students' movements in every placement throughout their entire education. On each placement, the mentor needs to sign the achieved competencies included in the nationally or locally agreed document. Regarding assessment of nursing attitudes, some countries such as Iceland, Slovenia and Spain use special tools, which help to assess some aspects of ethical behaviour through the process of observation. The majority of countries surveyed have a final assessment of practical educational competency as a part of a final exam, which students take before they are able to qualify as registered nurses (Table 3).

**Table 3** Forms of the final exam of the undergraduate nursing course

Country	Form of final clinical competency examination achieved
Croatia	Theoretical, oral exam in front of board of examiners accredited by the Croatian Ministry of Health.
Czech Republic	All schools have a final exam ensuring the future nurse has sufficient skills and knowledge to practise safely her/his profession. Some schools include a practical test within the final exam, which qualifies the student as a nurse; other schools (often universities) have multiple exams after each block of clinical placement throughout the 3 years.
England	May vary by institution but exams often taken during the course.
Iceland	No final exam – exams during course with the most important at the end of second year.
Ireland	Clinical competency assessment takes place via a continuous assessment process. Clinicians sign the student off as competent.
Italy	At the end of each academic year, student has to successfully pass the clinical competency examination, based on different models (Objective Structured Clinical Examination, discussion of clinical cases). National licensure is obtained before thesis discussion and may be based on questionnaires, simulated scenarios or practical examination in front of academic and professional (from nursing board) commission.
Poland	There are two parts of the final exam: (1) theoretical part during which the student has to answer three questions from material included during 3 years of study (mainly clinical nursing: internal nursing, paediatric nursing and surgical nursing) and present his/her bachelor thesis, which was earlier assessed by two teachers: supervisor and reviewer, (2) practical exam – randomly chosen hospital ward (paediatric, surgery, internal medicine) where she/he draws a patient from group chosen earlier by teacher responsible for practical exam at this hospital ward. During this part of the exam, the student has to show her/his ability to work independently (assess, diagnose patient; plan and carry out care and assess action undertaken). This practical exam takes more or less 7 h (short nursing shift).
Serbia	Final exam is not compulsory. Depends on school/university.
Slovenia	No final exam – exams during course.
Spain	Each university establishes how to assess clinical practice. Generally, at the end of each period of practice, skills exam in labs + clinical exam assessed by nurse supervisor during clinical placement.
USA	At the university, there is no final or summative exam – formative exams (didactic and clinical practice) are administered during courses. The National Council of State Boards of Nursing administers a national exam (NCLEX) that all graduates must pass in order to become registered nurses. The exam is at a national level but registration occurs at the state level.

## Discussion

From the findings, a variety of complex rules and guidelines shaping clinical learning placements in countries inside and outside of Europe have emerged. The intent of the study was to identify commonalities in clinical placements, from their design to implementation and evaluation. There was a need for this information to allow greater understanding of similarities and differences in the provision of clinical education with a view to developing and streamlining opportunities for greater mobility and international exchange. However, the study has several limitations: its cross-sectional nature and process of country inclusion prevent any generalization; in addition, stakeholders representing the UDINE-C network, as experts and voluntary participants, may have emphasized the local rather than the national perspective, especially for countries where clinical learning pathways are not determined by national guidelines or where multiple models of organisation of clinical placement exist (as e.g. in USA).

### Clinical learning requirements across countries

In the majority of countries surveyed, formal aspects of clinical education (such as length of training and number of clinical hours) follow requirements of the EU Directive 2013/55/EU, as confirmed by previous studies (Palese et al. 2014). However, the variability in the proportion of the total amount of time dedicated to nursing education, which is devoted to clinical learning, seems to suggest a difference in the perceived importance of the clinical aspects of education. Some countries attribute greater weight to practical education while others attribute greater weight to theoretical education, even though the minimum of practical training experience required is defined in the EU Directive 2013/55/EU. These differences may have negative implications for international student exchange.

The organization of clinical placements is based on nationally or locally agreed standards: hospital or community institutions offer placements on the basis of a mutually agreed contract. In some countries, payment is also provided to the healthcare organization for each clinical placement offered. In these agreements, there is a need to regulate the needs of each institution involved in the process (Henderson et al. 2007): it is important to establish appropriate values, structures and processes, promoting the basis for effective communication if any difficulties arise. Defining strategies aimed at offering high-quality clinical settings and introducing continuing evaluation of roles and responsibilities of both sides are also suggested (Andrews et al. 2006; Courtney-Pratt et al. 2012; Peters et al. 2013) to assure the continuance of required clinical placements at HEIs (Courtney-Pratt et al. 2012). In addition, special

aspects should be introduced into these agreements aimed at considering international nursing students.

In respect to the findings that emerged, direct patient care placements tend to receive some form of accreditation before or during the clinical education. Different frameworks of evaluation have been reported in an Australian study by Henderson et al. (2007) and in a British analysis by Andrews et al. (2006). In some EU countries, the accreditation is provided by a nursing regulatory body (e.g. the Nursing and Midwifery Council in England or An Bord Altranais, the Nursing and Midwifery Board of Ireland) or by special bodies established to assume this responsibility, usually with the cooperation of the Ministry of Health or Ministry of Higher Education (like, e.g. in Poland). Strategies of accreditation are considered to be helpful in the process of continuous evaluation of the quality of placement, before or during the internship experience, which is highly desirable given the situation of the continuous evolution of healthcare systems because of different reforms and of the increasingly occurring process of international student exchange where different expectations and needs that should be considered may also emerge.

In relation to placement allocation, students attend their practical education in a whole range of hospital and community settings, which are common in all the countries surveyed. According to Williamson et al. (2010) and Gillespie & McLaren (2010), when allocating students to clinical placements, the need to progress in the competencies and in professional maturity, as well as the societal needs (which means emphasizing students' exposure to more holistic care rather than traditional, restrictive medical settings) should be considered. Countries involved in the survey offer their placements in close proximity, reducing the need for students to travel, according to the recommendations of previous studies (Edwards et al. 2004; Killam & Carter 2010) and this may have positive effects for international students. However, according to Edwards et al. (2004), students should have the opportunity to attend placements in rural or remote areas and to meet different healthcare needs in different environments. Distant settings are usually considered in cases of clinical placement shortage (Peters et al. 2013). Transport and accommodation costs might be of little importance for students compared to the clinical experience they gain (Edwards et al. 2004).

### Prerequisites and clinical learning process patterns

Strong cooperation between HEIs, nursing regulatory bodies and health and higher education ministries has emerged. In addition to the influence offered in the process of accreditation, regulatory bodies offer students codes of conduct (specifically



devoted to students, or codes generally developed for professionals) as well as the set of professional competencies expected from nursing education where international guidelines (e.g. ICN 2009; Tuning Project 2014) are considered as the basis for nationally or locally developed competencies.

Given that students in placements are involved in a caring process, there is a need to debate which kind of ethical guidelines they should follow in order to practise the profession in accordance with professional ethics considering that they are not registered nurses. From the findings, the majority of countries have adopted a code developed for nurses (national or ICN); however, England has established a specific code of conduct for nursing students. Additionally, HEIs usually create domestic regulations wherein they state which professional obligations students have during all periods of their nursing studies. However, with the emerging ethical issues faced by students and by HEIs, there is a need to develop a code dedicated to nursing students in all countries and also to share at international level a code of conduct aimed at assuring that international students receive guidelines for their clinical practice.

Nursing students start their placement in their first year and it is usually preceded by experience of learning in simulated environments in nursing skill laboratories, which helps students to develop professional skills, apply knowledge and shape attitudes in a way that is safe for them and for their clients (Maginnis & Croxon 2010; Morrell & Ridgway 2014; Ricketts et al. 2012). However, the clinical skills laboratory should be as authentic as is possible to minimize the reality shock that can be experienced by students in the real clinical setting (Houghton et al. 2012), which may be increased for international students. Therefore, these skill labs should also be offered to international students aiming to help them in the adaptation process in the new country.

Different patterns of organization and lengths of shifts that students work during their clinical placements have also emerged. Shift length varies from 4 to 12 h/day, and also, the number of hours requested each week vary. Night shifts are offered only in a few countries. Clinical education should expose students to a range of different clinical situations as well as prepare them for the process of transition into real clinical practice as qualified nurses. For these reasons, students' shift patterns should reflect those of qualified staff (Rossen & Fegan 2009). Nash et al. (2009), documenting the effectiveness of placement transition programmes, underlined that for students, it is important to experience a 'real world' of nursing practice to become more self-confident when registering as nurses, for example, working during night shifts or during weekends or learning to cope with day-to-day demands, as also documented by Higgins et al. (2010).

From the literature available, it is evident that students prefer clinical education that gives them the opportunity to actively participate in the majority of nursing procedures, have access to interesting learning experiences, and learn new clinical skills through engagement and not only observing what others do (Holst & Hörberg 2013; Maginnis & Croxon 2007; Nash et al. 2009; Williamson et al. 2010). However, students also need to reflect on the experience and this is possible when a small student/mentor ratio is offered. Our study reveals that this is not a general rule; in some countries, there are even more than 10 students under supervision of one mentor. According to Murphy et al. (2012), the best option in community/district care is a 1:1 ratio because students may spend a significant amount of time with the nurse, which is not always possible in a hospital setting. Too many students under the supervision of a single mentor increases workload and reduces the amount of time available to carry out both roles (clinical and educational) producing negative impacts on learning outcomes (Courtney-Pratt et al. 2012; Mayall et al. 2008; Williamson et al. 2010). International students may need specific supervision support during their clinical experience and this should be considered in the agreements between countries.

#### **Process and final evaluation of the competencies achieved**

Clinical assessment is a complex process and encompasses many elements; therefore, there is a need for clear guidance in student assessment (Meier 2012; Price 2007). Having a set of competencies and ethical guidelines may help in the process of establishing a list of criteria. Findings from our survey have highlighted that student competencies are generally assessed with the use of ongoing achievement records for the monitoring of progress in skills and attitudes, which follow student activities in each clinical experience. This continuing feedback may also help international students who need constant feedback in reflection on the competencies progressively achieved.

The most challenging factor is adequate assessment of ethical attitudes, interpersonal interactions, caring behaviours and the process of decision making (Meier 2012). Some countries (Iceland, Slovenia, Spain) have developed different tools aimed at assessing these elements in the process of student professionalization. It would be interesting to exchange and compare these tools aimed at aiding international students to understand the specific expectations, which may be influenced by culture.

The final assessment of competencies, whether it is conducted at the level of the single HEI or country, by an independent body or a commission composed of faculty members and nursing board representatives, is important and should be

encouraged. There are no data regarding international titles offered in nursing education, and therefore, international students are not usually involved in the final evaluation of the competencies, which is undertaken in the country of origin. However, with the progression of internationalization, there is a need also to reflect on the possibility of offering international titles, such as master and doctorate education, already provided.

## Conclusions

The findings from the study have revealed diversity among countries surveyed in the models of clinical training in pre-registration nursing education. Despite successful harmonization of some formal aspects of the European pathway of nursing education, there is visible diversity among countries in clinical placement models of governance. Two trends seem to emerge: centralization and locally based governance. In the first case, HEIs are obliged to follow nationally established standards and recommendations for the organization of an optimal clinical learning environment. In the second case, HEIs establish such standards by themselves.

Despite many similarities among the 11 countries, analysis of the study findings highlighted variability in the proportion of the total amount of time dedicated to nursing education, which is devoted to clinical learning; different organizational patterns of student shifts at placements; and very different student-to-teacher ratios. All these elements of organization of the clinical training are vital not only for educational outcomes but also for coordination of international student exchange.

In addition, the study shows that there is a wide variety of systems of accreditation of undergraduate clinical training across countries. Lack of global standards for nursing education accreditation can be seen as a difficulty in the process of development and planning of nursing exchange programmes.

Further research needs to be carried out in order to have more insights into the complexity of nursing clinical training in the undergraduate programmes across countries; in addition, documenting and sharing good practices can help countries when planning organizational changes in clinical training aimed at improvement of international capacity.

## Implications for education and policy

Research findings suggest that wider discussion is needed regarding nursing student exchange and internalization of clinical education at placements across European and non-European countries. Inevitably, a clear strategy for nursing education accreditation, as well as harmonization of patterns of organization of clinical training at placements, and also strategies of student assessment during this training, should be considered as worth working towards the global level of the nursing commu-

nity. These elements of pre-registration education are crucial for successful student exchange. There is also a need to develop international ethical guidelines for undergraduate nursing students gaining international experience.

## Author contributions

Study conception/design: BD, IM, CJ, RK, MP, AS; data collection: BD; data analysis: BD, AP; drafting of manuscript: BD, AP; critical revisions for important intellectual content: AP, CJ, RK, EC, JW, DC-M; supervision: AP; administrative/technical/material support: VDC, DK, NP.

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