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What students really learn: contrasting medical and nursing students' experiences of the clinical learning environment

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Abstract This paper explores and contrasts undergraduate medical and nursing students' experiences of the clinical learning environment. Using a sociocultural perspective of learning and an interpretative approach, 15 in-depth interviews with medical and nursing students were analysed with content analysis. Students' experiences are described using a framework of 'before', 'during' and 'after' clinical placements. Three major themes emerged from the analysis, contrasting the medical and nursing students' experiences of the clinical learning environment: (1) expectations of the placement; (2) relationship with the supervisor; and (3) focus of learning. The findings offer an increased understanding of how medical and nursing students learn in the clinical setting; they also show that the clinical learning environment contributes to the socialisation process of students not only into their future profession, but also into their role as learners. Differences between the two professions should be taken into consideration when designing interprofessional learning activities. Also, the findings can be used as a tool for clinical supervisors in the reflection on how student learning in the clinical learning environment can be improved.

Keywords Clinical learning environment · Content analysis · Sociocultural learning theory · Undergraduate medical education · Undergraduate nursing education · Workplace learning

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Introduction

Clinical learning environment

Clinical placements are considered essential to all health care students due to the significant emphasis on learning skills and attitudes, something that cannot be carried out without experience in a clinical setting. Both medical and nursing students spend a considerable amount of time at hospitals and in primary care to achieve the intended learning outcomes needed for their future profession. In the last decades, the clinical learning environment has been acknowledged as important for students' learning (Snadden 2006); however, definitions of what constitutes a learning environment are rare (Isba and Boor 2011). From a cognitive tradition, some would argue that the learning environment is the individual student's perception of the surrounding climate (Genn 2001). Others, in line with a sociocultural perspective (Säljö 2000), argue that the learning environment is the social context in which learning takes place, which draws upon a cultural view of learning (Swanwick 2005). Efforts have been made to evaluate the environment with instruments such as the 'Dundee Ready Educational Environment Measure' for medical students and the 'Clinical Learning Environment Scale' for nursing students (Dunn and Burnett 1995; Genn 2001; Roff et al. 1997). These instruments can provide useful information about students' perceptions of the learning environment, but they offer limited insight into the complexity of clinical learning environments (Snadden 2006).

Learning in the workplace

The theoretical framework of workplace learning emphasizes the mutual interdependence between a workplace and individuals for learning to occur, regardless of whether the individual is a student, a registered nurse, a resident or a member of the senior staff (Billett 2008). Within medical education, workplace learning has recently received increasing attention (Dornan et al. 2007). The sociocultural perspective on learning emphasizes that learning occurs through interactions between individuals who are part of a context (Wertsch 1991), e.g. a workplace. Building on this perspective of learning, the theoretical framework 'Community of Practice' (CoP) (Wenger 1998) stresses that an individual will become part of a CoP as he or she moves from being a peripheral participant to a having more central position in the community when becoming an expert in the field (Lave and Wenger 1991). Learning in the workplace can be considered as becoming part of a CoP. It consists of not only preferable skills and attitudes included in the formal curriculum, but also unintentional knowledge, often referred to in the medical education literature as the hidden curriculum (Hafferty and Franks 1994). The influences on students from informal learning in workplaces can be considered both good and bad; they are part of the socialization process into their future profession (Hafler et al. 2011; Melia 1987).

In a number of empirical studies, *participation* has been shown to be essential for workplace learning of medical students (Boor et al. 2008; Dornan et al. 2007). For nursing students, on the other hand, *belongingness* is perceived as a prerequisite for learning (Levett-Jones and Lathlean 2008). Literature covering aspects of both medical and nursing students' learning in the workplace is rare, given that comparisons of concepts such as participation and belongingness are difficult to make.

In a pilot project, it was indicated that students from different professions could experience the learning environment differently, even when experiencing rotations in the same ward or department (Liljedahl 2011). Therefore, this study aimed to explore medical

and nursing students' experiences of different aspects of the clinical learning environment simultaneously. Also, very little research in the medical education literature studied a range of student professions in the same study, except for the field of interprofessional education. However, studying more than a single student profession might reveal aspects of the learning environment not accentuated elsewhere; hence both medical and nursing students were included in this study.

Aim

The aim of this study was to explore medical and nursing students' experiences of the clinical learning environment from a sociocultural perspective. The research questions were as follows:

1. How do medical and nursing students experience the clinical learning environment?
2. How do medical and nursing students' experiences of the clinical learning environment differ?

Methods

Research approach

This study was conducted within an interpretative paradigm, meaning that knowledge is viewed as socially constructed (Creswell 2012) and the research process as an interaction between the researchers and the participants, where the researchers facilitate the knowledge construction (Illing 2007). The researchers' preunderstanding of the field contributed to a deeper analysis of the investigated phenomena, something that might not have been achieved with researchers who were novice in the context of health science education (Patton 2002). Since human experiences were being explored, this study took a qualitative research approach, which explores a phenomenon in its natural setting to enable reasoning on a more complex level than if the phenomenon had been explored context-free (Creswell 2012).

Research group

The research group comprised researchers with different backgrounds, experiences and roles in the study, which enabled a continuous, dynamic discussion regarding data collection and data analysis. ML was a medical student at Karolinska Institutet (KI) during the planning, data collection and analysis; she is now a medical doctor and PhD student. CFP is a nursing student at KI with a background in engineering. LEB is a registered nurse with many years' experience in teaching and educational development. KBL is a senior qualitative researcher in medical education with a background in sociology.

Context of the study

The context of this study was the medical and nursing undergraduate programmes at KI, a medical university in Stockholm, Sweden. At KI, the students receive their clinical training at public-funded hospitals and primary care units in Stockholm county council. The three-

year nursing programme, which results in a bachelor's degree in nursing and a nursing license, alternates theoretical courses with clinical placements already from the first term. Clinical placements last approximately 6–8 weeks in a single ward, and the students often have the same supervisor throughout the placement. On one or several occasions during the placement, a teacher from the university visits the ward and, together with the clinical supervisor, makes an assessment of the student in relation to the learning outcomes. The 5.5-year medical programme has a traditional curriculum, with 2 years of basic science courses including some early clinical attachment and 3.5 years of clinical courses, where clinical placements are alternated with theoretical education. The clinical courses are taken entirely at teaching hospitals associated with KI, where the teachers who give lectures and seminars are physicians and researchers in clinical duty. Clinical placements last approximately 1–2 weeks at each ward and the physicians presently on duty at that ward supervise the students. This means that students may change supervisors every day. At the end of the clinical course, students take a theoretical written exam and a practical exam. As new graduates, both medical doctors and nurses are expected to handle basic clinical skills and work with a high degree of independence. Both medical and nursing students have approximately 2–4 weeks of interprofessional education, usually toward the end of their programmes.

Ethical approval

Ethical approval for the study was received from the regional ethical committee in Stockholm (No 2010/1998-31/5 and 2012/418-32).

Data collection and participants

Data was collected through 15 individual in-depth interviews with medical and nursing students. An interview guide was constructed and discussed in the research group. Invitations to participate in the study were sent by email during the spring term of 2012 to all medical students in their ninth and tenth term and to all nursing students in their fourth term; these terms were selected so that the participating students would have as much experience of clinical placements as possible without having any real-life working experience. At the time of data collection, KI did not have any final-year nursing students. Due to its exploratory focus, the study targeted students who volunteered and had self-interest in participating; hence, the sampling was purposeful. Seven medical students—six females and one male, between 23 and 37 years old—and eight nursing students—six females and two males, between 22 and 54 years old—agreed to participate. The gender balance among the included participants was approximately equal to the whole student cohort. Informed consent was received from all participants. It was assumed that if the interviewee and the interviewer were in the same profession, they might have a shared understanding of some aspects, which might have offered less interview depth; therefore, CFP interviewed the medical students and ML interviewed the nursing students. All interviews began with two questions: 'Why did you want to participate in this study?'; and 'What is the purpose of your clinical placements?' Then, the researchers asked questions about learning experiences, general experiences of the placement, the supervision, organisation and treatment. Finally, they asked the students to identify strengths and weaknesses of clinical placements. The length of the interviews ranged from 30 to 60 min.

Analysis

The research group transcribed the interviews verbatim and analysed them using content analysis (Elo and Kyngäs 2008) to search for both manifest (categories) and latent (themes) content (Graneheim and Lundman 2004). The analysis was an iterative process, in which the researchers went back and forth between the interviews and the findings to allow the main theme to emerge from the data. The interviews with the medical students were analysed separately from, but simultaneously with, the interviews with the nursing students, since contrasts were observed between the two groups throughout the entire process. The interviews were read through; meaning units were defined and clustered into categories by the whole research group. A framework of 'before', 'during' and 'after' the clinical placement was identified as useful to organise the data. Then, ML read all interviews once more and coded them in a software programme (Dedoose 2013) based on the framework. Finally, the research group refined the categories through discussions until it reached consensus. Through further discussions and analysis of the latent content of the data, the research group derived overarching themes.

Findings

Medical and nursing students' experiences of the clinical learning environment are described using a framework of 'before', 'during' and 'after' the clinical placements, with categories of manifest findings at each stage. 'Before' concerns the students' understanding of the overall aim of the clinical placement, their role as students, and their approach to clinical placements. 'During' involves the experiences of everyday life as a student in clinical placements. 'After' includes the implicit influences that students receive in the clinical context, which frames their orientation as students and their understanding of the professional role. A total of 12 categories were identified for nursing students (Table 1); 10 categories were identified for medical students (Table 2).

Three major themes emerged from the latent analysis when contrasting the medical and nursing students' experiences: (1) expectations of the placement; (2) relationship with the supervisor; and (3) focus of learning. These themes are cross-sectional across the manifest categories and, although they cover identical areas for both medical and nursing students, they comprise qualitatively different aspects.

Nursing students' experiences of the clinical learning environment

Table 1 presents the manifest categories of nursing students' experiences.

Before clinical placements for nursing students: wanting to experience the real setting

The aim of clinical placements for nursing students was to experience nursing in a real setting and to be able to translate theory into practice. The nursing students emphasized the importance of learning clinical skills and general treatment through becoming as independent as possible in their daily work. The nursing students wanted their supervisor to support them and to push them into trying new tasks:

> Well, I guess that the aim is that we get to practice what we have learnt in theory, that we can try… see how it is… is it working in the way we have learnt? (Nursing student no. 6)

Table 1 Categories from interviews with nursing students

Framework	Category
Before clinical placements	Translating theory into practice
	Being independent in the daily work
	Variation in between rotations
	Abstract formal learning outcomes
During clinical placements	Making the supervisor trust them
	Model of supervision
	Challenging interaction with the supervisor
	Becoming part of the working team
	Building relationships with patients
After clinical placements	Learning how to balance expectations
	Becoming independent
	Taking responsibility

Table 2 Categories from interviews with medical students

Framework	Category
Before clinical placements	Establishing theoretical knowledge
	Active attendance
	Limited information beforehand
	Checklist of procedures and conditions
During clinical placements	Involvement in activities for their own sake
	Finding a supervisor who engages in them
	Learning through observation
	Making the best out of the situation
After clinical placements	Adjusting to the situation
	Taking a hands-off approach
	Daring to take space

The nursing students experienced a large variation between clinical placements, and that the actual location of their placements and the supervisor to whom they were assigned had significant impacts on their learning experience. The students experienced their formal intended learning outcomes as abstract and preferred to write learning outcomes on their own, which they used as a checklist throughout the rotation:

> Because they [the intended learning outcomes] are extremely abstract and many in my class interpret them as they should learn how they are doing things on this ward or this primary care unit. (Nursing student no. 3)

During clinical placements for nursing students: struggling with the supervisor relationship

Nursing students struggled with the relationship with their supervisor and put a lot of effort into making the relationship work in the best possible way. To make the supervisor trust them, they were eager to perform, even if they did not actually know what they were doing. They experienced two different models of supervision: One where they were the 'tail' of

their supervisor, observing what the supervisor was doing; and another where they were allowed to be more active as students and participate in the care of the patient. From their experience, the supervisor determined the model of supervision, although the students took initiative and tried to act interested to increase the opportunities to be active:

> Usually, it was like 'but you're a student, you're only supposed to observe' and then I said 'Yes, but I would really like to practice as well'; and it took some time, but eventually she let me do things. (Nursing student no. 5)

They described the interaction between the supervisor and student as challenging and found it difficult to balance their own expectations with the supervisors regarding what should be learnt and what activities the students should participate in:

> And then you arrive to the clerkship and they think.… e.g. about the learning outcomes, someone said: 'But those aren't suitable here'…. (Nursing student no. 1)

The students placed great importance on the workplace in terms of their learning. They felt that the longer they spent in the workplace, the more they were able to become part of the working team and understand the routines of the workplace in order to participate in the care of the patient and optimize their learning:

> In the middle of the rotation you start to feel.. walking in the corridor you feel confident, it feels nice to know where the kitchen is etc. when you don't know you start to feel insecure. (Nursing student no. 1)

The nursing students were eager to meet patients as much as possible to be able to build relationships with them and to learn general treatment through those relationships.

After clinical placements for nursing students: learning to be independent

Nursing students experienced a lot of variations during their clinical education, e.g. different teaching styles, different approaches to patients, different expectations on them as students, and different practices in clinical procedures. Therefore, they had to balance these variations, i.e. make a choice either to follow the local tradition or to do as they were taught at their previous clinical placement or by teachers at the university. As the clinical placement proceeded, they experienced that they were developing independence, where they could take a stand on different questions and know what they wanted or did not want:

> Well, before I just did my best and then they could assess me according to the assessment form. But now I try to elaborate with the form, figuring out what activities I can engage in for each outcome, much more structured than before. (Nursing student no. 5)

In addition, the nursing students felt that as they faced these variations in their clinical placements, they learned how to make the most out of them, e.g. how to take initiative, how to take responsibility, how to collaborate with different kinds of people, and how to read situations:

> You yourself are responsible for your own learning and you will have to make the best out of the situation if you really want to learn. (Nursing student no. 8)

Medical students' experiences of the clinical learning environment

Table 2 presents the manifest categories of medical students' experiences.

Before clinical placements for medical students: wanting to observe real cases

The medical students expressed how the aim of their clinical placements was to observe real cases, to establish their theoretical knowledge, to have the opportunity to learn from experienced physicians, and to gain motivation to learn theoretical knowledge. They felt that the demand on them during the clinical rotations was attendance only on mandatory occasions, and that the responsibility of learning was entirely their own. The medical students wanted to be as active as possible, but they preferred when the supervisor showed them how to do things first. The advance information of the rotation was often limited to when and where they were expected to show up:

> Usually, you get all the information on the first day, and that's enough for me. (Medical student no. 4)

They used the checklist of procedures to accomplish or conditions to observe, provided by the course director, as a way to document their learning and to know what should be learnt at the placement:

> They had this checklist that we were supposed to use. It was like 'this is what you should do during this rotation'…. (Medical student no. 3)

During clinical placements for medical students: taking it as it comes

The medical students experienced freedom during their clinical rotations, where they choose activities to be involved in based on their value for their own learning and not for someone else's sake:

> You can just come and leave as you like. Of course, some activities are mandatory, but if I don't find something worthwhile I can just go home and study instead. (Medical student no. 1)

They neither defined outcomes for themselves nor read the intended learning outcomes written in the syllabus before the placement, but rather understood along the way the important things to learn:

> Well, if you are present every day you're supposed to, usually you get to see a lot and you learn all that you need. (Medical student no. 2)

When starting a placement, they looked for a supervisor at the ward because it was not always obvious who was supposed to supervise them or, if they had been given a name, where that person was. Sometimes they depended on nurses to help them, which they willingly did. The learning experience of the placement was dependent on the supervisor; the students experienced how they needed to promote themselves to make the supervisor engaged in them:

> You'll have to quickly establish good relationships to the responsible ones, in order to receive as good teaching as possible…. You'll have to ask questions for them to start telling you things and be very active for them to make an effort and engage in you as a student. (Medical student no. 3)

The students' understanding of what makes a good supervisor was someone who remembered what it was like to be a medical student:

> Personally, I think most junior doctors are really good supervisors. They know what it's like to be a student because it has not that long since they were there themselves. They remember what they wanted to learn, I guess. (Medical student no. 1)

They learned through observing the supervisor and the patient, reflecting upon that relationship, and preferred when the supervisor was thinking out loud so they could to understand how they were thinking. The medical students also experienced how some of the supervisors tried to evade the students, because it took time away from the patients:

> If they [the supervisors] only would have been taught how to supervise, maybe they would find it more enjoyable. I'm sure many of them find it hard and tough and that's why they try to minimize it. (Medical student no. 6)

After clinical placements for medical students: learning to adjust to the situation

Medical students felt that they grew accustomed to switching supervisors and placements often, and that they learned how to adjust to new situations since they experienced new environments often:

> Usually, I try to read them [the supervisors] as much as I can. In that way, I know how to relate to them for me to reach out to them. (Medical student no. 3)

When facing difficulties with the supervisor, the students tried to make the best out of the situation and kept a hands-off approach, hoping that the next rotation would be better. Even if they interacted with patients to some extent, the medical students considered themselves insignificant to the care of the patients. They were very aware of the limited time that the supervisor had to teach them, but even so, they learned how to dare to take time from their supervisor:

> And that's such a hard balancing act. Maybe in the emergency department there are a lot of patients and then they don't want us to do the stiches as it will take longer time. (Medical student no. 4)

Themes

Three major themes emerged that contrasted the experiences of nursing and medical students. Table 3 presents the three themes.

Theme 1: expectations of the placement

Nursing and medical students had different approaches to their placements, e.g. when they were not working as well as they should. Nursing students demanded an education of high quality at the clinical placements, but also saw themselves as responsible for their own learning. That meant that they would call their teacher at the university if it was not working with the supervisor at the placements, and they wrote down their own learning outcomes for the placement. They also wanted to be as active as possible, because they wanted to be able to manage the demands on themselves when they start working as nurses:

Table 3 The three themes contrasting the experiences of medical and nursing students

Theme	Nursing students	Medical students
Expectations of the placement	High expectations	Acceptance
Relationship to the supervisor	Extricate themselves from their supervisor	Searching for someone to supervise them
Focus of learning	Patient-centred	Doctor-centred

> I can't really see the point of having a student that only follows you…. No, I want to be active and have my own patients. (Nursing student no. 6)

> It does feel a bit unfair sometimes… that some students are given a great environment and loads of opportunity to learn when others don't get that. (Nursing student no. 8)

However, medical students were grateful for whatever education they got; they adjusted to the situations they ended up in and kept a hands-off approach to supervisors who were not interested in supervising them, meaning that they avoided interactions with them. Still, they depended on the placements to provide them with opportunities to learn, since they had not decided for themselves in advance what they wanted to learn. Although in the beginning they felt that the short placements were stressful, they eventually adapted to it and appreciated to be able to get experiences from different departments:

> At first, I thought it was kind of tough to change wards that often, but you get used to it. Now I don't think it is hard at all. And you will become more flexible, and that's good, isn't it? (Medical student no. 6)

> When having a bad supervisor I usually keep a low profile, making the days at the ward as short as possible. (Medical student no. 6)

In summary, while nursing students had high expectations on their clinical placements, medical students seemed to accept them as they were.

Theme 2: relationship to the supervisor

Nursing and medical students related to their supervisors in different ways. The nursing students started out in a close relationship with their supervisor, putting a lot of effort into making the relationship work and eager to make the supervisor trust them—all to be able to extricate themselves from the supervisor as not to be the 'tail' anymore, but rather to be independent and active in the patient care. They wanted their supervisors' knowledge and input on different aspects of general treatment, but they also questioned their practise and demanded evidence-based care of the patients and that the ward follow protocols, e.g. the hygiene routines:

> The placement is mentally pressuring…. Tiptoeing around someone [the supervisor], that's exhausting. You'll have to show yourself in the best light, be alert all the time and always in a good mood. (Nursing student no. 8)

> I really have to take every opportunity to learn that I can get. I object if a supervisor wants me to observe because I am a 2nd year student and I want to do things. (Nursing student no. 5)

On the other hand, the medical students were searching for a physician to supervise them and strived for someone who engaged in them, gave them some activity to do and taught them things. To find such a supervisor, they promoted themselves and took the initiative to form these relationships. When someone did engage in them, they were very pleased:

> In the emergency department you just take a supervisor. That's what we have done, you see who's working there and ask them: 'Could I be your student today?'…. (Medical student no. 4)

> Everyone who's working in the ER is really stressed…. They ran away from you when they saw that you were a student… because they can't manage that many patients if they have a student as well. (Medical student no. 5)

In summary, the nursing students extricated themselves from their supervisor, while the medical students searched for someone who would supervise them.

Theme 3: focus of learning

Nursing students felt that from each patient they met, there was always something more to learn, and they strived to meet patients as much as possible. They were eager to build relationships with the patients, not only through their supervisor, but also on their own, since they valued these relationships a great deal for their own learning:

> There's so many things you should know as a nurse… so I think… even if you only meet patients and do the same things you have been doing before, you will learn… because it's new people, and you will learn through those meetings. (Nursing student no. 5)

On the other hand, medical students learned mainly through observing their supervisors' interaction with patients. They did not talk about the patient as being involved in their learning process, but rather as a case for them to observe. They did not consider themselves significant to the care of the patient, even if they did some of the physicians' tasks:

> Actually, I think I learn general treatment by myself. Well, you do get to see how doctors treat patients and then you can decide for yourself if you will do like that or not. So that's very good. (Medical student no. 4)

> As I said before, you do not really have any responsibility but you try to do as many of the physicians' tasks as possible… and preferably with some supervision. (Medical student no. 1)

In summary, nursing students held the patient in focus of their learning, where medical students held the doctor in focus.

Discussion

Principal findings

This study explored and contrasted medical and nursing students' experiences of the clinical learning environment. It focussed on students' overall experiences of the clinical learning environment at their educational programmes to gain a holistic understanding of

clinical placements, something that is rarely seen. Through parallel analyses of the two groups of students, it was possible to compare them and thereby discover aspects that may not have been discovered otherwise. The findings offer an increased understanding of how medical and nursing students' clinical learning environment impact their learning experience and also highlight the differences in learning between these two professions. In this study, the nursing students learned how to be independent because they had to balance between different expectations and take an active part in the care of the patient. The medical students, on the other hand, learned how to adapt to the environment by taking the placements as they came and maintaining a hands-off approach to any struggles. The study identified three themes: (1) expectations of the placement; (2) relationship with the supervisor; and (3) focus of learning.

General discussion

So why do the medical and nursing students' experiences differ? One explanation could be the different structure of the two programmes: medical students have short placements, while nursing students have longer placements. Consequently, as described in the first theme, the medical students did not take action on struggles, but rather hoped that the next week would offer them better learning opportunities. Nursing students, on the other hand, took actions on struggles, because they stayed at the same placement for several weeks; hence, it was worth the effort. Another explanation could be the relationship to the supervisor: medical students switched supervisors regularly, while nursing students usually had the same supervisor throughout the placement. Accordingly, as described in the second theme, the medical and nursing students related differently to their supervisors. However, it is unlikely that these structural and organizational differences would explain all the differences shown in this study. As seen in the third theme, the students held different focus in their learning, something that might be a result of interactions with the role models, nurses and medical doctors who served as their supervisors. As the sociocultural perspective on learning emphasises, interactions between individuals are crucial for learning (Säljö 2000). Moreover, workplace learning broadens the perspective to include all interactions with the social world (Billett 2002). Hence, workplace learning does not only include knowledge, skills and attitudes for students' future professions, but also the norms, values and practices that are present in the workplace (Billett 2002). Becoming part of the community of practice in a workplace involves learning these norms, values and practices and is, arguably, what students *really* learn. Our interpretation of the findings is that the two sets of students exist in different systems, with various organisational goals and cultures. Hence, the students will learn the norms, values and practices present in their respective culture, not only regarding their future professional role but also around learning and being a student in the clinical setting. When the socialisation and identity formation process are discussed in the literature (Helmich and Dornan 2012; Johnson et al. 2012), emphasis is often placed on the transition into the future role. The findings from this study show that the cultures enacted within the respective profession also contribute to a socialisation into the student role, and hence into the role as learners. This means that students will learn how they are supposed to learn if they are going to be a medical doctor or nurse. As Bleakley et al. (2011) argue, identity is in other words a product of the educational programme.

What consequences can these differences have for the students? The expectations students held on clinical placements seemed to make the medical students adaptive and flexible as they adjusted to the situations in which they found themselves, while the nursing students became independent and goal-directed due to their high expectations. These

developed strategies or competences are of course needed in order to cope with the demands of their future working environment. They are often not explicitly part of any curriculum, even if they are crucial for students entering a profession. By making these competencies visible, supervisors and managers can facilitate and support students in these issues, rather than forcing the students to learn the hard way. In the same way as surgeons must slow down when facing difficulties (Moulton et al. 2007), students and supervisors may need help to slow down in order to see how the development of these competencies works. The contribution of this study is that by turning attention toward these aspects of learning of which students and supervisors might be unaware, a deeper understanding of the clinical learning environment is possible.

In this study, the supervisor's role seemed to emphasise different things: medical students viewed their supervisor as an expert and gatekeeper to participation; conversely, nursing students viewed their supervisor as essential for becoming part of the working group, but also as a potential hindrance to independence. In previous research, the importance of participation has been mainly raised by medical students (Boor et al. 2008) where nursing students instead have emphasised belongingness as important for learning (Levett-Jones and Lathlean 2008). Why do students, both in this study and in the literature, emphasise different things? This study has demonstrated that the enculturation of students—i.e. the norms, values and practices learned—makes them appreciate different aspects of the environment, which also might have consequences for interprofessional collaboration and communication. Interestingly, residents' perception of involvement in interprofessional conflicts is associated with self-reported medical errors (Baldwin and Daugherty 2008). Higher demands on collaborative and communication skills have stimulated the development of interprofessional education activities, but their effectiveness regarding patient outcomes have been difficult to demonstrate (Reeves et al. 2008). As students' approaches to learning in the clinical setting differ, so might their approach to collaboration with other health care professionals (Hall 2005). This needs to be taken into consideration when designing interprofessional learning activities.

Methodological considerations

This was a small-scale study; hence, the findings cannot be viewed as representative for all medical and nursing students, which was never the intention of the study. The students volunteered to participate as they all viewed clinical education as an important area for improvement. However, the interviews covered both positive and negative aspects of clinical placements. As the two interviewers (ML and CFP) were both students themselves, the potential power-imbalance during interviews was minimalized. Rather than collecting a large amount of data, the research group engaged in a thorough analysis of the data, which resulted in a rich description of the phenomena (Kvale and Brinkmann 2009). Reflexivity was present during the entire research process, as the study was continually discussed with peers and supervisors. The findings have been discussed with educational developers, clinical teachers and clinical leaders who, by agreeing on the findings' credibility, contributed to the dependability of the analysis (Graneheim and Lundman 2004). As health care systems, undergraduate programmes, professional boundaries and cultures differ between countries and continents, the findings may be difficult to transfer in an international perspective. The in-depth description of context, analysis process, research group and relating the findings to theory and existing literature may help the readers to transfer the findings to their context. When contrasting medical and nursing students' experiences of the clinical learning environment, there might be a risk that differences are

overemphasized. However, highlighting these differences can make aspects visible that would not have been seen in a single-profession study. In addition, contrasting students' approaches makes the findings easy to communicate, enabling the reader to recognise patterns from his or her own context, something that enhances the usefulness and applicability of the study (Larsson 2009).

Implications for research

Most research in health sciences education concerns a single profession. By including more than one profession, contrasting and comparison is possible, something that enriched the findings in this study. When evaluating and developing clinical learning environments, one can benefit from taking a system approach, including all students in that specific environment, with the consideration that students might experience and approach the same environment differently. For further research, future studies could take a system approach and/or multiprofessional perspective. Moreover, other sources of data, such as the supervisor perspective and observational data, would contribute to a deeper understanding of this phenomenon.

Conclusion

The findings in this study can increase the understanding of how medical and nursing students learn in the clinical setting. Contrasting medical and nursing students' experiences of the clinical learning environment highlighted differences in learning, but also in the enculturation of the two professions. The nursing students had high expectations of their clinical placement, while the medical students accepted the placement as it was. The nursing students tried to extricate themselves from the supervisor, while the medical students searched for someone to supervise them. The nursing students held the patient in focus of their learning, while the medical students held the doctor in focus of their learning. The clinical learning environment contributes to the socialisation process of students into their future profession but also into their role as students. The findings in this study argue for reflection of what students *really* learn. In addition, the differences shown in this study should be taken under consideration when designing interprofessional learning activities.

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