One site fits all?

Abstract:

Interprofessional training wards (IPTW), aiming to enhance interprofessional collaboration, have been implemented in medical education and evaluated over the last decade. The Faculty of Health Sciences, Linköping University has, in collaboration with the local health provider, arranged such training wards since 1996, involving students from the medical, nursing, physiotherapy, and occupational therapy programs. Working together across professional boundaries is seen as a necessity in the future to achieve sustainable and safe health-care. Therefore educators need to arrange learning contexts which enhance students´ interprofessional learning. This paper shows aspects of how the arrangement of an IPTW can influence the students' collaboration and learning. Data from open ended questions from a questionnaire survey, during autumn term 2010 and spring term 2011 at an IPTW, was analyzed qualitatively using a theoretical framework of practice theory. The theoretical lens gave a picture of how architectures of the IPTW create a clash between the 'expected' professional responsibilities and the 'unexpected' responsibilities of caring work. Also revealed was how the proximity between students opens up contexts for negotiations and boundary work. The value of using a theoretical framework of professional learning in practice within the frames of health care education is discussed.

INTRODUCTION

Ageing populations, limited financial resources, lack of trained health-care personnel, and more advanced and developed technical and medical possibilities have been put forward as global trends that call for change in the system of health-care practice and professional education in the sector (Batalden & Davidoff, 2007; Howarth, Holland, & Grant, 2006; Kitto et al., 2011; WHO, 2010; Wilcock, Janes, & Chambers, 2009). Working together across professional boundaries rather than working in parallel has been highlighted as necessity to achieve sustainable and safe health-care in response to the changing demographic and economic conditions affecting health services. Genuine collaboration is seen as a way to expand the knowledge basis for the actions of health professionals (Wackerhausen, 2009). Against this backdrop, the current training of health professionals has been criticized for insufficient preparation of students for inter-professional communication and collaboration (Frenk et al., 2010). It has been argued that development of interprofessional competences should be introduced early in undergraduate education as a necessary step in preparing health-care personnel for collaborative practice (Oandasan, 2009; Wahlström, Sandén, & Hammar, 1997; WHO, 2010). To enhance collaboration, interprofessional training wards (IPTW) have been implemented in health-care and medical education over the last decade. An IPTW is a functioning hospital inpatient ward where students from different health professionals work together, with the support of supervisors, in managing the full responsibility for the medical treatment and rehabilitation of the patients. Previous studies have convincingly shown that students find the collaboration at an IPTW to be a meaningful learning activity (Fallsberg & Hammar, 2000; Hylin, Nyholm, Mattiasson, & Ponzer, 2007; Pelling, Kalén, Hammar, & Wahlström, 2011; Reeves et al., 2002). However, a recurring finding across several research studies is, however, that many students have an unclear and ambiguous understanding about the purpose of the IPTW (Fallsberg & Hammar, 2000; Reeves et al., 2002). The lack of

understanding might cause lower motivation and total perceptions of the training period. The studies cited above indicate that this kind of arrangement like IPTW does not suit all students in the same way. Previous research is based mostly on quantitative measures of students' experiences and attitudes and does not provide sufficient theorizations as to how these differences could be explained. There are few studies of interprofessional education and learning that take the starting point from a designated theoretical perspective on professional practice and learning. Former studies regarding medical education have focused more on the individual learning process and have used adult learning theories (Bleakley, 2006). As Bleakley (2006) critically mentions, medical education occurs in a complex, dynamic and unstable system where the learner has to be viewed as only one aspect of the complex system and as one member in a team. Bleakley hence argues that in researching professional practice and learning, there is a need to use theories which can also explore the collaborative context. There are contextual considerations and challenges in understanding professional practice. Practice theory holds that context has to be thought of as a part of practice (Green, 2009), rather than as a separate container in which practice unfolds.

The first aim of this paper is to assess how the students' experiences of collaboration and learning in an IPTW can be understood through the theoretical lens of practice theory. This enabled to a second aim: to gain a better understanding of IPTW learning and practice.

Theoretical Perspectives

A practice theory perspective re-directs our focus from the cognitive aspects of experiences and attitudes to the social and material aspects of practice itself. Practice theory is not a unified concept, but rather a family of theories (Reckwitz, 2002). In this study, the authors draw on Schatzki (2002), and Kemmis (2009) who define practices as embodied, materially

mediated arrays of human activity, centrally organized around shared understandings. Kemmis (2009) argues that professional practice is embodied and situated, referring to what a particular person does in particular time and place as a meaningful activity – in the case of this paper, the practice of health care on the IPTW. Practice is constituted in (i) how people act and interact in physical and material space ('doings'); (ii) in words and discourses ('sayings') where different professionals think different about what the practice is and means; and (iii) in relationships between people ('relatings'). The concept of practice architectures refers to wider arrangements or 'set-ups' that prefigure interaction between what people do and say and how people relate to each other (Hopwood, Fowler, Lee, Rossiter, & Bigsby, 2013). Prefiguring refers to how practice architectures enable, constrain and shape practices by making certain doings, sayings and relatings more or less intelligible, likely, easy, sensible, or practical. More specifically, the 'doings', 'sayings', and 'relatings' that compose a given practice are organized (hang together) by practical understandings (certain abilities in order to perform a specific action, bodily know-how) and general understandings (common orientation among people or groups) (Schatzki, 2002). Here, practical understanding would refer to specific professional skills of the members of the interprofessional team, and general understanding would refer to their specific knowledge about the traditions and history of their specific profession and the anticipated professional role. Conceptualizing the IPTW as a site for professional practice and learning, and using practice theory offers an analytical tool to identify how 'doings,' 'sayings', and 'relatings' come together and how practice architectures of the ward influence students' learning.

BACKGROUND

The settings for this study are three Interprofessional training wards (IPTW) at the Faculty of Health Sciences (FHS), Linköping University, Sweden, where students from the medicine,

nursing, physiotherapy, and occupational therapy programs collaborate in teams for two weeks at the end of their degrees. A short placement one an IPTW is mandatory for all students on these programs. FHS was the first university in the world to launch an IPTW in 1996 (Wahlström et al., 1997), following this with a second in 2001, and a third in 2006. These are fully functional inpatient wards providing orthopedic and geriatric care to real patients.

The purpose of IPTWs is to create a learning environment for students to practice collaboration and thereby develop a greater understanding of their respective professional competences and the interprofessional competences in the team. Prior to starting the training period at the IPTW, students participate in several weeks of practical training experiences in a range of hospital, primary care, or community care settings. Students are randomly allocated to one of the three wards. At the IPTW, all students are responsible for all aspects of care such as making beds, and helping patients with personal hygiene, as well as for their own professional tasks during the day. Students are grouped into mixed teams with five to eight members, covering daytime and evening shifts. The number of occupational therapy and physiotherapy students is lower than that number from the other programs; these students cover rehabilitation issues across the teams for all patients in the ward.

Students are supported by supervisors including one or two full-time nurses (who are stationed exclusively at the ward), a physiotherapist (part time), occupational therapist, and medical doctor. The daily round is held by the students, where they discuss and plan their work. At the end of each shift the students reflect upon their teamwork and practical details with one of the supervisors. After the IPTW experience ends, a seminar is held in which each team discusses and shares experiences regarding ethical, medical, and caring issues.

STUDY DESIGN

The study used a survey design based in a single institution (see Punch, 1998), comprising quantitative and qualitative aspects (discussed below). This paper focuses on the analysis of qualitative data open-ended responses. This followed the approach described by Srivastava and Hopwood (2009), combining thematic inductive elements, with a theoretically driven analysis drawing on practice theory (Kemmis, 2009; Schatzki, 2002).

Data collection

A questionnaire was developed from the standard student evaluation form which has been routinely used for many years at FHS. Face validity of the first version of the questionnaire was tested by discussing the issues and questions with teachers, supervisors and seven students after their two weeks at the IPTW. Some minor changes were made to the content and focus of a limited number of items in order to more closely align the tool with the research aims. The questionnaire is consisting of questions from three domains: (i) conditions for learning, and opportunities for supervision and collaboration with other students; (ii) professional development; and (iii) students´ general experience and valuing of the IPTW. The questionnaire comprised 26 questions based on a 6-point Likert scale, and 12 open-ended questions. Students' responses to the open-ended questions varied from single words to full sentences.

During the concluding seminars in Autumn term 2010 and Spring term 2011, all participating students from the medicine, nursing, physiotherapy, and occupational therapy programs, were asked to complete a survey of their experiences on the IPTW. In total, 454 (93%) of the 488 students who had worked on the IPTWs in these periods participated in the final seminar and all of them agreed to participate, remaining in the seminar room to answer the questionnaire. Demographic data is summarized in Table 1.

---------- Insert Table 1 here----------

Most of the 454 students wrote down comments in all 12 open ended questions. The data were analyzed both quantitatively and qualitatively. In this paper, our main focus will be on the qualitative analysis of responses to the 12 open-ended questions (Table 2), as it is these data that provide the richest basis for a practice-theory informed analysis.

----------Insert Table 2 here----------

Data analysis

Responses to the 12 open-ended questions were analyzed in an iterative process following Srivastava & Hopwood (2009). The analysis was carried out in three steps. As a first step, in the inductive analysis, the open-ended answers from each student group were read by the first author (ALF) several times to ensure familiarization with the data. The next step was to identify different references to practical situations and activities during the training period, mentioned by the students as critical for their professional and interprofessional learning and collaboration. This enabled a focus in subsequent analysis on the most meaningful and significant aspects of the IPTW experience. These were categorized into three different themes. Finally, these three themes were subjected to a theoretical analysis, which focused specifically on practical and general understandings, and practice architectures as described above. Trustworthiness in analysis was ensured by: (i) keeping detailed procedural and reflective records at each stage, (ii) ongoing involvement of the fifth author (MAD) who questioned themes emerging from the inductive process, checking them against raw data and working with the first author to modify and refine them; and (iii) a theoretical validation by the third author (NH), ensuring consistent and valid application of practice theory concepts in the analysis of data.

Ethics

The voluntary nature of participation was mentioned in the verbal request and information letter that was given out with the questionnaire. Students were told that their decision to participate or not would have no bearing on any educational assessments or any other standing in the University or in health services. Students put their completed questionnaire in an envelope for further handover to an external unit for data entry into Excel and SPSS. Therefore when data were analyzed it was impossible to identify individual students. This study received approval from the Regional Research and Ethics Committee in Linköping (2010/152-31).

FINDINGS

The themes generated from the inductive analysis were: (i) enactments of 'expected' professional responsibilities (ii) dealing with the 'unexpected' - conflicting understandings in enactments of caring work, and (iii) proximity creating opportunities for negotiations and boundary work.

Enactments of 'expected' professional responsibilities

Many of the students at the IPTW engaged in varied activities during the training period, which they viewed as expected professional responsibilities. One example is how the rounds were organized at the ward. The students described the rounds as a round-table discussion within the student team, in a designated room, mostly led by a medical student, with a supervisor (often a nurse) present. This organisation can be understood as practice architecture, established through shared general understandings of ward rounds and professional roles. It was significant in creating opportunities for enactment of confident leadership, particularly for medical students. The medical students described in the open-

ended answer how they interacted with the other team members. From a practice theory perspective the interaction can be described as ‘doings’ (such as arrangements of bodies around the table) and ‘sayings’ based on their specifically medical expertise (practical understandings), thus contributing to understanding and planning the treatment and care of patients. For the nursing students, the descriptions of the enactments of organization and administrative planning of the daily work at the ward stood out as an important and ‘expected’ professional responsibility. This was identified as an important aspect in their learning. One nursing student mentioned:

> “This is one of the areas I think I have developed the most. You can practice a lot. As a nurse you really are the spider in the web” (nursing student, 245).

The logistical planning of general and common caring tasks shared by all students in relation to allocation of time to enable particular treatments provided by a specific profession required ‘relatings’ to the other team members and awareness of their different competences. The relative numbers of students from each profession produced a practice architecture that enabled occupational therapy and physiotherapy students to enact the ‘expected’ professional responsibility of being the one representative of a particular area of competence. The team interaction required occupational therapy and physiotherapy students to express their opinion in different patient situations in both ‘sayings’ and ‘doings’. This was pedagogically powerful. Mostly of the occupational therapy students and physiotherapy students mentioned that being the only student from these professions in the team had forced them to believe in their respectively own professional knowledge.

Dealing with the ‘unexpected’ - conflicting understandings in enactments of caring work

A number of ‘unexpected’ situations which created conflicting understandings were identified. These focused on two different aspects. First, occasions when all students were required to be directly involved in patient care, as in morning routines, produced an architecture requiring collective ‘doings’ that conflicted with some students’ general understandings of professional practice, and what constitutes valuable learning in relation to that practice. The ‘unexpected’ overall responsibility for and allocation of time to this activity clashed with prior preparation for and ideas about appropriate enactment of profession specific work.

> “Sometimes I had to help a patient out of bed when I instead could have had the time to research the patient´s medical history” (medical student, 38).

> “It is difficult to manage the occupational therapy assessments and interventions, especially in the morning when it is a lot of work with the basic care of the patients” (occupational therapy student, 15).

These conflicts concerned the clash between the practical understanding of the professional responsibility, characteristic of a specific profession, and the general understanding of the tasks and roles at the IPTW.

Second, the practice architecture of the ward requires all students to be present all the time during the day. This is an authentic feature of practice to the nursing students, who share practical and general understandings of nursing as being consistently located in a single ward, “the spider in the web”. For the medical students, the same feature of the practice was not in harmony with their practical understanding of the ‘doings’ and tasks of a physician, and the general understanding of physicians being mobile and connecting to several communities in different locations in the hospital during the day. This conflict was reinforced by the fact that the physician supervisor was available only for the medical students’ in some parts of the day.

"my supervisor has just been present long enough to give advice and support on specific issues" (medical student, 38).

Proximity creating opportunities for negotiations and boundary work

The third theme focuses on proximity between the students, showing that the practice architecture of the ward prefigured and enabled collaborative practice. All students shared responsibility for caring for patients' needs, regardless of which professional program they were studying. The proximity of the students from different professions in the enactment of care required negotiations and decision-making about specific case. This produced valuable opportunities to learn from and about other professions, as well as enriching the learning relating to specific patient cases. One nursing student reflected that

"All students have been present in a different way than it used to be. There is time for discussions, a great collaboration in the group and all students have been so helpful" (occupational therapy student, 199).

A medical student mentioned the importance of working together:

"Better understanding about others competences and how to work together for using this competence. It shows the importance of collaboration!" (medical student, 42)

These negotiations and decision-makings concerned specific professional activities, 'doings', as well as a common set of values for professional health care work, which can be interpreted as general understandings shared across professions, creating practice architectures that are similarly interprofessional. In the common work together with the patient, these values are enacted. One occupational therapy student wrote:

"I think it is good that we not only have to do our profession-specific tasks as this leads to a feeling of trust and that we must collaborate to get all things done" (occupational therapy student, 3).

DISCUSSION

This qualitative analysis adds novel and valuable insights into interprofessional training and learning in practice, through the use of a practice theory perspective. The architectures of the IPTW prefigure practices where different professional responsibilities get enacted in ways that are reproducing 'expected', taken-for-granted roles in a traditional health care practice. But it also shows that the arrangements produce 'unexpected' responsibilities, practices that disrupt practical and general understandings of professional responsibilities and the nature of professional work. The medical students seemed to have a different picture of the role as a physician compared to what they actually were doing in practice at the IPTW. Kemmis (2009) mentions that professional practice is more than just doing, but is also what people say the practice is and what they say about what they do. At the IPTW practices are prefigured as a site for interprofessional collaboration and if the expectation focuses on the professional perspective this may create a clash between the expectations and what really happens at the IPTW. Alternatively, the differences in perceptions might relate to how the presence of the supervisors varied between the student groups; from a stationary nurse who also functions as a supervisor for all the students to more mobile supervisors who meet the students only a few hours a day/week. The practice architectures at the IPTW meant that especially the medical students feel hampered in enacting expected profession-specific tasks because in some way they need help to manage all medical issues. Meeting the supervisor regularly seems to be an important factor to even if the students are expected to work with a high degree of independence.

The conflict between the 'expected' and 'unexpected' responsibilities seems to reflect different practical and general understandings about the professional roles and the aims of the IPTW. These may reduce motivation and engagement in the IPTW. The lack of motivation as a factor influencing the total experience of the IPTW negatively has been discussed in earlier studies of IPTW (Hylin et al., 2007).

The current paper highlights the importance of managing expectations about professional and interprofessional roles on the IPTW, and their potential value in terms of students' learning. The findings also resonates with previous training ward studies (Reeves et al., 2002; Reeves et al., 2008).

In the title of this paper, we ask whether "one site fits all?", which is an argument that sometimes is put forward implying that the IPTW fits the medical students less well, and impacts negatively on their development of professional knowledge. In our data, students from all programs mentioned challenges in dealing with caring work in parallel with their professional work and the opportunity for interprofessional team work. Hammick (2009) has defined being interprofessional as being open to learn with other people and to improve the ways of working. Improved collaboration with colleagues becomes the result of learning. Our analysis highlights the importance of proximity between students that is prefigured by the IPTW, and the need to create an open climate for ongoing interprofessional discussions and reflections about the daily work. Also significant are the practice architectures that create different places where students can meet, discuss and make decisions during their working days at the ward.

In Schatzki's (2002) view, IPTWs would be understood as sites where different ways of making practice intelligible can be discerned. In studies of interprofessional collaboration from a view of practice as culturally and historically situated activities, Edwards, Daniels, Gallagher, Leadbetter, & Warmington, (2009) have described places like these as "boundary zones" where social practices open for negotiation. Boundary zones are important places for learning and the work that occurs there gives shape to the collaboration that occurs. Boundary zones are not neutral places; rather, they are sites of struggle where different systems and motives they carry have to be confronted. It is also important to identify the possibilities for action that boundary zones enable. Students at the IPTW can work with the task of clarifying

how their respective professional role and practical understandings of care contribute to the team and ultimately to the welfare of the patient. Akkerman and Bakker (2011) define boundary crossing as a person´s transitions and interactions between different zones and boundary objects as artifacts that cross over and fulfill a bridging function. Medical records are an example of such an artifact that functions as boundary object, since different professionals interact through these. In this study, caring work formed a complex example of boundary crossing. The students cross over their usual professional responsibilities when working with the basic needs of the patient. All students have to negotiate the 'doings' for the patient and make decisions that are crucial to the overall quality of care, treatment and rehabilitation irrespective of their future profession. As Wackerhausen (2009) mentions, interprofessional collaboration is, and will be increasingly, important for the well-being of the patient. These 'doings' also have pedagogic potential in enriching students' general understandings of health care practice. The sharing activities in the caring work seemed to be an opportunity to practice common ethical values for the students. In order to break down boundaries formally, an important role for supervisors is to facilitate the students to focus on the needs of the patients instead of focusing on the specific professional roles. All decisions regarding patient care have to be decided mutually by the student team. This study shows that the practice architectures of the IPTW and proximity between students also produce informal boundary zones. Negotiating discussions also occurs in the corridor at the ward and in more informal meetings during the day, and is enacted in all activities together with the patient.

Methodological considerations

This qualitative analysis highlights a differentiated picture of what occurs on the IPTW as a learning environment. Using practice theory as a lens for analyzing how the different aspects of professional practices are enacted in an IPTW helped to articulate and reflect upon how

practice architectures influence students' learning. Research with participant observation at IPTWs could give further understandings about how an IPTW can be arranged in ways that enable students´ learning and facilitate interprofessional collaboration in the future.

Conclusion

Practice architectures enable and constrain 'doings', 'sayings', and 'relatings', and the way these are organized or hang together (Kemmis, 2009). A practice theory approach highlights the ways in which an IPTW allows development of collaborative practice. Viewing professional education as a practice instead of an education preparing for practice, can help view the importance of the arrangement of professional learning (Abrandt Dahlgren, Dahlberg & Dahlgren, 2012; Kemmis, 2009). The collision between the 'expected' professional responsibilities and the 'unexpected' responsibilities of caring work present a challenge for educators in the design of education from a traditional perspective of health care and simultaneously wanting the students to think and act in some aspects "not traditionally". The proximity between the students seemed to break down the professional silos and strengthened the relationships between the student groups in collaboration with the patient. Kemmis (2009) suggests to look beyond the individual practitioner´s professional view and instead see how 'doings', 'sayings', and 'relatings' come together. To view all these dimensions simultaneously is necessary for accomplishing sustainable changes and establishing a learning environment where students are continually learning how to work and learn together.

Implications

Educators have to ensure that the interprofessional agenda is deeply embedded in the curricula with clearly stated learning objectives. This study suggests valuable learning arises through enactment of expected professional roles, and through the proximity of students from different professions that the IPTW offers. However managing expectations about performance of

duties that lies outside what students expect may help realize the potential for learning associated with sharing roles across professions, as in providing direct care for patients. The importance architectures that provide both formal and informal opportunities for boundary crossing and boundary work are also highlighted. A period of practice at an IPTW can enable students to learn from, with and about each other, benefitting from practice architectures that facilitate development of share practical and general understandings of specific patient cases, and health care more widely.

Declaration of Interest

The authors report no conflicts of interest.

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