ORIGINAL PRACTICE DEVELOPMENT AND RESEARCH

Practitioner research to promote practice development: the continued development by means of practitioner research of a multidisciplinary learning environment within neurorehabilitation care for older persons

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Abstract

Background: Continuous innovation is required to help clinical practice adapt to healthcare demand and there is a pressing need for sufficient numbers of professionals trained to work in this ever-changing context. New environments for learning are needed to enhance the development of these skills for existing and future care professionals. This article gives an account of how practitioner research was used to further develop a multidisciplinary learning environment for students of the Institute of Health Studies and the Institute of Nursing Studies of HAN University of Applied Sciences in a department specialising in neurorehabilitation for older persons from ZZG Herstelhotel, a public hospital offering long-term residential care in the Netherlands.

Aim: The aim of the study was to pursue the development of the learning environment by exploring stakeholders' visions of their ideal multidisciplinary learning environment.

Method: Practitioner research was chosen as a methodology as it deliberately seeks to generate local knowledge and theories through exploring different perspectives, and to encourage learning and reflection. A research group was formed consisting of the first author and three practice supervisors. A mixed-methods approach was used by the research group. First, a selection of relevant publications was reviewed by the group. This was followed by learning sessions in which students, supervisors and managers were invited to dream and design on the basis of their own experiences, thereby linking up with the constructionist-based change approach of Appreciative Inquiry.

Results: A collective view of the characteristics of a workbased learning environment was developed by students, supervisors and managers. These characteristics were placed in one of four ideal perspectives: the core professional competencies to be acquired; the resources available; the learning culture; and the supervision. Not all students valued multidisciplinary learning, preferring monodisciplinary approaches.

Conclusion: The study has resulted in a group of stakeholders being able to set out a number of characteristics of their ideal learning environment from the four perspectives. In doing so, an important condition for organisational learning was created: making the tacit knowledge of professionals explicit.

Implications for practice:
- We recommend the development and explication of a shared vision regarding the ideal knowledge and skills when introducing new approaches to learning in practice
- Educational perspectives (individual learning and curriculum development) and organisational

perspectives (professional development and organisational learning) should be brought together to develop new learning models and methods in a practice context
- Practitioner research can contribute to practice development by making tacit knowledge explicit
- In practitioner research, participation is the defining principle throughout the process. This sometimes necessitates pragmatic choices in dialogue with stakeholders to maximise their participation at all stages of the research process
- Patient-centred healthcare is important, so patients should be involved as stakeholders in the development of new learning approaches in a practice context

Keywords: Allied health professions, nursing, interdisciplinary studies, workbased learning, practitioner research, practice development

Introduction

Political, cultural, technological and social developments and trends lead to continuous change in healthcare and clinical practice. This influences both the quality and quantity of the care demanded and requires different concepts of care (Steinert, 2014). In particular, ageing populations and the complex health issues in older persons increasingly require professionals to offer patient-centred care in multi- or interdisciplinary teams (Terheggen, 2013; Verkenningscommissie HGZO, 2013).

In 2013, the Institute of Health Studies and the Institute of Nursing Studies of HAN University of Applied Sciences (henceforth referred to as the Institutes) and ZZG Zorggroep, a healthcare organisation delivering district nursing and rehabilitation, agreed on the development of a new learning environment to enhance higher professional education and continued professional development in neurorehabilitation for older persons. ZZG Zorggroep recently opened a department for neurorehabilitation of older persons at the ZZG Herstelhotel. All professions agreed on the importance of multidisciplinary learning and working in this context, and on the need to develop such an environment for learning in a practice context.

The development of the learning environment was regarded as an educational intervention, defined as an activity by which learning processes are knowingly organised to change a situation in the desired direction (adapted from Bolhuis, 2002). Onstenk (1997) and Borkus and Hekkert (2005) argue that the workplace can function as a powerful learning environment for workbased learning if the environment is realistic, development oriented and beneficial for the organisation, and supervision is directed towards gradually letting go. Workbased learning refers to learning through daily work in a work setting (Timmermans, 2012) and concerns individual, collective, and organisational learning processes in specific contexts resulting in integrated knowledge, skills, and attitudes. This kind of learning generally relates to complex, context-bound aspects of work (Streumer, 2010). A key question was how to turn (part of) the workplace into an effective environment for workbased learning. There were four design principles leading the initial development of the learning environment (see Table 1).

Table 1: Design principles of the learning environment		
Principle	**Key characteristics**	**Key references**
Stimulation of self-directed learning and self-management	• Stimulation of question-based learning • Stimulation of self-management of learning processes • Room for autonomy, self-reliance and individual control • Staff capable of supporting learner-managed, reflective learning at an appropriate level	Viejou, 2011
Provision of essential experiences for experiential learning	• Sufficient opportunities for both monodisciplinary and multidisciplinary learning • Room for concrete experiences, reflective observation, abstract conceptualisation and active experimentation • Integration of theory and practice	Kolb, 1984 Van Boxtel et al., 2001 Viejou, 2011
Adequate scope for interactive and collective learning	• The development of full cooperative responsibility for all work processes	Havekes and Drenth, 2005 Borkus and Hekkert, 2005 Klingeman and de Lange, 2008
Staff functioning as role models	• A social context demonstrating how to behave to become a member of the community of practice • Staff functioning as role models in both performance of work and coaching of students	Chisholm et al., 2009 Onstenk, 2010 Viejou, 2011

The learning environment was defined as:

'An authentic working environment, in which student groups perform and are responsible for all working processes which are part of their profession with the objective of learning the profession. Learning and working are both multidisciplinary. Students are supernumerary and the employer is responsible for the quality of the work. Students and professionals attend lectures and workshops on multidisciplinary working in neurorehabilitation in the working environment. Research and innovation play an important role in both learning and working' (Lamers-Megens et al., 2013, p 7).

This definition mirrors the concept of a work-related learning arrangement, which is defined as:

'An "arranged" learning process initiated by a practice-driven assignment within an authentic work environment, in which a group of students is performing job tasks that are relevant for their future jobs, the group accepts the responsibility to perform the tasks adequately, the company is responsible for the quality of work assignments and the expert-novice support and the university is responsible for the quality of the training taking part at the workplace and the university' (Lappia, 2011, p 574).

Background education programme
From February to June 2013, the first group of students did their placement in the newly developed ZZG Herstelhotel. The students primarily functioned as a multidisciplinary team within the multidisciplinary stroke care team; the group comprised occupational therapists, physiotherapists, speech and language therapists and dietitians from the Institute of Health Studies and student nurses from the Institute of Nursing Studies. They were collectively overseen by four practice supervisors from ZZG Zorggroep and the Institutes, who facilitated the group and created a safe learning environment where the students could work on mutually negotiated objectives. Both the student team and individual students were also supervised by the multidisciplinary stroke care team. Finally, individual students were supervised

by vocational supervisors from ZZG Zorggroep and the Institutes. Together, the supervisors covered all aspects of individual and team learning.

The educational intervention was a new phenomenon for all those involved. Although the Institute of Nursing Studies already had experience with monodisciplinary learning environments, the multidisciplinary dimension created a new challenge, with the main difference being that the student group in the latter comprised not only student nurses but also occupational therapists, physiotherapists, speech and language therapists and dietitians from the Institute of Health Studies. Although the design was developed in consultation with different stakeholders, it had become clear during the pilot that neither students, supervisors nor managers had a clear vision of the new learning environment. Many questions remained unanswered and stakeholders frequently let it be known that they felt they had too little knowledge to go by. This was considered to carry a serious risk of interruption; one of the conclusions Grol and Wensing (2011) drew in their literature review of the elements of effective implementation was that the implementation of an innovation usually follows a natural order for the stakeholders and that a clear vision is needed before changes can come into effect. Clear guidelines were needed to facilitate the implementation process. It was felt necessary actively to stimulate individual and collective learning and reflection by encouraging all stakeholders to exchange their perceptions of learning and the learning environment.

The development of an educational intervention usually involves various cycles of designing, evaluating, and readjusting (van den Akker et al., 2006). To tailor the multidisciplinary learning environment as a concept to the context of ZZG Herstelhotel, a deeper understanding of the interpretations, experiences, needs, worries, possibilities and impossibilities, and wishes of the participants was needed. For the following academic year, in addition to insight into the strengths and weaknesses of the multidisciplinary environment in terms of workbased learning and supervision, it was necessary to stimulate the mutual engagement of the stakeholders. This was important in order to establish a joint enterprise and, over time, a shared 'repertoire' of routines, tacit rules of conduct and knowledge, linking up with the concept of a community of practice as characterised by Wenger (1998).

The first author, in her capacity as co-developer of the learning environment, saw practitioner research as a potentially powerful instrument for its further development and that of the neurorehabilitation department. In this type of research, practitioners take the role of researchers in order to better understand and improve their own professional context (Heiner, 1988; Cochran-Smith and Lytle, 2009; Maykus, 2010; van der Donk et al., 2014). Practitioner research seeks to explore a situation from different perspectives and generate local knowledge. It stimulates question-based learning and builds on participation and natural processes of knowledge exchange in the workplace to help the organisation remain dynamic. Practitioner research thus contributes to what is called the learning organisation (Senge, 1990). An important feature is the active involvement of stakeholders; research does not take place for practice, but with practice (Kwakman, 2003; Bolhuis, 2012; van der Donk et al., 2014). In this sense practitioner research can be seen as a form of participatory health research, aiming to 'maximise the participation of those whose life or work is the subject of the research in all stages of the research process' (International Collaboration for Participatory Health Research, 2013, p 6).

Practitioner research
In this study we use the following definition of practitioner research:

'Practitioner research in health and welfare consists of empirical studies conducted by staff in order to answer questions resulting from their practice. The research takes place as an interaction between the practitioner doing the research and his/her work environment. The primary goal of practitioner research is to improve one's own practice' (van der Donk et al., 2014).

Practitioner research has the following distinguishing characteristics (van der Donk et al., 2014):
- It is carried out by practitioners, who actively involve stakeholders in their research activities. Participation is the defining principle throughout the research process

- It is grounded in the reality of daily work at a specific place and time. The issue being researched is located in the social system that is likely to adopt changes that result from the research process
- It encourages learning and reflection, and aims to promote critical reflexivity
- It produces local knowledge and theories
- It follows specific validity criteria, such as outcome validity, process validity, democratic validity, catalytic validity and dialogic validity (Anderson and Herr, 1999)
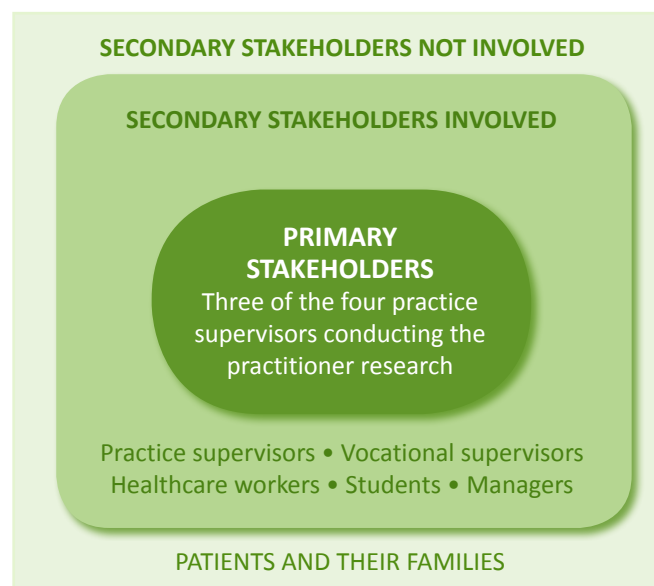
The aim of the study was to pursue the development of the learning environment by exploring stakeholders' visions of their ideal multidisciplinary learning environment. The assumption was that by using practitioner research, the continued development of the multidisciplinary learning environment as a community of practice would be promoted, matching the aspirations for learning and working in neurorehabilitation. The following research question was posed:

'How do students, supervisors and managers describe their ideal multidisciplinary learning environment?'

Methods

Practitioner research was used, with stakeholders involved in the research process through active participation. Small and Uttal (2005) make a distinction between primary stakeholders and secondary stakeholders. In this study students, supervisors, managers, and patients and their families were identified as stakeholders. A research group was formed, composed of the first author and three of the practice supervisors who supervised the student team collectively. These supervisors were considered to be key figures, because they had the task to facilitate the group and create a safe learning environment; they were considered to be the primary stakeholders and the other people likely to be affected by the research and its findings were considered to be the secondary stakeholders (see Figure 1). The research team decided that students, supervisors and managers would be involved in the research activities. The intention was to include patients and their families in the evaluation of the following academic year. The members of the research group had to fulfill a dual role: being researcher and being respondent (practice supervisor). They were both primary and secondary stakeholders. All data were collected in May and June 2013.

Figure 1: Primary and secondary stakeholders

SECONDARY STAKEHOLDERS NOT INVOLVED

SECONDARY STAKEHOLDERS INVOLVED

PRIMARY STAKEHOLDERS
Three of the four practice supervisors conducting the practitioner research

Practice supervisors • Vocational supervisors
Healthcare workers • Students • Managers

PATIENTS AND THEIR FAMILIES

The research group started with a review of literature selected by the first author, to identify themes involved in the development of an effective multidisciplinary learning environment. The selected publications were studied by individual members of the research group and views were shared in a group session. In a discussion led by the first author, the themes that emerged were discussed for their relevance to the context of the ZZG Herstelhotel. Subsequently, a set of four perspectives were mutually agreed and formulated, resulting in the development of a framework with which to structure the learning sessions with the students, practice supervisors, vocational supervisors and managers in answering the following question: What are, for you, the most important characteristics of an ideal multidisciplinary learning environment?

Next, learning sessions with critical reflection were organised, with the four practice supervisors supervising the student team, the vocational supervisors, the students, and managers. Each group organised its own session. One of the two managers provided input in writing. The objective of the sessions was to gain insight into the wishes of each stakeholder group regarding the learning environment. First, the research group chose to ask the secondary stakeholders to appreciatively dream and design an ideal learning environment, based on their own experiences. Appreciative Inquiry is a model for organisational change developed by Mohr and Watkins (2002). The model builds on a cycle comprising the following actions:
- Discover the best of what is
- Imagine what might be (i.e. dream)
- Dialogue what should be (i.e. design)
- Create what will be

Then the groups were offered a format to categorise their dreams. The format was developed by the research group on the basis of the literature review and the process of tailoring the findings to the context of ZZG Herstelhotel. Next, in the learning sessions the nominal group technique (van de Ven, and Delbecq, 1972) was used as an instructional format to organise the dialogue of what should be. This technique can be regarded as a form of brainstorming, in which all participants play an equal part. The technique was used to establish shared choices in the group. In short, this involved the following steps: individually answering the question, linking the answers of the group on a flipchart, explaining points of view in the group and finally individually selecting the most important characteristics with the help of six stickers. Each participant was allowed to divide the stickers over the characteristics, awarding a characteristic more than one if they wished. Finally, the groups were asked to end the sessions by a group reflection on the results, the implications of the results and the participatory approach.

The individual contributions, the flipchart sheets with the shared choices and the questionnaires of all groups were collected. The results of all sessions were studied and then the research group asked the student group by email for clarification of a number of answers.

A group inventory session was held with the healthcare workers who also functioned as supervisors to reflect on the learning of the students. They were invited to share their observations by answering four questions about how the students learned to perform their monodisciplinary and multidisciplinary tasks. Their responses were presented in the department with opportunities for other team members to respond further.

The results of the sessions were studied and analysed by the research group by means of a content analysis and subsequently classed under the four perspectives initially formulated by the research group. The results of the group inventory were also studied and summarised.

Results
Content analysis of the publications by the members of the research group resulted in nine major themes. The themes were discussed and tailored to the context of the ZZG Herstelhotel. In doing so the following framework was developed consisting of four perspectives with which to structure the sessions with the secondary stakeholders:

- The ideal picture of the professional core competencies
- The ideal picture of the resources available
- The ideal learning culture
- The ideal supervision

Individual contributions to the sessions were received from all four practice supervisors of the student team, all nine vocational supervisors and eight out of 14 students (three nurses, two occupational therapists, two physiotherapists and one dietitian). All groups handed in the flipchart sheets with the shared choices and the questionnaire comprising the collective reflection. One of two managers answered the questions individually and wrote a reflection. Five out of eight students answered the request for clarification sent by email. The attributes yielded by the sessions are set out in Table 2.

Table 2: The four learning perspectives	
Perspective	**Attributes**
The ideal picture of professional core competencies	• There are sufficient opportunities offered to learn monodisciplinary competencies at a higher vocational level • There are sufficient opportunities offered to learn multidisciplinary competencies at a higher vocational level • One's own professional identity is the starting point for multidisciplinary learning • Students are able to specialise in neurorehabilitation • It is clearly communicated what is expected of the students as a team in each phase of the education programme *'We all agree. It is about the position of one's own monodisciplinary profession within a multidisciplinary team. Clear arrangements must be made. What is expected of all involved?'* (Group reflection, student team)

The ideal situation concerning resources	• Sufficient resources are available
	• The multidisciplinary learning environment complies with the following conditions:
	  – Differences in content and structure of educational programmes are bridged
	  – Clear arrangements are made about the way things are organised
	  – Demands of the Institutes and the workplace are well balanced
	  – Time is properly managed in the sessions and meetings
	  – A weekly clinical learning session is organised
	  – Everything is focused on rehabilitation
	
	'Regular meetings are planned and facilitated by management to evaluate the cooperation and the state of affairs of the multidisciplinary learning environment'
	(Vocational supervisor, nursing)

The ideal learning culture	• Students have enough opportunity to achieve their learning objectives. It was interesting to note that students interpreted their 'learning objectives' differently. For some they constituted the (often monodisciplinary) learning objectives and assignments set by the Institutes. For others the learning objectives were interpreted in a broader sense to constitute all the objectives, assignments and work activities at the workplace – monodisciplinary and multidisciplinary • Students are responsible for their own learning process • There are clear rules of communication and behaviour • All professionals set the right example *'For us this implies that we feel the need to debate about subject matter issues with each other'* (Group reflection, vocational supervisors)
The ideal supervision	• All supervisors are informed about the demands of the education programme • Sufficient time and room is reserved for supervision • Supervision supports the students' learning • Supervisors show enthusiasm for the multidisciplinary learning environment

Each group was asked to reflect on the results, on the implications of the results and on the participatory approach. The vocational supervisors noted that many stickers had been placed on the wish for sufficient time for supervision and an appropriate learning culture. The students noted that most stickers in their session were placed on the wish for adequate supervision and an appropriate learning culture. Most groups indicated they appreciated the exchange of ideas, interpretations and ideals. The students explicitly mentioned valuing the fact that the group had to prioritise as a collective.

The healthcare workers' group inventory showed that the students had learned to execute coordinating tasks in basic care and to attune the care to other disciplines. Students making their own rules of conduct and identifying which learning tasks they were working on contributed to their learning. Impediments to learning were identified as confusion about who was in control during the physician's visits and the multidisciplinary meetings, and in some cases the students' attitudes.

> *'They worked well for what was important for their placement, but they were not motivated for activities such as tidying up'* (Healthcare worker).

Discussion
The aim of this study was first to develop a clear and mutually shared vision of the ideal multidisciplinary learning environment for workbased learning. Another aim of the study was the active involvement of stakeholders in the further development of the learning environment. We sought to achieve both aims by stimulating stakeholders in individual and collective learning and critical reflection.

To what extent was a clear and mutually shared vision of the learning environment developed?
The study resulted in a group of stakeholders being able to set out a number of characteristics of their ideal multidisciplinary learning environment. The results indicated that creating a learning culture where there are sufficient resources and enough time for reflection and supervision is highly beneficial for learning and working in practice. Also of major importance are a clear description and shared view of expectations of mono- and multidisciplinary learning and working in the care environment, with professionals setting the right example to enhance learning.

The knowledge and theories that were produced may be local but are believed to be evidence based. As Grol and Wensing (2011) concluded on the basis of their literature review, stakeholders need a clear vision of an innovation to be able to take the next step in implementing it.

Four quality dimensions
Lappia (2010) proposes four quality dimensions to help design, monitor and further develop a work-related learning arrangement, which can be related to the results found in this study. These are listed below.

Social relevance
The design has to be socially relevant: students had to acquire the right knowledge and skills according to experts. To achieve this external consistency, ZZG Herstelhotel and the Institutes have worked closely together, with managers actively involved in the development and research process. To ensure that the design concurred with the latest developments in care, a selection of relevant publications was studied. The study results showed that a clear description of the skills to be developed and role modelling were important factors. For further development, it would be interesting to study to what extent the new learning environment provides opportunities for patient-centred learning and work. Finally, learning and working in multi- or interdisciplinary teams is a means to an end.

Internal consistency
An internally consistent design using state-of-the art knowledge and insights is the second of the four quality dimensions. With regard to professional core competencies, the need for sufficient learning opportunities for students to become specialised in neurorehabilitation was frequently mentioned.

During the study, it also became clear that a different definition was used for multidisciplinary learning and working than is widely accepted in literature, where it usually refers to situations in which team members operate sequentially and independently (Watts and Jones, 2000; Tsakitzidis and van Royen, 2012). In this study, stakeholders explained multidisciplinary learning and working as the collaboration of an interdisciplinary or interprofessional team where, by consultation and shared responsibility, a joint approach is developed. Accordingly, respondents asked for clarity in the expectations of the student team at each phase of their development and the healthcare workers noted confusion – for example about who was in control during the physician's visits and the multidisciplinary meetings. Further, it would be interesting to study the internal consistency of the learning context – that is the congruence between learning opportunities, assignments, learning materials, supervision and assessment. Particular attention would have to be paid to congruence between the objectives of a work-related learning arrangement and the features of the work environment. Establishing learning around work is potentially limiting if the norms and values and rules of conduct of the workplace do not match the aspirations (Lester and Costley, 2010). Another research focus could be the interpretation of multi- and interdisciplinary learning and working, especially if we consider the conclusion Bolhuis (2002) drew on the basis of a literature review that 'the' multidisciplinary team does not exist; rather there is cooperation in changing relationships, depending on the current needs of the patient. Bolhuis writes: 'For the preparation of multiprofessional cooperation in education, it is important to consider the question of how people cooperate' (2002, p 13). This observation is supported by Tsakitzidis and van Royen (2012), who claim that it is patients and their needs that determine which disciplines will be included in the team.

Usefulness in the opinion of the stakeholders
The third quality dimension of a work-related learning arrangement is that the design has to be useful in the opinion of the stakeholders (Lappia, 2010). As Klingeman and de Lange concluded in their evaluative study of pilot learning environments in healthcare: 'A learning environment has little chance of succeeding if the performers are not involved in the decision making and design' (2008, p 40). Könings et al. (2005) argued that only in this way can more congruence be created between stakeholders' interpretations of the learning environment. A learning environment can be well designed and well implemented but the perceptions of it will determine the kind of learning activities and the quality of the learning outcomes. This study's results showed that a vision of ideal characteristics of a learning culture was shared by all groups. However, not all students identified the learning objectives for multidisciplinary learning as being part of their placement. Some felt that multidisciplinary activities interfered with what they interpreted as the aim of their placement: achieving the monodisciplinary learning objectives and making the assignments set by the Institutes. This implies a need for dialogue to communicate the value of multidisciplinary learning.

Effective in learning outcomes
The fourth quality dimension of the design is that students have to acquire the right knowledge and skills in an effective way (Lappia, 2010). The results here showed that specific attention was drawn to the desire for opportunities to acquire the professional core competencies at a higher vocational level. This was noted for mono- and multidisciplinary competencies. From this viewpoint it is interesting to consider what is meant by learning opportunities at a higher vocational level and how this level was defined and operationalised. A comparison of learning outcomes pre- and post-placement would give insight into the effectiveness of the learning environment. All groups mentioned the necessity of sufficient time and room for supervision. Research shows that feedback, assessment and reflection are important factors for success in workplace learning (Streumer, 2010).

To what extent were individual and collective stakeholder learning and reflection stimulated through participation in the study?
During the pilot, stakeholders had frequently reported that many questions remained unanswered and that they lacked a clear vision of the innovation. The participatory approach offered them an

opportunity for empowerment. The overview that was developed was derived from both theory and practice: the research group reviewed a number of relevant publications, identifying the perspectives for the framework for the stakeholders to classify their experiences. Room for individual reflection and dialogue was built into the research process and the ambition was to work towards the central premise of the concept of the learning organisation 'that everyone in an organisation, each at their own level, has expertise which benefits the organisation as a whole' (Health Council of the Netherlands, 2000, p 14). Professionals' tacit knowledge and expertise were transformed into explicit knowledge by socialisation, in line with the organisational knowledge-creation theory (Nonaka and Konno, 1998). Thereafter, externalisation (sharing and mutual engagement) can take place between individuals in a group and in combination of knowledge between groups. Finally, the newly developed knowledge can be internalised. These are steps to be taken in the further development of the learning environment.

Methodological considerations

Work-related learning arrangements comprise context-specific solutions (Lappia 2011). The multidisciplinary learning environment first had to be tailored to the specific context of ZZG Herstelhotel. Practitioner research was used to explore the visions of the stakeholders on their ideal learning environment. The issue being researched was located in the local social system likely to adopt the changes that result from the research process.

Participation was the defining principle throughout the research process. Primary stakeholders in the project carried out the research and actively involved secondary stakeholders. The starting point was that research activities would not disrupt daily practice; if necessary, pragmatic choices would be made to maximise the participation of the stakeholders in all stages of the research process (see Box 1).

> **Box 1: Choices made to maximise stakeholder participation**
>
> - The research group was offered a selection of relevant publications by the first author. Possible bias and the risk of missing perspectives did not outweigh the risk of not achieving the aim: a dialogue among the stakeholders on the basis of the insight gained from the review of publications to develop a format to structure the sessions of the secondary stakeholders
> - Flipcharts in the department were used to gather data from the healthcare workers. Due to the duty roster, sessions could not be organised in time so a group inventory was the best feasible option. However, the team members or workers did not make this decision, the research group did
> - Researchers had intended to seek any necessary clarification and validation of responses by means of semi-structured interviews with all groups. This appeared not to be feasible so email was used, which may have influenced the results

Other limitations of the study were:
- The ambition was to have representatives of all participating organisations in the research group, but the Institute of Nursing Studies could not provide a representative. This omission was compensated by a full representation of the Institute in the groups carrying out the sessions
- Although patient-centred care is thought to be a crucial element in healthcare, consultation with patients and their families was not included in the research. The stakeholders agreed on the assumption that, at this stage, patients and their families would still have experienced too little of the impact of the new learning environment
- The members of the research group had to fulfill a dual role: being researchers and being respondents (practice supervisors). This may have influenced the results

Implications for practice

Dewing et al. (2009) talk about practice development as a field of inquiry taking the form of a continuum; at the mid-point they position practice developers as practitioner-researchers or practice-evaluators engaging in rigorous individual or collective inquiry about the effectiveness of individual, workplace and organisational strategies. Professional practice develops through the interaction of the professional with the unique features of his or her own workplace. Tacit knowledge from daily practice is made explicit and available to others; this is also called practice-based evidence by some (Smeijsters, 2009; Gabbay and le May, 2011; Wright et al., 2013). Janes (2014) pleads for more documented success stories of practice development; we propose this study, which sought to understand learning in practice from the inside and has gone some way towards building practitioner-based research skills in the team (see Box 2). The challenge will now be to build in possibilities for stakeholder-led and participatory monitoring, and measuring of both the individual and collective learning.

Box 2: Key implications for practice

- Congruence and a shared view on multi- and interdisciplinary working and learning, including clarity regarding the right knowledge and skills, are key factors to enhance learning in a new learning environment. Therefore, we recommend the development and explication of a shared vision regarding the ideal knowledge and skills when implementing new approaches to learning in practice
- Educational perspectives (individual learning and curriculum development) and organisational perspectives (professional development and organisational learning) should be brought together to develop new learning models and methods in a practice context
- Practitioner research is a useful practice development approach to provide stakeholders with an opportunity to research, reflect on and change their everyday practice. Research activities increase the quality of the stages of experiential learning of care professionals to develop local and action-oriented knowledge. Practitioner research can therefore contribute to practice development by making tacit knowledge explicit
- In practitioner research, participation is the defining principle. This sometimes necessitates pragmatic choices in dialogue with stakeholders to maximise their participation at all stages of the research process
- Patient-centred care is thought to be a crucial element in healthcare. When multi- or interdisciplinary teams are learning to work in a patient-centred way, patients should be involved as stakeholders in the development of new learning approaches in a practice context

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