

ORIGINAL RESEARCH

Agents of innovation? Institutional conditions shaping nurse students' positions in practice development

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ABSTRACT

This study investigates how institutional conditions shape nurse students' possibility to contribute to the development of clinical practices by applying the results of their bachelor thesis. The empirical context is a novel educational organization of the final study year, where the bachelor thesis is integrated with clinical placement and includes a mandatory bachelor conference, where students discuss the results from their bachelor thesis with clinicians at their clinical placement for the purpose of enhance innovative ideas for practice development. Drawing on institutional ethnography, the research adopts a mixed-method design, where data were collected via field observations of the bachelor conferences, focus group interviews with students who had held the conference, and a comparative questionnaire with 56 nurse students participating in the intervention and 48 completing existing educational format. The analysis reveals that the conference serves as a pivotal space for professional dialogue with different patterns of reactions. Students reported feelings of professional recognition, but also expressed concern about presenting critical reflections on clinical practice. The relational dynamics—such as fear of exposing poor care or not having enough knowledge themselves—highlight the complexity of embedding innovation within real-world healthcare environments. The findings suggest that integrating bachelor thesis with clinical practice enhances students' innovation competencies and development of practice. However, the increased complexity calls for deliberate pedagogical strategies that support relational and communicative skills essential for sustainable practice development.

Key Words: Bachelor thesis, Innovation, Institutional ethnography, Nurse education, Nurse students, Practice development

1. INTRODUCTION

Constant changes in healthcare systems have made innovative competencies among healthcare professionals a necessity. This study explores the intersection between the development of innovative competencies among pre-registration nurse students and the clinical environments where these competencies are expected to be applied and enhance practice development.

1.1 Health care systems under transformation

Western healthcare systems are under pressure and transformation. The number of elderly individuals and people with chronic and multiple diseases is increasing, resulting in additional treatment options, hospitalization, hyper-specialization, etc. all strain resources in a time of limited workforce availability.^[1] This results in an urgent need for the development of innovative healthcare practices. However,

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introducing innovation into healthcare systems can be challenging due to differences in values and perceptions that characterize different stakeholders and working cultures,^[2] which is shaped by both explicit and tacit knowledge, where the latter can be difficult to integrate in an innovation process.^[3] In some cases, practice can be rigid and unable to look at itself in the face of criticism from students.^[3,4] This is supported by a systematic review investigating the relationship between knowledge sharing and innovation in organizations in general, where the main conclusion is that dialogue and networks are the main instruments to convert knowledge into innovation.^[5]

1.2 Pre-registration nursing education under transformation

Although innovative competencies are needed in healthcare organizations it can be a challenge that practice is evolving faster than education can respond.^[4] Nevertheless, the ability to innovate has increasingly become a fundamental component within pre-registration healthcare education and is now recognized as a key generic competence that should contribute to solving challenges within the healthcare system.^[6] Within nurse education, innovation and practice development are integrated learning objectives throughout the program.

Particular attention has been given to the innovative potential of the final assignment in nurse education - the bachelor thesis (BT), where nurse students explore a nursing-related issue relevant to clinical practice adopting academic methods.^[7] Research shows that the BTs within nurse education are geared towards innovation,^[8] and that since it is the most substantial academic task in pre-graduate nurse education it has great potential to contribute to practice development.^[9] A study found that conducting clinical data collection as part of the BT supplies students with important knowledge for providing evidence-based care and motivates them to initiate future clinical projects as nurses,^[10] and yet another study argues that students completing their BT as a research proposal have the potential to transfer their research skills to their nursing practice.^[11] While these studies focus on the students learning and the potential to contribute to development of clinical practice Roca and colleagues (2022) have investigated a teaching innovation project that combined the BT and practice, adopting a convergent parallel mixed-method design. At the request of a hospital institution, 15 final-years students completed a review of evidence-based nursing protocols in their BT. The study found that students, mentors, and nurses found it useful and identified collaborative opportunities between academic and clinical practice, potential for professional career advancement, and a possibility of improved student competency.^[12]

To sum up, healthcare systems are undergoing rapid transformation and increasingly require health professionals with innovative competencies. However, innovation is a complex phenomenon, shaped by context-bound explicit and tacit values and perceptions and little is known about how nurse students' ideas on innovation are received in practice and how student nurses experience this. In pre-registration nursing education, innovation is defined as a core competency, and particular optimism surrounds the potential of the BT that is considered crucial for students' ability to transfer knowledge from research and theory into practice, thereby contributing to innovation and practice development. The nurse students are become agents of innovation. Nevertheless, there is a lack of studies examining how institutional contexts influence the conditions under which nursing students can contribute to practice development. This is particularly complex, as both healthcare and educational institutions co-constitute the learning trajectory of nursing students.^[13]

Against this backdrop, we pose the following research question: How do the institutional conditions shape nurse students' possibility to contribute to the development of concrete clinical practices by applying the results of their bachelor thesis, and thereby becoming agents of innovation?

1.3 Context of the study

This research question is explored through the lens of a novel approach to organizing the final year of study, which was tested in a large collaborate project between a university college and a highly specialized university hospital in Denmark in 2022. The project is called NEW- Nursing Education and Work^[14] and is after the piloting fully implemented. The aim of the NEW project is to strengthen the cohesion of the final study year and make newly graduated more work ready and encompassed several changes of the educational format. The project compared the novel organization with the existing measured on different parameters. Schematically, the difference between the existing organization, shown in Figure 1, and the new one, shown in Figure 2 - henceforth referred to as control program (CP) and intervention program (IP) - can be illustrated as follows.

New semester descriptions were formulated for the IP,^[15] where one of the changes aimed at a stronger connection between clinic and BT by requiring the students to base their BT on their clinical placement and return to the same clinic to contribute to practice development. Thus, nurse students must start thinking about possible issues to work on in their BT in their clinical placement at the 6th semester, where a study activity requirement is to participate in a workshop facilitated by clinical lecturers. The workshop is meant to support a process where students gain perspectives on ques-

tions, they have become preoccupied with in the clinic and intend to write about. After clinical placement, nurse students return the university college to prepare and submit their BT, where no changes in guidelines are made. At the 7th semester they return to the same clinic, where it is a prerequisite that they hold a ‘bachelor conference’ for the staff, where they engage in dialogue about their BT and include opportunities for practice development (Ibid). Thus, the changes concern the clinical anchoring and BT is central, and not the written assignment in itself. Consequently, the IP cuts across the educational and healthcare institutions making it a relevant case for studying how institutional conditions influence nurse students’ possibilities to suggest innovative initiatives based on the results of BTs.

Existing control program (CP)			
6.semester 30 ECTS		7.semester 30 ECTS	
CLINIC	SCHOOL Electives	SCHOOL BT	SCHOOL Exam

Figure 1. Overview of the final year of study – Control program

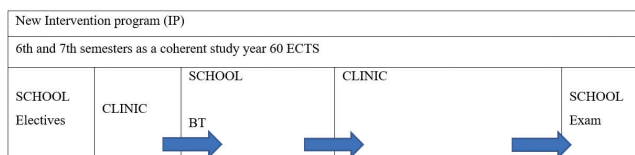


Figure 2. Overview of final year of study – Intervention program

2. MATERIALS AND METHODS

To investigate how the institutional conditions influence nurse students’ possibility to contribute to the development of concrete clinical practices by applying the results of their bachelor thesis, the empirical focus is on the described ‘bachelor conference’ which is considered a focal point where the educational and healthcare institutions intersect with the conference being an educational requirement held in a clinical context. A mixed-method design is employed to examine whether there is a difference in students’ experiences with their BTs between the existing and the new program. Furthermore, and foremost, it allows us to explore the underlying structures and power dynamics within clinical practice as reflected in the bachelor conferences, as well as the processes and positions introduced by the new program, and how nursing students navigate and respond to these.

2.1 Institutional ethnography

This study is based on institutional ethnography (IE) and focuses on understanding how social institutions shape people’s everyday experiences. IE connects what people actually

do in practice with the institutional contexts that organize those practices.^[16] IE is particularly useful in Health Professions Education (HPE) because it allows us to see how educational and healthcare institutions coordinate the actions of students and practitioners through its focus on the nexus between individuals and systems.^[17] In contrast to research that seeks to demonstrate causal effects of educational interventions, IE emphasizes the complexity of institutional processes and the disjunctures that arise when individuals encounter conflicting institutional expectations.^[18,19] In this study, IE is used to explore how the formalized framework of the undergraduate nursing program (such as semester descriptions) affects students’ handling of the requirement for practice development (BT), particularly when educational and clinical institutions operate with different discourses and policies.

A central concept in IE is ruling relations, which are mediated through institutional texts and language. These ruling relations are not deterministic; rather, individuals actively engage with and negotiate them in their everyday work.^[13] The purpose of using IE here is to understand how institutional discourses, texts, policies, and processes give rise to tensions or disjunctures in students’ working lives, experiences, and perceptions.^[18] IE can thus help us understand how the formalized framework of the undergraduate program, such as the semester description, affects nursing students’ handling of the requirement for practice change when two institutions, school, and clinic, involve different discourses, texts, policies, and processes. Following Smith (2006) and Kearney et al. (2019), we understand IE not as a fixed set of methods, but as a theoretical and methodological orientation that allows for the integration of both qualitative and quantitative data. In this study, we use survey data to map institutional patterns and qualitative data (observations and interviews) to explore how students navigate and make sense of institutional expectations in practice. This mixed-methods approach reflects IE’s flexibility and its relevance for research in HPE.

2.2 Design

The study uses a mixed-methods design informed by IE, combining survey data with observations and focus group interviews. To gain insight into the significance of the organization of the undergraduate program across two institutions, and nursing students’ handling of the requirement for practice development from their BT, questions from a comparative questionnaire survey with student from both IP and CP was included. Observations of conferences and focus group interviews with nursing students from the IP were conducted to explore how they handled the requirement for practice development of their BT in clinical settings. An

overview of the data collection process is presented in Table 1.

Table 1. Data collection process

Observation of conferences	Focus Group interview	Questionnaire
April 2022 At the beginning of the clinical placement in the 7th semester	May 2022 At the end of the clinical placement in the 7th semester	June 2022 Right after graduation

2.3 Participants and recruitment

The participants were 104 nursing students who had their final clinical placement at the same hospital. Of these, 56 were placed in clinics where the IP was being tested, and 48 were placed in clinics where the CP continued unchanged. IP participants were recruited through information meetings at the school, where they volunteered to try the new program. CP participants were recruited through information meetings at the start of their clinical placement.

All 104 students received the questionnaire in their digital mailbox. To increase the response rate, reminders were sent after one and two weeks, followed by a phone call in the third week.^[20] A total of 74 students responded, 47 from the IP and 27 from the CP, corresponding to a 77% response rate, but with significantly more non-respondents in the CP group.

To ensure variation in material conditions and reveal potential institutional mechanisms, clinics were selected for observation based on differences in size, patient pathways, and organization. Fifteen students from seven conferences agreed to participate. During observations, student nurses were strategically recruited for focus group interviews based on variation in conference characteristics. Ten students were invited, and five students from four conferences agreed to participate. Participants were male and female, aged 24-34 years.

2.4 Questionnaire

The questionnaire was developed in REDCap^[21] and aimed to assess students’ experiences during the final year of the nursing program. Two questions are included in this study because they are particularly relevant to the BT and the conference. The remaining questions from the questionnaire are related to other educational themes and are used for other research purposes.

2.5 Observations of the bachelor conferences

Inspired by IE’s emphasis on material conditions as foregrounding symbolic ones,^[22] Data collection began with

observation of the conferences, where communication between participants is seen as an action^[23] that is coordinated, interpreted, and negotiated by ruling relations, and simultaneously coordinating other actions - both before and after the conference.

Two authors conducted observations of seven conferences in the spring of 2022. Conferences took place in clinics or hospital teaching rooms and lasted 30-60 minutes. An observation guide was developed based on the purpose of study and directed the observations towards the room, participants, who spoke, how much, and about what, as well as signs of openness/closedness, interest/lack thereof, and vulnerability/uncertainty/confidence. Field note-taking followed Emerson, Fretz, and Shaw’s (2011)^[24] approach, where the principle is to write as verbatim as possible in the situation, and immediately after the conference, fill out a form with three columns: 1) deliberate ‘low-inference’ and detailed descriptions, 2) immediate reflections on what was observed, and 3) reflections on the researcher’s position in the room. The intention is to create transparency by separating the concrete observations from an emerging analysis. This method supports transparency for the entire research group and is not an attempt to disconnect the observers’ collective experience. It follows IE’s emphasis on personal experience in observation, which is one of several entry points to social relations and settings.^[25] After the observations, the researchers each read their field notes, after which a joint initial analysis identified several themes that formed the basis for the interview guide for the focus group interview.

2.6 Focus group interview

A focus group interview was conducted with five students at the end of their clinical course, approximately eight weeks after their conference. Based on IE, the interview aimed to uncover ruling relations that co-constitute local experiences.^[26] The interview was facilitated by the first and third authors, with one acting as moderator and the other as assistant. An interview guide ensured that participants discussed the experience of holding the conference, the function and importance of the room and participants, the purpose of the conference, and the subsequent process of implementation. Both moderator and facilitator ensured that all participants had their say on each topic. The interview lasted 95 min. and was recorded and subsequently transcribed.

2.7 Analytic strategy

Guided by AI, the analysis combines quantitative data to map institutional patterns with qualitative data to explore how students navigate institutional expectations in practice. While IE is primarily associated with qualitative inquiry, the

use of descriptive and comparative statistics in this study serves to identify broader institutional patterns that inform and contextualize the qualitative findings. The questionnaire results regarding the conference and the bachelor program are presented using descriptive statistics (frequency tables) and analytical statistics (Fisher's exact test) to assess if any differences in the data are significant.^[27] Because the pre-defined study population of 104 students is a population of modest size, Fisher's exact test was chosen as the most appropriate method.^[28] The question about the bachelor's degree conferences is presented only with a frequency table, as it is not comparative with the CP. Data were processed using Stata 17.0 with a significance level set at 5%.

The qualitative analysis of the IP is based on field notes and transcribed interview focusing on the connection between institutional complexity, the semester-description, what takes place in the observations and what is said in the interview.^[29] Each researcher read the data separately and then jointly analyzed and decontextualized the individual fieldnotes and individual statements and recontextualized them by grouping them together according to thematic content.^[30]

2.8 Ethics

The study was approved by the Knowledge Center for Data Reviews, which handles approval of development and research projects on behalf of the Danish Data Protection Agency. Project identification: J.NR. P-2021-482 and title: NEW. Participation was voluntary and all participants were provided with information material stating their right to withdraw their consent at any time without consequences. Consent forms were signed by all participants. In field notes and transcription, pseudo anonymization was applied, blurring specific details about time, place, and persons.

3. RESULTS

As shown in Table 2 the following analysis of the questionnaire shows the difference between students' assessment of their BT's practice development in the IP and CP.

As Table 2 shows, the students indicated that the BT in the IP was based on their own experiences and observations from clinical practice to a much greater extent than the CP, and the difference is significant. This is not surprising since it is a requirement in the IP, but it is notable that only half of the students in the CP state that their BT was based on something they had experienced.

After writing the BT, students in the IP had a conference at their clinic and were asked about their experience of the department's involvement in this, which can be seen in Table 3. The results to this question are presented with descriptive

statistics because the conference is only a part of the IP – and it is therefore not comparative.

Table 2. Assessment of whether BT is based on clinical practice

To what degree was the problem statement of the BT based on a specific clinical problem you experienced?		
	Intervention program	Control program
To a very high degree	34 (73%)	10 (37%)
To a high degree	10 (21%)	3 (11%)
Neutral	2 (4%)	5 (19%)
To a low degree	1 (2%)	3 (11%)
To a very low degree	0	6 (22%)
Total	47 (100%)	27 (100%)
Fisher's exact test: $p \leq .01$		

Table 3. Staff engagement in the conference

To what degree were the staff engaged in your BT conference?	
To a very high degree	12 (26%)
To a high degree	21 (45%)
Neutral	7 (15%)
To a low degree	4 (8%)
To a very low degree	3 (6%)
Total	47 (100%)

As can be seen in Table 3, 33 (71%) of the 47 students rated the staff as highly or very highly engaged in their conference, and few students assessed that the staff did not engage.

Overall, the questionnaire shows that students in both programs think they independently chose an issue they found interesting, although significantly more students in the IP worked with an issue they had experienced in clinical practice. Students in the IP state that the staff engaged in their project at the conferences. The questions remaining are: what happens in this conference room? And how do students experience and handle the social organization of the undergraduate program that requires direct dialogue between students and practitioners about their BT and the potential of developing practice?

In the nursing students' curriculum, it is stated that one of the learning outcomes is to be innovative, which is defined: "Innovation is about developing something new that can be used in practice, and which adds value [...] is to improve existing practice by solving a problem and generating added value, e.g. for citizens, patients or relatives".^[31] In this definition, innovation and practice development are interrelated, with innovation serving both as a competency students are expected to achieve and as an activity that fosters practice development.

The semester description of the IP states that the purpose of the conference is “...to put the findings and ideas from the bachelor project into perspective and develop proposals that would make it possible to realize the ideas that emerged from it” p. 8-9).^[31] In addition, an overall framework has been set for the bachelor conference regarding preparation, execution and follow-up process and implementation. The text states that the students are ‘responsible for planning, inviting attendees and organizing the conference at your own clinical training site. You work alongside your supervisor to plan the conference. (...) The conference must be attended by nurses, supervisor(s), fellow students. Other relevant interprofessional partners can also take part. (...) After the presentation, you discuss the project findings and ideas with the invited participants and reflect on their contributions. It is a good idea to prepare questions for discussion that focus on the participants’ experience and knowledge of the problem, as well as perspectives on opportunities for developing clinical practice and your own nursing. After the conference, follow-up work can be done on the possible realization and implementation of ideas in clinical practice.’ p. 9.^[31] Reading the text, it is understood how the students in collaboration with the clinical supervisor plan and hold the conference with the aim of putting findings into perspective. The conference is described as an activity that can generate both innovative suggestions with the potential of developing a clinical practice in the department as well as the growth of the individual student’s nursing practice. Thus, the purpose of the conference is described to a greater extent because of the interprofessional dialog during the conference than an actual learning outcome.

Smith’s notion of text-reader conversation describes how a text read in a particular setting can be read differently in another setting. She argues that you must recognize and assume it is the same text to make the concept of different reading meaningful. In this way, one can treat the text ethnographically and explore how the texts are brought to life in people, universities, corporations etc.^[16] It is interesting to understand the processes and positions this requirement gives rise to. The observations of the conferences show that the complexity increases when the social organization of the undergraduate program is changed – removed from the classroom and put into clinical practice.

Both the observations and interviews of students show varying conduct of the bachelor conferences. In this way it experienced how texts can be read and interpreted differently within the same organization, considering cultures of the specific department as well as the conditions, settings and opportunities on the given day the conference is held. The conference is most often held in a staff room, which enables

nurses to participate during a shift. The participants are primarily nurses, and possibly specialists, managers, and fellow students. Observations show that there are many disruptions during the conference in the form of nurses leaving the room due to bells from patient rooms, doctors asking for nurses, and secretaries asking various questions. In the focus group interview, students do not mention disturbances in the room, which may indicate that they have become accustomed to disturbances as a condition in practice.

3.1 The professional exchanges and processes of the bachelor conference

The analysis of the observations shows that negotiation takes place at the conferences in relation to the relevance of the project, and that these negotiations determine its focus.

Initially, nurses’ and managers’ attention were focused on the significance of the BT for nursing locally. Across the observed bachelor conferences, there were different responses to the BTs presented by students, reflecting whether staff accepted the project as relevant and applicable to their own nursing practice. In the example below from a conference on a cancer clinic, an experienced nurse’s first response to the student’s presentation of a pamphlet for conversations about affected sexuality in illness is,

How good! It’s important that we practice talking about sexuality in illness with our patients. It can be difficult when the family is present with the patient. Especially when the children are there. I can find it difficult to start talking about (field note 3).

As the quote shows, the student’s project to focus on conversations about sexuality is accepted and recognized as relevant to practice. An acceptance that also implies that practitioners look at their own limitations and development potentials, which is the case in the above statement. The rest of the conference was a dialogue about the development of clinical practice.

At other times, parts of the student’s project and proposals for practice development are accepted, while other parts are rejected. In the field note below from a surgical clinic, a manager responded to a student’s BT about the importance of getting better at talking to patients about expected reactions to amputation,

It’s hard when it’s been so long - 1-18 years since the patients [student’s informants] were amputated. Our patients are here right now. You say they want to talk about how they feel after. Is it possible to talk about it before they undergo surgery? What are your thoughts? [question addressed to students]. It’s difficult when it’s acute. But you can talk about outpatient treatment. Perhaps the experience is common to

all patient groups [...]. We are not good at communicating this knowledge (field notes 7.a and 7.b).

These excerpts from field notes suggest that the student's specific suggestions for change are not accepted because the practitioners believe that the interviewed patients are not included in the patient trajectories of the department. However, the development proposal seems to be accepted as relevant and the need to improve nursing in this area is recognized. At this conference, staff asked questions that supported students' understanding of the patient pathway, after which the discussion about practice development continued. This may indicate that staff were trying to maintain a focus on practice development while asking questions that promote student reflection and learning in relation to the problem area.

There are also several cases where the staffs' response is not the same. In the example below, a nurse and a manager from an intensive care unit respond differently to a student presentation about the use of pain scores where the proposal for practice development is about methods for more systematic use:

Nurse: I don't use [pain score]. I assess the patient clinically all the time, for example, if they cut their face [...]. Have you (students) tried to describe pain yourself? It can be difficult to use scoring tools.

Manager: It is important that we use the tools that are available because they help to detect pain more quickly: indeed, research and studies show that nurses tend to rate pain lower than patients when scoring tools are used (field notes 2.a and 2.b).

Here, the nurse rejected the project based on her own clinical experience, whereas the manager accepted and argued based on evidence. This kind of split response between manager and nurses has been observed several times.

In some cases, the relevance of the student's BT to clinical practice is totally dismissed. At the following conference in a medical clinic, students focused on the importance and lack of focus on patient anxiety. A manager and nurse responded as follows,

Have you [addressing students] considered whether it is the right time to ask questions right after cardiac arrest during hospitalization? [...]. We offer telephone consultations after discharge and face-to-face consultations after several months. Here we focus on trauma reactions. Have you asked patients what they are worried about? [and later] You have a patient perspective on the task. If you now had a nurse's perspective, would it give a different result? (Field notes 1.a and 1.b).

The observations show that staff ask students critical ques-

tions aimed at the relevance and validity of the results for local patient trajectories, including the students' choice of methodology. Although the suggestions for developing practice are rejected, the dialogue has a reflexive nature aimed at the student's understanding of the problem area. Thus, the conference becomes a learning space for students.

The above analysis identifies four types of "response patterns" in relation to whether the student's project and proposals for developing practice are considered relevant to practice: (1) full acceptance of the project as a whole - including their proposals for developing practice, (2) a partial acceptance, where parts of the project are accepted and others are rejected, (3) a divided response between participants, especially between managers and nurses, and finally (4) a total rejection. Across these response patterns, reciprocal dialog with the students was observed. Depending on the staffs' assessment of the project's relevance, the focus of the conference evolved accordingly. As Figure 3. illustrates, if the project is deemed relevant to practice, the focus is on practice development, and if the project is deemed irrelevant to practice, the focus is on student learning.

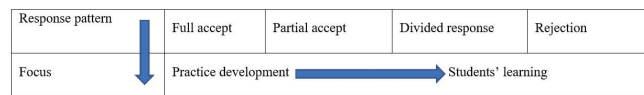


Figure 3. Overview of the professional exchanges and processes of the conference

In several cases, these are mixed forms. It is thus clear that the educational requirement to hold a bachelor conference in clinical practice focusing on "reflections on possible development initiatives [...]" (KP, 2023, p.7) is a ruling relation, that is both determinative because the conferences take place with the participation of students and staff but is negotiated and shaped differently by the participants which results in different processes at the conference itself.

Thus, there is a lot at stake in a conference room. The focus group interviews revealed how nursing students have experienced and handled the conference. Several students expressed that at the conference, their issues and suggestions for practice development were recognized and accepted by the staff, while others experienced that some of their suggestions were rejected.

3.2 The relational processes of the conference

The semester-description states that "after the presentation, the project's findings and ideas are discussed with the invited participants" p. 7.^[31] In the focus group interview, students spontaneously highlighted their feelings associated with the

conference, as shown in the following dialog,
I think there was very good support for it [...]. I mean, they were really interested and offered to participate. So, to get the feeling that it's practical and show something we see. (Student 2).

Also, the fact that you feel equal, so to speak. [...] equal and respected for what you say. And it's a new feeling to be equal rather than sitting there as a student (Student 4).

Here, two students describe the staff's response to their presentations as recognition of their professionalism, which they are both surprised and happy about. The fact that the staff recognizes their BTs with professional interest gives a sense of equality and meaning that goes beyond a school assignment. Indeed, the nexus between the educational texts as a ruling relation and the students' interaction with the field of practice promotes the effort to bring practice and education closer together through a new organization of the undergraduate program.

On the other side of the experience of recognition, professional pride and equality, students also express spontaneous feelings of nervousness and fear about presenting their project and practice development proposals at the conference. During the observations, several students had flushed cheeks, shaking hands, trembling voices or even said that they could feel their heart rate rising at the conference. These signs can be interpreted as common excitement at an oral presentation. However, during the focus group interview, it became clear that nervousness and excitement also go beyond ordinary performance anxiety but encompass other concerns as well, *Yeah, because we had maybe a little criticism of the way the nurses work. So, it was really difficult to explain without offending them. But they took it nicely. But we [students] talked about how we wanted to present it so it didn't sound like criticism [...]. It can be uncomfortable to take it back after pointing out that someone is not doing it well* (Student 5).

As this statement illustrates, students had several considerations about how to present their project and suggestions for developing practice without it being perceived as a criticism

of staff practice, and they were concerned that it may have consequences for their own further placement.

Additionally, students also had concerns about exposing poor care. Here, one student talks about her conference, which focused on the importance of talking to patients about lifestyle changes before they were discharged, *And our manager was a little offended because they expected that everyone did it. So, the manager didn't understand that you didn't do it [...] I don't think anyone took it personally, but it meant that people didn't dare to come forward and say that they didn't do it either* (Student 1).

The quote illustrates how the student is aware of the dynamics that can arise between managers and nurses. And that the BT suggestions for developing practice can expose inadequate care to the managers in the room. Conversely, several students considered it valuable that managers attend their conference,

Just as much as a manager can be a 'showstopper', I also think it's easier to get things implemented if the manager is there [...] if it [the project] isn't taken up and you stand alone as a student, then it dies (Student 3).

This statement illustrates the complexity of running the conference and being careful not to over-criticize or expose poor care while also having participants with power to implement projects.

In addition to the concern about criticizing and exposing staff, students highlight that they were aware of how they were perceived by staff during the presentation. One says *'For me, it was more about standing up and pretending to know something after completing my BT, where I read three articles. It was transgressive for me'* (Student 2). This student is worried about appearing to be lecturing or know-it-all to the staff but may also be in doubt as to whether qualified knowledge has been gained in the BT that the clinic finds interesting.

As clarified in Table 4, students' various concerns about what might happen at the conference illustrate a high degree of interactive complexity that educational formalities do not allow for.

Table 4. Relational processes of the conference

The successful	The difficult
Experience professional equality with nurses in the clinic	Careful with criticizing practice too much or too directly
Experience recognition of their contribution to the clinic	Careful not to expose poor care to managers
Experience professional pride	Include people with power to develop project suggestion
Experience engagement from and attachment to the clinic	Careful not to seem arrogant/supercilious
	Careful not to seem unaware/ignorant

The educational requirement to hold an undergraduate conference described in the semester-description acts as a ruling relation that gives rise to the experience of equality, recognition, and pride, while at the same time creating a disjuncture between students and staff, where students are in a vulnerable position and have many considerations about their communicative behaviour at the conference to protect themselves and the staff.

3.3 Practice development

In addition to holding a conference, a study requirement in the IP is to continue working on practice development, *"After the conference, further work can be done on the possible realization and implementation of ideas in clinical practice"* p. 7.^[31] The observations show that students react very differently when asked about practice development at the conference. Some say that they do not intend to continue working on it, while others show great interest in getting the staff involved in their projects. In the focus group interviews, it emerged that the students have different attitudes towards the further work with practice development, *I've tried to get to grips with it [implementation of the project's development initiatives], because [...] when you plan to do just a little [follow-up work] afterwards, it hurts your soul that you've done a huge amount of work and then it's just left to die* (Student 3).

This student was keen to continue working and found it frustrating and demotivating that it was not continued by practice. Other students highlight the requirement to work on implementation as a burden, *We had to continue working on implementation. And we were really proud of that, but just didn't have the energy for it [because we] had to concentrate on getting back and becoming an independent nurse* (Student 1).

Another responded:

I was very overwhelmed that afterwards I had to be told that I had to implement something. I kind of felt that the project gave me a responsibility to change something [...] then I think it's too big a responsibility to have to implement something (Student 2).

This dialogue shows that the first student is proud of the recognition they receive but 'becoming an independent nurse' is more important than working with practice development right now. The second student even experiences the requirement for practice development as coercion that puts too much responsibility on the student's shoulders.

It is thus different how both students and practice manage the formalized educational requirements to continue working on their project and proposals for practice development after

the conference. Schematically, it can be illustrated as shown in Table 5.

The innovation and development work that follows the conference does not seem to be a strongly governing ruling relation, which may be explained by the semester-description stating that the student can work further with realization and implementation, not that they must.

Table 5. Overview of implementation processes after the conference

Both students and practice want to continue working on implementation	Students want to continue working on implementation, but practice will not/cannot (for various reasons)	Practice wants to continue working on implementation, but students do not want to (for various reasons)
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4. DISCUSSION

The analysis shows that the institutional conditions have a major influence on nurse students' possibility to contribute to the development of concrete clinical practices based on their bachelor thesis. And that a close collaboration between the educational and health institutions enhances integration of the purely academic assignment and the context in which takes its departure and use. Students in the IP believe that their BT is based on and in dialogue with practice to a much greater extent than the CP, and that this does not compromise their experience of being able to freely choose a topic. Hence, the IP meet the goal of practice development without compromising the students' interests and can thus redeem the potential of the BT that researchers find; namely contributing to development of clinical practice and innovation^[8,11] at the same time as it strengthens innovative competencies among nurse students.^[3,4]

But the analysis of what happened at the bachelor conferences also shows that the complexity increases significantly when the social organization of the bachelor-degree trajectory is changed, and the BT is taken out of a purely scholastic form and put into clinical practice. At the conference, a negotiation of the relevance of BT to practice takes place with four different response patterns, where some negotiations are smooth, and others marked by disjuncture. Most students indicated that the staff engaged in dialogue at the conference and that it gave them a sense of professional equality and recognition. And as Roca et al. found, when the BT is brought closer to practice there are collaborative opportunities between academic and clinical practice,^[12] which is a prerequisite for converting knowledge into innovation.^[5]

Additionally, processes involving professional negotiations at the bachelor conferences were observed, where practice

had different response patterns which became significant for whether the focus was on practice development or on student learning. Regardless of the type of response and focus, the staff took responsibility for keeping the conference professional. This finding contrasts with studies that find that practice can be rigid and unable to look at itself in the face of criticism from students.^[3,4] Our study shows that practice was very open to criticism and suggestions for development in several cases, unless students lacked nursing knowledge and insight in their suggestions for practice development.

The analysis of how nursing students experience and handle the conference shows that the students experienced that it had strengthened their professional self-confidence and sense of equality in the department. It is however, also shown that nurse students navigate the bachelor conference by taking on a wide range of relational considerations into account pointing to the underlying structures and power dynamics within clinical practice as reflected in the bachelor conferences.

This is in line with research that shows that dialogue and networking are key to innovation and practice development.^[5] Innovative practice change is very much a question of relational work, which the formal educational requirements do not dictate. Finally, the analysis shows that the subsequent process of demanding innovation and practice development is a (sometimes untapped) potential for some students and a burden for others. Research shows that innovation in healthcare settings is challenging due to differences in values and perceptions that characterize different stakeholders and working culture.^[2] These challenges in innovation and practice development are not lessened by the fact that students' undergraduate programs cross two institutions, each with their own ruling relation in relation to what a BT can and should do. In an IE perspective, emphasis is placed on the knowledge and motivation for future clinical projects that conducting the BT provides for student nurses,^[10] and in a healthcare institutional perspective, the emphasis is on the value for practice and how different perceptions of value may be present in the organizational culture.^[2]

There is a significant difference between whether the now generic educational requirement of innovative competencies for the development of clinical practice is predominantly learned and demonstrated in the educational institution or fully embedded in a healthcare institutional setting. In the latter, the potential for mutual learning can be realized. However, as complexity grows considerably, it can also give rise to disjuncture, which is why an explication of the relational and communicative processes related to dialogue between students and clinical practice on innovation and development could be included in the formalized educational

requirements.

Strengths and limitations

This study employs a mixed methods design, while the fundamental approach is IE that largely focuses on qualitative approaches. Epistemological we have aimed to strike a balance between different methods, ensuring that the qualitative aspects of understanding institutions and textually mediated social relations remain prominent. The quantitative data in terms of survey responses were included to identify broader patterns and trends within the institution that could inform and contextualize the qualitative findings. The data from the survey enhances identification of commonalities or variations in practices, attitudes, or behaviors that may be shaped by institutional factors. In combination with observation and interview we obtain a more comprehensive understanding of nurse students' work. However, the mixed-method design means that each dataset is relatively limited in scope. A strength lies in the choice of a longitudinal approach, collecting data at different time points to track developments over time, which enable a deeper understanding of nursing students' experiences and handling of the requirement for practice development.

The comparison between the IP and CP in the questionnaire contributes to a better understanding of the impact of the IP. However, the lower response rate in the CP may have introduced non-response bias in the data and affect the comparability between the IP and CP as those who choose to participate may differ from those who do not, potentially affecting the generalizability of the results. The method of voluntary recruitment can also introduce bias, as students who choose to participate may have a particular interest in the topic. That said, the aim of this study is not to generalise statistically but to explore how institutional structures shape students' experiences with the BT requirement. The longitudinal design, with data collected at multiple time points, strengthens the study by allowing us to trace developments over time.

Observations is a central data collection method in this study and requires epistemologically considerations. The possibility of researcher influence during observations can introduce bias. This was minimized by having two observers, allowing for a better assessment of their influence. Although the observations were conducted with a low level of participation, with the observers not engaging in dialogue beyond an initial presentation and placing themselves discreetly in the room, attention was paid to how dual roles as both clinical educators and researchers could affect the participants. The conference is potentially a vulnerable space where staffs' professional expertise is exposed. Therefore, observers had no personal

familiarity with the participants or clinics. Additionally, in presenting the purpose of the study to participants, emphasis was placed on clarifying that the observation was not an evaluation of them. Three of the authors are clinical educators and are therefore in an ‘insider position’. The strength of this is understanding of and access to the field. The weakness is the tendency to have blind spots and overlook the obvious in one’s own practice.

During the focus group interview, the significance of power dynamics between students and educators was also addressed by ensuring that students did not have pre-existing relationships with the interviewer.

5. CONCLUSION

This study explores how institutional conditions shape nurse students’ opportunities to contribute to the development of clinical practice through the application of their bachelor thesis (BT). The findings indicate that close collaboration between educational and healthcare institutions—particularly in the integrated design of the final year—can enhance the potential of the BT to drive innovation and practice development, while simultaneously strengthening students’ innovative competencies.

However, the study also reveals that innovation and practice development become more complex when transitioning from a purely academic setting to clinical practice, where theoretical models of implementation meet real-world dynamics. When the BT is brought into dialogue with clinical practice, diverse response patterns emerge, reflecting varying perceptions of the relevance of students’ contributions. These patterns shift the focus from practice development to the cultivation of students’ innovative capacities.

Moreover, while students report feeling included and empowered through discussions about their BT and its potential impact, they also navigate underlying power dynamics by adopting strategic behaviors—such as avoiding excessive or inappropriate criticism. Finally, the study highlights that for students to become genuine agents of innovation, their suggestions must extend beyond the bachelor conference. This requires a shared commitment from both students and clinical managers to continue the work and prioritize imple-

mentation.

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DATA SHARING STATEMENT

No additional data are available.

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