Seeing students as potential co-developers of future healthcare solutions provokes ambivalent reactions

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SEEING STUDENTS AS POTENTIAL CO-DEVELOPERS OF FUTURE HEALTHCARE SOLUTIONS PROVOKES AMBIVALENT REACTIONS

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ABSTRACT
The development of an efficient and highly specialised healthcare service has meant that patients are moved between units and sectors, and encounter staff from a number of different professions. Scandinavian patients criticise the lack of coherence in such transitions, and politicians are demanding the development of coherent care pathways for patients. This article discusses contradictions inherent in the fact that students are traditionally trained within mono-professional study programmes, even though in the future they will have to be able to create coherent pathways across the professions for patients within the healthcare system. Based on two longitudinal ethnographic studies, and using Critical Theory as a theoretical framework, this article shows how study programmes have the potential to make students co-creators of the healthcare system. These ethnographic studies focus on the profession-oriented learning context, following a specific project entitled ‘InBetween.’ InBetween is a collaborative healthcare training project, aiming to develop a course of study to strengthen interprofessional patient-centred skills. In mapping out this field, the research projects explore the development of InBetween and the associated processes of individual, interprofessional and (inter)organisational learning and competence development. Using empirical data as a point of departure, we chart the development of new interprofessional communities of practice across professions, units and sectors. This article shows how communities of supervisors and students manoeuvre among contradictions arising between traditional mono-professionalism and the new interprofessionalism. The key point of this article is how the lack of tolerance of ambivalence in the field poses an obstacle to changes in healthcare.

Keywords: Interprofessional education. Healthcare. Interprofessional supervision. Innovative Curriculum. Ethnography.

RESUMO
O desenvolvimento de um serviço de saúde eficiente e altamente especializado fez com que os pacientes fossem deslocados entre unidades e setores e encontrassem funcionários de várias profissões diferentes. Os pacientes escandinavos criticam a falta de coerência em tais transições e os políticos estão exigindo o desenvolvimento de caminhos coerentes de atendimento para os pacientes. Este artigo discute as contradições inerentes ao fato de os estudantes serem tradicionalmente treinados em programas de estudo monoprofissionais, embora, no futuro, eles tenham que ser capazes de criar caminhos coerentes entre as profissões para os pacientes no sistema de saúde. Com base em dois estudos etnográficos longitudinais e usando a Teoria Crítica como referenciais teórico, este artigo mostra como os programas de estudo têm o potencial de tornar os alunos co-criadores do sistema de saúde. Esses estudos etnográficos se concentram no contexto de aprendizado orientado para a profissão, seguindo um projeto específico intitulado "InBetween". O InBetween é um projeto colaborativo de treinamento em saúde, com o objetivo de desenvolver um curso de estudo para fortalecer as habilidades interprofissionais centradas no paciente. Ao mapear esse campo, os projetos de pesquisa exploram o desenvolvimento do InBetween e os processos associados de aprendizado individual, interprofissional e (inter) organizacional e desenvolvimento de competências. Utilizando dados empíricos como ponto de partida, traçamos o desenvolvimento de novas comunidades de prática interprofissionais entre profissões, unidades e setores. Este artigo mostra como as comunidades de supervisores e estudantes lidam com as contradições que surgem entre o monoprofissionalismo tradicional e o novo interprofissionalismo. O ponto principal deste artigo é como a falta de tolerância à ambivalência no campo coloca um obstáculo às mudanças na área da saúde.

BACKGROUND

Although improved coherence in patient pathways is a central political requirement, the Scandinavian healthcare system is challenged by inadequate cooperation between the professions, and across sectors, departments and units. The challenges facing the healthcare system come to the fore when patients say they are unsure about whether they are getting the right treatment (Danish Patients, 2019), and when professional staff point out collaboration inadequacies.

Establishing coherent patient pathways is a necessary goal, and therefore coordination and collaboration between professions, units and sectors are absolutely essential. This requirement has an impact on the study programmes for the health professions. Traditionally, the major part of clinical education in the health professions takes place at somatic hospitals, but this becomes difficult when patients are discharged quickly, and treatment and nursing care are offered in the patient’s own home.

Cooperation between patients and professional staff becomes complicated when patients are transferred between departments, hospitals or sectors. The sharing and development of knowledge interprofessionally, and in particular across sectors, is highly inadequate. The skills and the structure required to coordinate efforts in the healthcare system have become a theme in health profession study programmes, with a view to ensuring that health professionals can meet the demands of tomorrow’s healthcare system.

In a traditional Scandinavian context, students from the health professions on clinical practice relate purely to one profession and one unit. In this approach, training is not related to interprofessional and cross-sectorial transitions in patient pathways.

In this article, we want to elaborate on how students from the health professions can be involved as co-developers of the coherent health service of the future, and how the field of practice reacts to this.

EMPIRICAL CONTEXT - PROJECT INBETWEEN

In the Summer of 2012, Aarhus University Hospital and Aarhus Municipality, together with Aarhus University and VIA University College, launched a project called InBetween (in Danish ‘InterTværs’) to strengthen the interprofessional and cross-sectoral collaboration skills of health profession students. Project InBetween is a collaborative educational project within the healthcare sector, aimed at developing a model to strengthen the competences of these students in terms of creating interprofessional and cross-sectoral collaboration in patient-centered healthcare services. A salient point of the project is a shared desire for the democratic involvement of students in developing the coherent healthcare system.
of the future, through the development of the students’ interprofessional collaboration competencies. The project managers of project InBetween use a metaphor to present the project\textsuperscript{1}, visualising the health care system as a sea of highly specialised units and professions. The starting point for the InBetween course may thus be compared to a round trip in the health service’s archipelago, where the patient must hop from island to island to receive treatment from specialists. In addition, the metaphor illustrates how the patients must cross a river in the transition between the hospital and primary healthcare. An InBetween study pathway was created (Kramer, T. 2015), using an ideal model according to which teams consisting of students from physiotherapy, occupational therapy and nursing bachelor degree programmes and medicine did their clinical education together, focused on a patient pathway.

The team of students first collaborated with the patient in a hospital context and then in primary healthcare. The teams of students described the patient pathway, identified its strengths and weaknesses, and discussed the findings with the clinical supervisors.

source: Kramer, T., Nielsen, C.S. 2013

\textsuperscript{1} The metaphor originates from a previous collaboration project (2011-2013) between Aarhus University Hospital & VIA Nursing Education Aarhus (Kramer, T. & Nielsen, C.S. 2013).
**ETHNOGRAPHIC STUDIES - ‘FOLLOWING THE FIELD’**

The authors carried out ethnographic research and followed project InBetween from 2014 to 2018, while working on two PhD projects. Their studies focused on following the processes of development and implementation of an interprofessional, cross-sectoral alternative study pathway in the healthcare sector. Nielsen, C.S. focused primarily on the teams of students and organisations involved (Nielsen, CS 2015, 2017), and Kramer, T. focused primarily on the clinical supervisors and organisations involved (Kramer, T., 2018). Their studies focused on the profession-oriented learning context, following InBetween, and were based on long-term fieldwork, following participants (students and clinical educators) between different learning contexts. The students worked together as an interprofessional team, focusing on a patient pathway within the healthcare system, and were supervised by an interprofessional team of clinical supervisors. In mapping out the field, the research projects explored the course of InBetween and the process of individual, interprofessional and (inter)organisational learning and competence development.

The PhD projects can be characterised as ethnographic, drawing on traditions of representation and orientation towards practice. Both research projects are based on a common methodological background, referring to empirical traditions in ethnography and pedagogy (Borgnakke 1996, 2013; Hammersley M, Atkinson P. 2007; Marcus 1995).

Mapping out the field, the researchers had to follow the actors from site to site: from one hospital ward to another, and even into primary healthcare. The researchers had to do what we refer to as ‘Island Hopping’, as well as following the interprofessional teams of students and clinical supervisors across the healthcare sector (Nielsen, C.S. 2015).

It was vital that the teams of students, the supervisors and the organisational development of InBetween should all be followed over time, at many sites and in different contexts.

The observations and interviews that emerged from this multi-sited fieldwork identify that the pathway used in InBetween was an innovative learning context centred on interprofessional activities. At the same time, the inductive analysis identifies a complex interaction between the actors involved and a challenged project organisation.

In terms of theory, the two ethnographic projects range from organisational learning issues to professional learning and identity, seen from the supervisor’s point of view and the student’s point of view respectively. The ethnographic projects cover the spectrum from the political macro

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2 In her PhD project, Cathrine Sand Nielsen explored InBetween with a focus on student learning, while Tina Kramer in her PhD project explored InBetween with a focus on the competence development of clinical supervisors.
level, over the organisational meso level, to the individual micro level. The analysis takes advantage of combinations of concepts from Critical Utopian Action Research (Nielsen and Nielsen, 2015), Ambivalence Tolerance (Becker-Schmidt, 1982) and Communities of Practice (Lave and Wenger, 1991). With Critical Theory as a theoretical framework, the PhD projects emphasise that project InBetween takes the form of an embedded platform for innovation in the centre of the health service.

Through the empirical and theoretical frameworks, the ethnographic studies explore and describe how the InBetween approach can help to strengthen and develop individual, inter-professional and (inter) organisational learning, and generate new knowledge.

Based on this, we will elaborate on how students of the health professions can be involved as co-developers of the future health service.

RESULTS AND ANALYSIS
The analysis of project InBetween identifies its proponents and opponents and shows how the programme functions as an integrative, innovative platform between educational institutions and the healthcare system. Furthermore, the analysis shows how supervisors and educators from different sectors form new interprofessional communities of practice (Nielsen, C.S. & Kramer, T. 2016). Our analysis shows how project InBetween both stimulates changes and retains existing practices.

We will discuss the opportunities that emerge when clinical supervisors and students involve themselves as co-creators in the process of change in healthcare. Further, we will discuss the contradictions and ambivalences that emerge when project InBetween and its actors, like a Trojan horse, are launched into the centre of the healthcare development process.

In the following sections, the contradictions and ambivalences will be presented and discussed from a guidance perspective, a professional perspective, and a student perspective.

CONTRACTIONS BETWEEN MONO AND INTERPROFESSIONAL GUIDANCE
When the supervisors, together with the students on the InBetween course, become involved in the innovative development of the healthcare system of the future, they experience dualities and contradictory requirements. The supervisors are responsible for traditional patient care and treatment, while at the same time having to guide students in InBetween to think and act beyond traditional practice. The analysis in this section provides an example of how the supervisors tackle the contradictions involved.
Our analysis of the programme retains a focus on the actual practice of guidance, and highlights how supervisors manoeuvre between the customary, mono-professional model and the development of new routines and standards of interprofessionalism.

When following the InBetween course, Kramer observed how the guidance of individual students ‘away from the patient’ suddenly became mono-professional (2018). In addition, a tendency was noted for the patient to become secondary in mono-professional guidance in InBetween. When asked about this mono-professional guidance, supervisors explained that there is so much the students do not know about traditional practice, and that the knowledge they lack is a prerequisite for participation in the course. One clinical supervisor said:

> If I’m mono-professional, it’s because the student cannot reflect on what she ought to be able to do. The student has not yet learned it. It’s often skill related, which means the process has to be an apprenticeship. It’s a question of something related to the profession that they do not understand (Kramer 2018, p. 148).

This statement underlines the fact that when there is something that the students “cannot themselves reflect on”, or “have not learned (...) yet”, then the supervisors assume the responsibility of communicating or demonstrating it in the situation.

In this situation, supervisors choose traditional mono-professional guidance, characterised here by the supervisor herself as an apprenticeship.

Another supervisor points out that the guidance offered is intended to prepare the students for the practical tasks to be performed by the patient:

> There must be time for guidance before the students have to perform practical tasks with the patient - in relation to the tasks they have to do. They must have guidance in relation to the patient (Kramer, 2018, p. 149).

The supervisor thus focuses on a practical patient-oriented upgrading of the students, "before the students have to perform practical tasks". Nevertheless, when Kramer, as an observer, follow this process, Kramer find it to be primarily mono-professional at a general level, and detached from the actual needs of the patient.

In InBetween, the relationship between interprofessional and mono-professional guidance practices is strengthened: supervisors tackle mono-professional guidance as a prerequisite for interprofessional collaboration, in the sense that professional competence is conditional on mono-professionalism. Through the supervisor’s strategy of a kind of mono-professional ‘weapon training’, the relationship between mono-
professional and interprofessional approaches is of primary importance in the interprofessional guidance arena. So, though this approach at first overshadows the patient-centred focus of interprofessionalism, it actually creates the potential for interprofessional collaboration focused on the patient.

CONTRADICTIONS BETWEEN THE PROFESSIONS

When we highlight the contrast between interprofessionalism, as something new and necessary, and the mono-professional disciplines as traditional, our analyses identify both professional strategy agendas and their retention of traditional professional relations.

In this regard, the potential of the InBetween course to encourage the shift of supervisors as a group towards developing interprofessional cooperation appears to be momentarily undermined by the mono-professional agenda.

At evaluation meetings, the specific mono-professional agendas and their different interests are clarified. Efforts to (re)conquer a place in the professional landscape do crop up, but, as Kramer observed during the InBetween period in question, are particularly evident in the case of biomedical laboratory scientists.

From the outset, the biomedical laboratory scientist supervisors prioritised participation in InBetween, found students for the course, prepared them for the course the week before and followed up afterwards. In addition, as supervisors, they chose to be present in the hospital throughout the course from Monday to Friday.

During the InBetween course, the supervisors repeatedly expressed in informal conversations the importance of making a good impression as a profession. Furthermore, it was for them particularly important that the other professions experience the profession of biomedical laboratory scientist as being ‘indispensable’. This was also emphasised later at the same meeting, when it was being discussed which hospital ward the course was to be held in in the future. One supervisor argued:

> The advantage of maintaining these two hospital wards from the spring is that we can once again show the importance of the biomedical laboratory scientist (KRAMER, 2018, p. 187).

This statement asserts that the students are representatives of the biomedical laboratory scientist profession, so that when the students “once again can show the importance of the biomedical laboratory scientist”, this has a positive effect on the profession.

In the educational context and at the institutional level, the medical profession’s attempts to thwart the InBetween project became clear, primarily in the later stages of development. Our analysis shows
how the medical school, at the institutional level, gradually withdrew from the project: from first being represented by a professor, then by a peripherally associated physician, to finally completely opting out of being represented at all. A lack of prioritisation, and trouble finding medical students for the project, were evident throughout the project.

The analysis shows that the consequence of this lack of any prioritisation and legitimisation of the project at the institutional level was that InBetween was conducted without the participation of medical students. As such, the InBetween course became amputated in relation to the project’s intentions for cooperation across all the professions involved.

The medical profession’s non-participation can, in a sociological perspective, be regarded as ‘social closure’. Brante highlights a central part of Weber’s theory of ‘closure’: a demonstration of collective egoism by a profession that manifests itself by keeping other professions out of its field of work to preserve the monopoly of the profession (Brante, 1988). The medical profession cut off the other professions by withdrawing from the project. This will have a significant impact on the future of the project, thus amputated by the non-participation of the medical profession.

The professional hierarchy seems to exhibit a particularly overwhelming resilience in terms of maintaining the role of traditionally dominant professions, partly by the professions mutually maintaining and legitimising the roles that the analyses have previously revealed, but in the case of doctors also by using a strategy in which they simply opt out of any collaboration, or only participate to a limited extent. In most cases interprofessional cooperation becomes a platform, partly for the legitimisation and partly for the renegotiation of the profession, with the Biomedical Laboratory Scientist profession as an example. In contrast, the medical profession acted with increasing social closure as the project progressed, choosing not to participate either at the practical micro level of guidance, or at the institutional meso level.

The next section shows how the lack of ambivalence tolerance affects the students’ opportunities as co-developers of the future health care system.

**STUDENT AMBIVALENCE**

Analyses based on the ethnographic studies reveal the manner in which the InBetween programme functions as a new, self-made and innovative learning context, in which the patient becomes the most cohesive element (Nielsen, C.S. 2017). Analyses show how the conventional educational learning context, focused on individual professions, changes into a self-made and innovative patient-centred interprofessional and cross-sectorial learning context. Furthermore, how for the students InBetween becomes a self-created and innovative ‘seamless’ learning context, in which the patient becomes the
common focus for the interprofessional team across sectors, and in which the team is driven by joint responsibility for the patient. At the same time, individual students are driven to show each other the very best of their professional skills. In this way, the InBetween study course rethinks practice. On the other hand, it becomes clear how the change to an innovative ‘seamless’ learning context across sectors can be problematic. Students talk about this new learning context as unrealistic, and of the InBetween programme as a utopian workshop.

“It is paradoxical that we still need to find out how things are going on in the real world” (Nielsen, 2017, p.189).

The statement comes from a medical student, but in general, practice in the InBetween project is perceived not as real professional practice, but rather as a utopian future workshop. The empirical analyses point out how for the students InBetween assumes an unrealistic form - as a utopian workshop - the purpose of which is a move away from learning current professional practice, seen as apprenticeship, to the development of new patient pathways across healthcare sectors. While following the patient across sectors, the interprofessional teams of students identified gaps, barriers and alternative possibilities in relation to developing better pathways for the patient, but they did not learn how to handle things in practice in a traditional way.

The alternative possibilities identified were embedded in specific situations, and recognised using ideas from the concept of social imagination. In other words, the interprofessional team of students was inspired by problematic conditions concerning patient pathways to learn in an interprofessional, democratic, socially engaged and innovative way. This in a traditional healthcare setting, characterised by evidence and rational behaviour in an historically hierarchical context (ibid., p. 207). In the utopian practice setting, the students can experiment with new forms of collaboration. The students were frustrated by the fact that they did not learn how to handle traditionally practise. They were worried about not learning how to act, keep up the pace and reach goals, which their supervisor would teach them to do in mono-professional clinical practice. The examination they were due to sit was all about these things, not about how they could develop the healthcare of the future. For the students, the InBetween course involves what they call ‘a constructed situation’, based on having an unrealistic amount of time for interacting with the patient, as well as for their joint reflection sessions.

From this angle, the relationship between the ‘unrealistic’ learning context about patient pathways in healthcare and the ‘actual’ reality of the practice placement institution is all about a clash between different organisational, as much as pedagogical, realities. Thus caught in an ambivalent tension between
involvement in the practice of their own professional education and the creation of a new interprofessional form of practice, we can see a tendency for the actors to escape this tension by involving themselves in one place at a time – and not by balancing between them. Ambiguity is evident in the fact that the InBetween actors are at the forefront of the creation of a new patient-centred pattern of training, maintaining a balance between mono and interprofessional patient-centred decision making, while at the same time experiencing the contradictions involved in doing so.

**AMBIVALENCE TOLERANCE AS PART OF BEING A CO-DEVELOPER**

In the previous section, we have presented the ambivalence tension experienced by students - the tension between involvement in the practice of their own professional education and the creation of a new interprofessional practice.

From an empirical point of view, we will include in our analysis the concept of ambivalence, as formulated by Regina Becker-Schmidt (1982, p. 197). Becker-Schmidt uses the concept of ambivalence as an extension of Critical Theory, in which ambivalence is a reaction to competing motivations related to a contradictory reality, or conflicting requirements, such as, for example, simultaneous demands for product quality and a speedy production process. The concept of ambivalence has been developed using inspiration from studies of contradictory demands and divisions in the inner and outer world of wage-dependent working mothers in the interface between family, working conditions and life experience.

Ambivalence was evident in the team of students in response to a conflict between the desire to improve their own expertise within their own profession, and the desire to improve patient-centred interprofessional learning. Both desires require time for learning. Time is a major factor in the work of Becker-Schmidt, and a marker of ambivalence.

The interprofessional conferences in InBetween, regarded as a utopian workshop, offer a breathing space, in which participants are given the opportunity to process the ambivalence through critical reflection.

One quality of the breathing space offered by a utopian workshop is emphasised by Nielsen & Nielsen (2015, p. 132): a breathing space allows the participants to develop what Becker-Schmidt calls ambivalence tolerance. Breathing spaces allow the various incompatible sides of the ambivalence to be reconciled and acknowledged, without immediately aiming to formulate specific plans of action that will force anyone to choose or prioritise one over the other. This opens up for a modification of the ambivalence - as a modification of competing motivations - in which the seemingly incompatible
contradictions can be shifted towards a new, ‘common third’ possibility. Conversely, being trapped in ambivalence can lead to resignation, retreat and the abandonment of hopes - without freeing oneself from the ambivalence (ibid., p. 131). Our analyses show this form of resistance to ambivalence in the case of some actors in InBetween who reacted with non-participation (Nielsen, C.S. 2017; Kramer, T. 2018). This is a form of resistance that does not seem to tackle the endangered balance between mono-professional and interprofessional practice.

With InBetween’s course safely labelled a utopian workshop, supervisors and students are in principle given space to process the ambivalence through a dialogue between mono-professional and interprofessional aspects, and through cross-sectoral practice with a joint focus on the patient programme and pathway (Nielsen, C.S. 2017, p. 206). On the one hand, there is an opportunity to enter into dialogue about the ‘common third’, while at the same time the students are strictly constrained by the patient pathway. Ambivalence becomes defensible when students begin to tackle incompatible contradictions with negotiations about a ‘common third’, for example: ‘common goals that are the patient’s goals’; ‘common clinical decision-making’; and the creation of ‘intertwined practices’. At the same time, the time spent on common reflection does reinforce the sense of the whole process as unrealistic.

We might say that it is all about learning how to handle the ambivalence. In Becker-Schmidt’s work, core concepts in determining social learning are “ambivalence and contradiction” as well as “the historical and societal issues they emanate from” (ibid.). She argues that serenity, hesitation, perseverance and thinking are necessary components of social learning. Becker-Schmidt locates the source of reorientation in the ability to endure contradictions and the will to break out and challenge the ambivalent reality. According to Becker-Schmidt, the learning process is centered on the development of ‘ambivalence tolerance’, involving the ability to endure and interact with social conflicts and contradictions, as well as the ability to anticipate.

The interprofessional conferences create a breathing space for the incompatible sides of ambivalence to be reconciled and recognised, without immediately aiming to determine specific action plans that would force one to choose or prioritise. Views and arguments from different professions can meet in discussions aimed at meeting the patient’s goals or vision of what is the good life. This will open up for a processing of any ambivalence, through which the contradictions between mono-professional and interprofessional learning may evolve into a new ‘common third’ for the benefit of the patient, as well as meeting challenges in the education system and in healthcare (ibid., p. 207).

In other words, the intention of project InBetween is an insistence on the fact that courses of study and educational theory not only have the task of adapting the students to the existing healthcare system,
but can also be seen as potentially important elements in the development of healthcare (ibid., p. 208).

It will be necessary to clarify what the students in the interprofessional teams should be critical about, and on whose behalf: on behalf of the patient, the respective study programmes, the professions and future workplaces, or on behalf of the welfare state or market conditions as such? This involves not only reflection on how any criticism may be expressed, but also thoughts about on whose behalf supervisors and students have to be critical. In this respect, both supervisors and students in the interprofessional team are called on to criticise traditional practice, and at the same time create new ideas and opportunities for practice (ibid).

**FINAL CONSIDERATIONS**

This article shows how InBetween as a study pathway creates the potential for students to be co-creators of healthcare.

The key point in this article is how communities of supervisors and students manoeuvre among contradictions between the traditional mono-professional setup and the new inter-professionalism, and furthermore how the lack of ambivalence tolerance in the field is an obstacle to changes in healthcare. The article shows how students and supervisors act as agents for change in healthcare and future educational programmes.

We have shown how project InBetween can become a utopian workshop, and have discussed how the involvement of students as co-developers in healthcare leads to situations of ambivalence for professional staff, supervisors and students. Furthermore, we have shown how both innovative opportunities and ambivalences emerge when clinical supervisors and students are involved as co-developers in the development of healthcare.

Finally, if we are to take advantage of innovative opportunities, it is vital to provide breathing spaces in which those involved can reflect on contradictions that arise between the professions, and the ambivalences facing both supervisors and students.

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