Clinical Supervisors' Views on Strengthening Theory-Practice Coherence — A Sociology of Knowledge Perspective

Karin Højbjerg [1], Elise Bromann Bukhave[2], Cathrine Sand Nielsen[3], Søren Engelsen[4], & Sine Lehn[5]

1. University College Copenhagen, Denmark.
2. University College Absalon, Denmark.
3. University College VIA, Denmark.
4. University College Lillebælt, Denmark.
5. Roskilde University, Denmark.

Contact: Karin Højbjerg, University College Copenhagen, Denmark. khho@kp.dk

Abstract

Increased focus on the practical components of Danish health care education and greater coherence between theory and practice have been persistently identified as major issues requiring quality improvement. Policy initiatives to standardize education in eight health professional bachelor's programs, including greater theory-practice coherence, prompted us to explore the types of educational practices highlighted by clinical supervisors to strengthen coherence between theory and practice. Thirty-one qualitative interviews were conducted with clinical supervisors in nursing, physiotherapy, occupational therapy, nutrition and health programs, biomedical laboratory science, midwifery, radiography, and psychomotor therapy. Data were thematically analyzed in a sociology of knowledge framework. We found that theoretical knowledge had a higher status in the programs. The imbalance may have negative consequences, whereby *theoria* activities in the practical part of the

programs may, in unintended and subtle ways, increase in dominance. The intrinsic qualities of clinical practice are, therefore, at risk of being downplayed.

Keywords
Clinical education, theory-practice gap, reflection, simulation, knowledge hierarchy

Introduction
This paper investigates what types of current educational practices clinical supervisors across eight different health professional bachelor's programs highlight to strengthen coherence between theory and practice. Clinical supervisors are an emerging group of professionals overseeing health care students' practical (clinical) parts of study programs within nursing, physiotherapy, occupational therapy, nutrition and health, biomedical laboratory science, midwifery, radiography, and psychomotor therapy. Clinical education takes place in practice sites relevant to specific professions (such as private or public maternity clinics for midwifery students, public or private physiotherapy clinics, hospital pathology departments for biomedical laboratory science students, and public hospitals and primary sector facilities for nurses). One year of student workload equivalates 60 ECTS credits (European Credit Transfer System). The required clinical ECTS credits vary across the study programs from 30 (nutrition and health) to 105 (midwifery). Historically, clinical supervisors trained students using an apprenticeship model and were usually selected for that role based on their skills in the given profession. Currently, clinical supervisors must have formal pedagogical qualifications equivalent to one-sixth of a diploma degree (10 ECTS credits) (Ministry of Education and Research, 2002).

Over the last 20 years, health professional bachelor's programs in Denmark have been allocated to university colleges and categorized as medium-cycle higher education. The three-and-a-half-year programs are worth 210 ECTS credits and follow a model with alternating academic and practical study components.

Unlike traditional university bachelor's programs, health professional bachelor's programs include mandatory practical components (Ministry of Education and Research, 2008). Thus, ECTS credits are given for both the theoretical and practical parts of the education. Educational globalization, such as the Bologna Process of harmonizing higher education in Europe (Andersen & Jacobsen, 2012) has increased the focus on quality assurance of the practical components of programs (Hjelmar et al., 2009; Jensen & Haselmann, 2010; Danmarks Evalueringsinstitut, 2009). One persistent quality issue has dominated: the need for greater coherence between the theoretical and practical components (Haastrup et al., 2013; Heggen & Smeby, 2012; Holen & Lehn Christiansen, 2017). From a sociology of knowledge perspective, the relationship between theoretical and practical knowledge is a well-established hierarchy in the educational field, consolidated over time and favoring theoretical/academic knowledge (Chege, 2009; Isopahkala-Bouret et al., 2018; Saugstad, 2015; Thomsen et al.,

2013; Upton, 1999). In health care programs such as nursing, physiotherapy, occupational therapy, nutrition and health, biomedical laboratory science, midwifery, radiography, and psychomotor therapy, which are the focus of this paper, various stakeholders, such as managers and policymakers, refer to the gap as an issue that must be addressed to overcome clinical, organizational, or pedagogical problems, such as a lack of coherence between education and the labor market, between professions and sectors, and inpatient care (Holen & Lehn Christiansen, 2017).

In 2016, revised regulations were published for the above-mentioned health professional bachelor's programs (Ministry of Education and Research, 2016a, 2016b, 2016c, 2016d, 2016e, 2016f, 2016g, 2016h). The purpose of the revision was to improve coherence in patients' trajectories, better interprofessional and intersectoral collaboration, more patient involvement, and better coherence between theory and practice (Nielsen et al., 2023). The latter issue forms the starting point of this paper. The eight programs represent different professions, but the revised regulations aim at a unified focus where the clinical supervisors are key actors in the practical part of the programs. Therefore, our research question is: What types of current educational practices do clinical supervisors highlight to strengthen coherence between theory and practice, and has the increased policy focus created changes in the knowledge hierarchy?

What is already known about the theory-practice gap and attempts to minimize it?

In the international literature, the theory-practice gap in healthcare education is frequently debated (Greenway et al., 2019; Jonsson et al., 2014; Moores et al., 2022; Scully, 2010). Greenway and colleagues (2019) state that the concept of the theory-practice gap is unclear, inconsistently used, and holds negative connotations. It is found to be referred to as something being "bridged, breached, avoided, or negotiated" (p. 1) and to be "purely metaphorical" (p. 1). This lack of clarity allows for multiple interpretations. The metaphor may have become a label covering complex educational challenges such as an inconsistency between students' theoretical knowledge and its application in clinical practice, often articulated in connection with clinical study periods by students as well as by clinical educators (Calleja et al., 2016; Jonsson et al., 2014; Wilson, 2008). It also reflects a discrepancy between what students are being taught in the academic setting and what they see reflected in their periods of clinical practice.

In line with the knowledge hierarchy favoring theoretical/academic knowledge (Chege, 2009; Isopahkala-Bouret et al., 2018; Saugstad, 2015; Thomsen et al., 2013; Upton, 1999), where the term "theory-practice gap" is considerably more prevalent than "practice-theory gap," one consequence of this imbalance has been reported as academic drift, described as occurring when "knowledge which is intended to be useful gradually loses close ties to practice while becoming more tightly integrated with one or other body of scientific knowledge"

(Harwood, 2010, p. 416). In a more structural context, *academic drift* in non-university institutions is described as an "attempt of non-university institutions to strive for an academic status, recognition, and rights associated with university institutions in an upward movement to resemble the university" (Griffioen et al., 2013, p. 2). In Denmark, health professional bachelor's programs are closely connected to practice. The knowledge base is characterized as vocation-, profession- and development-oriented (Ministry of Education and Research, 2008, 2019a, 2019b). Despite this, these programs have been described as academized (Bøje, 2012; Mathiesen, 2000).

Various studies have explored how to minimize the "gap between theory and practice" based on the understanding that the link between the two is missing, resulting in a problem that must be solved. From an overall curriculum organizing perspective, several studies assume that theoretical knowledge must precede practical knowledge (e.g., Landers, 2000; Lauder et al., 2004; Salifu et al., 2019) and attempts to compare whether theory modules are offered before or after practical modules have shown little impact; neither model has been unequivocally beneficial for students' learning or experience of coherence (Birks et al., 2017; Falk et al., 2016). Placing practical training elements early in the program is highlighted as supporting students' focus on reality (Honey & Penman, 2020). When it comes to closer cooperation between educational staff at college and clinical settings, students seem to value specific partnership models in which clinical supervisors and lecturers from the educational institution meet for clinical activities (Tang & Chan, 2019). Shared positions in which clinical supervisors are employed by both the educational institution and the practice site to bring theory and practice closer together (Hacket et al., 2016) have been tested. However, co-location has inherent ambiguities and challenges (Flood & Robinia, 2014). So-called "practicum schools," a collective term for activities in which clinical supervisors conduct research and invite students to participate in research projects, have been reported as successful (Børsting et al., 2020). Both students' clinical skills and knowledge of research methods seem to improve. Hooven has investigated collaboration between faculty members and clinical staff in nursing, finding that faculty members perceived the collaboration as more successful than the clinical staff. Further, faculty staff reported more role confidence and felt more respected than clinical staff (Hooven, 2022).

Prevalent pedagogical tools are reflection and simulation training in clinical practice. Reflection is reported to be effective for students learning to link their experience in clinical practice with theoretical perspectives (Dahl & Eriksen, 2016; Lindberg et al., 2018; Sandvik et al., 2014; Sweet et al., 2019). Simulation teaching is perceived as conducive to preparing students for the challenges they will face in their placement periods and future professional work (Lendahls & Oscarsson, 2017; Park et al., 2017). The use of technology is often integrated and has positive connotations of an inevitable novelty, something modern and up-to-date (Burbules, 2016).

To sum up, most of the literature focuses on means and methods to help bridge the theory-practice gap but has different foci: changes in the curriculum (such as different theory-practice sequences and early introduction of practice modules) or administrative organization of clinical supervisors (such as shared positions), closer collaboration (partnership models and practicum schools), and pedagogical tools such as reflection and simulation training in clinical practice. Most of the studies derive from nursing education, which is the largest group of the eight professions. In this study, we seek to broaden the scope by including representatives from all eight healthcare professional programs, giving voices to the professionals being the executors, thus adding important new aspects of current educational practices.

Theoretical framework

To answer our research question, we draw on Bourdieu's cultural sociological theory of practice (Bourdieu & Wacquant, 1996). Following this perspective, practice is understood not only as a phenomenological form of expression but also in relation to structural conditions of possibilities (Bourdieu & Wacquant, 1996). We rely particularly on the relational and dispositional perspectives that form the practices (Bourdieu, 1990, 1997). The relational perspective states that a practice, in action or articulation, must be understood and explained in relation to other practices. Some educational practices are considered more valuable than others. The dispositional and relational perspectives are closely connected to the concept of *habitus*, which refers to a system of dispositions orienting people to act and think in the social world to position themselves (here as professionals) in the most beneficial way (Bourdieu, 1997). We see clinical supervisors' professional dispositions as formed by and deriving from practices valued in society, education, and professions. As societal actors working in a specific culture, clinical supervisors incorporate taste and distaste for legitimate educational practices. This also includes the values of a knowledge hierarchy, which is not necessarily explicit but present in society as well as in the educational culture. The dispositions form the practices, but dispositions do not determine individual agents' practices (Bourdieu & Waquant, 1996).

In addition to the relational perspective, our analysis of educational practices is also inspired by Aristotle's view of forms of knowledge as linked to certain activities. In the case of theoretical knowledge, the activity of *theoria* is linked to the form of knowledge called *episteme*. *Theoria* implies describing, considering, and analyzing (Aristotle, 1994, p. 333). Activities can be executed as disrupted from the *praxis* flow since the person can stop the process and take up the activity. The activity of *praxis* is described as the life of action and consists of meaningful ethical-social human actions, where the goal of the activity is embedded in the activity itself. In this way, *praxis* has its own flow of uncontrolled actions. It is associated with the form of knowledge called *phronesis* (Aristotle, 1994), which has been described as unclear, relatively unpredictable, unique, irreversible, concrete, and closely connected to person and location (Højbjerg & Larsen, 2024). Since the concepts of *praxis* and *theoria* are linked to ac-

tivities, they have been used as analytical tools to categorize the educational practices presented by clinical supervisors. Due to the relational perspective from Bourdieu, it is possible to analyze what qualities of the activities are considered more valuable than others.

Methods

This study derives from the 2020-2023 research project Coherence between Clinical and Theoretical Studies (UDSiKT), which aimed to explore how the clinical part of the eight educational programs had implemented the required changes (Engelsen et al., 2022; Nielsen et al., 2023; Jelsøe et al., 2023; Højbjerg et al., 2023). Data from eight different programs is unique and has enabled the examination of common patterns in current educational practices in the clinical part of the programs with the aim of strengthening coherence between theory and practice. The data consisted of 31 semi-structured individual virtual interviews following the notion of practice understood as actions or articulations. COVID-19 precluded visiting clinical sites; observations were originally planned as a substantial part of the research design but were converted to interviews. The authors, who were unaffiliated with the programs, conducted the interviews. We used gatekeepers from each university college to obtain the contact details of clinical supervisors. Clinical supervisors were broadly selected based on employment by regional or municipal authorities or the private sector. The number of active clinical supervisors in Denmark is unknown. In a survey of clinical supervisors' backgrounds and working conditions (reported elsewhere in Jelsøe et al., 2023), we sent surveys to a gross list of 9309 clinical supervisors' email addresses, and 2909 responded. These clinical supervisors were responsible for 22,000 students across all programs offered at the six university colleges in Denmark. The gatekeepers had no clinical professional relationship with the informants. Four to six clinical supervisors from each health professional program were invited to participate in interviews. Six were invited from the nursing program since it was the largest. Informed consent was obtained from participants, who were informed verbally and in writing that their participation was voluntary and that they could withdraw their consent and discontinue their participation at any time without repercussions. All authors conducted the interviews using the same semi-structured interview guide. Topics included descriptions of pedagogical initiatives taken to improve coherence in patients' trajectories, better interprofessional and intersectoral collaboration, more patient involvement, and better coherence between theory and practice. In this paper, we focus on data from the latter topic.

All interviews were recorded, transcribed, and thematically analyzed, with inspiration from Braun and Clarke (2006), who suggest a theoretical shaping of the analysis since "researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum" (Braun & Clarke, 2006, p.84). For transparency, we have presented our theoretical framework above. Through six phases of "Familiarizing Yourself With the Data" over "Generating Initial Codes" towards "Searching for and Reviewing Potential Themes" and "Defining and Naming Themes" (Braun & Clarke, 2006, p. 87), we

found two major educational practices (1: Collaboration between clinical sites and educational institutions and 2: Specific pedagogical initiatives). The latter has four subthemes. All authors read the transcriptions individually to become confident with the empirical material and to generate initial codes. These were discussed in the research group to review and define themes. It has not been a linear process but rather a "recursive process", as recommended by Braun and Clarke (p. 86), where movements back and forth in the phases are necessary.

The data did not shed light on how the clinical supervisors practiced their educational initiatives. The interviews are representations of how the clinical supervisors perceived their practices in relation to strengthening theory-practice coherence. We do not have data on the students' perspectives on the practices, which could have provided further nuances. On the other hand, the study gives a unique picture of how eight kindred professions handle the relation between theory and practice in the practical parts of the programs. In this study, we have not focused on how the eight programs differ, which has been reported elsewhere (Jelsøe, 2023).

Findings

Educational practices to link theory and practice articulated by clinical supervisors seemed to focus on collaboration between clinical sites and educational institutions and specific pedagogical initiatives.

Collaboration between clinical sites and educational institutions

At the organizational level, the regulations state that educational institutions and organizations providing clinical placements must collaborate at "all levels" to ensure coherence between theoretical education and clinical placement (Ministry of Education and Research, 2016a, 2016b, 2016c, 2016d, 2016e, 2016f, 2016g, 2016h). University colleges (UCs) must ensure that cooperation is established and maintained, and the UCs admitting students have formal and legal responsibility for the overall program. In the following, we see how the clinical supervisors experienced collaboration practices between UC teachers and themselves as representatives of theory and practice from a relational perspective.

We found wide variation in frequency and closeness of contact between clinical practice sites and educational institutions. Sometimes, the UC initiated and organized regular meetings. One clinical supervisor in occupational therapy described this as follows:

> Well [...] as clinical supervisors, we have some meetings with [UC] [...] quarterly meetings I think it has become [...] three or four times a year. We are invited to clinical meetings at the school, where we discuss various things, new topics, new trends, new methods, new tools, whatever there may be. There they also tell us about some info from inside the school, of course. Behind that there is a theory/practice committee, which consists of some, well, some of the people from [UC] and some of the clinical

> supervisors [...] who sort of sit in while the agendas are made for these meetings we are invited to. (Clinical supervisor 7, occupational therapy)

Although we do not have data on the content of the specific meetings, we see from the quote that the initiative and agendas are defined by UC educators, who regard clinical supervisors as needing to be updated with necessary and important information they would otherwise lack. This power of definition places the UC educators in the driving seat while the clinical supervisors "sat in" at theory-practice committee meetings.

In addition to formal regular meetings, UC lecturers took more spontaneous and informal opportunities to collaborate. A clinical supervisor from a municipal physiotherapy center reported:

> For example, there is a lecturer at UC who sent out an email saying: "I'd just like to inform you that I'm the coordinator for this team and that we're going to send out students now for five semesters because of COVID-19 they haven't received the teaching the way we used to do it, just so you can think about it." and then afterwards [...] how did it go? So we have that dialogue by email. (Clinical supervisor 17, physiotherapy)

Again, the UC educator initiated the interaction. Information from the clinical practice site was fed back to the UC. The initiative did not flow in the other direction. The clinical supervisor could have asked the students to explore theoretical arguments for the use of a specific guideline or procedure.

A midwifery supervisor said:

> Sometimes they [the UC lecturers] also come out [...] have a meeting with a student, for example [...], but then it must be like [...] she [the student] must be at the point of dropping out of the program because we can manage ordinary challenges ourselves out here. (Clinical supervisor 4, midwifery)

Students potentially dropping out of a program went beyond the issues that clinical supervisors were allowed to handle without consulting the UC. The term "manage" may indicate that the clinical setting managed (and was possibly proud of managing) some issues before asking the UC for help.

The preceding examples demonstrate that the UC set the pace of informal collaboration, which clinical supervisors have normalized and accepted. However, this dynamic influenced the agency of clinical supervisors, who seemed to assume a predominantly passive role. Although self-determination among clinical supervisors when working with students seems desirable, it was an accepted fact that the UC took the decision when the ultimate challenge of student dropout became an issue.

Pedagogical initiatives to link theory and practice

Focusing more directly on how the different forms of knowledge as activities were promoted or downplayed, we identified four sub-themes of pedagogical practices that the clinical supervisors highlighted with the intention of linking theory and practice.

Reflection: From an unpredictable practice to a theoretically informed practice

Clinical supervisors viewed the use of reflection exercises in the form of written assignments or oral sessions as a significant way to connect theory and practice. Written reflections varied in terms of frequency and form, with specific models being followed or students completing pre-printed sheets. A nurse supervisor explained:

> The one [method] we also use a lot to create "transfer" is the written reflections. We have chosen scheduled reflections once a week, they [students] must hand in a written reflection, where they include new and old literature. So it's very useful. Every week they get feedback on a situation they have reflected on [...] from the clinical supervisor, where they emphasize linking theoretical knowledge to the situation. (Clinical supervisor 25, nursing)

Here, the students are asked to practice *theoria* activities, which are described in detail (what kind of literature must be included—new or old), and the clinical supervisor's feedback is also linked to theoretical knowledge.

There was variation in the frequency of written reflections, which could be accompanied by oral reflections or reviews. A midwifery supervisor described their use as follows:

> [...] during those 21 weeks—they are to write ten reflection sheets. And she [student] must include some theory [...] So we kind of pull out the theory, and she must link it to a practical situation [...] sometimes it gets so huge, and there are a thousand things they must reflect on [...] then they just break their necks [...] because they could write a whole project about this, you see. They were only supposed to write a page and a half or something [...] (Clinical supervisor 2, midwifery)

Similarly, a clinical supervisor in occupational therapy required two scheduled reflections every week "where we go in-depth."

The varying number of working hours allocated to a clinical supervisor also seemed to determine the frequency of written reflections. One midwifery supervisor explained:

> [...] we have reached a consensus about how many reflection pages they should do, how much work we expect from them [...] we need to find some middle ground in terms of how much time we spend giving feedback because it varies what we prioritize, but also how many resources we have allocated to this position. (Clinical supervisor 3, midwifery)

Regardless of their structure and frequency, reflection activities were based on observing, describing, and analyzing, and were thus *theoria* activities. The learning situation was controlled, with a designated time and place for the activity. In contrast, the activity of *praxis* is less controllable, consisting of meaningful actions of an ethical-social nature based on specific and sometimes ambiguous practice situations with their own flow that cannot be paused, as in the case of a sudden patient reaction. Clinical supervisors did have concerns about whether the required assignments were too much of a workload for the students ("breaking their necks", "they could write a whole project about this"), which we interpret as implying that these activities could steal time from the *praxis* activities.

A single unified theoretical framework to link theory and practice through reflection

At one clinical placement site, a single theoretical perspective was given special status in students' reflections. At the management level, the hospital and educational institution had decided to use one framework as a tool to link theory and practice. A nurse supervisor explained:

> It's initiated by [...] no, of course it's also mixed because it's a nursing director who thought we should have a conceptual framework to have a common language. Then the education grabbed it because they were just revising the study program, so it was kind of initiated by both. [...]. Then I heard that when they [the clinical supervisors] are in the reflection sessions afterward, they talk about involvement [of patients], also because many of them have a laminated card called "Fundamentals of Care," where "care" is the relationship and the involvement of the patient. So they sit in their reflection room and use it when they reflect. (Clinical supervisor 25, nursing)

It was difficult to determine which institution had been most proactive in initiating this theoretical perspective as a starting point for student reflection. It seemed to fit strategic initiatives at both the clinical placement site (the need for a common language) and the UC (where the study program was about to be reviewed and changes would take place anyway). The basic concepts were described on a laminated "pocket card." The theory served as a guideline for how the profession (nursing in this case) should be performed in practice and discussed in a consistent and normative way. The *theoria* activities from the reflection sessions were emphasized using one common theoretical perspective. This led to further control of the activity, which was approved by leaders from both UC and clinical placement sites as representatives of theory and practice. Using the physical laminated cards approved by leaders from both UC and clinical placement provided a fixed consensus approach to professional practice, leaving limited openings for alternative perspectives.

Practices to compensate for lack of knowledge of theories

Some clinical supervisors were unfamiliar with the theories students learned at the UC and felt insecure about integrating them into reflection sessions. One clinical supervisor in occupational therapy said:

> Well, I graduated 100 years ago, and I can feel that the new students get a lot of new theories and stuff, and I find it hard to keep up with it when I also have to focus on my [...] well, everyday work here […]. So I can feel we're having a bit of a struggle as they get more theory behind them, now there are bachelor's and the master's programs, well, we're missing out sometimes [...] (Clinical supervisor 7, occupational therapy)

This clinical supervisor practicing professional activities (predominantly *praxis* activities) was conducting core activities of a legitimate professional occupational therapist in a clinical setting, where *theoria* is not a core activity. In general, many clinical supervisors found they lacked knowledge related to theories taught to students. They tried to address this lack without engaging with legitimate purveyors of theory (UC lecturers or students). Instead, a group of clinical supervisors relied on each other:

> [...] we also have a network group where we meet, but it's without the lecturers [from the UC], so it's just for ourselves, where we help each other through a few things, or develop something that we can all use or, well, we discuss things with each other. (Clinical supervisor 7, occupational therapy)

This approach possibly increased the collective strength of the group of clinical supervisors by unifying them against the dominant possessor of knowledge. However, it also created a physical and symbolic distance from UC lecturers in theory and reinforced the perception of clinical supervisors' knowledge as inferior.

Simulation training in practice

The 2016 revision describes simulation training as an optional pedagogical tool that can be used to a limited extent; however, it cannot replace direct patient contact or clinical placement. The mention of simulation in a policy document underpins a pedagogy that includes the use of technology and, hereby, its positive connotations. The clinical supervisors mentioned it as a pedagogical initiative with potential; one of them explained:

> [...] we have at [hospital x] a health professional learning center. A whole ward where there are only simulation mannequins. And the students have a whole introduction day here. (Clinical supervisor 28, nursing)

Thus, apart from being a prestigious pedagogical tool linked to new technologies, simulation of reality allows clinical supervisors and students to practice in organized and controlled ways, reducing the unpredictable, context-bound aspects of practice.

They are relieved from the drama of human life and death, which is a crucial part of *phronesis* knowledge learned through the activity of *praxis*. A practice flow, an ongoing stream of actions, can be controlled by the clinical supervisor using simulation as a pedagogical tool and it can be stopped at any time without real-life consequences. Simulation allows the normally uninterrupted flow of practice to be broken up into clearly defined activities, enabling the

observation, description, and categorization of *theoria* that was otherwise largely reserved for theoretical teaching.

Discussion

The consolidation of professional bachelor's programs has generated increased interest among stakeholders in enhancing the quality of the practical part of the programs. One consistent focus has been articulated as a need for better coherence between theory and practice. Given this, we wished to explore how this coherence was mirrored among clinical supervisors since they were in charge of the practical education across eight professional bachelor's programs. In the following, we discuss our findings.

Organization of professional bachelor's programs in the educational landscape

Due to our theoretical approach, we argue that educational practices partly derive from structural, societal, and cultural conditions and values that are embedded in the actors. Professional bachelor's programs are positioned as medium-cycle higher education. However, they are more closely related to shorter vocational programs than to longer university programs due to the mandatory ECTS points of practical education (Ministry of Education and Research, 2008, 2019b). When the legislation specifies mandatory ECTS credits for practical training, it can be seen as an attempt to equalize the importance of theoretical and practical knowledge in the curricula. However, from a relational perspective, compulsory ECTS credits for practical training also indicate a distinction from the long higher education programs at traditional universities, which are not subject to the same requirements. This makes practical education a distinctive marker that can be viewed as "making a virtue of necessity" (Bourdieu, 1984, p. 372), related to the position stipulated by Griffioen et al. (2013) of non-university institutions striving for academic status, recognition and rights associated with university institutions.

Historically, educational institutions have practiced *theoria* activities as a distinctive feature. These activities are thus perceived as *the* legitimate way to practice higher education. The focus and legitimacy of clinical (practical) education is based on the production of health care services; *praxis* as an activity is strongly involved. Possessing and representing theory as a key form of knowledge, the UCs retain a defining and dominant position, which we found in their role in collaboration.

These conditions and positions can, from the relational and dispositional perspective, provide some explanation for the educational practices of the clinical supervisors, who have embodied an approach favoring theoretical knowledge. The decisive power of the UCs strengthens the traditional knowledge hierarchy (Chege, 2009; Isopahkala-Bouret, 2018; Saugstad, 2015; Thomsen et al., 2013; Upton, 1999) in a more subtle way. The pervasive appearance of "theory and practice" in the literature, as opposed to "practice and theory," also demonstrates the persistent hierarchy.

The policy requirements reflected in the 2016 regulations to ensure greater coherence between theory and practice in as many as eight healthcare programs can also be seen as an important boost for health professional bachelor's programs by positioning them in the higher education landscape. At the same time, they represent an insoluble dilemma for UCs: they are required to focus on the practice of healthcare professions while also maintaining recognition as legitimate educational institutions. As professionals, clinical supervisors must balance these aims daily.

Specific pedagogical tools to overcome the theory-practice gap

Reflection sessions are perceived as an essential way to link theoretical and practical knowledge and are reported to be effective for students' learning processes (Dahl & Eriksen, 2016; Lindberg et al., 2018; Sandvik et al., 2014). Theory is used to reflect upon practical experiences. When using theory in reflection sessions, clinical supervisors are brought into situations where they find it problematic that they lack adequate knowledge about theories taught to students in UCs. This can be explained by the above-mentioned embodied values of what counts the most in an educational environment. Furthermore, from a relational perspective, it can be explained by the differences in postgraduate education for teachers (requirements for UC lecturers are a master's degree worth 120 ECTS credits, while clinical supervisors are required to have 10 ECTS credits in pedagogy and two years of clinical experience). The difference in knowledge of theory places the clinical supervisors in a perceived inferior position, which aligns with Hooven's findings that clinical staff felt less respected than academic staff in cooperation relations (Hooven, 2022).

When clinical supervisors had difficulty in mastering relevant theories, one strategy was to join with peers in the same situation to address this lack as a group. The participants chose not to engage with UC lecturers in this context, which could have been a way of exchanging knowledge and experience. Cooperation could have been an option instead of segregation. Conversely, UC lecturers were not described as lacking clinical knowledge or experience in practice.

Clinical supervisors found the use of a single theory particularly valuable as an analytical framework for reflection and analysis of practice situations. A potential explanation is that one theoretical conceptual framework reduces the complexity inherent in multiple theories. However, it might lead to a limited view of professional practice. This practice was sanctioned by key decision-makers in the UC and hospital management. The easy availability of laminated pocket cards was the physical manifestation of filling the gap between theoretical and practical knowledge.

The importance of student reflection was established by the number of required written reflections, which seemed to have increased over time to the extent that clinical supervisors questioned whether the reflection workload unnecessarily burdened students and disturbed

praxis activities in clinical placements. *Praxis* activities are necessary when *phronesis* must be learned, according to Aristotle (1994).

We found that simulation training was integral to clinical practice in health professional bachelor's programs. It is specifically mentioned as an optional pedagogical tool (Ministry of Education and Research, 2016a, 2016b, 2016c, 2016d, 2016e, 2016f, 2016g, 2016h) with the caveat that its use should be limited and not replace clinical practical education. The objective is to simulate real-life practice using technical, computer-based patient mannequins and artifacts (Lendahls & Oscarsson, 2017; Park et al., 2017). Ensuring patient safety is one argument for using simulation facilities to practice skills that are primarily technical (Berndt, 2014; Guinea et al., 2019). Students can repeat skills in a setting that is less complex than real-life clinical practice, bypassing the unpredictable and "messy" social and ethical context that calls for *praxis* activities. Thus, simulation training provides an opportunity to work with practice in a more theory-based way. Practice can be stopped at any point and analyzed in separate units; learning thus involves *theoria* activities. Simulation training provides more control and clarity in practice, which has been described as unclear, relatively unpredictable, unique, irreversible, concrete, and closely connected to person and location (Aristotle, 1994; Højbjerg & Larsen, 2024). Furthermore, in education, there is a constant fascination with anything new, and technology is described as an inevitable novelty (Burbules, 2016). Technology is ubiquitous in health care, with new options continually becoming available and consequently attractive to integrate into educational practices.

From other data sources in the project, we learned that there had been attempts to reorganize curricula by changing the order of theory and practice components, as seen in other studies (Birks et al., 2017; Falk et al., 2016; Honey & Penman, 2020). Here, the aim was to replace theory with clinical education in the final semesters before graduation (particularly in midwifery and nursing programs) to enhance familiarity with clinical practice before graduation, minimizing "practice or responsibility shock".

No participants in our study described examples of employment at both a UC and a clinical placement setting, which is characterized by ambiguity and duality (Hackett et al., 2016). Difficulties in simultaneously balancing goals and objectives related to clinical care and education were reported. Other sources reveal that they still exist (Bukhave et al., 2024).

From the perspective of the clinical supervisors, *theoria* and *praxis* activities seem to complement each other in health professional bachelor's programs in a university college-based model by variously alternating academic and practical study components. Our analysis found some of the same components as in the literature (reflection sessions and simulation training). However, the sociology of knowledge perspective provides up-to-date knowledge of current practices, especially explanations of the dynamics in the persisting focus on the practical part of health professional education and the attempts to bridge the gap between theory and practice.

The clinical supervisors' dispositions of striving for the most prestigious or legitimate way of practicing education with the use of theory-oriented them towards more *theoria* activities combined with a need to control an unpredictable practice to make it fit with scholastic educational activities. Consequently, *theoria* activities were promoted while *praxis* activities were perceived as less important. The intrinsic qualities of practice remained at risk of being downplayed, and the inherited knowledge hierarchy tended to be reproduced.

Conclusion

Despite an increased focus on the practice components of health professional bachelor's programs, theoretical education takes precedence in educational practices in the clinical part of health care programs. These educational practices can partly be explained by the organizational position of UCs as medium-cycle higher education. In the attempt to legitimate the practical component of the programs, the educational practices seem to rely on theory-based activities, and these thus dominate practices for enhancing coherence between theory and practice, as seen in the prevalence of reflection and simulation sessions. In collaboration practices, clinical supervisors as representatives of practical knowledge were reluctantly awaiting initiatives from UC actors. Clinical supervisors are operating under conditions authorized by policymakers who created the university college-based model with alternating academic and practical study components—the same policymakers who are now asking for solutions to the theory-practice gap. The imbalance between theory and practice may have negative consequences, whereby *theoria* activities may continue, in unintended and subtle ways, to increase dominance. The entry of artificial intelligence, paired with the fascination of educational technology, will probably increase *theoria*-based activities in the future and reinforce the traditional knowledge hierarchy. The professional practice, which is the goal of the students' education, involves extensive diversity, which no theory can exhaustively express. The intrinsic qualities of clinical practice, are therefore at risk of being further neglected.

Further research is needed to explore the implications of this for students' learning of clinical skills and how theoretical components of health professional education in UCs reflect the practice component.

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Article history

References

Andersen, H. L., & Jacobsen, J. C. (Eds.). (2012). *Uddannelseskvalitet i en globaliseret verden* [Educational quality in a globalized world]. Samfundslitteratur. Retrieved from https://samfundslitteratur.dk/bog/uddannelseskvalitet-i-en-globaliseret-verden

Aristotle (1994). *Nicomachean Ethics* (W. D. Ross, Trans.). Harvard University Press. https://doi.org/10.1515/9781400852369-015

Berndt, J. (2014). Patient safety and simulation in prelicensure nursing education: An integrative review. *Teaching and Learning in Nursing, 9*(1), 16–22. https://doi.org/10.1016/j.teln.2013.09.001

Birks, M., Bagley, T., Park, T., Burkot, C., & Mills, J. (2017). The impact of clinical placement model on learning in nursing: A descriptive exploratory study. *Australian Journal of Advanced Nursing, 34*(3), 16–23. https://doi.org/10.37464/2017.343.1521

Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste.* Harvard University Press.

Bourdieu P. (1990). *In other words: Essays towards a reflexive sociology*. Stanford University Press. https://doi.org/10.1515/9781503621558

Bourdieu, P. (1997). *Af praktiske grunde* [Practical reason: On the theory of action]. Hans Reitzels Forlag.

Bourdieu P., & Wacquant, L. J. D. (1996). *Refleksiv sociologi: mål og midler* [An invitation to reflexive sociology]. Hans Reitzels Forlag.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bukhave, E.B., Højbjerg, K, Nielsen, C.S., Engelsen, S., & Lehn, S. (2024). *Ideas of coherence between theory and practice in education of health professionals: A scoping review*. Unpublished manuscript.

Burbules, N. C. (2016). Technology, education, and the fetishization of the 'new'. In P. Smeyers & M. Depeape (Eds.), *Educational research: Discourses of change and changes of discourse* (pp. 9-16). Springer. https://doi.org/10.1007/978-3-319-30456-4_2

Bøje, J. (2012). Academization of Danish semi-professional — How and with what consequences? *Nordic Studies in Education, 32*(2), 84–97. https://doi.org/10.18261/ISSN1891-5949-2012-02-02

Børsting, T. E., Kristensen, N., & Hanssen, I. (2020). Student nurses' learning outcomes through participation in a clinical nursing research project: A qualitative study. *Nurse Education in Practice, 43*, 1-5. https://doi.org/10.1016/j.nepr.2020.102727

Calleja, P., Harvey, T., Fox, A., & Carmichael, M. (2016). Feedback and clinical practice improvement: A tool to assist workplace supervisors and students. *Nurse Education in Practice, 17*, 167-173. https://doi.org/10.1016/j.nepr.2015.11.009

Chege, M. (2009). Literacy and hegemony: Critical pedagogy vis-a-vis contending paradigms. *International Journal of Teaching and Learning in Higher Education, 21*(2), 228–238. https://www.isetl.org/ijtlhe/pdf/IJTLHE722.pdf

Dahl, H., & Eriksen, K. Å. (2016). Students' and teachers' experiences of participating in the reflection process "THiNK". *Nurse Education Today, 36*, 401–406. https://doi.org/10.1016/j.nedt.2015.10.011

Engelsen, S., Lehn, S., Nielsen, C. S., Højbjerg, K., & Bukhave, E. B. (2022). Dannelse og tværprofessionalitet i sundhedsuddannelse [Education and interprofessionality in health care education].*Tidsskrift for Professionsstudier, 34*, 34–45. https://doi.org/10.7146/tfp.v18i35.134053

Falk, K., Falk, H., & Ung, E. J. (2016). When practice precedes theory — A mixed methods evaluation of students' learning experiences in an undergraduate study program in nursing. *Nurse Education in Practice, 16*(1), 14–19. https://doi.org/10.1016/j.nepr.2015.05.010

Flood, L. S., & Robinia, K. (2014). Bridging the gap: Strategies to integrate classroom and clinical learning. *Nurse Education in Practice, 14*(4), 329-332. https://doi.org/10.1016/j.nepr.2014.02.002

Greenway, K., Butt, G., & Walthall, H. (2019). What is a theory-practice gap? An exploration of the concept. *Nurse Education in Practice, 34*, 1–6. https://doi.org/10.1016/j.nepr.2018.10.005

Griffioen, D. M., & De Jong, U. (2013). Academic drift in Dutch non-university higher education evaluated: A staff perspective. *Higher Education Policy, 26*(2), 173–191. https://doi.org/10.1057/hep.2012.24

Guinea, S., Andersen, P., Reid-Searl, K., Levett-Jones, T., Dwyer, T., Heaton, L., Flenady, T., Applegarth, J., & Bickell, P. (2019). Simulation-based learning for patient safety: The development of the Tag Team Patient Safety Simulation methodology for nursing education. *Collegian, 26*(3), 392-398. https://doi.org/10.1016/j.colegn.2018.09.008

Haastrup, L., Hasse, C., Jensen, T. P., Knudsen, L. E. D., Laursen, P. F., & Nielsen, T. K. (2013). *Brobygning mellem teori og praksis i professionsbacheloruddannelserne* [Bridging theory and practice in professional bachelor's degree programs] (KORA Report 15 APR 2013). Retrieved from https://pure.au.dk/ws/portalfiles/portal/54052121/Bridging_the_gap_sammenfatte nde_rapport_2013.pdf

Hackett, N., Harvey-Lloyd, J., & Rooke, N. (2016). Performing dual roles in education and practice. *Nursing Management, 23*(3), 31–37. https://doi.org/10.7748/nm.23.3.31.s28

Harwood, J. (2010). Understanding academic drift: On the institutional dynamics of higher technical and professional education. *Minerva, 48*(4), 413–427. https://doi.org/10.1007/s11024-010-9156-9

Heggen, K., & Smeby, J. C. (2012). Gir mest mulig samanheng også den beste profesjonsutdanninga? [Will optimal coherence lead to the best professional education?]. *Norsk Pedagogisk Tidsskrift, 96*(1), 4–14. https://doi.org/10.18261/ISSN1504-2987-2012-01-02

Hjelmar, U., Jensen, T. P., Daugaard, S., & Haselmann, S. (2009). *Praktikvejledning på professionsbacheloruddannelserne* [Internship supervision in professional bachelor programs] (AFK Working Paper 29. SEP 2009). Retrieved from https://www.vive.dk/da/udgivelser/praktikvejledning-paa-professionsbacheloruddannelserne-0xggekxk/

Holen, M., & Lehn-Christiansen, S. (2017). Drømmen om sammenhæng [The dream of coherence]. *Tidsskrift for Professionsstudier, 13*(25), 25–35. https://doi.org/10.7146/tfp.v13i25.96969

Honey, A., & Penman, M. (2020). 'You actually see what occupational therapists do in real life': Outcomes and critical features of first-year practice education placements. *British Journal of Occupational Therapy, 83*(10), 638–647. https://doi.org/10.1177/0308022620920535

Hooven, K. (2022). A national survey of collaboration between nurse faculty members and staff nurses in the clinical learning environment. *Nursing Education Perspectives, 43*(3), 158-163. https://doi.org/10.1097/01.NEP.0000000000000899

Højbjerg, K., & Larsen, K. (2024). At lære at agere i et sundhedsvæsen under forandring [Learning to Practice in a Public Health Care Sector under Construction]. In S. Hundborg (Ed.), *Sundhedsvæsenet under forandring* [Public Health Care Sector under Construction] (pp. 39-63). Munksgaard.

Højbjerg, K., Sand Nielsen, C., Engelsen, S., Lehn, S., & Bukhave, E. B. (2023). *Idéer på tværs: Gode eksempler på fokuseret praktikuddannelse i otte sundhedsfaglige professionsbacheloruddannelser* [Ideas crossing: Good Examples of focused practical education in eight health profession bachelor programs]. VIA University College. Retrieved from https://www.ucviden.dk/da/publications/id%C3%A9er-p%C3%A5-tv%C3%A6rs-gode-eksempler-p%C3%A5-fokuseret-praktikuddannelse-i-ot-2

Isopahkala-Bouret, U., Börjesson B., Beach, D., Haltia, N., Jónasson, J. T., Jauhiainen, A. A., Kosunen, S., Nori, H., & Vabø, A. (2018). Access and stratification in Nordic higher education. A review of cross-cutting research themes and issues. *Education Inquiry, 9*(1), 142-154. https://doi.org/10.1080/20004508.2018.1429769

Jelsøe, E., Bukhave, E. B., Højbjerg, K., Nielsen, C. S., Sørensen, P. K., Engelsen, S., & Lehn, S. (2023). *Rammer og vilkår for klinisk undervisning, vejledning og uddannelse på sundhedsfaglige professionsbacheloruddannelser: Resultater af en spørgeskemaundersøgelse blandt klinisk praktikpersonale.* [Structural conditions for clinical education at health care profession bachelor programmes. Results from a survey among clinical supervisors]. Roskilde University, Department of People and Technology. Retrieved from https://doi.org/10.5281/zenodo.7732587

Jensen, T. P., & Haselmann, S. (2010). Studerendes vurdering af teori og praksis på professionsbachloruddannelserne [Students' assessment of theory and practice in professional bachelor programs] (AKF Rapport 16. DEC 2010). Retrieved from https://www.vive.dk/da/udgivelser/studerendes-vurdering-af-teori-og-praksis-paa-professionsbacheloruddannelserne-4z6gm7xq/

Jonsson, B., Nilsson, M.S., Pennbrant, S., & Lyckhage, E.D. (2014). From work integrated learning to learning integrated work — A pedagogical model to develop praxis in nursing education. *Journal of Nurse Education and Practice, 4*(11), 91–100. https://doi.org/10.5430/jnep.v4n11p91

Landers, M. G. (2000). The theory-practice gap in nursing: The role of the nurse teacher. *Journal of Advanced Nursing, 32*(6), 1550–1556. https://doi.org/10.1046/j.1365-2648.2000.01605.x

Lauder, W., Sharkey, S., & Both, S. (2004). A case study of transfer of learning in a family health nursing course for students in remote and rural areas. *Nurse Education in Practice, 4*, 39-44. https://doi.org/10.1016/S1471-5953(03)00017-9

Lendahls, L., & Oscarsson, M. G. (2017). Midwifery students' experiences of simulation- and skills training. *Nursing Education Today, 50*, 12–16. https://doi.org/10.1016/j.nedt.2016.12.005

Lindberg, E., Karlsson, P., & Knutsson, S. (2018). Reflective seminaries grounded in caring science and lifeworld theory — A phenomenological study from the perspective of nursing students. *Nurse Education Today, 61*, 60–65. https://doi.org/10.1016/j.nedt.2017.11.016

Mathiesen, A. (2000). Akademisering af sygeplejerskeuddannelsen [Academization of nursing education]. *Dansk Pædagogisk Tidsskrift, 3*. Retrieved from https://forskning.ruc.dk/en/publications/akademisering-af-sygeplejerskeuddannelsen

Ministry of Education and Research. (2002). *Bekendtgørelse om uddannelse af kliniske vejledere til de mellemlange videregående sundhedsuddannelser* [Ordinance on the training of clinical supervisors for intermediate higher health education] (BEK No. 497 of 20/06/2002). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2002/497

Ministry of Education and Research. (2008). *Lov nr 207 af 31/03/2008. Lov om erhvervsakademiuddannelser og professionsbacheloruddannelser, § 5 og 6.* [Law No. 207 of 31/03/2008. Law on Vocational and Professional Bachelor's Programs, § 5 and 6]. Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2021/2672

Ministry of Education and Research. (2016a). *Bekendtgørelse om uddannelsen til professionsbachelor i sygepleje* [Executive order on the education for a professional bachelor's degree in nursing] (BEK No. 804 of 17/06/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/Forms/R0710.aspx?id=181963

Ministry of Education and Research. (2016b). *Bekendtgørelse om uddannelsen til professionsbachelor i radiografi* [Executive order on the education for a professional bachelor's degree in radiography] (BEK No. 507 of 30/05/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/Forms/R0710.aspx?id=180540

Ministry of Education and Research. (2016c). *Bekendtgørelse om uddannelsen til professionsbachelor i jordemoderkundskab* [Executive order on the education for a professional bachelor's degree in midwifery] (BEK No. 700 of 08/06/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/Forms/R0710.aspx?id=181842

Ministry of Education and Research. (2016d). *Bekendtgørelse om uddannelsen til professionsbachelor i fysioterapi* [Executive order on the education for a professional bachelor's degree in physiotherapy] (BEK No. 503 of 30/05/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/Forms/R0710.aspx?id=180536

Ministry of Education and Research. (2016e). *Bekendtgørelse om uddannelsen til professionsbachelor i ergoterapi* [Executive order on the education for a professional bachelor's degree in occupational therapy] (BEK No. 501 of 30/05/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/Forms/R0710.aspx?id=180533

Ministry of Education and Research. (2016f). *Bekendtgørelse om uddannelsen til professionsbachelor i bioanalytisk diagnostik* [Executive order on the education for the professional bachelor's degree in bioanalytical diagnostics] (BEK No. 500 of 30/05/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2016/500

Ministry of Education and Research. (2016g). *Bekendtgørelse om uddannelsen til professionsbachelor i ernæring og sundhed* [Executive order on the education for the professional bachelor's degree in nutrition and health] (BEK No. 502 of 30/05/2016). Danish Agency for Education. Reterived from https://www.retsinformation.dk/eli/lta/2016/502

Ministry of Education and Research. (2016h). *Bekendtgørelse om uddannelsen til professionsbachelor i psykomotorik* [Statutory order on the training for a professional bachelor's degree in psychomotor therapy] (Statutory Order No 506 of 30/05/2016). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2016/506

Ministry of Education and Research. (2019a). *Bekendtgørelse af lov om professionshøjskoler for videregående uddannelser* [Ordinance of the act on universities of applied sciences for higher education] (LBK No 779 of 08/08/2019). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2019/779

Ministry of Education and Research. (2019b). *Bekendtgørelse om erhvervsakademier og professionsuddannelser* [Executive order on vocational and professional bachelor's programs] (LBK nr 1343 of 10/12/2019). Danish Agency for Education. Retrieved from https://www.retsinformation.dk/eli/lta/2019/1343

Moores, A. V., Dancza, K. M., Turpin, M. J., & Copley, J. A. (2022). The nature of theory used in practice education: A scoping review. *Canadian Journal of Occupational Therapy, 89*(3), 261-282. https://doi.org/10.1177/00084174221093466

Nielsen, C. S., Højbjerg, K., Engelsen, S., Bukhave, E. B., & Lehn, S. (2023). Mellem innovation og reproduktion — hvordan fremtidens sundhedsprofessionelle lærer at arbejde på tværs [Between innovation and reproduction — How future health professionals learn to work transdisciplinary]. *Dansk Paedagogisk Tidsskrift, 2023*(1). Retrieved from https://dpt.dk/temanumre/2023-1/mellem-innovation-og-reproduktion-hvordan-fremtidens-sundhedsprofessionelle-laerer-at-arbejde-paa-tvaers/

Park, H. R., Park, J. W., Kim, C. J., & Song, J. E. (2017). Development and validation of simulation teaching strategies in an integrated nursing practical. *Collegian, 24*(5), 479–486. https://doi.org/10.1016/j.colegn.2016.10.007

Salifu, D. A., Gross, J., Salifu, M. A., & Ninnoni, J. P. (2019). Experiences and perceptions of the theory-practice gap in nursing in a resource-constrained setting: A qualitative descriptive study. *Nursing Open, 6*(1), 72–83. https://doi.org/10.1002/nop2.188

Sandvik, A. H., Eriksson, K., & Hilli, Y. (2014). Becoming a caring nurse — A Nordic study on students' learning and development in clinical education. *Nurse Education in Practice, 14*(3), 286–292. https://doi.org/10.1016/j.nepr.2013.11.001

Saugstad, T. (2015). Pædagogikken mellem det bureaukratiske og det postmoderne praksisfelt [Pedagogy between the bureaucratic and the postmodern field of practice]. *Nordic Studies in Education, 35*(2), 87–100. https://doi.org/10.18261/issn1891-5949-2015-02-02

Scully, N. J. (2010). The theory-practice gap and skill acquisition: An issue for nursing education. *Collegian, 18*, 93-98. https://doi.org/10.1016/j.colegn.2010.04.002

Sweet, L., Bass, J., Sidebotham, M., Fenwick, J., & Graham, K. (2019). Developing reflective capacities in midwifery students: Enhancing learning through reflective writing. *Women and Birth, 32*, 119–126. https://doi.org/10.1016/j.wombi.2018.06.004

Tang, F. W. K., & Chan, A. W. K. (2019). Learning experience of nursing students in a clinical partnership model: An exploratory qualitative analysis. *Nurse Education Today, 75*, 6-12. https://doi.org/10.1016/j.nedt.2019.01.003

Thomsen, J. P., Munk, M. D., Eiberg-Madsen, M., & Hansen, I. G. (2013). The educational strategies of Danish university students from professional and working-class backgrounds. *Comparative Education Review, 57*(3), 457–480. https://doi.org/10.1086/670806

Danmarks Evalueringsinstitut. (2009). *Praktik i professionsbacheloruddannelser. Udfordringer, erfaringer og gode råd* [Internships in professional bachelor programs. Challenges, experiences and advice]. Retrieved from https://eva.dk/Media/638409166605377138/Praktik%20i%20proffesionsbacheloruddannelser.pdf

Upton, D. J. (1999). How can we achieve evidence-based practice if we have a theory-practice gap in nursing today? *Journal of Advanced Nursing, 29*(3), 549–555. https://doi.org/10.1046/j.1365-2648.1999.00922.x

Wilson, J. (2008). Bridging the theory-practice gap. *Australian Nursing Journal, 16*(4), 25. Retrieved from https://pubmed.ncbi.nlm.nih.gov/19013964/