& PROFESSIONS PROFESSIONALISM

Vol 14, No 2 (2024)

Table of Contents

Articles

& PROFESSIONS PROFESSIONALISM

ISSN: 1893-1049 Volume 14, No 2 (2024), e5652 https://doi.org/10.7577/pp.5652

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.

Acknowledgments

We are grateful for the support we have received from the entire group of Danish university colleges and the clinical supervisors involved. This study is financed by the Danish Ministry of Education and Research. The funding source has not been involved in the creation of this paper, and neither have other agencies in the public, commercial, or not-for-profit sectors.

Article history

Received: 31 Oct 2023
Accepted: 22 May 2024
Published: 14 Aug 2024

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_sammenfattende_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/

PROFESSIONS & PROFESSIONALISM

ISSN: 1893-1049 Volume 14, No 2 (2024), e5767 https://doi.org/10.7577/pp.5767

Professional Subjectivity in the Swedish Healthcare Context: The Ambiguous Rehabilitation Coordinator

Ulrika Flädjemark[1], & Susann Porter[1]

1. Malmö University, Sweden.

Contact: Susann Porter, Malmö University, Sweden. Susann.porter@mau.se

Abstract

The study examines a new professional function, the rehabilitation coordinator, in Sweden's healthcare system. The rehabilitation coordinator acts as an inter-organizational facilitator in the return-to-work process. Using a Foucauldian perspective, the rehabilitation coordinator as a subject could be considered both as an objectified function shaped by governmental regulation and as a process by which the individual chooses how to perform the role. The rehabilitation coordinator must navigate between legislative regulations and adhere to their own professional ethics, resulting in varying forms of subjectivity. Metaphors used by rehabilitation coordinators provide insights into how individuals perceive their ethical responsibilities and how they approach interactions with patients and healthcare professionals. The paper underscores the ambiguity of the role and sheds light on how diverse considerations inherent in professional roles but also within the subject molds professional subjectivity in the Swedish healthcare system.

Keywords

Governmentality, insurance medicine, professional ethics, professional subjectivity, rehabilitation coordinator, return-to-work, subjectivation

This paper focuses on how a new healthcare professional function—*rehabilitation coordinator (ReCo)*—is enacted as a role by an active subject. The paper thus brings to the fore the differentiation between function and role—a function being the instrumentalized performance while a role entails how a person-as-subject chooses to perform this function. Given that there is not one single way a subject molds a role, there will be different forms of subjectivity within a given context, different forms of professional subjectivity. In this paper, subjectivity points to the individual's ethical self-formation in relation to themselves, and what the individual takes to be the truth (Foucault, 2005, 2019). Using the Foucauldian interpretation of subjectivity is meaningful in a care professional context, since what is performed in the role is, alongside the results from years of explicit professional education and training, also disclosed in what seems to be an ethical way of treating the patient as an individual human being. The central research question is how the ReCo enacts professional subjectivity in relation to the governing framework of the function.

The article answers to the call for studies exploring the subjects of governing and the process of subject formation (Brady, 2011, 2014; Li, 2007; Newton, 1998) and, within this, a call for a second generation of governmentality studies (Hansen Löfstrand & Jacobsson, 2022) on how different governing attempts are received by the subjects themselves. Hansen Löfstrand and Jacobsson (2022, p. 1) declare "the scholarship on governmentality has so far produced an enormously useful body of literature on the 'how' aspect of governing" but has not taken into consideration human subjectivities' willingness to change and how these attempts to shape the conduct has been acknowledged by the individuals, the subjects. Hence, the article adds to the literature on the transformation of subjectivities in professional work. An empirical perspective of how subjectivities appear in professional settings allows an exploration of the dynamics how rational rules and regulations created to govern human subjectivity in diverse contexts enact, targeting the interplay between professionals and patient/client under conditioned forms of governing and rationality. On the matter, Lindwall (2022) in exploring the tension between encouraging client autonomy and institutional constraints, underscores the complex nature of social work interactions, where subtle power dynamics play a crucial role in shaping both client and social worker subjectivities. Jacobsson (2022) focuses on how organizational narratives shape caseworker subjectivities profoundly, impacting professional identities, client relationships, and job satisfaction. By examining the multifaceted interplay between institutional stories and individual experiences, the nuanced process of caseworker subjectivity formation is highlighted, revealing a malleable yet personally influenced construct. In another study, Näslund and Thedvall (2022) focus on models used in social work practice, and the effect on social workers as they use the models to transform their clients. The authors conclude that models function as technologies of governmentality transforming the subjectivities of those subjected to them, but mainly shaped those whose subjectivity already was in line with the model. This needs to be considered while studying subject malleability, acknowledging the apprehension that concepts and models are supposed to be employed in a taken-for-granted, exceedingly mechanical manner, as highlighted by Sunnerfjell

(2022). Collectively, these studies reveal the intricate interplay of institutional influences and personal experiences in shaping subjectivity while cautioning against the mechanical application of concepts and models in practice.

The article is outlined as follows. Initially, after a brief overview of the ReCo context, an introduction of governmentality as a concept follows. Then a summary of the Swedish sick leave bureaucracy is presented. Next, the theoretical context of subjectivation is outlined; thereafter, the empirical design and findings are presented and finally analytically discussed in the last section.

The ReCo context

Healthcare professionals dealing with the matter of sick leave on a daily basis are expected to avoid unnecessary or unjustified economic reimbursement from the welfare system to the patient, fulfilling the strategic imperative stated by the government which, in a Swedish context, means that everyone who can work should do so. In this respect, the ReCo function has been constructed at the point in the healthcare system where governmental-induced procedures are to be carried out in day-to-day healthcare practice. The paper focuses on this newly constructed professional function organized within the Swedish publicly funded healthcare system. Since 2020, the function has been legally enforced (Socialdepartementet, 2019) by the Swedish government to cut back on national sick leave rates. To reduce sick leave absence, the ReCo is intended to act as an inter-organizational facilitator between the patient (as an employee), the employer/manager, national authorities—foremost *Försäkringskassan* [the Swedish Social Insurance Agency (SSIA)]—and medical professionals within their own organization. Applying a Foucauldian perspective, the ReCo function can be perceived as an example of a governmentality tool, an objectified subject designated to operate in a professional role at this point of intersection between governmental regulation and the individual who is expected to return to working life. To do this, the ReCo is expected to manage, guide, coach, steer, push, help, and facilitate the individual to conduct his/her behavior in the right way. These balancing strategies exemplify the contradiction in governmentality—to suppress and strengthen—where individuals, by freely governing themselves, are expected to re-create society's power relations (Hörnqvist, 2012).

Governmentality

When *governmentality* was introduced by Foucault, it was as a term to describe the conduct of conduct (Bevir, 2011; Dean, 2010; Foucault, 1991; Hörnqvist, 2012). It was a way of describing how the state governs the population but also how the individual governs him/herself in individualized technologies of the self. Foucault's point was that even if the governing rationality of the liberal state reflects the freedom of the individual, governmentality works through freedom where individuals have learned to choose to govern themselves in a certain direction (Alamaa & Altermark, 2022). Today's handling of the sick leave process could be

seen as governmentalization. The individual—both the ReCo and the patient—are supposed to act in the best interest of society, according to their choices.

Rose and Miller (2010) emphasize that governmentality becomes an expression of all the procedures that embody ways of thinking regarding governing society and its population from a distance that has developed in recent centuries. Knowledge of the composition of the population, of economics, of psychology, etc., provides a kind of "intellectual machinery" (Rose & Miller, 2010, p. 280) for the state, and in this way, society can be analyzed, and knowledge made rationally understandable. In a governmentalized society centralized governance is carried out via decentralization so that individuals govern themselves in accordance with what is expected of them in relation to prevailing knowledge. The ReCo as a tax-funded functionary in the sick leave and rehabilitation process within the Swedish social security system could be understood in this Foucauldian perspective. A society where governmentality is at the center, Foucault states, is closely linked to the maintenance of security. In this context, it relates to the social security system in Sweden, where the rationality behind the sick leave policy is to lower the expenditure to protect the state finances. The individualized technologies of the self are expected to contribute to the aim of securing the prosperity of the state. Bluntly said, if on sick leave get back to work as soon as possible.

The Swedish sick leave bureaucracy

Normally, sick leave can be decided by the employee perceiving him- or herself to be unfit for work until day seven of a sick leave period. From day eight onwards, a medical certificate must be issued by a physician. In case of sickness absence, sickness pay is paid by the employer for the first 14 days. From day 15 onwards, the sickness absence must be notified to the authorities, i.e., the SSIA, by the employer. To receive sickness benefits from day 15 onwards, the individual must file an application with the SSIA. A designated SSIA clerk will assess the medical certificate issued by the physician and decide whether and to what extent incapacity for work and, thus, sickness benefits can be approved. If the employee is assessed to be incapacitated for work, sickness benefit from SSIA is paid to the corresponding degree to which the incapacity has been judged: 25%, 50%, 75%, or 100%.

In Sweden, the healthcare professional's assessment, and diagnosis of a person's illness, as stated in a medical certificate, is seen only as a recommendation for sick leave. The final decision is made by the SSIA official, who abides by strict enforcement of the regulations which were introduced on July 1, 2008 (Socialdepartementet [Health and Human Services Department], 2008). The regulations are operationalized in the so-called rehab(ilitation) chain (Socialdepartementet, 2010). The rehab chain is a bureaucratic tool, a categorizing timeline. This categorization is broadened the longer a sick leave lasts. The time limits concretely represent the following: 1) during the first 90 days of sick leave, the right to sickness benefit is assessed in relation to the individual's regular work; 2) between 90 and 180 days the right to sickness benefit is assessed to existing work assignments at the employer, and; 3) at a 180-

day time limit the right to sickness benefit is assessed as to whether the patient is employable in any part of the entire labor market in which such work is normally occurring. In sum, although certain assessment reliefs have now been introduced, bureaucratically set time limits have been given priority over medical assessments in the sick leave process. It is the SSIA official, not the medical professional, who has the final word about whether the patient is able to work or whether s/he is qualified for a certain percentage of sick leave benefits or not at all.

This operationalization could appear to be a straightforward, simple way of dealing with who is eligible for sickness benefits and who is not, and it works well in shorter or obvious cases of sick leave, absence due to influenza, a common cold, a broken leg, and the like. Problems arise when it comes to mental ill-health, pain syndromes, and other often long-lasting diagnoses that do not easily make themselves visible and objectifiable and are, therefore, hard to precisely assess and describe. Consequently, when medical knowledge on how to best rehabilitate a person and the timeframe of the rehabilitation chain collide, the SSIA official, with its bureaucratic (rather than medical) knowledge, has veto power over medical professionals.

The SSIA officials' approach to assessing a patient´s right to sick leave benefits since the rehab chain was introduced in 2008 has been thoroughly studied (see, e.g., Eriksson et al., 2014; Jacobsson, 2022; Jacobsson & Hollertz, 2021; Sohlberg et al., 2018). In Sweden, this alteration is undertaken under the caption of *insurance medicine,* a concept that has surfaced as a buzzword in governing strategic documents during the last couple of years as the right way to think and act. In a Foucauldian perspective power and knowledge cannot be strictly separated (Foucault, 1982). Insurance medicine deals with how functional status (of body and mind), diagnostics, treatment, rehabilitation, and the prevention of illness and injury affect and are affected by how different insurance policies are designed. This also points out which knowledge has the power to guide actions in day-to-day business (AFA Försäkring, 2022). The newly constructed ReCo function is assumed to be working under the headline of insurance medicine.

The question of sick leave is thus transformed from a medical professional question into a biopolitical matter. What is still underexplored is how this affects the healthcare professional´s context. Governing documents assume that the logic of healthcare professionals with their intuitive centering of the individual, and biopolitical logic in the form of overall legal governance, can easily be brought together under a single function. The ReCo, as a healthcare professional engaged in this assignment, often alongside his or her own care profession, is thus supposed to combine two fields of knowledge with their respective contextual organizational power incentives: healthcare professional ethics dealing with the individual (the patient), and biopolitics dealing with the collective (the population). This creates a balancing act between professional ethics and biopolitical considerations.

Theoretical framing and method

Subjectivation

In the Foucauldian context, subjectivation refers to the ethics of self and is a central concept in governmentality as it applies the concept of governmentality as a set of strategic practices defining the relations of self to self, and of self to others "within the strategic field of power relations in their mobility, transformability, and reversibility" (Foucault, 2005, p. 252). In this regard, governmentality refers to individuals´ relation to themselves and others in the implementation of individual strategies based on ethics (Bonnafous-Boucher, 2009). Subjectivity is thus produced in a sense "as that which is constituted and transformed through the relation it has to its own truth" (Foucault, 2019, p. 32). In this article, the focus is on the concept of professional subjectivity, which contributes to the insight into how a professional role manages the governing framework of a function.

Within the Foucauldian theory of subjectivity, it is useful to notice a distinction. Foucault (2005, p. 333) refers to different ways through which subjectivation takes shape: on the one hand, in the sense that the subject chooses to follow an ethical standpoint that refers to the law, morality, a holy scripture, etc.; in other words, a submission to a truth that is pronounced by someone other than the individual. The individual chooses to follow this as the right thing to do. On the other hand, the subject is ready to act in resistance, criticism, and the like, with the intention of shaping the self, based on his/her own ethics. Even if the concept of subjectivation does not have a sharply defined meaning between these two perspectives (McGushin, 2007) it provides a deeper understanding of possible subjectivity when we compose ourselves as active, ethical subjects (Milchman & Rosenberg, 2007, 2009). The concept provides a theoretical tool for understanding forms of professional subjectivities, which also includes the intrinsic malleability of the individual self when handling governing regulations.

Empirical research design

In this qualitative study, the material is gathered through semi-structured interviews with ReCos directly engaged with patients at local, publicly funded, basic healthcare centers (BHCC) in Sweden. BHCCs are local healthcare facilities where all services are provided which do not need specialized healthcare at a hospital. Hence, at BHCCs, work in addition to ReCos, e.g., general practitioners (GPs), physiotherapists, occupational therapists, and psychotherapists. Sick leave is typically handled at BHCC where the GP issues a sick leave, which is directed to the SSIA for assessment—and approval or non-approval—as described above. The individual is responsible for the employer gaining access to the medical certificate. As mentioned in the introductory part, the staff involved with the patient are supposed to engage with the workplace to minimize the number of days on sick leave. The ReCo is supposed to handle this duty.

Interviews covered a list of topics on how daily practice is carried out and with what rationalities, focusing on ReCo's descriptions of their relationships with patients and others, such as GPs, employers, and SSIA officers. Grey literature in the form of regional and national steering documents, as well as legal documents concerning the developments and implementation of the ReCo function, have been used to investigate the base of knowledge that foregrounds this function.

A total of 19 semi-structured interviews (n=19) were conducted with ReCos from two Swedish healthcare regions. Three participants were interviewed on two occasions, partly within the framework of a pilot project that preceded the study, and partly during a follow-up interview. About one year passed between these occasions. The interviews that were part of the pilot project were conducted in the fall of 2018. The remaining interviews were conducted from fall 2019 until spring 2021. All participants were women who, at the time of the interviews, were between 29 and 64 years of age, with an average age of 45.7 years. They had held the ReCo assignment between two months and ten years. Interviews were conducted at the ReCos' workplaces and lasted between 45 and 90 minutes.

Table 1

Participant Demographics

Gender	Profession without brackets: Working both as ReCo and in actual profession (Profession in brackets): Working only as ReCo	Experience working as ReCo
Female n=19	Occupational therapist	2 yrs
	(Medical administrator)	2 mos
	Physiotherapist	1 yr
	Psychotherapist	3 yrs
	(Occupational therapist)	5 yrs
	(Behavioural scientist)	4 yrs
	Physiotherapist	2 yrs
	(Physiotherapist)	2 yrs
	Physiotherapist	1 yr
	Psychotherapist	4 yrs
	Occupational therapist	1 yr
	(Medical administrator)	1 yr
	Occupational therapist	3 yrs
	Occupational therapist	2,5 yrs
	Psychotherapist	1 yr
	Occupational therapist	4 yrs
	(Behavioural scientist)	4 yrs
	(Administrator)	10 yrs
	Physiotherapist	5 yrs

As Table 1 shows, the interviewees had different professional backgrounds. All but five people were healthcare professionals focusing on rehabilitative treatment, i.e., occupational therapists, physiotherapists, or psychotherapists. Others had backgrounds in either behavioral science or administration. At the time of the interviews, seven served solely in the function of ReCo, and the remaining persons divided their working hours between their regular profession and the ReCo function, which varied in the time available to each position. The interviewees who stated that they had shared duties explained that although there was a specific time in terms of percentage scheduled for the assignment, the time allocated to each often depended on the health center's number of listed people, and it was difficult to allocate the exact time in percentage spent on each assignment. Time set aside for the various work tasks tended to overlap, largely depending on the difficulty of establishing contact with external persons.

Processing of the material

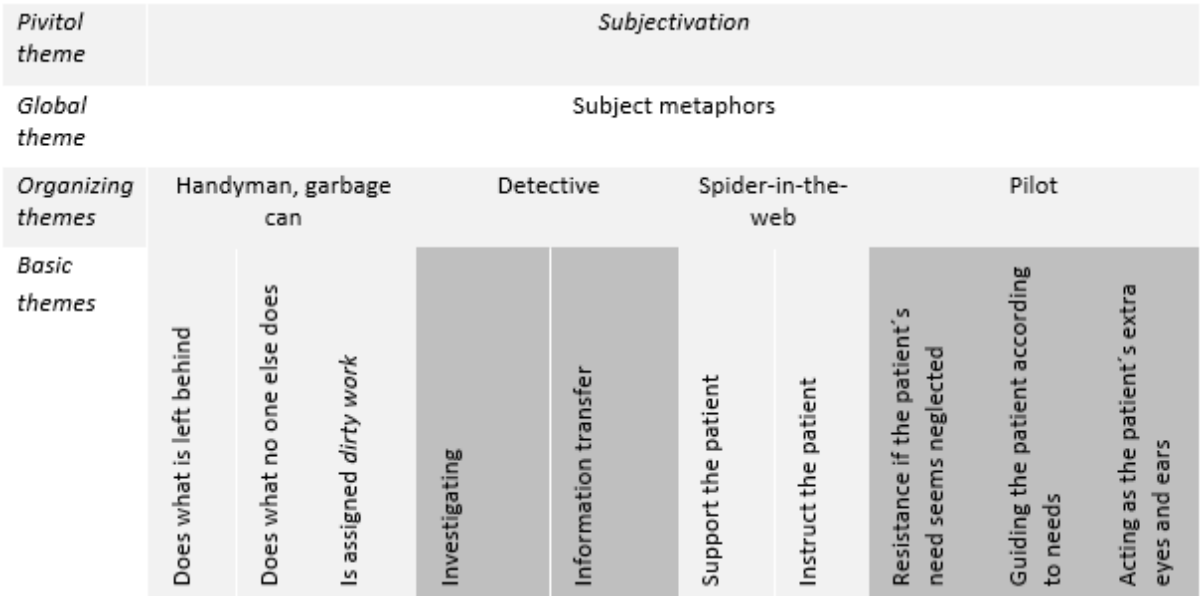
All interviews were recorded, and files were transferred to NVivo (NVivo), designed for preparatory structuring and processing of qualitative empirical material prior to analysis. The interview material was transcribed manually in NVivo with some adjustments to spoken language when required to increase understanding. After the audio files were transcribed, the actual structuring and analysis of the material began.

The processing of the qualitative material has been carried out based on thematic analysis (Attride-Stirling, 2001; Braun & Clarke, 2006), where the material was systematized in thematic networks as a way of organizing this step-by-step. Using Braun and Clarke's (2006) terminology, this processing has been carried out as a theoretical thematic analysis since it is based on a previously established theoretical anchoring. In accordance with Braun and Clarke (2006), who emphasize that analysis is not something that occurs only at the end, the material has been processed from the start of the study. During work, repeated readings and listening of interview material and field notes took place with an abductive approach to material and theory (Kvale & Brinkman, 2014). An abductive approach uses existing knowledge and frames of reference to find theoretical patterns and structures and thus make the empirical material comprehensible through a theoretical pre-understanding. The interpretation of the empirical material can be deepened by returning to theory/material through what can be compared to a hermeneutic spiral. Alvesson and Sköldberg (2008, p. 61) describe the abduction process as an oscillation between (empirically loaded) theory and (theory loaded) empirically collected material. Thus, although the processing of notes and voice memos took place from the start, the explicit coding was based on Attride-Stirling's (2006, p. 391) three stages of processing based on basic, organizing, and global themes. Attride-Stirling (2001, p. 386) describes the thematic analysis in the form of web-like illustrations like Braun and Clarke's (2006) thematic network maps.

The first stage consists of the material being broken down and coded after a coding framework has been established. In the application of a coding framework, an overall level—pivotal theme—has been added which represents subjectivation (see Figure 1).

Figure 1

Thematic Network for Overall Theme of Subjectivation



With an abductive approach, the empirical material has been processed, and basic themes, organizing themes, and finally, global themes (Attride-Stirling, 2001) have been analyzed. In the work identifying themes, we have been guided by Ryan and Bernard's (2003) rhetorical question, "How do you know a theme when you see one?" The answer is: "You know you have found a theme when you can answer the question; What is this expression an example of?" (Ryan & Bernard, 2003, p. 87). In this case, the theoretical literature has abductively guided the questions to the material; in other words, new questions have been asked of the various empirical materials during new readings/listening, together with a return to theoretical readings.

Empirical findings

A common theme in the interviews is the lack of clarity as to how to perform the function and the will to—in this role—act in the best interest of the patient. Even if the strategic purpose of the ReCo described in legal paragraphs, governing documents, etc., is abstractly clear, what they are expected to carry out in daily practice turns out to be highly unclear; both for the ReCo and for healthcare management in general. The ReCo, as an individual, is tasked with managing state expectations at the population level while simultaneously coping with his or her own professional ethics at the individual level.

A need for clarification

A person starting out as a ReCo must figure out how to organize their work. Clarification is required regarding oneself and others. It is difficult to make clear to others what is unclear to oneself. A contributing factor appears to be that neither the person recruiting nor the person being recruited knows what is actually expected of the position. A further complicating factor is added if the ReCo is also expected to work at several healthcare units where everyone has their own ingrained norms and assumptions about how sick leave and the rehabilitation process should be carried out. The norms—which are largely unspoken and unclear—can be based on different ways of understanding the role of medical care combined with what should or could be done in regard to sick leave in order to execute work compatible with government-driven insurance medicine. In the interviews, ReCos talk about difficulties identifying the group norms that lie beneath the surface and play a role in how the internal group behaves toward the ReCo and in establishing their own desired work routines.

For the individual who accepts the position, a challenging time begins that is described as more or less frustrating. To create clarity both for oneself and others, it is therefore required that each ReCo decides how to sort things out. This is interpreted within each individual ReCo´s prerequisites and underlying experiences, and most of all through their professional affiliation. Even if the definition of what constitutes a *profession* is somewhat vague, it is often made clear that the theoretical, scientific part of a profession has gained a highly important role. Academic education based on separate scientific subjects is fundamental (see e. g., Abbott, 1988; Brante et al., 2015; Christoffersen, 2017; Franzén & Tzimoula, 2021; Liljegren et al., 2018; Molander & Terum, 2008) which also applies to healthcare professions. When ReCos, who also practice a healthcare profession, describe in the interviews what they do, their profession is often taken as a starting point. This is nothing remarkable in and of itself. It is simply reasonable that a person who belongs to a profession interprets the assignment accordingly. Professional education provides a sense of belonging and legitimization, where a certain way of thinking and acting has been practiced or programmed into an understanding of the right way of doing and thinking professionally.

It is, therefore, more or less expected that for healthcare professionals, the professional knowledge will form the basis for the ReCo assignment. When the ReCo is expected to find their feet in their new role, their healthcare profession will provide direction on how to perceive what to do within the framework of the assignment. This means that interpretations of how the task should be carried out vary, based on the knowledge that lies in the foreground of the respective profession or what each person thinks of as professionally right to do both scientifically and ethically. One way of clarifying this is, therefore, the complexity of the professional context's delineation supported by professional ethics. Each profession cares about its distinctiveness, which is shown through the respective professional associations, where the importance of promoting one's own professional knowledge as an ethical subject is distinguished from neighboring professions in a horizontal demarcation.

Metaphors—disclosure of subjectivity

Which discourse is used—and perceived as possible to use—creates the subject that acts professionally. Since the ReCo function is described in terms of acting on an overall level, statements of the ReCo´s own metaphors can illustrate what is done within the scope of the role. The chosen metaphor offers a clue to what shapes professional *subjectivity*. In addition to the official taken-for-granted metaphor, where the ReCo is pictured as a *spider-in-the-web*, which is used in official communication discourse about the function, the interviewees imagined themselves as a *detective, lifeline, life pilot, garbage can, the patient's extra eyes and ears, Mrs. Fixit, valve, bridge, etc*. If *spider-in-the-web* is a prevalent metaphor for a preconceived notion of what is being done, and used by some of the ReCos, other metaphors can be seen as a clarification of how ReCos make the task comprehensible to themselves.

Spider-in-the-web

A ReCo who pictured herself as a *spider-in-the-web* described her thoughts on how to inform colleagues at the BHCC on how to deal with patients. The ReCo introduced supporting documents to internal medical staff in order for them to act in what was perceived to be a good way of dealing with patients calling to make appointments:

> I have made a sort of support document for nurses, about how they can think... there are many [patients] who call when they are in an acute crisis... maybe a close relative has died or is ill or something... but it's not you who are calling that are sick, it's a normal life event—a crisis—but you can't normally get a sick leave for that, because it's normal…There are many people who make an appointment to see a doctor and [the patient] then thinks that they will be on sick leave, no, it is not a case of illness! Talk to your employer, [...] it may be time to take out family days, perhaps take compensation days or vacation...but not sick leave because you are not sick in that sense, you feel bad but that is normal... (ReCo 14)

The ReCo in the citation is an example of a ReCo who felt it was her duty to teach the staff the presupposed ethically right way to think and behave, providing a net for catching the patient and keeping them from falling into sick leave, and teaching patients calling to get an appointment appropriate ways of thinking and acting.

A detective

The interpretation of what a *detective*, *life pilot,* or acting as the *patient's extra eyes and ears* means differs in detail, but the overall meaning can be intuited. How the assignment is metaphorically described can offer a clue to what the ReCo regards as ethical guidance; to follow the rules or to follow one's own beliefs. Being a *detective* offers a patient-centered image with a productive power's need for knowledge at the center. *Productive power* refers to a system where the aim of power relations is to do good but is nevertheless within the social scope of what is expected in society. In relation to the balancing scales of professional ethics

and biopolitical considerations, the scales of the latter weigh more heavily with the ReCo detective. Here ethics is formed by what is pronounced by someone else—regulations are to be adhered to—and the ReCo chooses to follow through an inner conviction that following the regulations is the right thing to do. In order to be able to guide, help, support—or in other words to control through knowledge—the ReCo forms a power relationship with the patient. How the ReCo relates to knowledge acquisition from the patient becomes fundamental. Ultimately, being able to support, collaborate, and coordinate requires an acquisition of knowledge that can be used in the next step. The question is how and with what purpose.

The ReCo, who takes on the role of detective, becomes a Sherlock Holmes who, in an attempt to gain knowledge of the patient, lifts all the rocks to find out what is hidden beneath. With this approach, the goal is to get the patient to open up and talk about what is not visible to the eye, about merits and shortcomings, about possibilities and obstacles, and about what cannot be seen in a blood test or X-ray. The knowledge gained can then be passed on by the ReCo as an acting expert —with the patient's consent—to others who meet the patient in the care unit.

> The only thing the doctor then needs to do is to then connect it with my journal notes from our conversation and put this together with what the doctor observes in the room, what objective findings the doctor can find that support—or does not support—what the patient describes and that we have found out in our conversation… (ReCo 6)

Acting as a *detective* is about uncovering the hidden to help those who are perceived to be in need, the patient—or healthcare professionals—to get the patient back to work.

A *life pilot* or a *pair of extra eyes and ears*

Acting as a *life pilot* and being *a pair of extra eyes and ears* for the patient conveys an image of the patient at the center—but in a different way. Here, the coordinator acts within professional ethics in another way. In this case, it is the patient as an individual and their own ability which is in focus. Even if the patient is in need of help, the patient is seen as the expert in his/her life. Someone who acts as a *pilot* gives an active image of assisting the patient through life by helping prepare the way when the patient must deal with life with all the ups and downs it entails, especially in connection with being on sick leave. Like a pilot who assists a ship in navigating through difficult passages, the ReCo *life pilot* helps the patient get through the difficulties of life and eventually let go when the patient is able to manage on their own again. Above all, it is important to let the *piloting* take its time without the process being disturbed by the rehab chain's time limits interrupting and complicating the process. Even the *extra eyes and ears* offers an image of someone standing by the patient's side ready to help if needed but with great confidence that the patient is autonomous and has abilities. The ReCo as an *extra pair of eyes and ears* can, for example, assist the patient in meetings with authorities and employers but also during doctor's visits. Acting as a *life pilot*, or *extra eyes*

and ears means placing the ReCo role within care ethics. Not surprisingly, the strongest questioning of the function's presupposed obligation is expressed when ReCos see themselves in these metaphors.

Mrs Fix-it or garbage can

The *detective* and other metaphors illustrate how subjectivities are formed, as do ReCo as a *garbage can* and as *Mrs Fix-it*. The difference is intuitively large between these two. The ReCo, who refers to their role as a *garbage can,* expresses a different image than the one who articulates herself as *Mrs. Fix-it*. The *garbage can* provide an image of one who takes on whatever falls outside the actual tasks, the one who does what no one else does, from a place at the bottom of the hierarchy without any real boundaries; receiving whatever goes into the *garbage can*. Although the metaphor must be considered a pejorative one, in this case, uttered by the *garbage can* herself, which can thus be interpreted as detracting from the nature of the assignment, the negative connotation of the *garbage can* concept can be balanced out by the fact that it is beneficial to the patient (and the organization). Even a real *garbage can* has a function, albeit not in appreciative terms, but still a function.

Taking on the role of *Mrs. Fix-it* conveys a completely different picture of internal relations. Being a *Mrs. Fix-it* offers an image of knowing many things and being an active problem solver for everyone. A positive scenario emerges. The person who sees herself as such also expresses a willingness to do what no one else does, but with the precondition that this is not done by anyone else within the scope of a medical profession. The role has simply been shaped to be an all-in-one function intended to solve problems—outside the medical sphere. Problems of a major and minor nature are taken care of so long as they do not interfere with the mandate of the care professions. An observer on the side summed up the role that the ReCo in question repeated in the interview: "Everything that no one else can do—it will end up with you... everything that you cannot manage in care and treatment—that was the role you were given." The role of the ReCo becomes clear because everything that is done has a clear reference point outside of explicit care.

A *valve* or a *bridge*

The more pragmatic metaphors describe a clear picture of a bridging or supporting role, or a valve between different parties, intended to calm down and explain the situation.

> Almost always when there is a rejection [of the application of sick leave benefit] that concerns our patients, I look at it, explain, and I call the SSIA case manager—usually I get an answer—I talk about it... but they [the patients] are upset, they are pissed off, they are angry at the case manager, at me, at the doctor, and think why hasn't he written what he should...this is where I clarify the regulations and that the doctor only writes exactly what he *can* write...it becomes a bit like you sit like a valve between everyone... (ReCo 18)

Anyone who describes themselves as a *bridge* gives the impression that they form a link between parties who otherwise would not reach each other. This may apply to the patient who does not dare open the letter from SSIA or answer the phone when they think the SSIA case manager is calling. The gap that arises between the individual and the authority is bridged by the ReCos, who perceive their role as landing in between. This can also apply to the patient who meets many different doctors at health centers with many so-called relay doctors, in which case the ReCo can describe herself as a bridge between the patient and the new GP. The doctors change, but the ReCo remains and can transfer knowledge that helps both parties.

Discussion

Using metaphors is one way to shed light on how subjectivity is not fixed within a function, but as put forward by Hansen Löfstrand and Jacobsson (2022) subjectivity transformation is conditioned by dialectic dynamics between governmental rationalities and the subject's agency. Different professional ethical standpoints provide examples of how subjectivities within a certain professional setting are not static, and also that the "subject's *agency* is at the very same time—at any point in time—conditioned" (Hansen Löfstrand & Jacobsson, 2022, p. 169). The ReCo who is not adhering to the presupposed rationalities is aware of this, but nevertheless struggles to follow what they think of as ethically sound related to their profession. When the concept of insurance medicine is widely introduced, the organizational narrative (Jacobsson, 2022) within the healthcare sector is put under pressure to change due to steering from authorities of what should be seen as correct knowledge and a self-evidently right way of acting. The use of metaphors is one way to shed light on diverse ways of how subjects relate to this.

On the one hand, the instrumentalized function of being a ReCo could be seen as the objectified subject through the exercise of power/knowledge, a tool to enforce the taken-for-granted knowledge conditioned by governmental rationalities to execute effective return to work—any work—for people on sick leave. On the other hand, the role in which the ReCo act as an active subject with agency to determine what to do can be seen as subjectivation. With a Foucauldian understanding of subjectivity, the ReCo enunciated ethical acting as a "subject objectifying himself within a true discourse" (Foucault, 2005, p. 333), in the sense that the subject chooses to follow a discourse that refers to the law or/and morality. An example of this is the case where the ReCo instructs colleagues about the proper way to act towards patients calling for a doctor´s appointment. The recurring theme was that regulations must be followed and the ReCo had to take on the role as a guardian of the law, disciplined by regulations and acting as an expert according to these regulations, constituting a subjectivity according to what one should do in order to be a responsible citizen. Or, the "subjectivation of true discourse takes place in a practice that the individual exercises on himself" (Foucault, 2005, p. 333), as in the case where the ReCo expressed being guided by professional ethics which is displayed in resistance or critique of the system and in efforts to encourage and help

the patient contest the system in case sick leave was not approved by the SSIA official in spite of the assessment of the medical professionals. Frustration and resistance were expressed in these cases.

In the overall guiding documents (legal framework e.g., the rehab chain, governance documents, etc.) concerning the ReCo function, conduct within the realm of what strengthens governmentalized society is taken for granted. This taken-for-granted-ness is an illusion of a non-problematic balancing act between different ethical standpoints; where the ReCo is figured as a fixed, essential subject. As if the biopolitical framed ethical righteousness of the cause—to get the individual to return to work following the rehab chain timeframes—is beyond questioning. The rehab chain is the presupposed model to adhere to, but as Näslund and Thedvall (2022) and Sunnerfjell (2022) highlight, models as technologies of governmentality are not simply followed in a mechanical way. The ReCos, whose subjectivity was concurrent with the model, found it helpful, while those whose subjectivity was not found it hindering and a nuisance. A not-so-unproblematic balancing act evolves in daily practice when the legal framework leads to a normative, disciplined standpoint or a more normalizing one. Both the normative and normalizing standpoints are different examples of how ethical perspectives differ and, therefore, how different subjectivities emerge. However, both are meant to help the patient in the best possible way.

If *normalizing* is about asking questions to *gain* knowledge—to direct indirectly in the next step—*norming* is about *providing* knowledge for the purpose of helping/directing; to help the patient walk the line of right behavior. The normative approach has informative expressions in the foreground and is based on what should be—in other words, a fostering, disciplining approach. The ReCo provides knowledge to the individual (patient) to see his/her responsibility, need for change, and what he/she must do. The information is expressed as a normative statement but still appeals to the individual's empowerment to what could be considered the right behavior.

Within the dynamic interplay of conditioned rationalities and the agency of the self, the ReCo, implemented as a new professional function ends up being ambiguous. The function is carried out within the subjects´ various professions enhancing professional ethics either guided by the ethics of following regulations or articulating critique and resistance to act in the best interest of the patient.

Even if this paper concerns ReCos specifically, this could be applied to other professions dealing with how an "objective" professional function is enacted as a role by an active subject. Within a professional organization, there will always be different forms of subjectivity and different ways in which individuals form their ethical selves in relation to themselves through what is thought to be the truth (Foucault, 2005, 2019). This phenomenon needs to be discussed and taken seriously.

Conclusion

In this paper, we have investigated the newly constructed ReCo function and role. The balancing strategies of the ambiguous ReCo exemplify the contradiction in the governmentality society strategic imperatives—to suppress and strengthen—where individuals, through self-governance, are expected to re-create society's power relations (Hörnqvist, 2012). Depending on how the individual relates to themselves, the transforming of subjectivities is molded. Using metaphors is one way to shed light on how subjectivity is not static within what a function should do due to the fact that the subjects´ own subjectivity differs, which also holds true for the constitution of professional subjectivity. This needs to be taken into consideration and discussed beyond the taken-for-granted assumptions that subjectivity is fixed and unified when implementing new professional functions.

Article history

Received: 09 Feb 2024
Accepted: 05 Dec 2024
Published: 19 Dec 2024

References

Abbott, A. (1988). *The system of professions: An essay on the division of expert labor*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226189666.001.0001

AFA Försäkring [AFA Insurance]. (2022, March 30). *Socialstyrelsen—Uppdraget, omvärlden och försäkringsmedicin* [The National Board of Health and Welfare—The mission, the outside world and insurance medicine][Webinar]. https://www.youtube.com/watch?v=2ANvhl9EX74&ab_channel=AfaFörsäkring

Alamaa, L., & Altermark, N. (2022). Governmentality. In L. Alamaa, S. Melander, & Y. Stubbergaard (Eds.), *Perspektiv på offentlig förvaltning: Teori praktiken* [Perspectives on public administration: Theory in practice] (pp. 169–188). Studentlitteratur.

Alvesson, M., & Sköldberg, K. (2008). *Tolkning och reflektion: Vetenskapsfilosofi och kvalitativ meto*d [Interpretation and reflection: Philosophy of science and qualitative method]. Studentlitteratur.

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, *1*(3), 385–405. https://doi.org/10.1177/146879410100100307

Bevir, M. (2011). Governance and governmentality after neoliberalism. *Policy and Politics*, *39*(4), 457–471. https://doi.org/10.1332/030557310X550141

Bonnafous-Boucher, M. (2009). The concept of subjectivation: A central issue in governmentality and the government of self. In S. Binkley & J. Capetillo (Eds.), *A Foucault for the 21st Century: Governmentality, Biopolitics and Discipline in the New Millennium* (pp. 72–89). Cambridge Scholar Publishing.

Brady, M. (2011). Researching governmentalities through ethnography: The case of Australian welfare reforms and programs for single parents. *Critical Policy Studies*, *5*(3), 264–282. https://doi.org/10.1080/19460171.2011.606300

Brady, M. (2014). Ethnographies of neoliberal governmentalities: From the neoliberal apparatus to neoliberalism and governmental assemblages. *Foucault Studies*, *18*, 11–33. https://doi.org/10.22439/fs.v0i18.4649

Brante, T., Johnsson, E., Olofsson, G., & Svensson, L. (2015). *Professionerna i kunskapssamhället: En jämförande studie av svenska professioner* [The professions in the knowledge society: A comparative study of Swedish professions]. Liber.

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

Christoffersen, S. A. (2017). *Professionsetik* [Professional ethics] (2nd ed.). Gleerups.

Dean, M. (2010). *Governmentality power and rule in modern society* (2nd ed.). SAGE Publications Ltd.

Eriksson, L., Sager, M., Staland-Nyman, C., & Hensing, G. (2014). Kunskap och bedömningar I sjukskrivning: En vetenskapsteoretisk studie av det försäkringsmedicinska beslutsstödet [Knowledge and assessment in the sick-leave process: The process of developing the decision support]. *Socialmedicinsk Tidskrift*, *4*, 332–338.

Foucault, M. (1982). The subject and power. *Critical Inquiry*, *8*(4), 777–795. https://doi.org/10.1086/448181

Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault Effect Studies in Governmentality* (pp. 87–104). The University of Chicago Press.

Foucault, M. (2005). *The hermeneutics of the subject: Lectures at the Collège de France 1981–1982*. Picador.

Foucault, M. (2019). *Subjektivitet och sanning: Collège de France 1980–1981* [Subjectivity and truth: College of France]. Tankekraft Förlag.

Franzén, C., & Tzimoula, D. (2021). Genus och professioner—en introduktion [Gender and professions—an introduction]. In C. Franzén & D. Tzimoula (Eds.), *Genus och professioner* [Gender and professions] (pp. 15–27). Studentlitteratur.

Hansen Löfstrand, C., & Jacobsson, K. (2022). Conclusion: Towards a new research agenda. In C. Hansen Löfstrand & K. Jacobsson (Eds.), *Transforming subjectivities: Studies in human malleability in contemporary times* (pp. 163–171). Routledge. https://doi.org/10.4324/9781003146681-10

Hörnqvist, M. (2012). *En annan Foucault: Maktens problematik* [Another Foucault: The problematic of power]. Carlsson Bokförlag.

Jacobsson, K. (2022). Normeringen av handläggarna i sjukförsäkringen: En narrativ etnografi på Försäkringskassan [The standardization of health insurance administrators: A narrative ethnography at Swedish Social Insurance Agency]. *Arbetsmarknad & Arbetsliv* [Labor market & Working life]*, 28*(2), 32–53. Retrieved from https://journals.lub.lu.se/aoa/article/download/23567/21212/60767

Jacobsson, K., & Hollertz, K. (2021). Commitment and control teamwork as management tool in a welfare state bureaucracy. *Sociologisk Forskning*, *58*(3), 243–265. https://doi.org/10.37062/sf.58.22890

Kvale, S., & Brinkman, S. (2014). *Den kvalitativa forskningsintervjun* [The qualitative research interview]. Studentlitteratur.

Li, T. M. (2007). Governmentality. *Anthropologica*, *49*(2), 275–281. https://www.jstor.org/stable/25605363

Liljegren, A., Höjer, S., & Forkby, T. (2018). "I don't want to tell you how to do your job, but…"–Laypersons challenging the authority of professionals in Swedish child protection. *Nordic Social Work Research*, *8*(1), 50–63. https://doi.org/10.1080/2156857x.2017.1376703

Lindwall, J. (2022). Negotiating subjectivities in social work. In C. Hansen Löfstrand & K. Jacobsson (Eds.), *Transforming subjectivities: Studies in human malleability in contemporary times* (pp. 69–87). Routledge. https://doi.org/10.4324/9781003146681-5

Luxon, N. (2008). Ethics and subjectivity: Practices of self-governance in the late lectures of Michel Foucault. *Political Theory*, *36*(3), 377–402. https://doi.org/10.1177/0090591708315143

McGushin, E. F. (2007). *Foucault's Askesis: An introduction to the philosophical life.* Northwestern University Press. https://doi.org/10.2307/j.ctv43vtxw

Milchman, A., & Rosenberg, A. (2007). The aesthetic and ascetic dimensions of an ethics of self-fashioning: Nietzsche and Foucault. *Parrhesia*, *2*(55), 44–65. Retrieved from https://www.parrhesiajournal.org/parrhesia02/parrhesia02_milchrosen.pdf

Milchman, A., & Rosenberg, A. (2009). The final Foucault: Government of others and government of the self. In S. Binkley & J. Capetillo (Eds.), *A Foucault for the 21st century: Governmentality, biopolitics and discipline in the new millennium* (pp. 62–71). Cambridge Scholar Publishing. https://doi.org/10.22439/fs.v0i0.2473

Molander, A., & Terum, L. I. (2008). Profesjonsstudier—An introduktsjon [Professional Studies—An introduction]. In A. Molander & L. I. Terum (Eds.), *Profesjonsstudier* [Professional Studies] (pp. 13–26). Universitetsförlaget.

Näslund, L., & Thedvall, R. (2022). A brighter future? The transformative power of models in social services. In C. H. Löfstrand & K. Jacobsson (Eds.), *Transforming subjectivities: Studies in human malleability in contemporary times* (pp. 16–32). Routledge. https://doi.org/10.4324/9781003146681-2

Newton, T. (1998). Theorizing subjectivity in organizations: The failure of Foucauldian studies? *Organization Studies*, *19*(3), 415–447. https://doi.org/10.1177/017084069801900303

NVivo. (n.d.). [Computer Software]. Alfasoft. https://alfasoft.com/sv/programvara/statistik-och-dataanalys/qda-kvalitativ-dataanalys/nvivo

Ryan, G., & Bernard, H. (2003). Techniques to identify themes. *Field Methods, 15*(1), 85–109 https://doi.org/10.1177/1525822X02239569

Rose, N., & Miller, P. (2010). Political power beyond the State: Problematics of government. *British Journal of Sociology*, *61*(Suppl. 1), 271–303. https://doi.org/10.1111/j.1468-4446.2009.01247.x

Socialdepartementet [Health and Human Services Department]. (2008). *Införande av en Rehabiliteringskedja* [Introduction of a rehabilitation chain] (Report from Socialdepartementet [Health and Human Services Department]). Retrieved from https://www.regeringen.se/contentassets/35389b8947404358b7ca8af7a61e9282/inforande-av-en-rehabiliteringskedja/

Socialdepartementet [Health and Human Services Department]. (2010). *SFS 2010:110 Socialförsäkringsbalk* [SFS 2010:110 Social Insurance Code]. Svensk författningssamling [Swedish constitutional collection]. Retrieved from https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/socialforsakringsbalk-2010110_sfs-2010-110/

Socialdepartementet [Health and Human Services Department]. (2019). *Lag (2019:1297) om koordineringsinsatser för sjukskrivna patienter* [Act (2019:1297) on coordination efforts for patients on sick leave]. Svensk författningssamling [Swedish constitutional collection]. Retrieved from http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-20191297-om-koordineringsinsatser-for_sfs-2019-1297

Sohlberg, I., Selin, J., Karlsson, A. M., Diamant, M., & Hamrén, B. (2018). *Förändrad styrning av och i Försäkringskassan: En analys av hur regeringens mål om ett sjukpenningtal på 9,0 dagar påverkar handläggningen av sjukpenning* [Changed management of and in Swedish Social Insurance Agency: An analysis of how the government's goal of a sickness benefit number of 9.0 days affects the handling of sickness benefit] (Rapport 2018:16). ISF-Inspektionen för socialförsäkringen [Swedish Social Insurance Inspectorate]. Retrieved from https://isf.se/download/18.6e75aae16a591304891f1f3/1565330422122/F%C3%B6r%C3%A4ndrad%20styrning%20av%20och%20i%20F%C3%B6rs%C3%A4kringskassan-ISF-sammanfattning-2018-16.pdf

Sunnerfjell, J. (2022). Rendering the hidden visible: Subjected to "work on the self" in a local labr market measure. *Journal of Organizational Ethnography*, *11*(3), 213–227. https://doi.org/10.1108/JOE-04-2020-0012

PROFESSIONS & PROFESSIONALISM

ISSN: 1893-1049 Volume 14, No 2 (2024), e5768 https://doi.org/10.7577/pp.5768

Nurses Under Pressure: The Demands of Professional Performance and Their Management Through the Use of Medication

Hélder Raposo[1,2], Catarina Egreja[3], & Noémia Lopes[1,3]

1. Iscte—Instituto Universitário de Lisboa, CIES-Iscte, Lisbon, Portugal.
2. ESTeSL—Escola Superior de Tecnologia da Saúde de Lisboa, H&TRC—ESTeSL—Health and Technology Research Center, Lisbon, Portugal.
3. Egas Moniz School of Health and Science, CiiEM—Egas Moniz Interdisciplinary Research Center, Caparica, Portugal.

Contact: Hélder Raposo, Iscte—Instituto Universitário de Lisboa, CIES-Iscte, Lisbon, Portugal; ESTeSL—Escola Superior de Tecnologia da Saúde de Lisboa, H&TRC—ESTeSL—Health and Technology Research Center, Lisbon, Portugal. helder.raposo@estesl.ipl.pt

Abstract

This article discusses the relationship between the demands on nurses' professional performance and adherence to the use of medicines and supplements for their management. This approach allows us to analyze the transformations of nursing work and how nurses use various natural and pharmaceutical resources to cope with the pressures they face in their professional activities. To understand the interconnection between the transformations in nursing work and what we refer to here as the process of pharmaceuticalisation of work contexts, we use the results of a sociological mixed methods study on the use of medicines and food supplements for managing professional performance. The results show some of the main pressure factors in nursing work and how the increase in professional pressure substantially affects performance-related medicine use, as these become more frequent when nurses perceive their work as more intense, demanding, and exposed to risks.

Keywords

Nursing, organizational demands, performance consumptions, pharmaceuticalisation, pressure factors, professional performance

Introduction

Professionals in modern healthcare systems are part of organizations that are undergoing significant changes, adopting principles, practices, and processes based on management strategies, new accounting models, and market mechanisms (Carvalho, 2014; Leicht & Fennell, 1997; van Schothorst-van Roekel et al., 2020).

Within these new organizational dynamics, some changes have occurred in work, involving new forms of pressure and demands requiring greater versatility and functional efficiency. In contexts where the focus is now on the need for greater productivity and efficiency (Moffatt et al., 2014), work becomes more intense in volume and pace. It also involves greater accountability, with regular scrutiny, resulting in increased pressure on performance (Tavares et al., 2022) to meet new demands and expectations.

Although these changes assume a transversal scope in professional work, their impact is more significant in professional groups whose work ties them to more demanding and immediate performance levels. As we will see, the case of nursing is a clear example of this reality, given the need for permanent adaptation to multifaceted and non-routine forms of work. The volume of patients, the demands of clinical prioritization due to the increasing complexity and intensity of patient care, heavy workloads, and time pressures are, therefore, integral parts of nursing's organizational work (Aiken et al., 2001; Allen, 2014).

Work planning is particularly complex in hospital settings due to the unpredictability of the number of patients and the range of diseases susceptible to sudden complications requiring a series of unscheduled tasks and a wide range of skills (Hall & Kiesners, 2005; Furåker, 2009). In this regard, although extendable to several other contexts and areas of nursing intervention, the work in emergency services assumes a particular relevance here since the levels of indeterminacy associated with the organizational management of the clinical complexity of patients accentuate uncertainties and pose difficulties in planning care activities. Therefore, nursing encompasses not only the traditional tasks of movement, positioning, hygiene, and clinical assessment of individual patient needs (Lopes, 2001), but also data recording, case selection, prioritization, clinical and organizational information management and monitoring. Moreover, this happens in a context where the high number of patients per nurse (Aiken et al., 2001; Hall & Kiesners, 2005; Furåker, 2009) and divergences between the holistic requirements of care and compliance with standardized organizational rules and procedures make nurses' professional practice particularly complex (Allen, 2014; Rankin, 2015). As Campbell and Rankin (2017) argue, nursing has shifted from being a close engagement with the patient as a "whole person" to what they characterize as organizing work.

Considering the performance pressure factors associated with the nature of their work, namely a pattern of unpredictability, the immediacy of the responses or actions to take, and the intensity of work rhythms, we have developed an analysis of how nurses manage those performance demands. Our research is based on a sociological project on the use of medicines and food supplements for performance management (referred to as "performance consumptions" in this study), carried out in Portugal[1] using focus groups, questionnaires, and interviews. Through this research, we explore how the transformations in professional nursing work generate different forms of pressure and how the main factors of this work pressure are associated with patterns of use of medicines and supplements to manage professional performance.

Given this framework, our paper draws on the concept of pharmaceuticalisation to analyze how nurses mobilize medicines and food supplements for performance management, particularly professional performance. Originally understood as "the transformation of human conditions, capacities or capabilities into pharmaceutical matters of treatment or enhancement" (Williams et al., 2009, p. 37), the concept of pharmaceuticalisation highlights a set of changes in people's relationships with medicines and their use far beyond their original therapeutic and preventive functions. The shift away from their strictly therapeutic purposes to other modalities of use also encompasses purposes of management and improvement of personal performance.

This theoretical framework allows us to assess the expansion and expression of the use of medicines and food supplements to manage physical, intellectual, or relational performance in the work contexts of nurses, as well as the social dispositions of adherence to these resources. The acceptance of the presence of medicines in daily life and their transformation into instruments to help respond to work requirements (Egreja & Lopes, 2021) is indeed significant, as it reveals a cultural disposition towards medication for purposes beyond the field of health (Smith & Land, 2014; Ballantyne, 2021). In this sense, we can ask to what extent therapeutic resources tend to become increasingly necessary by assuming themselves as important performance aids as the rhythms, pressures, and increasing demands in the daily life of nursing professional contexts intensify.

In this line of analysis, our approach aims to deepen the pharmaceuticalisation in work contexts. Through this lens, we explore the reciprocal effect between work-related pressure factors and the pharmaceuticalisation of work performance. Given this framework, the approach developed in this article seeks to respond to two main objectives. The first is to analyze how changes in aspects of work translate into increased pressure on performance, which involves

[1] The results presented in this article are part of a wider sociological research project on occupations under high pressure to perform, funded by the Portuguese Foundation for Science and Technology (FCT) under Grant PTDC/SOC-SOC/30734/2017 and hosted by CIES-Iscte research center, in partnership with IUEM—Instituto Universitário Egas Moniz and IS-UP—Instituto de Sociologia da Universidade do Porto.

identifying the pressure factors inherent to the nature of nurses' work in terms of the pace of work, specific demands of the professional activity, and degree of risk exposure. The second is to analyze the practices and social provisions of using different types of natural and pharmaceutical resources to meet professional demands. This involves assessing the extent of performance consumption among nurses and considering the social pressure factors identified and analyzed. In the discussion about medicine use to manage work performance, we show its actual extent, the primary purposes of use and the investments associated with it, its correlation with pressure factors, and the inclination towards its use based on the resulting forms of acceptance or rejection.

The pressure to perform and changes in the nature of work

As previously mentioned, professional work is changing, and the more professionals are forced to adapt to new organizational bureaucratic realities, the more noticeable and consequential are the changes.

The introduction of new organisational realities leads to a redefinition of the normative values underlying professional discourse. However, this need not necessarily result in an explicit tension between what can be called "occupational professionalism" and "organizational professionalism" (Evetts, 2013) because the current reconfigurations of professionalism go beyond the logic of the conflictual model that underlies all-or-nothing perspectives on these changes (Gaglio, 2014; Noordegraaf, 2015).

In contrast to polarized notions of professionals' compliance or resistance to management requirements, it is essential to recognize the dynamic and resilient nature that professional groups develop within the political, regulatory, or organizational frameworks in which they operate. Therefore, some mitigation of these disruptive trends in the profession's identity may arise from what some authors call hybrid professionalism (Carvalho, 2014; van Schothorst-van Roekel et al., 2020), which, in the case of nursing, tends to lead to a reconceptualization of care itself. Nursing work may involve articulation between clinical knowledge and organizational skills to manage better the different types of care for which nurses are responsible (Allen, 2014).

Indeed, despite recognizing the combination of distinct logics in organizational work contexts and the production of forms of professionalism aligned with performance imperatives, analyses focused on the evaluation of shifting contexts (cf. Noordegraaf, 2015) and their respective impacts on changes in professional work highlight the need to go beyond hybridization. As professional practices evolve, they become more aligned with new principles, such as time pressure, and criteria, such as efficiency. To this extent, the current theoretical debates about the permanent reconfigurations of professionalism sustain the need to consider the organizational dimension as a constitutive element of professional work (organizing

professionalism) to the extent that organizing becomes part of professional work. Professionalism is connected to the professional and refers to the work process (Gaglio, 2014; Noordegraaf, 2015).

Considering this framework, we are interested in exploring how the performance demands accompanying organizational restructuring imply changes in work models and, by extension, in professional practices. Our line of argument will highlight to what extent the most structuring transformations in the nature and models of work organization are generating work intensification processes favorable to pharmaceuticalisation in work contexts, which means that the changes in the nature of nursing work and their impact on work paces and pressures generate a dynamic that promotes greater openness to and adherence to therapeutic resources as privileged solutions to manage new or increasing work demands (i.e., non-therapeutic purposes). Medication use thus participates in new forms of adjustment to multiple social pressures, becoming a privileged resource for managing cognitive, physical, or relational performance raised by the demands of professional work.

Methodology

The study's target population refers to nurses working in hospitals in Portugal's two main cities (Lisbon and Porto). It was important to have a relatively homogeneous population as a reference in terms of the nature of their work to avoid the risk of dispersion of the analysis. Nurses working in hospital settings, particularly in emergency services, were chosen due to the unpredictable situations they face professionally and the pressing workload and high-paced rhythms.

Within the framework of a mixed-methods research in which qualitative and quantitative methods were used, we sequentially conducted focus groups, a questionnaire, and interviews with nurses. We chose this methodology because obtaining information from various sources is an advantage in knowledge production about the regularity of variables and indicators, combining quantified and measurable data and the reasons underlying the perceptions and practices in work contexts (Creswell, 2021; Saks & Allsop, 2019).

In the project's initial phase, the focus groups aimed to gather information on the subject and contribute to the subsequent phases, including the questionnaire design. Three focus groups were conducted between February and June 2019, involving thirteen nurses working in emergency departments. The focus groups addressed the following main topics: highest physical, cognitive, and relational demands of the profession; advantages and disadvantages of working in emergency services compared to other hospital services; work-life balance; performance consumption; and changes in the profession. These sessions were fully transcribed, and content analysis was performed to construct the analytical categories. The data were then coded with MAXQDA.

Based on the analytical content systematized from the focus groups, we developed a questionnaire and applied it online (via Qualtrics) to obtain quantitative information on nurses' perceptions and practices of their work and ways of managing performance. These two dimensions were addressed in tailor-made indicators and questions about their jobs (daily working hours, employment status, work pace, demands of work), strategies for managing performance (medication use to manage daily wear and pressure, circuits of information on this medication use) and sociodemographic data (age, gender, region, years of service). These autonomous topics were analyzed statistically to understand whether they were linked.

We distributed the questionnaire[2] to nurses recruited mainly through collaboration agreements with the Portuguese Nurses' Union, which sent it to members working in hospital services. Initially, we created an online form to collect contact details of possible respondents by sending an invitation to participate in the study. If they agreed to participate, they entered their email addresses in the form. As a result, the contact details of 338 willing participants were collected, and the research team sent them the questionnaire.

Between January and December 2020, 199 complete responses were received, including nurses from emergency departments (n=68) and others (n=131), mainly in hospital settings. More women than men answered the questionnaire (70.9%), and the age distribution was concentrated in the 35–49 age range (46.7%). Nurses working in emergency departments represented 34.2% of the total and were generally much younger than those working in other departments (48.5% were 34 years old or younger, while only 18.3% were in this range in the other departments). The answers were analyzed statistically using SPSS (Statistical Package for Social Sciences). In addition to descriptive and correlation analyses, we performed multivariate analyses and constructed new measures from a combination of the initial variables. While the non-probability sampling technique does not allow for the extrapolation of the results, it does not hinder the research, as it is still possible to conduct an exploratory analysis of the obtained data.

Following the previous systematization done by the focus groups and the questionnaire, semi-structured interviews (n=14) were conducted in June 2021 with those respondents who agreed to be interviewed to deepen the information obtained in the questionnaire. The interviews were conducted online using videoconferencing platforms. Anonymity was also ensured, and only the audio was recorded. The interview script was divided into two parts: professional practices and pressure factors (daily work, main pressure and wear and tear factors, work-life balance), strategies for managing professional pressure (perceptions of medication use for performance, use of medication to manage performance). Individual interviews allow researchers to gain rich and detailed data from the participants' words and expressions, revealing their feelings, motivations, and meanings with much more depth. All interviewees

[2] The questionnaire was pre-tested (n=16) and obtained the approval of the Ethics Committee of Egas Moniz (protocol code CE 857, February, 2020).

who worked in emergency departments were divided evenly between men and women, and their ages ranged from 28 to 56. The interviews were fully transcribed and underwent categorical content analysis, leading to the construction of analytical categories informed by the literature and empirical data. The data were then coded using MAXQDA.

Results and discussion

Pressure factors in nursing work

One of the main goals of this study, reflected in the indicators in the questionnaire and the interview script, was the need to clearly understand the structural characteristics of nursing work and its main recent changes. We focused on analyzing three dimensions of particular importance: the pace of work, the work demands, and the risk exposure, which are essential in understanding increases in pressure factors for performance (Tavares et al., 2022).

Pace of work and working hours

Nurses were asked about specific aspects of their work, particularly regarding the pace of work and the daily demands. In general, nurses tended to classify their daily work pace as highly or too intense (76.4%; the global mean being 3.91 on a scale from 1 - Not at all intense to 5 - Too intense). This was even more noticeable among emergency nurses (92.6%) compared to nurses in other departments (67.9%). Comparing the mean pace of work by age groups, we found that it was higher (4.07) among younger people (aged up to 34 years) than older people aged 50 years or over (3.67), and this difference was statistically significant ($p<0.050$; one-way ANOVA). The pace of work was also described as more intense by respondents who had been in the profession for ten years or fewer. The pace of work was one of the aspects analyzed in depth during the interviews, and the nurses confirmed that it was of high intensity.

> Normally, the pace in emergency departments, both in terms of demand and new technologies, a lot of new things every day, is very intense for all professionals working there, whether or not they're nurses [...]. Every day things are changing; it's really very stressful. (N12, Male, 44 years old)

Working hours are closely related to the perception of work demands and personal stress (Tavares et al., 2022). Our study found that the nurses mostly worked in shifts (65.9%), especially in the Emergency Department, where the percentage was 92.6%. Despite being regarded as a part of the organization of work and something that nurses knew they had to do, shift work impacted their private lives regarding work-life balance, fatigue, and sleep. This type of schedule exacerbated these problems as the years went by.

Daily demands of professional activity

Concerning the daily demands of their professional activity (represented by the nine items listed in Table 1), the nurses felt that it was strongly reflected in concentration (91.5%) and

emotional control (91.5%), followed by communication skills (87.9%), mental agility (86.9%), conflict management (85.9%) and memorization (79.9%). Looking at the mean scores, we found that nurses in emergency departments rated all aspects as more demanding than nurses in other services, with statistically significant differences in most cases (Table 1).

Table 1

Daily demands of the professional activity (% and means)

	Total sample (%)			Total	Emergency	Others
	Not at all / a little	Normal	Very / Extremely	Mean		
Physical strength	16,1	39,2	44,7	3.31	3.66*	3.12
Physical resistance	10,1	36,7	53,3	3.46	3.71*	3.33
Physical agility	10,1	49,7	40,2	3.32	3.41	3.27
Concentration	-	8,5	**91,5**	4.32	4.41	4.27
Memorisation	1,5	18,6	**79,9**	4.10	4.25*	4.02
Mental agility	1,5	11,6	**86,9**	4.23	4.38*	4.15
Emotional control	1,0	7,5	**91,5**	4.43	4.60*	4.34
Conflict management	3,0	11,1	**85,9**	4.35	4.57*	4.23
Communication skills	0,5	11,6	**87,9**	4.41	4.49	4.37

Scale: 1 – Not at all demanding to 5 – Extremely demanding

* $p<0,050$; t-test

New variables were based on these items, and the various demand indicators were grouped into three core components according to their nature: physical demand, intellectual demand, and emotional demand[3] (Table 2). The overall mean scores in each index showed first that, regardless of the type of demand, it was always relatively high, reflected in the mean value of the overall level of demand (3.99). Even so, it is important to highlight two aspects. The first was that emotional demand was always the predominant type, both in total and in each group analyzed individually. The second aspect was that the level of demand experienced by emergency nurses was always higher than that experienced by nurses in other departments, thereby showing the high impact of the emotional demand of their work.

[3] A Principal Component Analysis (PCA) indicated the possibility of three new variables (KMO=0.832): physical demand (items 1 to 3; alpha 0.862), intellectual demand (items 4 to 6; alpha 0.898) and emotional demand (items 7 to 9; alpha 0.799).

Table 2

Means of the specific and overall demand indexes

Index	Total	Emergency	Other services
Physical demand	3.36	3.59*	3.24
Intellectual demand	4.22	4.35*	4.15
Emotional demand	4.40	4.55*	4.31
Global demand	3.99	4.17*	3.90

Scale: 1 – Not at all demanding to 5 – Extremely demanding

* p<0,050; t-test

In the interviews, the nurses emphasized features of their experience that fell into the categories of physical demand due to the need to handle patients and be constantly on their feet, with little opportunity to rest, and also emotional demand related to the frailty and suffering of patients in critical clinical condition. The existence of multifaceted situations that nurses had to deal with took a physical or emotional toll on them, as each of the following excerpts illustrates, respectively.

> I think that our legs are one of our worst complaints, because we spend a lot of time standing, we spend a lot of time walking. We put a lot of strain on our back and arms, really physical effort, but mainly the fact that we have very little time to rest. We only sit down occasionally to write up notes. (N4, Male, 44 years old)

> I bring my work home a little, as I usually say, because there are situations that affect me, that shouldn't affect me, but that still do, and I'm still thinking about them when I get home. (N3, Female, 28 years old)

Exposure to risks at work

We also tried to ascertain the degree of exposure to certain types of risks listed in Table 3. More than half of the nurses reported a very or extremely high degree of exposure to diseases (55.8%), physical wear and tear (54.3%), physical fatigue (51.3%), and pressure to achieve results (53.3%). Some interesting particularities emerged if we looked at the means and compared emergency nurses to others. They were at high risk of exposure to disease and subject to extreme physical wear and tear, as well as a higher risk of aggression from patients and their family members. The degree of risk exposure was consistently higher among emergency nurses, and, in most cases, the differences were statistically significant (Table 3).

Table 3

Classification of the degree of exposure to risks and/or conditions while working as a nurse (% and means)

	Total nursing sample (%)				Total	Emergency	Others
	None	Low / Not high	High	Very / Extremely high	Mean		
Injuries/accidents due to transport or positioning of patients	3,5	24,6	34,7	37,2	4.08	4.59*	3.82
Contagion/exposure to harmful substances	0,5	24,6	27,1	47,7	4.31	4.72*	4.09
Exposure to diseases	-	15,6	28,6	**55,8**	**4.66**	**5.10***	**4.44**
Physical attrition (hours standing)	0,5	16,6	28,6	**54,3**	**4.59**	**5.18***	4.29
Physical fatigue (reduced break times)	-	17,1	31,7	**51,3**	**4.52**	4.93*	**4.31**
Aggressiveness of patients	4,5	33,2	23,6	38,7	4.01	**4.94***	3.52
Aggressiveness of relatives	3,5	32,7	27,1	36,7	4.03	**4.94***	3.55
Pressure to obtain results (number of patients attended, etc.)	1,5	16,1	29,1	**53,3**	4.51	4.69	**4.41**
Competitiveness between colleagues	2,5	46,2	25,6	25,6	3.69	3.84	3.61

Scale: 1 – None to 6 – Extremely high

* p<0,050; t-test

New variables were created based on the items shown in Table 3[4]. Once again, all mean scores were higher among emergency nurses than the others, revealing a higher degree of risk exposure in this group (Table 4). The statistically significant differences were particularly striking concerning the risk of aggression.

[4] A PCA indicated the possibility of grouping the items into three components (KMO=0.843) - "Physical and health risks" (items 1 to 5; alpha of 0.902); "Risks of aggression" (items 6 and 7; alpha of 0.932); and "Pressure and competitiveness" (items 8 and 9; alpha of 0.565). However, due to the relatively low level of reliability of the last composite variable, it was not used in further analyses. The overall risk exposure index, created from the mean of all items after a consistency measurement of the variable, indicated a high level of reliability (alpha of 0.893).

Table 4

Means of the indexes of specific and global risks

	Total	Emergency	Others
Physical and health risks	4,43	4,90*	4,19
Aggressiveness Risks	4,02	4,94*	3,53
Global risk exposure index	4,27	4,77*	4,00

Scale: 1 – None to 6 – Extremely high

* $p<0,050$; t-test

Tests were also carried out to determine differences in means, according to age group, for each new composite variable and the overall index for the total sample. Looking at the means by age groups, the differences between groups were statistically significant in all cases. Perception of risk tended to be consistently higher among the younger groups. Once again, the fact that younger age and working in emergency departments were strongly associated helped to explain these results. The perception of risk was also higher among nurses working for less time.

In the interviews, the nurses underscored interactions with patients or their families as one of the highest risks. They expressed the exposure to adverse physical or verbal reactions because of long waiting times or diagnoses with which patients might disagree. The interaction with the public is one of the main pressure factors in their duties. The emphasis on the relational component was quite an expressive dimension in the present study. The following excerpt highlights the underlying tensions and hardships stemming from managing relationships with patients and families.

> But what generates most of the stress in the Emergency Department is the relationship between nurse and patient and nurse and family. These are the most difficult situations to deal with. Trying to explain waiting times, reasons why situations have not yet been resolved, or the fact that people can't always be with their relatives are the situations that generate the most stress for us. (N4, Male, 44 years old)

Overall, the results reinforced the conclusions of other studies that associate nurses with more significant pressure on professional performance within a global context of social transformations, which are also reflected in organizational contexts (Tavares et al., 2022; van Schothorst-van Roekel et al., 2020). A growing workload marks the hospital environment and unpredictability due to the diversity of patients and rapid changes in their clinical status, requiring nurses to possess a wide variety of skills to perform their jobs (Furåker, 2009; Hall & Kiesners, 2005) and adapt to a higher intensity in volume and pace driven by the need for greater productivity and efficiency (Moffat et al., 2014). This results section exemplified how

transformations in the work organization's nature and models generate work intensification processes.

The social uses of medicines in professional performance management

The increasing use of medicines and supplements for performance management is not just about work contexts. It is a socially pervasive process in everyday life, expressed in the increasing social adherence to medicines for personal performance management (Abraham, 2010; Lopes et al., 2010; Lopes et al., 2015; Williams et al., 2009). However, work contexts of professional groups subject to high social pressure to perform create conducive conditions for social adherence to the new uses of medicines, shaping new performance cultures.

Nursing is one of the professional groups in which daily work pressures have been increasing, as discussed in the previous section, and the use of medicines and food supplements to manage daily professional and personal performance appears as a regular practice.

The scope of performance consumption

This study identified performance-related medicine use from a set of ten purposes for using medicines and supplements included in the questionnaire, which we shaped into two broader categories based on the scope of use: (i) cognitive and relational purposes—sleep, staying awake, concentration, memory, relaxation, and mood improvement; (ii) physical purposes—increase in physical energy, weight loss, sexual performance, and muscle mass increase. In turn, each purpose was broken down into "use of medicines" and "use of supplements/natural products" to ascertain the adherence to each of these categories in the different purposes of use.

The overall prevalence of consumption and its purposes was assessed with simple indicators (referring to each purpose) and composite indicators (resulting from aggregating different purposes). The results show significantly widespread use. Under the overall use indicator, 78% of the nurses indicated that they "had already used or usually used" medicines or supplements for one or more purposes listed. Of those, 44% indicated they were currently using. Also, 60% of those who consumed had already done so for four or more purposes.

The data also show that use for cognitive-relational purposes was higher (71.4%) than for physical purposes (50.3%). These results align with the pressure factors already identified above (Table 1), where the overall mean of regularity/intensity of physical factors was proportionally lower than that attributed to factors of a cognitive-relational nature.

Moving from the overall indicators to a finer level of analysis gives us a more accurate view of the preponderance of each of the purposes in the general framework of performance consumption. Table 5 shows the percentage of respondents associated with use for each purpose. In the cognitive-relational domain, sleep (49.2%), relaxation (42.2%), concentration

(37.2%), and memory (34.2%) are the principal reasons; in the physical domain, physical energy (33.2%) and weight loss (29.6%) are the highest.

Table 5

Consumption purposes (medicines and supplements) and total by purpose

	Consumption
Purpose	Total
Sleep	49,2%
Staying awake	12,1%
Concentration	37,2%
Memory	34,2%
Relaxing/calming down	42,2%
Mood improvement	26,6%
Physical energy	33,2%
Weight loss	29,6%
Sexual performance	2,5%
Muscle mass	15,6%

The duration of consumption, based on the last time the medicine or supplement was used and measured through the questionnaire question "For how long did you use it, the last time," is another indicator we shall consider[5]. It reveals the adjustment of medicine use to a more occasional or prolonged nature of performance needs. In occasional use (one to three days), those for sleep (47%) and relaxing/calming down (43%) prevailed. In longer-lasting use (more than one month), those for concentration (66.7%), mood improvement (55.6%), weight loss (72%), and muscle mass (67%) were the highest.

These consumptions included medicines and supplements, which were used alternatively or complementarily and, less frequently, exclusively. More than half of the nurses (59.2%) who resorted to cognitive-relational consumption used medicines and supplements. A higher proportion of nurses (69%) used both categories for physical purposes. These results confirm the growing association between pharmacological and natural, which characterizes the universe of performance-enhancing use found in previous studies (Lopes et al., 2015; Rodrigues et al., 2019). These consumption patterns constitute forms of therapeutic pluralism (Lopes et al., 2010), which coexist with the growing pharmaceuticalisation of everyday life (Williams et al., 2009). The logic of alternation between the two types of resources induces this coexistence, in which the expansion and progressive social adherence to therapeutic resources for daily performance management is embodied.

[5] All percentages of the duration of consumption were calculated by reference to the total number of respondents who "used or usually use" therapeutic resources for each of the purposes.

The generational component in these consumptions, as assessed in the age variable (up to 34 years, 35–49 years, 50 years or more), shows unequal prevalence in the different purposes of use. The youngest age group was the one with the highest use for concentration purposes (47.4%), followed by other high rates of use, such as sleeping (52.6%) and relaxing/calming down (40.4%). The oldest age group was the one with the highest use for sleeping (55.1%), relaxing/calming down (51%), and memory (40.8%). This generational variation reflects the unequal exposure to workplace and/or personal life pressures and differing performance demands and goals. Such variation is also evident in the distinct social and cultural dispositions toward using medication for performance management, as will be seen later.

Performance consumption and pressure factors

In addition to the high level of performance consumption in nurses' daily lives, the data obtained also points to a close association between this consumption and the pressure factors mentioned above, as seen in the following table.

Table 6

Intensity of the pressure factors (global indicators) and variation in performance consumption

		EMERGENCY			OTHERS		
Pressure factors (means)	Performance consumptions	Mean**	Standard deviation	Sig. t-test	Mean**	Standard deviation	Sig. t-test
Work rhythms	With consumption	4,30	0,548	*p*=0,048	3,80	0,608	*p*=0,056
	Without consumption	4,00	0,894		3,57	0,728	
Professional activity demand	With consumption	4,20	0,411	*p*=0,149	3,93	0,523	*p*=0,082
	Without consumption	4,09	0,354		3,76	0,600	
Exposure to risks	With consumption	4,84	0,665	*p*=0,104	4,07	0,912	*p*=0,040
	Without consumption	4,61	0,703		3,69	1,043	

*** scales previously identified in tables 2 and 4.*

Summarizing the results in Table 6, two levels of analysis stand out. On the one hand, the overall mean scores of the three pressure factors—the pace of work, demands of professional activity, and exposure to risks—are higher among the nurses who use performance-enhancing medicines than those who do not. This association is consistent even when comparing departments with unequal pressure patterns, as is the case when comparing "Emergency" and "Other" services.

On the other hand, analysis of each factor shows greater intensity in the pace of work as the factor in which performance-related medicine use is more generalized in both types of services. The high overall means for both professional demands and risk exposure indicate that medicines and supplements are used as "performance aids" in managing daily working life. These results are similar to those found in previous studies addressing the relationship between work and medicine/supplement consumption (Egreja & Lopes, 2021; Leon et al., 2019; Lopes et al., 2010; Lopes et al., 2015; Sales et al., 2019).

Performance consumption: between acceptance, rejection, and invisibility

Despite the prevalence of medicines and supplements for performance management in nurses' daily practice, their relationship with consumption is somewhat ambivalent.

A set of statements in the questionnaire assessed social acceptance and/or rejection of the consumption under analysis, as well as the nurses' perception of how widespread the use was, as shown in Table 7. As seen, use for managing physical, intellectual, and interaction demands—Statements 1, 2, and 3—shows a mean distribution at the agreement threshold for physical and intellectual demands and clearly below agreement for interaction demands. This points to a hierarchy of legitimacy for consumption, which favors demands intrinsic to the nature of the work and the use of resources that facilitate nurses' capacity to respond to these demands. Therefore, interaction demands, generally perceived as extrinsic to the nature of the work, are (culturally) less eligible for the legitimacy of consumption. These results corroborate similar analyses from other studies (Leon et al., 2019; Sales et al., 2019).

This hierarchy of legitimacy in performance consumption presents generational variations. Younger individuals (up to 34 years old) show a higher mean level of agreement [statements: 1 (3.35), 2 (3.45), 3 (3.09)]. Older individuals (50 years and above) show means closer to disagreement [statements: 1 (2.84), 2 (2.80), 3 (2.57)]. As previously mentioned, this indicates a generational mark in cultural dispositions between accepting and rejecting these consumptions.

Table 7

Dispositions and Perceptions on Performance Consumptions

"Please, signal the degree to which you (dis)agree with the following statements":	Disagreement (total/partial) (%)	Agreement (total/partial) (%)	Total	Mean
1. The **physical demands** of nursing work make it acceptable to resort to medicines and/or supplements to **boost one's energy.**	51,8%	48,2%	100,0% (195)	3,09
2. The **intellectual demands** of nursing work make it acceptable to resort to medicines and/or supplements to **enhance one's performance**	52,8%	47,2%	100,0% (195)	3,09
3. The **interaction demands** of nursing work make it acceptable to resort to medicines and/or supplements to **manage your relationship with others**.	63,6%	36,4%	100,0% (195)	2,82
4. Only a **small number** of nurses resort to medicines and/or supplements to **enhance his/hers professional and/or personal performance.**	59,8%	40,2%	100,0% (169)	3,14
5. In workplaces, in general, there is **some reluctance** among nurses to talk about any medicines/supplements they may take to **manage their professional and/or personal performance.**	19,3%	80,7%	100,0% (181)	4,51

Scale: Totally disagree (1) to Totally agree (6); midpoint: 3,5

Regarding the perception of the dissemination of these consumptions among nurses—Statement 4 of the table—we found that the idea that it was relatively widespread prevailed (59.8%), as expressed in disagreement with the statement "Only a small number of nurses resort to medicines/supplements use". In this case, disagreement was more pronounced among those who did use medication (62.2 %) than those who did not (50%), with a statistically significant association (p=0.000).

The interviews also express the perception that these consumption habits are not rare.

> Nowadays, this resource (relaxants) is more commonplace. It's more unusual when someone says they don't take them [...]. Many people take at least a little something. But, as I say, more for post [work] relaxation [...]. But I am aware that it is a common practice among professionals. It's common practice even among younger people. They regard it as normal, more so than older colleagues. (N1, Female, 41 years old)

Along with the perception of the dissemination of these types of consumption, there is also a perception of some social invisibility about them—Statement 5. There is a high level of agreement (80.7%) that nurses are relatively reluctant to talk about their use of medicines/supplements in the workplace.

Among the reasons that may constrain sharing this information, there is a conflict between professional image and the use of performance-enhancing medicines. These consumptions may be associated with an image of personal insufficiency, impacting professional identity itself (Cooper, 2021), even though these exact consumptions, in other work contexts, might be culturally promoted and valued. The interviews also express this conflict, as follows.

> People are always reluctant to say it [using relaxants/sedatives] openly for fear of being seen as vulnerable or less trustworthy and that this will spill over to the professional side. (N7, Male, 35 years old).

> Outside the team, maybe talking to other people, you don't like to admit that kind of thing. Why? I think that, especially in the Emergency Department, we often take them because they are usually relaxants, sedatives, sleep inducers [...]. Some colleagues end up not admitting that they take them so as not to be branded that way. (N1, Female, 41 years old)

This invisibility disappears in more closed circuits of sociability, which are sources of information and validation of the options and purposes of consumption in the context of professional performance.

> If we have been working for some time, we talk about it, yes; if someone new comes, we don't talk. But normally we talk. (N9, Female, 46 years old)

> There is a lot of sharing of effects [...] and results, and people use this a lot, in search of the same results. But medication is very easy to get. (N4, Male, 44 years old)

As the data show, the more widespread use of performance consumption to manage the pressures of everyday life coexists with relative discretion when sharing this information in the work context. Such discretion also coexists with broad social recognition of these consumptions as "performance aids", manifested in the statistical evidence of the association between factors of work pressure and performance consumption and in the corroboration of this association expressed in the interviewees' discourse.

Conclusion

Against a backdrop of new service logic in which organizing becomes part of professional work, incorporating new principles such as time pressure and efficiency shows that professionals need to adapt to social changes and, consequently, to the demands of new organizational realities (Noordegraaf, 2015). Those demands placed on professionals call for

greater flexibility and functional efficiency within a framework of more significant pressure expressed in more intense paces of work, long, rotating working hours, complex demands on professional activities, and greater exposure to different risks.

Although we are reporting on a relatively general trend within professional work that goes far beyond nursing, the results of the study indicate that the case of this occupation is an illustration of the extent of the pressure on performance and the need for permanent adaptation to forms of intense, multipurpose, and non-routine work. This means that nurses' openness to these organizational pressures exacerbates the effects of a growing workload and pace of work. The new demands require the utilization of more skills and, above all, a more remarkable ability to adapt to the different responses required by changes in nursing work. Their professional identity is, therefore, no longer strictly committed to the patient as a whole person but is increasingly linked to organizational work (Allen, 2014; Campbell & Rankin, 2017).

In the context of the study aims, there are two ways nurse work and performance under pressure can be conceptualized. On the one hand, work contexts are conducive to provisions and practices for managing or improving performance. On the other hand, the professional and social pressure faced by nurses fosters the need to manage work demands, leading to the consumption of performance in work contexts.

Therefore, it was analytically interesting to understand how the strategies to manage this pressure on performance refer to the mobilization of medication. The use of therapeutic resources as auxiliary tools to cope with pressure factors is relevant empirical evidence that further explores the heuristic potentialities of pharmaceuticalisation in analytical contexts focused on the transformations in the nature of professional work.

More concretely, we found that consuming medicines and/or food supplements is more frequent as nurses perceive their professional activity to be more intense, demanding, and exposed to more significant risks, which is more evident in emergency services contexts. We also found that professional demands were focused mainly on emotional and intellectual components. In the emotional domain, "emotional control" and "communication skills" were the most demanding. In the intellectual domain, "concentration" and "mental agility" stood out.

Based on these findings, we were interested in exploring how nurses dealt with new or increasing work demands and how they tended to manage the performance imperatives intrinsic to the changing nature of their work. The use of medicines in daily life and their transformation into a tool to help respond to work requirements (Ballantyne, 2021; Egreja & Lopes, 2021; Smith & Land, 2014) was significant, denoting a cultural willingness to use medicines for purposes beyond the health field and shows that work contexts and their totalizing impact on social life are powerful indicators of the diffusion of pharmaceuticalisation. They highlight

new forms of social use of medicines in managing essential spheres of everyday life, such as the demands of professional work.

To conclude, we would like to underscore that the results of our research show how, in the context of a growing social and cultural dissemination of medicines in various spheres of social life, the study of the effects of work intensification processes provides a good illustration of what we have called the pharmaceuticalisation of work contexts. By showing that these contexts are conducive to the development of performance management dispositions and practices, the analytical approach adopted here has made it possible to articulate issues relating to the transformations of professional work with pertinent issues in the sociology of health, namely those relating to the increase and diversification of the social uses of medicines. However, the scarcity of studies on nursing professionals on this topic suggests the need for future international comparative studies that explore the reciprocity of effects between pressure factors in nursing work and the widespread pharmaceuticalisation of work performance.

Acknowledgments

The authors would like to thank the nurses who participated in this study and the trade union that facilitated access to these professionals: Sindicato dos Enfermeiros Portugueses [Portuguese Nurses' Union].

Article history

Received: 09 Feb 2024
Accepted: 14 Oct 2024
Published: 09 Dec 2024

References

Abraham, J. (2010). Pharmaceuticalization of society in context: Theoretical, empirical and health dimensions. *Sociology, 44*(4), 603–622. https://doi.org/10.1177/0038038510369368

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A. M., & Shamian, J. (2001). Nurses' reports on hospital care in five countries. *Health Affairs, 20*(3), 43–53. https://doi.org/10.1377/hlthaff.20.3.43

Allen, D. (2014). Re-conceptualising holism in the contemporary nursing mandate: From individual to organizational relationships. *Social Science and Medicines, 119*, 131–138. https://doi.org/10.1016/j.socscimed.2014.08.036

Ballantyne, P. (2021). Drugs at work—Implicated in the making of the neo-liberal worker. In P. Ballantyne & K. Ryan (Eds.), *Living Pharmaceuticals Lives* (pp. 12–27). Routledge. https://doi.org/10.4324/9780429342868-2

Campbell, M., & Rankin, J. (2017). Nurses and electronic health record in a Canadian hospital: Examining the social organization and programmed use of digitized nursing knowledge. *Sociology of Health and Illness, 39*(3), 365–379. https://doi.org/10.1111/1467-9566.12489

Carvalho, T. (2014). Changing connections between professionalism and managerialism: A case study of nursing in Portugal. *Journal of Professions and Organization, 1*(2), 176–190. https://doi.org/10.1093/jpo/jou004

Cooper, R. J. (2021). Opioid analgesics, stigma, shame and identity. In P. Ballantyne & K. Ryan (Eds.), *Living Pharmaceuticals Lives* (pp. 155–165). Routledge. https://doi.org/10.4324/9780429342868-11

Creswell, J. (2021). *A concise introduction to mixed methods research* (2nd edition). Sage.

Egreja, C., & Lopes, N. (2021). Medication in workplace—A literature review. *Annals of Medicine,* 53(Suppl. 1), S207. https://doi.org/10.1080/07853890.2021.1896846

Evetts, J. (2013). Professionalism: Value and ideology. *Current Sociology, 61*(5–6), 778–796. https://doi.org/10.1177/0011392113479316

Furåker, C. (2009). Nurses' everyday activities in hospital care. *Journal of Nursing Management, 17*, 269–277. https://doi.org/10.1111/j.1365-2934.2007.00832.x

Gaglio, G. (2014). Organizational sense: A notion for studying emerging organizational professionalism at work. *Professions and Professionalism, 4*(1). https://doi.org/10.7577/pp.222

Hall, L. M., & Kiesners, D. (2005). A narrative approach to understanding the nursing work environment in Canada. *Social Science and Medicine, 61*(12), 2482–2491. https://doi.org/10.1016/j.socscimed.2005.05.002

Leicht, K. T., & Fennell, M. L. (1997). The changing organizational context of professional work. *Annual Review of Sociology, 23*, 215–231. https://www.jstor.org/stable/2952550

Leon, M. R., Harms, P. D., & Gilmer, D. O. (2019). PCE Use in the workplace: The open secret of performance enhancement. *Journal of Management Inquiry, 28*(1), 67–70. https://doi.org/10.1177/1056492618790091

Lopes, N. (2001). *Recomposição profissional da enfermagem—Estudo sociológico em contexto hospitalar* [Professional recomposition in nursing—Sociological study in a hospital context]. Quarteto.

Lopes, N. (org.), Clamote, T., Raposo, H., Pegado, E., & Rodrigues, C. (2010). *Medicamentos e pluralismo terapêutico: Práticas e lógicas sociais em mudança* [Medicines and therapeutic pluralism: Social practices and logics in change]. Afrontamento.

Lopes, N., Clamote, T., Raposo, H., Pegado, E., & Rodrigues, C. (2015). Medications, youth therapeutic cultures and performance consumptions: A sociological approach. *Health, 19*(4), 430–448. https://doi.org/10.1177/1363459314554317

Moffatt, F., Martin, P., & Timmons, S. (2014). Constructing notions of healthcare productivity: The call for a new professionalism? *Sociology of Health and Illness, 36*(5), 686-702. https://doi.org/10.1111/1467-9566.12093

Noordegraaf, M. (2015). Hybrid professionalism and beyond: (New) forms of public professionalism in changing organizational and societal contexts. *Journal of Professions and Organization, 2*, 187–206. https://doi.org/10.1093/jpo/jov002

Rankin, J. M. (2015). The rhetoric of patient and family centred care: An institutional ethnography into what actually happens. *Journal of Advanced Nursing, 71*(3), 526–534. https://doi.org/10.1111/jan.12575

Rodrigues, C. F., Lopes, N., & Hardon, A. (2019). Beyond health: Medicines, food supplements, energetics and the commodification of self-performance in Maputo. *Sociology of Health & Illness, 41*(6), 1005–1022. https://doi.org/10.1111/1467-9566.12880

Saks, M., & Allsop, J. (2019). Researching health: Qualitative, quantitative and mixed methods (3rd ed.). Sage. https://uk.sagepub.com/sites/default/files/upm-assets/102017_book_item_102017.pdf

Sales, P., Murphy, F., Murphy, S., & Lau, N. (2019). Burning the candle at both ends: Motivations for non-medical prescription stimulant use in the American workplace. *Drugs, 26*(4), 301–308. https://doi.org/10.1080/09687637.2019.1606895

Smith, C., & Land, C. (2014). Pharmacological routes to everyday exceptionality. *Culture and Organization, 20*(4), 269–287. https://doi.org/10.1080/14759551.2013.851680

Tavares, D., Lopes, N., & Gonçalves, C. M. (2022). Transformações do trabalho em contextos de pressão para o desempenho profissional [Work transformations in contexts of pression for professional performance]. *Sociologia, Problemas e Práticas, 99*, 29–46. https://doi.org/10.7458/SPP20229921552

van Schothorst-van Roekel, J., Weggelaar-Jansen, A. M. J. W. M., de Bont, A. A., & Wallenburg, I. (2020). The balancing act of organizing professionals and managers: An ethnographic account of nursing role development and unfolding nurse-manager relationships. *Journal of Professions and Organization, 7*(3), 283–299. https://doi.org/10.1093/jpo/joaa018

Williams, S. J., Gabe, J., & Davis, P. (2009). *Pharmaceuticals and Society: Critical discourses and debates*. Wiley-Blackwell.

PROFESSIONS & PROFESSIONALISM

ISSN: 1893-1049 Volume 14, No 2 (2024), e5785 https://doi.org/10.7577/pp.5785

Dutch Therapists' Professional Autonomy and Moral Agency After the Marketization and Bureaucratization of Mental Healthcare: Between Impracticalities and Impossibilities

Linda Krikken Mulders[1], Evelien Tonkens[1], & Margo Trappenburg[1,2]

1. University of Humanistic Studies, Netherlands.
2. Utrecht University, Netherlands.

Contact: Linda Krikken Mulders, University of Humanistic Studies, Netherlands.
linda.mulders@uvh.nl

Abstract

Over the last decades, western mental healthcare has increasingly been governed by market and bureaucratic principles. As a consequence, therapists are faced with conflicting demands and decreased autonomy. This study examines how they cope and whether their strategies suffice. Drawing on the direct experience of therapists through interviews, we demonstrate that psychologists have become quite skilled at balancing and navigating bureaucratic and market demands that were at odds with professionalism. However, when they were structurally faced with bureaucratic and market demands that were already irreconcilable with each other, these skills fell short. Trying to meet all requirements took up so much of their resources that sometimes, professional reasoning and agency disappeared altogether. In some cases, this led to detachment, burnout, and patient neglect. Our findings suggest that the public interest in having a well-functioning mental healthcare system requires more room for professional autonomy.

Keywords

Mental healthcare, therapists, professionalism, commodification, bureaucracy, professional logic, moral agency

Introduction

From the nineteen eighties onward, healthcare systems in western welfare states have been subject to changes brought about by the turn to neoliberalism. Although proponents of neoliberalism failed to abolish welfare states where they existed, they did manage to introduce elements of entrepreneurialism, such as surveillance, financial accountability, and productivity in the public sector, that were ill-suited to them (Harvey, 2005). The mismatch lies in excessive government, focused too much on performance (Dean, 1999), to the erosion of professional values such as calling, loyalty, and authority (Freidson, 2001; Tonkens, 2016). Sandel (2012, 2013) argues for a critical debate about where markets serve the public good and where they do not belong.

Public administration scholars have studied extensively whether this neoliberal turn – they tend to speak about New Public Management, or NPM, but this refers more neutrally to the same phenomenon – at least delivered on its promise to improve public services by enhancing their quality and making them more efficient. For instance, Hood and Dixon (2016, p. 31) studied the effects of three decades of NPM in the UK and observed that it resulted in a proliferation of rules, standards, and benchmarks enforced by independent or semi-independent regulators, without reducing costs. Diefenbach (2009) conducted an extensive meta-analysis and concluded that the negative sides of NPM far outweigh positive outcomes in the public sector. A more value-based public governance model has been proposed as an alternative to NPM, which is already emerging in some parts of the public sector (Bryson et al., 2014).

In the healthcare sector specifically, the negative effects of NPM are well documented. A system of external controls has replaced the traditional regime of self-regulation, to the detriment of professional autonomy (Adams, 2016; Blank et al., 2017; Dwarswaard, 2011; Exworthy, 2015; Trappenburg, 2006). We will zoom in on what that entails by elaborating on the work of Freidson (2001) and Zacka (2017).

Freidson (2001), in his seminal work on professionalism, argues that the decline of professional autonomy is problematic because autonomy is crucial to professional work. This work is specialized and moral in nature, cannot fully be captured in protocols and policies, and requires discretionary space to keep its "soul" and be applied in socially useful ways. According to Freidson, it should be governed by the professions themselves, supported by the academic disciplines linked to them, and rooted in what he calls "the logic of professionalism" (2001, p. 2). This logic is difficult to reconcile with the two other (neoliberal) logics that exercise control over the sector: the logic of the market, which focuses on productivity, patient satisfaction, and measurable outcomes (see also Kapucu, 2006; Leicht, 2016; Pollitt &

Bouckaert, 2017), and the logic of bureaucracy, which organizes care according to rational rules, predefined procedures and impersonal hierarchies to promote equality, minimize risk and maximize accountability (for a discussion, see Exworthy, 2015; Kalberg, 2017). Although Freidson (2001) recognizes that these other two logics have value in and of themselves, he argues that they should not drown out professionalism: "The issue should be whether the virtues of each are suppressed by emphasis on the other and their vices excessively stimulated" (p. 181).

A more recent scholar who investigated the effect of working under the pressure and duress of conflicting logics is Zacka (2017). Although his work is usually seen as a sequel to Lipsky's (1980) influential book on street-level bureaucracy, or the liaisons between government policy-makers and citizens, he also builds on Freidson by understanding public sector work as moral and the bureaucratic encounter it involves as a moment of citizenship. Through his ethnographic studies, he found that frontline public sector workers have become quite skilled at navigating conflicting demands while maintaining their moral agency. He calls this a "gymnastics of the self" (Zacka, 2017, p. 114). At the same time, he admits that these gymnastics will only take a professional so far. When working under constant pressure, he observes that workers will resort to reductive stances: moral positions that exclude other perspectives. Zacka identifies three such reductive stances: caregiving (giving precedence to the needs of the patient), enforcement (giving precedence to the rules), and indifference (detachment). He argues that professionals will be most prone to adopt one of these strategies when faced with what he calls "impossible situations" (Zacka, 2017, p. 200). He uses this term to indicate the double bind created by tension between the concrete requirement for action (an external imperative) and the abstract appeal from one's professional identity and morality (internal). "Impossible situations arise when these two levels are at odds with each other: when the actions that are required and the sense of self that is fostered cannot be reconciled" (Zacka, 2017, p. 229). Zacka later adds, "They can also arise when we ask public agencies to do or be too many things at once without giving them adequate resources to do so" (Zacka, 2017, p. 237).

One can only experience a situation as impossible if one is personally committed to a certain understanding of the role that one is then brought to undermine. Zacka emphasizes that this creates a double bind and concludes:

> There is no good way for individual agents to confront impossible situations on their own. […] It is the managerial practices and public policies that give rise to such situations that have to change. (Zacka, 2017, p. 232)

In our study, we use the concept of the *impossible situation* to investigate the current state of professional autonomy and moral agency in mental healthcare in the Netherlands, to assess and differentiate the dynamics within that sector. We will describe this context and then outline our research questions.

The Netherlands has a social insurance system (of old comparable to Germany, more recently resembling Switzerland) instead of a tax-based national health service like many European countries (e.g., Britain, Sweden) (Blank et al., 2017). Social insurance is compulsory and has helped to establish a culture of care prioritizing formal care. The provision of healthcare is predominantly in the hands of private non-profit organizations.

Mental healthcare (practices, institutions, ambulatory services, and inpatient facilities) used to be financed through the Exceptional Medical Expenses Act (AWBZ) but is currently governed by the more market-based Health Insurance Act (Zorgverzekeringswet) since 2006. This change shifted the sector from the domain of "care" to that of "cure," changing the focus from process to result and opening the door to a more outcome-oriented approach (Boot, 2005; Bouman, 2010). Subsequently, an avalanche of NPM measures was introduced to direct and monitor these outcomes. This relatively recent shift to NPM makes the sector a valuable case for analyzing its effects on professionals. Research on mental healthcare in the US and Australia has shown that similar policy changes led to difficulty in defending established treatment practices (based on professional standards) against organizational demands for cost-containment and performance-based outcomes (Scheid, 2000, 2004, 2009). Clinicians felt their professionalism was threatened (Kirschner & Lachicotte, 2001). The feeling that organizations were not meeting professional-based criteria for care was an important cause of a rise in burnout (Scheid, 2009), as was a lack of autonomy, notably among psychologists (McCormack et al., 2018). Psychologists argue that their workplaces and training settings need to reorient from a focus on performance and technique to also include the recognition and support of the personhood and professionalism of the therapist (Turnbull & Rhodes, 2021).

In the Netherlands, several individual clinicians have written about their experiences since the transition to the Health Insurance Act, drawing attention to the inherent complexities of working with people with mental vulnerabilities and the incompatibility of this reality with what, from an analytical point of view, are NPM and bureaucratic demands (e.g. Bosch, 2019; Schakenbos, 2015; Van Oenen, 2019; Van Os, 2014). However, no structured analysis of professionals' experiences and views has been carried out yet.

We discuss the following questions: 1) When, why, and how are professionals in Dutch mental healthcare able to handle difficult situations originating from conflicting logics? 2) When and why do they experience situations as truly impossible? 3) What are the consequences of these impossible situations for mental healthcare as a professional discipline?

Methods

Twenty-five professionals were interviewed to identify the type of situations they experience as impossible, according to Zacka's (2017) definition. Through interviews, it becomes possible to understand the lived experience of people and the meaning they attribute to that experience as a basis on which to build social abstractions (Seidman, 2013). To promote uniformity

in the sample, only professionals who conduct therapy (i.e., psychologists) were included, as opposed to professionals who provide other interactions with patients (e.g., prescribing medication or providing practical support).

Participants

To select participants, a convenience sample was assembled starting with eight psychologists in the first author's network (not direct colleagues). Inclusion criteria were that all of them were practicing licensed psychologists with extended clinical training, resulting in a registration in the Register for Professions in Individualized Healthcare (in Dutch: BIG-register) that allows them to provide care independently. All participants worked in mental healthcare and provided care under the health insurance law, to the exclusion of other settings that are governed by different policies, such as prisons or hospitals. These criteria ensured that all participants had sufficient experience and a general lived understanding of problems in the field: the range of years of experience was 9 to 40, with an average of 20 years.

Two people declined because of a full schedule, and one did not respond. Participants were interviewed and asked to identify other people who met the criteria. Another 25 people were approached, of which five declined, mainly due to busy schedules. The process was repeated until data saturation was reached (Onwuegbuzie & Leech, 2007). After 15 interviews, the researchers had a good initial impression of recurring themes and concerns, but the interviews still provided rich new experiences, perspectives, and nuances. After 22 interviews, a first general analysis of the data indicated that we were reaching the point of saturation. We conducted three more interviews to assess this with more certainty and found that the interviews provided more examples and details of what we already heard. No new themes came up. The final sample consisted of 25 interviews.

Interview method

The study was introduced to respondents as concerning work pressure among psychologists in mental healthcare. The consent form states: "This concerns the relationship with factors such as policy and client behavior on the one hand and the possible moral dilemmas that arise as a result on the other. [...] Your input is important in order to understand which situations psychologists encounter in their work and what consequences arise from this."

The interviews were semi-structured. Although we started from an interview guide and each interview followed the same outline, follow-up questions were formulated depending on the topics the respondents brought up.

The interviews first explored different aspects that may put pressure on professionals, with follow-up questions about respondents' emotions, their ideas about how and why such situations had come to exist in their organizations, their perceptions of differences between organizations, and their responses and (career) decisions. The second part of the interviews focused on case descriptions where professionals felt they were under more pressure than

usual, with follow-up questions focusing mainly on coping strategies and moral decision-making.

Consent and confidentiality

Participants received information about the aim of the interview and signed a consent form adapted to interviewing (Seidman, 2013, p. 64). The research proposal and data management plan were reviewed and approved by the ethical committee of the University of Humanistic Studies. Data are treated confidentially and stored in a secure location. The names of participants were removed.

Analysis

The interviews were recorded, transcribed verbatim, and analyzed using NVivo. The analysis took place over three rounds of coding (Boeije, 2010; Charmaz, 2006). The first round of open coding gave an initial idea of perceptions of pressure and moral conflict in the field. We focused on sources of pressure, attributions, coping strategies, emotions, and (moral) decision-making. During the second round, we used axial coding to refine the coding scheme around several single categories or axes, where Freidson's and Zacka's frameworks were used as core concepts. We differentiated between the type of demands (abstract vs. concrete, internal vs. external, corresponding logic) and the classification of the truly *impossible situation*, of which we found three good examples – or cases – that consistently showed up in most interviews and caused much distress. A fourth situation was quite prevalent and had the potential to become an *impossible situation*, but it did not, so we used it as a counterexample or a situation that is "merely" difficult. Lastly, selective coding was used to further describe and flesh out these core concepts and the relations between them. Most notably, we related participants' emotions, attributions, and decisions back to the nature of the conflicting demands and the perceived "double bind" they created.

Situations that only showed up in the data sporadically or intermittently, for instance because they were person- or context-specific, are not included in the description below.

Results

The results indicate that conflicting demands from professional, market, and bureaucratic logic do consistently put pressure on professionals, but not always to the same extent.

On the one hand, professionals deal with what can be described as *difficult situations*. In these situations, their professional logic is threatened by conflicting demands, but they can still carve out enough room to make moral decisions that align with their professional logic. On the other hand, sometimes conflicting demands lead to *impossible situations*; room for professionalism disappears almost altogether. We will provide one example of a *difficult situation* and, subsequently, three *impossible situations*. We will analyze the difference between them according to the different kinds of logic and their accompanying demands.

Difficult situations: The case of medicalization

Medicalization of mental healthcare refers to thinking about psychological problems in terms of a DSM classification, often to be treated by a protocol-based treatment of which the effectiveness has been proven in randomized controlled trials. In the Netherlands, this way of thinking has been heavily endorsed by policymakers, as it is results-oriented and cost-effective (logic of the market), as well as standardized (logic of bureaucracy). In the Netherlands, health insurance companies decide which DSM classifications and which treatments are covered and, therefore, accessible to patients.

Although the value of scientific evidence for the effectiveness of treatment was mentioned explicitly by some respondents, many described a mismatch between protocols and reality, as well as difficulties with the notion stimulated by the medical model that psychological problems are individual (a disorder of the person) rather than contextual (related to a person's life events or other social problems such as diminished social cohesion, the individualization of society, poverty, job insecurity or performance pressure). They feel that the assumption that these problems can be meaningfully named and fixed on an individual, decontextualized level is tricky, as in this example:

> The kid was referred to us for [individual] trauma treatment. And the mother, but the family guardian too, ask us to treat him accordingly. But we feel that such a treatment will only make the dynamic more difficult for this boy. What he needs, what would reduce his stress, is that the uncertainty about where he is going to live is eliminated, as well as the battle and loyalty conflicts around him. [011]

Individual DSM classifications can induce overidentification with and hyperfocus on the terms used, even after recurring discussions about their meaning. As one respondent explains:

> People want a label, well not a label per se of course, but they want to know exactly what you think and that must be it. While psychological assessment is an ongoing process. [014]

Other respondents described how the results-oriented, standardized nature of the medical model led to high or unrealistic expectations, "As if treatment is predictable" [014]. These expectations can hinder the development of professional competence and confidence.

> It bothers me that patients have these expectations of therapy. And that the institutions themselves have of therapy. And the expectations of the whole world, of the therapist, make me uncomfortable in my work. I always feel tense, during sessions too. And beforehand. And afterward, sometimes, a sense of relief. Like, "Oh, that went quite well". But never really satisfied. No. [022]

The medical model and its associated problems have existed for quite some time and most respondents found ways to work with it, or sometimes around it. Inside their consultation

rooms, they have quite some space to work with contextualized, descriptive diagnoses instead of the DSM categories and to adapt treatment methods to their individual patients and the context of their lives. The odd manager who "doesn't have a background in healthcare and thinks throwing a protocol at someone will fix their problems" [009] is found annoying but not that influential. Senior therapists, in particular, proved to be skilled at integrating scientific evidence with clinical experience and understanding the development of new treatments as an ongoing process without an ultimate truth.

To sum up, different assignments originating with different logics are given at the same time. Also, in accordance with Zacka's definition, bureaucratic and market-based demands tended to be more concrete and rule-based, whereas the professional imperative was experienced as abstract and value-based (see Table 1).

Table 1

Differing Logics in the "Difficult Situation" of Medicalization

Bureaucratic logic: label symptoms according to the DSM and give everyone the same treatment, regardless of contextual factors.	Professional logic: give good care, attuned to the person as well as their life circumstances. Help people live with their problems. Recognize that problems are subject to change and diagnoses are often only temporary.
Market logic: provide effective treatment with measurable, verifiable results. Fix the problem.	

Though the excerpts above clearly describe pressure and tension, the therapists still engage in moral reasoning, figuring out how to relate to the conflicting demands and expectations, and succeed in avoiding a reductionist moral stance. Two important factors allow for this: 1) the bureaucratic and market logic conflict with professional logic, but not with each other; and 2) the organization has some control over DSM classifications and protocols, but very little over how professionals discuss them in consultations and sessions. Both factors will be different in the three impossible situations described below.

Impossible situations

Production norms

Production norms, the term itself a quintessential example of market language, were mentioned by almost all respondents. They can refer either to the percentage of working time that should be billable, often around 85%, or to the number of patients to be seen or intakes to be scheduled.

> The terminology we're using is the most idiotic thing ever. I remember a manager I had a couple of years ago, who remarked: "Oh, now I'm saying production as well! I'm saying

> product now." Nowadays it's not even a thing anymore, we just talk about production and product. It's crazy, but we do it. [014]

Several respondents expressed an understanding that patients generate income that is necessary for the continuation of the organization. However, the terms felt alien to them and the strict norms had adverse effects. One respondent mentioned the pressure of "mechanically having to see seven people every day, like a machine" [002]; another was bothered by e-mails her team received from their manager about production numbers: "The corporate tone of it. It has me thinking: Hey, I don't work for a commercial enterprise! But it feels like I do" [004].

Feelings of invalidation, underappreciation, and distrust were prevalent and experienced as difficult. However, four other things really push the matter into *impossible situation* territory (see Table 2).

The first is the irreconcilability of these market demands with how professionals understand the nature of their work. Their professional logic requires them to be present and available, exercise reflection, and practice proper self-care to be able to do all those things.

> It didn't feel right to me. Those seven people that I see, I want to be completely attuned to. And give proper care to. If you just retrieve one after the other from the waiting room… With seven in a row your recovery time is minimal. Very little time to write a more elaborate report sometimes, to prepare a session more thoroughly, or consult a GP or occupational health doctor. Or to just think: Geez, I really need to clear my mind or vent to a colleague. And then I will be fine, and present, again. But I didn't feel that I had that space. It cost me tremendously. [003]

The second factor creating impossibility was the relentless pressure some organizations applied, making it impossible to counter the measure with either covert strategies such as civil disobedience, or collaborative problem solving such as openly discussing the problem. Respondents described group e-mail distribution of everyone's production numbers, monthly meetings with managers to evaluate brightly colored production graphs, visits from the owner, having an external planning department filling out any blank spaces in their schedules immediately, and having their production numbers used against them as leverage when contract extension had to be negotiated.

> They really increased the pressure. 100% billable time was the demand at one point. We said: we can't even have a bathroom break then. They replied: Can't you think about a patient while you're on the toilet, so it will still be billable? [013]

The production norm became part of the organizational culture, so professionals stopped exercising both self-care and care for coworkers.

> High work pressure was more likely to be seen as: "Look at their production, great!" Instead of: "They are on the verge of burnout, let's see what we can do to help them." [013]

The two factors (irreconcilability with professional norms and managerial pressure) frequently piled up, for instance, by having to keep meeting intake norms because it makes money to accept more patients, while having no time to keep seeing them for treatment. The same piling-on effect can be seen in this example, where a manager was worried about the effect of "no-shows" on production.

> If people didn't show up for their appointment twice, you had to end their treatment. And this was at a trauma department. With people who were very vulnerable. And, well, sometimes would miss their appointment. […] At one point there was this manager, who had thought up the solution of scheduling two people at the same time. If one of them didn't show up, at least you had seen someone. If they both showed up, you saw both briefly. […] It stopped making sense altogether. [019]

The third factor was that the concrete market and bureaucratic demand were already conflicting, abstract notions of good care and professionalism aside. Many respondents brought up that 85 to 100% production norms meant they could not meet other requirements made by the organization itself. This production norm leaves no room for bureaucratic demands to keep files up to date, report back to the (referring) GP, train younger colleagues, and attend multidisciplinary consultations. Let alone for professional performance.

Last, these demands are much easier to implement and control externally than in the *difficult situation* of medicalization, where professionals still have relatively free space in their consultation rooms to reclaim some autonomy.

Table 2

Differing Logics in the "Impossible Situation" of Production Norms

Market logic: Be billable for 85% of your working time. See x people per day, or conduct x intakes per week/month/year.	Professional logic: Be present and available to the patient; give good care and take time to reflect, practice self-care, and develop yourself professionally.
Bureaucratic logic: treat everyone equally, attend all required meetings, and fulfill all administrative and protocol requirements.	

This situation causes a much more obvious moral breakdown. "It's crazy, but we do it" hardly qualifies as a moral decision. Participants used stronger language when describing their inability or unwillingness to do something, and expressed more doubt, despair, and disbelief.

Almost all participants who had worked in organizations with high production norms had left, and many stated explicitly that the norms were the main reason – the ultimate solution to resolve an *impossible situation*.

Waiting lists and partitions

Another circumstance that created *impossible situations* for therapists was the system of waiting lists and partitioned care. Waiting lists for mental healthcare are notoriously long in the Netherlands. Three to four months is common, even for small practices, and waiting lists for more specialized departments can easily exceed six months to over a year (Nederlandse Zorgautoriteit, 2023). Professionals feel the pressure of these waiting lists continuously. Combined with the aforementioned imperative to keep inviting people for intakes, perfect conditions are created for *impossible situations* to develop.

The person who did the intake is legally responsible for providing treatment (bureaucratic logic) but cannot actually offer any. Organizations think up elaborate constructions that feel counter-intuitive to professionals.

> So you have to call [these people on the waiting list] every three months, a phone call to ask how they're doing, not really a session, and often people will have gotten worse. […] I think we have some legal liability. So if anything happens to them, we can say we've been in touch. So it's more or less a charade, because you're not actually giving care. It's embarrassing, I try to detach myself entirely when I have to do it. Turn it into a task. [022]

Professionals feel troubled and powerless when witnessing people getting worse without being able to do anything about it. Procedures like the one described above feel unethical to them and push them towards an indifferent moral stance.

Another conflicting demand presents itself when the intake indicates that the organization cannot offer the required care, for instance, because it lacks specific expertise. This frequently happens because, in the Netherlands, mental healthcare is partitioned into specialized departments. In such a scenario, professionals are required to arrange follow-up care and transfer their patient to another organization. However, they cannot do that because these all have waiting lists too, and because their production norms limit their time to make calls and arrangements.

> So you will be bickering about patients and it sort of turns into an argument, and someone else has to come and mediate, well, that's really unpleasant. You're colleagues, but competitors too. It's unhealthy. [009]

In the meantime, professionals remain responsible, and also *feel* responsible: they experience a moral appeal to care and not dismiss the patient. Many professionals want to organize a "pre-therapy" arrangement so the patient has someone to talk to and receives support, even if they are not yet treated. These arrangements are not without risk and can take a long time.

> She was a woman, 63 years old, who [when asked about her treatment history] said: "I mainly have waiting list experience […]." I can't abandon her. […] I can't reject her here as well, I can't do that to her. Symptoms are severe, autism, depression, suicidal ideation. Yeah, that of course doesn't fit into any box. Formally I could say she's better off somewhere else, but everyone else is doing that already. So I feel: "Sure, but this woman is really stuck. Let's see what we can do." It's an endless bureaucracy that makes me think: this cost her three years of her life and so much money. To the insurance company too. Well, at least we're not ping-ponging her around in Amsterdam anymore. [009]

Because of the risk (bureaucratic concern), poor prognosis (low effectiveness, no measurable results; market concern), and uncertainty about how long these arrangements will last, some organizations forbid them altogether, forcing the professional to refer the patient back to the GP. The demands of the organization clash with the professional imperative to give good care and be there for patients.

Table 3

Differing Logics in the "Impossible Situation" of Waiting Lists and Partitioned Care

Market logic: schedule x amount of intakes. Don't spend time on activities that can't be billed or don't have a measurable outcome.	Professional logic: Given the reality of partitions and waiting lists, try to be there for the patient as best as you can, and advocate for them to arrange follow-up care if necessary.
Bureaucratic logic: follow protocol regarding liability for people on the waiting list and regarding the referral and transfer of care.	

Again, the logic of the market and bureaucracy impose conflicting demands (see Table 3): One cannot endlessly keep accepting new patients (market logic) and fulfill one's legal and procedural obligations towards all of them (bureaucratic logic)—not even mentioning the professional reasons for not wanting to do so. If any leeway is to be found, it is with the bureaucratic demands, not the market ones, because these can (and are) imposed more forcefully. This is disconcerting because it makes the professional more vulnerable.

The excerpts above reveal moral reduction or breakdown, such as having to shut oneself down, bickering with colleagues, desensitizing oneself in the face of patients getting worse, and taking reductionist stances ("I cannot abandon her" is another reductionist position towards caregiving).

Structure of the profession

A third impossible situation was embedded in the structure of the profession and professional registration. In the Netherlands, psychologists need post-academic training and extra registration (BIG-registration) to work with patients independently. These training positions are limited and difficult to obtain. Psychologists with only a master's degree (MSc) need supervision from a main practitioner, have no registration that holds professional and legal significance, and their employment position remains vulnerable. Economically speaking, it is attractive to employ many MSc psychologists supervised by a limited number of BIG-registered main practitioners. The structure is similar to the medical field, where residents perform care under the supervision of specialists, but a resident will already have more work experience and possess their own BIG-registration.

This structure, when subjected to market and bureaucratic logic, creates major problems for psychologists. One set of concerns revolved around the position of the MSc psychologists, the other around the main practitioners who supervise them.

MSc psychologists

Many young psychologists who just finished their degree have difficulty finding a job. They sometimes have to settle for unpaid "work experience positions" in the hope of improving their resume. Even when they do eventually find a job, they still have to deal with high competition, temporary contracts and limited chances to be admitted to the postgraduate training program. To them, the demands of high production norms and medicalization are even more untenable than to their BIG-registered counterparts, described by many respondents as an unhealthy rat race.

> They fear, and lie awake at night, if they don't meet their production norms. In meetings it was sometimes made explicit: "Guys, if we as a team don't meet production norms, we don't know if we can keep everyone on." I think that's morally questionable for people in a vulnerable position. [009]

Respondents felt that apart from the individual risk of burn-out (sometimes people will collapse within months of starting the much-desired post-academic training program because they have been working too hard to get into it), there was also the collective problem that diversity and authenticity in the therapist population decreased. Only the type of people who could hold their own in the rat race, or who could be socialized that way, would remain.

Another way to build a resume is to participate in additional courses. Several participants felt this was undesirable, primarily because the first course people take is usually cognitive behavioral therapy, an often highly protocolized treatment method.

> For them to develop a sense of what they want, professionally, is very important to me. That they don't turn into protocolized, fearful robots. They don't really, of course, they are also quite ambitious and able to think for themselves. But the pressure and dependent position could cause this. [014]

Other professional courses were described by respondents as more in-depth or advanced; these courses build on the knowledge and clinical experience gained during the postgraduate program. Respondents felt that taking these courses prematurely to build a resume is not optimal.

> The power of these courses is […] EMDR and schema therapy only make sense when you have experience with [the population]. I think if I had done it before my [postgraduate] training I would have understood far less of it, like what is this idea exactly and how can I apply it. Also because you don't really see patients yet with an indication for EMDR or schema therapy [as a MSc psychologist]. [003]

Many respondents described the importance of a slow start at the beginning of a career as a therapist, with a patient population that matches their professional capabilities and plenty of opportunities to observe, reflect, and ask questions.

Main practitioners

After obtaining the coveted BIG-registration, working as a main practitioner disappointed many. They now had a much higher responsibility, for caseloads sometimes exceeding 400 patients.

> That practitioner is no longer doing the work he would like to do. Not what he's good at, and what he was trained to do. The word "main practitioner" is mentioned exactly zero times in the postgraduate program; it trains you to be a diagnostician and therapist. And that's precisely what you are no longer doing. The whole rich profession of making a good assessment, doing good research, doing psychotherapeutic research, and providing psychotherapy, that is no longer part of your work. So that means quite a lot for the psychologist, and then for the patients, it also means that you hardly see that person, who is ultimately responsible for your treatment. You only see them once a year, or twice a year. [024]

The job was described as a busybody [015], a case manager [011] or a coordinator [013].

> And I felt completely out of place, I thought it was a terrible job. I just wanted [my child patients] to confide in me. That they would tell me what was troubling them. Starting

> from there and reflecting and thinking about: how do you deal with that? But as a treatment coordinator, you just have to make sure that the child goes from one group to the next and that everything proceeds without too much trouble. Yes, that's what I felt it came down to. That just didn't make me happy. [013]

Not seeing the patients themselves, while being legally responsible for their treatment, was seen as complicated. Main practitioners also felt they were (too) dependent on the expertise of the (BA or MSc) therapist conducting the actual treatment, and their relationship with them. This was exacerbated because many organizations decide when and how the main practitioner and MSc psychologist interact.

> Sit in with a session for five minutes, talk about this topic for ten minutes, then another evaluation because it's time for that again. I like to provide supervision to young colleagues, I'm passionate about it and I have always done so. But it used to happen much more organically. Treatment consultations in a small team on a weekly basis also had a mutually inspiring effect. You talked to each other if the treatment was difficult and when someone had a question about it; you scheduled time to discuss it properly. Fifteen minutes or twenty minutes. I also believe that young psychologists benefit from high-quality work supervision. And you evaluated at the point in treatment when there was really something to evaluate: a natural moment. In my current workplace, anyone without a BIG-registration must discuss every treatment with the coordinating practitioner every six weeks. Even if all goes smoothly. [016]

When asked further questions, many respondents expressed unclarity about the responsibility and liability of their main practitionership. Most of them knew that a BIG-registration entailed disciplinary liability, but were unable to clarify what this meant. Some respondents made statements that were vague or even incorrect.

> Everyone is also responsible for their own actions. The concept of responsibility is of course sometimes confusing, I guess. The colleagues of whom I am a main practitioner or the patients, that… the [MSc] psychologist is also responsible for her own actions and also for discussing issues if she thinks things are not going well or something. [008]

There was no consensus among the respondents about what would happen if the MSc psychologist and main practitioner disagreed.

It was striking that respondents were so aware of their own legally vulnerable position in other situations, but with regard to coordinating treatment, this was hardly elaborated upon, and the urgency was not felt.

Table 4

Differing Logics in the "Impossible Situation" of the Structure of the Profession

Market logic: For MSc psychologists: see x number of patients and meet production norms. For main practitioners: supervise the treatment of x amount of patients and MSc psychologists.	Professional logic: For MSc Psychologists: give good care; come into your own as an authentic professional who can make complex moral decisions. For main practitioners: give high quality attentive (time-consuming) care and support younger colleagues in their professional development towards providing such care.
Bureaucratic logic: make sure to follow protocols regarding the execution of the main practitionership (e.g., when and how to evaluate). Bear legal responsibility for all treatments.	

As before, the market and bureaucratic logic already pose conflicting demands (see Table 4). A professional cannot be responsible for hundreds of patients and fulfill all obligations towards them in a meaningful way. And again, the market measure is more easily enforced than the other two.

Conclusion

As described in the introduction, many clinicians and researchers in mental healthcare have experienced or feared that the forces of market and bureaucracy harm their field. Freidson (2001) and Scheid (2004) provided them with the framework and language of differing logics to understand their predicament and to predict the consequences for professionalism if the other two logics were allowed to take center stage. Zacka (2017) added that the "gymnastics of the self" to cope with conflicting demands would only take a professional so far, and workers would eventually have to resort to reductionist moral stances.

Our results show that (research question 1) professionals have adapted to working under the constant duress of conflicting demands and are, to some extent, able to protect both the patient and their professional values. However, when managerial and bureaucratic demands are also at odds with each other, juggling them takes up so much time and resources that professionalism is under too much pressure, and the conflict cannot be resolved without giving up one's professional values (research question 2). These situations are truly impossible. We found that in these situations, professionals either cease to act at all or act in a way they cannot defend from a moral or professional point of view. They are forced to turn to detachment while resenting it (*indifference*), let themselves be pushed into a legally vulnerable position, just to meet everyone's demands (*enforcing*), or resort to focusing just on the patient

while neglecting the moral obligation to work with (not against) their organization (*caregiving*) (research question 3).

In short, our study shows that excessive bureaucratic and market control destroy precisely what society wants from its healthcare professionals. Governing bodies, healthcare authorities, insurance companies, professional organizations, patient organizations, and other parties involved need to align with professionals to resolve these impossible situations because professionals cannot do it alone. Our interviews indicate that if these impossible situations remain unresolved, two concerns will persist that hurt everyone's interests.

The first concern is that having professionals work under extreme moral stress is not sustainable. It will hinder their professional development, as it does not give them the time and space to grow into nuanced moral decision-makers with a strong professional identity, and will eventually lead to burnout, high staff turnover, or both. Many professionals suffer and have to distance themselves in order to survive.

The second concern is that the quality of care deteriorates. The patient who is put on a waiting list and is contacted every three months, not to be offered help but to "check-in" to prevent legal liability in case "something happens," is deprived. So is the patient who is booked simultaneously with another patient to prevent non-billable time in the therapist's schedule in case one of them does not show up, and is only offered a brief session instead of a full one. That is not care; that is neglect. Patients need therapists who, in the words of Zacka (2017), can act as full-fledged moral agents and are engaged, not distanced.

In sum, our study suggests that the critics of the commodification and bureaucratization of healthcare were right. Despite everyone's efforts, we have found obvious and disconcerting examples where the professional logic disappears altogether. Our analysis justifies the recommendation for a substantial reappraisal of professional logic. That means diminishing bureaucratic and market demands, paying attention to at least aligning them so that fewer impossible situations arise, and leaving more decisions to professionals. As far as these decisions concern epistemological stances about which there is no consensus in the field, as we found in the example regarding the use of DSM categories, the discussion should be solved within the academic disciplines linked to the professions without the intrusion of preferences originating from different kinds of logics.

For example, it seems sensible to recommend having practitioners decide on the size of their caseload rather than having the organization decide for them. They will be more aware than anyone of the balance between their own capabilities, the needs of their patient population, and possible room to see new patients. Professionals in our study were acutely aware of the undesirability of waiting lists and the necessity of maintaining a full caseload if the organization wanted to survive financially.

Similarly, practitioners appear well-equipped to assess the professional development of the MSc psychologists they are supervising, in relation to the patient population. There is no rational argument to be made for forced evaluation moments. Leaving this up to professionals will free up time and resources.

To sum up, we argue for restoring trust in the professional. Fear that professionals will close their consultation room doors, avoid accountability, and resort to ineffective treatment methods of their liking, seems outdated and was not supported by descriptions in our sample. The sector has already been through the process of professionalization: professional guidelines, supervision, peer consultation, and learning networks are firmly in place. Psychologists are motivated to contribute to their further development. So, there is a strong infrastructure for a relatively self-regulatory sector, with no reason to assume this will harm the public interest.

All mechanisms of control have pros and cons, but the disadvantages of far-reaching market and bureaucratic control seem to outweigh its benefits by far.

Limitations and recommendations

Our study has a few limitations. Although we paid attention to assembling a representative sample with diversity in age, location, and work setting, the sample size is small, and caution should be exercised when generalizing our findings to the population.

Furthermore, it is important to note that the interview mainly focused on work pressure, and most of the interview was devoted to exploring its nature, causes, and consequences. This might have led respondents to (over)emphasize the difficult aspects of their work. We noticed that participants often spontaneously included aspects they liked about their work, took a humorous approach, or gave counter-examples. For one respondent, this was even the reason for participating in the study: to explain that the state of her field is not as bad as is often pertained in media. Additional interviews on work pleasure, calling, and job satisfaction, or a more comprehensive approach such as ethnographic research, would possibly give a more balanced picture of the field as a whole. After all, it's a complex world, and working in it entails more than the sum of its problems.

Article history

Received: 20 Feb 2024
Accepted: 28 Oct 2024
Published: 16 Dec 2024

References

Adams, T. L. (2016). Professional self-regulation and the public interest in Canada. *Professions and Professionalism, 6*(3). https://doi.org/10.7577/pp.1587

Blank, R. H., Burau, V., & Kuhlmann, E. (2017). *Comparative health policy* (5th ed.). Red Globe Press.

Boeije, H. (2010). *Analysis in qualitative research*. Sage.

Boot, J. M. (2005). *De Nederlandse gezondheidszorg* [Dutch healthcare]. Bohn Stafleu van Loghum.

Bosch, F. (2019). *Help, de psycholoog verzuipt!* [Help, the psychologist is drowning!]. Stichting Beroepseer.

Bouman, D. (2010). *De ondernemende psychotherapeut. Handboek voor zelfstandigen* [The entrepeneurial psychotherapist. Handbook for the self-employed]. Bohn Stafleu van Loghum.

Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2014). Public value governance: Moving beyond traditional public administration and the New Public Management. *Public Administration Review, 74*(4), 445–456. https://doi.org/10.1111/puar.12238

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.

Dean, M. (1999). *Governmentality: Power and rule in modern society.* Sage.

Diefenbach, T. (2009). New Public Management in public sector organizations: The dark sides of managerialistic 'enlightenment'. *Public Administration, 87*(4), 892–909. https://doi.org/10.1111/j.1467-9299.2009.01766.x

Dwarswaard, J. (2011). *De dokter en de tijdgeest: Een halve eeuw veranderingen in de beroepsethiek van huisartsen en chirurgen* [The doctor and the zeitgeist: Half a century of changes in the professional ethics of general practitioners and surgeons]. Boom Lemma.

Exworthy, M. (2015). The iron cage and the gaze: Interpreting medical control in the English health system. *Professions and Professionalism, 5*(1). https://doi.org/10.7577/pp.944

Freidson, E. L. (2001). *Professionalism: The third logic*. University of Chicago Press.

Harvey, D. (2005). *A brief history of neoliberalism*. Oxford University Press.

Hood, C., & Dixon, R. (2016). *A government that worked better and cost less? Evaluating three decades of reform and change in UK central government*. Oxford University Press.

Kalberg, S. (2017). *The social thought of Max Weber*. SAGE Publications, Inc.

Kapucu, A. (2006). New Public Management: Theory, ideology, and practice. In A. Farazmand & J. Pinkowski (Eds.), *Handbook of globalization, governance, and public administration* (pp. 889–902). Routledge.

Kirschner, S. R., & Lachicotte, W. S. (2001). Managing managed care: Habitus, hysteresis and the end(s) of psychotherapy. *Culture, Medicine, and Psychiatry: An International Journal of Cross-Cultural Health Research*, *25*, 441–456. https://doi.org/10.1023/A:1013068803396

Leicht, K. T. (2016). Getting serious about inequality. *The Sociological Quarterly*, *57*(2), 211–231. https://doi.org/10.1111/tsq.12145

Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. Russell Sage Foundation.

McCormack, H. M., MacIntyre, T. E., O'Shea, D., Herring, M. P., & Campbell, M. J. (2018). The prevalence and cause(s) of burnout among applied psychologists: A systematic review. *Frontiers in Psychology, 9*. https://doi.org/10.3389/fpsyg.2018.01897

Nederlandse Zorgautoriteit. (2023). *Informatiekaart wachttijden ggz 2022–februari 2023* [*Information sheet waiting lists mental healthcare 2022–February 2023*]. Retrieved from https://puc.overheid.nl/doc/PUC_733990_22

Onwuegbuzie, A. J., & Leech, N. L. (2007). A call for qualitative power analyses. *Quality & Quantity, 41*, 105–121. https://doi.org/10.1007/s11135-005-1098-1

Pollitt, C., & Bouckaert, G. (2017). *Public management reform: A comparative analysis—Into the age of austerity.* Oxford University Press.

Sandel, M. J. (2012). *What money can't buy: The moral limits of markets*. Farrar, Straus and Giroux.

Sandel, M. J. (2013). Market reasoning as moral reasoning: Why economists should re-engage with political philosophy. *Journal of Economic Perspectives, 27*(4), 121–140. https://doi.org/10.1257/jep.27.4.121

Schakenbos, M. (2015, May 1). *Hoe het zorgsysteem mijn werk als psychologe ondermijnde* [How the healthcare system undermined my work as a psychologist]. *De Correspondent*. Retrieved from https://decorrespondent.nl/2286/hoe-het-zorgsysteem-mijn-werk-als-psychologe-ondermijnde/1ed40ffa-8a73-0c13-1a08-c2dca53c5e71

Scheid, T. L. (2000). Rethinking professional prerogative: Managed mental healthcare providers. *Sociology of Health & Illness, 22*(5), 700–719. https://doi.org/10.1111/1467-9566.00227

Scheid, T. L. (2004). *Tie a knot and hang on: Providing mental healthcare in a turbulent environment*. Transaction Publishers.

Scheid, T. L. (2009). Consequences of managed care for mental health providers. In T. L. Scheid & T. N. Brown (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 529–547). Cambridge University Press

Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (4th ed.). Teachers College Press, Columbia University.

Tonkens, E. (2016). *Roeping, loyaliteit en gezag: De publieke sector na het neoliberalisme* [*Calling, loyalty and authority: The public sector after neoliberalism*]. Oration University of Humanistic Studies.

Trappenburg, M. (2006). Societal neurosis in health care. In J. W. Duyvendak, T. Knijn, & M. Kremer (Eds.), *Policy, people, and the new professional: De-professionalisation and re-professionalisation in care and welfare* (pp. 48–63). Amsterdam University Press.

Turnbull, M. G., & Rhodes, P. (2021). Burnout and growth: Narratives of Australian psychologists. *Qualitative Psychology, 8*(1), 51–61. https://doi.org/10.1037/qup0000146

Van Oenen, F. J. (2019). *Het Misverstand Psychotherapie* [The misunderstanding of psychotherapy]. Boom Uitgevers.

Van Os, J. (2014). *De DSM-5 voorbij! Persoonlijke diagnostiek in een nieuwe GGZ* [Past the DSM 5! Personalized psychological assessment in a new mental healthcare]. Diagnosis Uitgevers.

Zacka, B. (2017). *When the state meets the street*. Belknap Press: An Imprint of Harvard University Press.

& PROFESSIONS PROFESSIONALISM

ISSN: 1893-1049 Volume 14, No 2 (2024), e5807 https://doi.org/10.7577/pp.5807

Student Teachers' Study Profiles — Longitudinal Perspective to Research-Based Teacher Education

Marko Lähteenmäki[1], Mirjamaija Mikkilä-Erdmann[1], Eero Laakkonen[1], Anu Warinowski[1], & Janet Clinton[2]

1. University of Turku, Finland.
2. University of Melbourne, Australia.

Contact: Marko Lähteenmäki, University of Turku, Finland. matlaht@utu.fi

Abstract

This study examined student teachers' study profiles and achievement levels from selection through to the bachelor's phase of their teacher education programmes. The latent profile analysis revealed two student teacher study profile subgroups associated with varying study achievement levels from the first three years of the teacher education programme. In a more detailed examination, the results revealed that the main differences occur during the bachelor's phase of the teacher education programme, wherein student teachers are learning to understand the research-based teaching profession and how to conceptualise theories and more independently learn to write their bachelor's theses. A gender comparison between subgroups revealed that male student teachers were more likely to be allocated to the less research-oriented subgroup and female students to the highly research-oriented subgroup. These findings are discussed with regard to how teacher education programmes could better support different learners.

Keywords

Teacher professional development, higher education, teacher education, student teacher selection, study profiles

Introduction

Previous literature has shown that various fields of professions utilise education to acquire the essential knowledge and skills needed in professional fields, such as mathematics, medicine or teacher education, which is also the focus of this study (e.g. Eraut, 1994). Nowadays, many countries in Europe and internationally are developing and shifting the focus towards research-based education to answer changing professional demands (Darling-Hammond et al., 2017; Mikkilä-Erdmann et al., 2024).

Preservice teacher education plays an essential role in the development of competent teachers. A number of studies have highlighted how the development of both teacher competences and teaching quality should be viewed as an ongoing process wherein preservice teacher education plays a key role in enabling teachers to build a solid base with regard to the wide range of skills and competences necessary to perform effectively in the teacher role (Blömeke et al., 2015; Klassen et al., 2018). Moreover, a growing body of literature has shifted the focus in terms of teaching quality by examining the characteristics of preservice teacher candidates when it comes to the selection criteria associated with the dimensions of the competences required in the teaching profession (e.g. Blömeke et al., 2015; Bowles et al., 2014). Such studies have not only identified the vital role of the selection process and recognised the various important phases of preservice teacher education but have also emphasised the need for further information concerning the development of teacher competences both during the preservice stage and after graduation (Bowles et al., 2014; Klassen & Kim, 2019). For instance, Clinton et al. (2019) identified a predictive relationship between the selection criteria (which included social, cognitive and dispositional factors) for teacher education programmes and the programme outcomes, particularly practicum experience. They also posited that the selection criteria established a professional baseline for new graduates to work from throughout their subsequent teaching careers and continuous professional development (Clinton et al., 2019).

Selection and consideration of teacher candidates

When it comes to enrolment in teacher education programmes, many European countries and other countries worldwide have implemented selection systems that consider more than just candidates' grade point average (GPA). However, in Finland, there remains a clear need for the research-based development of selection methods, standardised selection processes and valid criteria concerning enrolment in teacher education programmes (Clinton & Dawson, 2018; Darling-Hammond, 2017; Metsäpelto et al., 2021).

In Finland, unlike in countries where GPA is the main selection criterion, student teachers are selected for initial teacher education through a two-phase selection. Until 2020, candidates participated in the first phase, a multiple-choice test (the VAKAVA exam), which assessed academic study skills. Based on their scores, candidates were invited to the second phase, an aptitude test that varied by university.

Over the past five years, this system has changed, with greater emphasis on the matriculation exam and standardised aptitude tests across all universities. Currently, about 60% of candidates are preselected for the second phase based on weighted matriculation exam scores. Those not meeting this criterion take the VAKAVA exam, and based on these scores, they may be invited to the second-phase aptitude test, which serves as the final selection phase.

It has been argued that recognising and examining different factors known to influence student teachers' initial selection and study success are important with regard to ensuring high-quality teaching. Furthermore, investigating student teachers' characteristics upon selection and actual achievements throughout their teacher education would provide meaningful information that could be leveraged to ensure enhanced learning outcomes among preservice teachers (Blömeke et al., 2015). Hence, the present study examines the association between the selection processes and student teachers' achievements during a teacher educational programme that focuses on allowing students to practise and learn competences, knowledge and pedagogy. More specifically, this study applies a longitudinal research approach to investigate student teachers' achievements from selection through to the bachelor's phase of their teacher education.

Although education systems vary among countries and education processes are, to some extent, linked to the national context, it is suggested that examining the approaches in various countries provides an opportunity to learn how different teacher education programmes manage the process of educating future teachers and identify the kinds of criteria, standards and evaluation processes that are applied to drive student teachers' competence development (Bauer & Prenzel, 2012; Darling-Hammond, 2017). Many countries have implemented selection systems that consider more than just students' GPA when it comes to determining suitability for enrolment in teacher education programmes. In Finland, the validity and reliability of the utilised selection processes are considered essential, as once student teachers have been selected to participate in a teacher education programme, they have a mandate to begin teaching immediately after graduation (Darling-Hammond, 2021; Sahlberg, 2011). Moreover, Finnish teachers have great autonomy in the workplace because Finnish schools are free from standardised evaluations. However, despite the important role played by the applied selection processes within the Finnish system, there remains a need to conduct in-depth studies regarding student teachers' achievements throughout their teacher education due to their varying learning outcomes.

While teachers are generally considered to be in short supply worldwide as a result of uncertainties concerning what the role should entail in the modern world (Darling-Hammond et al., 2017, pp. 53–55), teacher education has long been a highly popular educational option in Finland. Thousands of candidates apply for admission to Finland's highly selective teacher education programmes annually (Vipunen, 2024). However, there is still considerable pressure to further develop both the selection system and the actual study programmes to ensure the timely graduation of highly qualified teachers (Metsäpelto et al., 2021; Heikkinen et al., 2020, p. 56).

Candidates who gain admission to teacher education programmes will have completed different levels of schooling within the Finnish national education system. At the start of every teacher education programme in Finland, students must confront new learning challenges and adapt to the fact that educational science and research skills will represent core aspects of their academic studies at the university level and also influence the goals that they must achieve on their way to becoming qualified teachers. In fact, student teachers follow a curriculum that requires a great degree of independence and self-regulation when it comes to their learning (Lavonen et al., 2020; Metsäpelto et al., 2021, p. 12; Vilppu et al., 2022). Thus, teacher education and the related academic learning, achievements and grades do not exist in a vacuum; rather, the relevant learning processes are connected to many different contextual aspects, including the social context, popularity of the teaching profession and entry characteristics. Prior longitudinal studies have found that applicants' learning varies in terms of their grades and the motivational aspects that can help them on their way to developing the competences required in the teaching profession (Blömeke & Kaiser, 2017, p. 795).

Furthermore, when compared with the high school level, academic studies at the university level typically require students to increase their personal responsibility for their learning and their capacity to acquire new information in relation to different course contexts and study modules. Based on the findings of previous studies conducted in the higher education context, it is hypothesised that, even among a highly selected group of student teachers, there will be different subgroups based on their achievement levels throughout the teacher education programme (Cassidy, 2012; Lizzio et al., 2002; Vilppu et al., 2019; Voyer & Voyer, 2014).

Research-based teacher educational programmes

Previous studies have revealed a growing understanding that the development of teacher education programmes should be based on research standards, according to which evidence forms the basis for relevant actions (e.g. Darling-Hammond et al., 2017). Previous studies have highlighted the importance of identifying and evaluating promising practices and strategies for developing fruitful models to support student teachers' diverse learning processes (Darling-Hammond, 2017, pp. 306–307). In addition, countries such as Finland and Norway are increasingly utilising research-based principles to assist with the development of teacher

education programmes while simultaneously targeting the establishment of a research-based teaching profession (Jakhelln et al., 2021; Munthe & Rogne, 2015).

Moreover, research-based teacher education programmes, curricula and teaching processes are also influenced by and actively utilising the latest research. In this context, a research-based teaching profession can be understood as requiring teachers to have the ability to utilise research methods and educational theories as part of their general teaching practices and to enhance their professional skills over the course of their careers (Byman et al., 2009; Mikkilä-Erdmann et al., 2019; Westbury et al., 2005, pp. 476–479). Consequently, five-year teacher education programmes for preservice teachers in Finland aim to equip students to utilise, evaluate and integrate educational theories and research as part of their day-to-day teaching practice. Here, student teachers' learning is not solely focused on the substance of specific educational theories; it also aims to foster the skills required to evaluate and appreciate what is being learned and to implement and utilise research-based aspects as part of their teaching practice (Lavonen et al., 2020; Westbury et al., 2005).

In Finland, teacher education and the related curricula include study modules and courses wherein preservice teachers not only learn research skills and how to conduct small-scale research but also come to understand how the teaching profession includes and utilises research-based structures (Heikkilä et al., 2020; Heikkilä, 2022; Puustinen et al., 2018; Tirri, 2014, pp. 603–605). This requires teachers to constantly update their skills, which entails engaging in, being informed by and utilising research. Understanding how theories are connected to teaching practices and mastering research skills are viewed as vital, as the associated skills and competences enable teachers to acquire the tools necessary to develop their professional competences and respond to challenges throughout their careers (Mikkilä-Erdmann et al., 2019).

However, prior studies have shown that students utilise a variety of different learning strategies and processes to achieve academic success (Cassidy, 2011; Vermunt, 1998). This suggests the need for research-based knowledge to be considered when determining how student teachers are selected and the extent to which they achieve the goals of teacher education programmes. Research inquiry and the principles of theory-based learning represent core components of research-based teacher education curricula in countries such as Finland. As part of each curriculum and its associated goals, student teachers are expected to master research skills and utilise them independently, initially during the bachelor's phase of their education. Therefore, the present study applies a longitudinal approach to examine student teachers' achievements after they have been selected to participate in a teacher education programme.

Research aims

The present study sought to identify Finnish student teachers' varying development in terms of their achievements in relation to the main study modules during the first three years of the

bachelor's phase of their teacher education. The study also sought to examine the association between selection processes and student teachers' development during the first three years of their bachelor's level education. To accomplish this, the study was designed to answer the following research questions:

- What subgroups can be identified based on their achievements in relation to the four main study modules and the study credits gained during the bachelor's phase of their teacher education?
- How do student teachers differ from each other based on their achievements during the bachelor's phase of their teacher education?
- How are gender and age groups distributed within the subgroups?

Methodology

Participants

A total of two student teacher cohorts (N = 158) consisting of students who were accepted into the teacher education programme at the University of Turku in 2010 and 2013 were enrolled in this study. Longitudinal datasets were drawn from cohorts. The following inclusion criteria were utilised: participants were accepted through a joint selection process into the teacher education programme; the start years of the participants' studies ensured the collection of the necessary three-year data for longitudinal research; and the sample cohort was consistent, representing one university's teacher education programme, due to variations in the second-phase aptitude test before the 2020 reform.

The university's selection process comprised two phases: a multiple-choice test and a series of aptitude tests. The Department of Teacher Education at the University of Turku also conducted group interviews as part of its two-phase selection process. In addition, among the aptitude tests, applicants to the University of Turku had to complete a mathematics and natural sciences examination designed to measure their basic mathematical and science skills. Prior studies and annual statistics have shown that the intake of Finnish teacher education varied between approximately 700 and 800 applicants during the 2010s. These statistics cover all Finnish universities with teacher education departments (Mankki, 2019, p. 14; Vipunen, 2024). Hence, the student teacher cohorts involved in this study represent a subset of all annual applicants to Finnish teacher education programmes.

Among the applicants, 79% were female (n = 124), and 21% (n = 34) were male. Their mean age during the selection phase was 22 years (range: 19–44 years). During the second phase of the selection process, the applicants' mean score on the matriculation examination was 3.9. In other words, the average score of the applicants who sought admission to the teacher education programme represented the third highest grade available (or magna cum laude approbator). In terms of the Finnish matriculation examination, the accepted scale for written

subject grades ranges from the lowest approbator to the highest laudator. The matriculation examination is taken at the end of upper secondary school.

At the time the present study was conducted, applicants had to pass a two-stage entrance examination prior to being accepted into the popular teacher education programme. More specifically, after graduating from upper secondary school, all the applicants had to complete a multiple-choice test (the VAKAVA exam). In contrast to the matriculation examination, the VAKAVA exam focused on assessing applicants' academic learning skills in an educational context. The applicants' mean score for the multiple-choice test was 10.41 (standard deviation [SD] = 2.18), whereas their scaled scores varied between 5.75 and 15. To progress to the second phase of the selection process, the applicants had to achieve a score of 5 or higher for the multiple-choice test. The second phase involved a group interview in which the mean score was 10.56 (SD = 2.18), in addition to a mathematics and natural sciences test in which the mean score was 10.52 (SD = 2.05). To pass these second-phase aptitude tests, the applicants had to achieve a score of 5 or higher (their scores varied between 5 and 15).

The selected student teachers' five-year study programme consisted of four main study modules: basic studies, subject didactics, bachelor's studies and master's (or advanced) studies. During the teacher education programme, the student teachers' potential grades ranged from one to five (1 = passable, 2 = satisfactory, 3 = good, 4 = excellent, 5 = distinction). As shown in Table 1, the student teachers' average grades were above 3 for all of the study modules. To follow the teacher education curriculum and schedule, the student teachers had to complete the first three years of a bachelor's degree (consisting of 180 study credits) and then two years of a master's degree (consisting of 120 study credits). Based on the mean values of the completed study credits, the majority of the student teachers in the two cohorts followed the curriculum during the first three years, although some variation was noted in certain cases (see Table 1).

Table 1

Student Teachers' (N = 158) Descriptive Characteristics and Achievement Variables

Variable	N	Mean value or %	SD	Min–Max
Men (%)	34	22		
Women (%)	124	79		
Age (years)	158	22		19–44
≤ 20 (%)	64	40.5		
> 20 (%)	94	59.5		
Matriculation examination: Applicants' written subjects (mean scores)	154	3.92	0.84	1.6–6
Aptitude test: Multiple choice test	158	10.41	2.18	5.75–15
Aptitude test: Group interview	158	10.56	2.18	5–15
Aptitude test: Mathematics and natural sciences test	158	10.52	2.05	5.50–15
Basic studies (25 credits)	141	3.06	0.66	2–5
Subject didactics (60 credits)	136	3.10	0.60	2–5
Bachelor's studies (35 credits)	137	3.42	0.51	2–5
Bachelor's thesis grade	138	3.38	0.80	1–5
Study credits (years from 1–3 until bachelor's level)	158	176	41.09	22–312

Note. N = number of cases, SD = standard deviation, Min–Max = minimum–maximum values

Measures

The student teachers' study profiles comprised longitudinal datasets that included different variables derived from their selection and achievement data over the course of their programme of study. To examine the student teachers' achievements, the study included five achievement variables from the basic phase of their teacher education through to the bachelor's phase: the grades for their basic studies, the grades for their subject didactics, the grades for their bachelor's studies, the grades for their bachelor's theses and the credits from the first three years of the teacher education programme. Due to the student teachers' varying grades and scores, their achievement levels and learning outcomes were also found to vary.

In addition, the following four selection-phase variables were used to demonstrate the possible association between the applicants' achievements during the selection process and the identified subgroups: the average matriculation examination scores for the different written

subjects, the first-phase selection scores for the multiple-choice test, the second-phase selection scores for the group interview and the scores for the mathematics and natural sciences test.

The possible associations among the student teachers' gender and age and the identified subgroups were also analysed. The student teachers' gender was coded (1 = men, 2 = women). Moreover, as examining how the young applicants performed with regard to the teacher education selection process (Heikkinen et al., 2020, pp. 44–46) was one of the aims of this study, a variable was created that comprised applicants aged 20 years or under who continued their studies directly after graduating from upper secondary school (1 = yes, 0 = no).

Analysis

To answer the three research questions that informed this study, a latent profile analysis (LPA) was performed to identify the latent student teacher subgroups associated with the variables described above. In contrast to traditional cluster analysis, an LPA is a model-based method intended to explain heterogeneous data and identify the latent subgroups within the data based on the examined variables (e.g. Tein et al., 2013). The LPA involved the following steps:

Step 1: We identified the student teacher subgroups based on the variables associated with teacher education, including the student teachers' achievements at the basic studies level, subject didactics, degrees gained at the bachelor's level and study credits achieved. The selected variables chosen for the LPA represented the main study modules and learning objectives included in the teacher education programme over the three-year period, thereby providing a comprehensive description of study achievements and targeting content preparing for the teaching profession. Prior to further analysis, we examined and confirmed the fit statistics for the different latent classes identified.

Step 2: We examined the associations among the student teachers' selection phase achievements and the identified subgroups. Here, the selection-phase variables included the student teachers' grades for the written subjects during the matriculation examination, the scores for the multiple-choice test and the scores for the two aptitude tests (group interview and mathematics and natural sciences test). Additionally, we performed an analysis of the student teachers' genders and ages to examine the possible associations between these two variables and the identified subgroups.

The first-stage descriptive analysis was performed using IBM's Statistical Package for the Social Sciences 26 statistical programme. MPLUS 8.4. programme and an LPA were used to identify the possible student teacher subgroups, with the focus being on the bachelor's phase measurement points within the longitudinal dataset. The LPA analysis type was conducted with a mixture command. Five of the 11 variables used in the study contained missing data; the percentages of missing cases varied between 3.2% and 13.9%. The missing data were coded (-99) and handled with full information maximum likelihood, where missing data are

assumed to be random. Furthermore, the associations among the identified subgroups and the background variables were also examined using the MPLUS programme (AUXILIARY option-using methods BCH and DCAT). The relevant percentages were included in the analysis of the categorical variables, although they were excluded from the analysis of the continuous variables.

To allow for further analysis, the decision criteria for choosing a suitable model and determining the number of latent student teacher subgroups were developed. Models with different latent classes were examined with regard to several fit statistics and values, as shown in Table 2. The analysis revealed that when the classes were added in stages two to four, the Akaike information criterion (AIC) and the Bayesian information criterion (BIC) values decreased up to stage three. In terms of decreasing AIC and BIC values among the models from 2 to 3, the statistics appeared to show an improvement in the models (Tein et al., 2013). In addition, the Vuong–Lo–Mendell–Rubin likelihood ratio (VLMR) test was used to compare the models and identify a suitable number of classes. In the VLMR test, significant p-values indicated that the estimated model fit the data well when compared with a model with fewer classes (Nylund et al., 2007). Yet, as shown in Table 2, the VLMR test p-values were nonsignificant for all of the models from two to four, showing no clear support for several classes, especially in the three- and four-class solutions.

The fit statistics concerning the latent student teacher subgroups also included the entropy values. As presented in Table 2, for the latent classes from two to four, all of the values were close to one, which proved that the latent classes were clearly different from each other (range: .901–.926). In contrast to traditional cluster analysis, an LPA also reveals the probability of belonging to a specific latent group. As the data in Table 2 show, the class probability values in all classes were close to 1. The entropy and class probability criteria enabled us to select classes from two to four. The number of cases and percentages in the different latent classes were also included in the LPA, which revealed that each latent group had a sufficient number of cases. Stanley et al. (2017, p. 90) emphasised the usefulness of different latent classes and specified that latent subgroups should not contain less than 5% of cases.

As can be seen in Table 2, in the two-class solutions, there were 93 cases (57%) and 65 cases (43%), whereas in the three- and four-class solutions, the LPA revealed that the classes contained less than 5% of the cases. Previous studies concerning learning in an academic context have indicated a solution involving several latent classes (Vermunt, 1998; Vilppu et al., 2019). However, our LPA was conducted on student teachers' achievements by using their grades for different study modules, not a specific theme with validated research measurements. Thus, there were insufficient reasons to justify the exact number of latent classes. Prior studies have shown that LPA analyses can be utilised with very different sample sizes, beginning with over 100 cases and ending with thousands of cases (Spurk et al., 2020). Some researchers have suggested that a suitable LPA sample size is 500 or more cases, although following the characteristics of each research study and paying attention to the utilised items/indicators,

classes and fit statistics have also been recommended (Ferguson et al., 2020; Spurk et al., 2020; Tein et al., 2013).

Researchers have previously highlighted the possibility of there being no exact answers or "golden rules" when it comes to the question of latent classes and suitable fit statistics (Marsh et al., 2009, p. 215). Hence, the final decision in this regard should be made after examining a combination of fit statistics, prior research findings and theoretical concepts (Marsh et al., 2009, p. 195).

To summarise the final decision in our LPA analysis, the BIC values and the distribution of cases across classes were crucial. As seen in Table 2, the BIC values decreased up to the three-class solution. However, in the three- and four-class solutions, there were classes that contained less than 5% of the cases. Additionally, to check the robustness of the results, the model was alternatively tested by changing the parameterisation to allow for group solutions with different variances. The two-class model with different variances showed similarities in structure and fit statistics compared to the model with equal group variances. The models with three- and four-class solutions did not work.

On that basis, we continued with the LPA, which yielded two student teacher subgroups. To describe the differences between the identified student teacher subgroups and the student teachers' differing levels of achievement in detail, the analysis included a t-test comparison involving two profile groups and each selected variable's study module grades and study credits. When multiple comparisons were conducted, the t-test p-values were calculated using the Bonferroni correction.

Table 2

Fit Statistics for the Student Teacher Subgroups' Study Profiles in One to Four Classes

Number of classes	Number of cases in the classes (%)	BIC	AIC	Loglikelihood	Entropy	VLMR test *p*-value	Class probabilities
1	158(100)	2060.585	2029.959	-1004.980			1.000
2	93(57) / 65(43)	1857.105	1808.103	-888.052	0.901	0.2706	0.955/0.982
3	4(3) / 85(54) / 67(43)	1679.817	1612.440	-784.220	0.927	0.7770	1.000/0.948/0.982
4	63(40) / 5(4) / 4(3) / 84(53)	1684.983	1599.230	-771.615	0.926	0.4957	0.971/0.970/1.000/0.935

Note. In terms of the number of cases in the classes, the unacceptable value for each subgroup is < 5%.
BIC = Bayesian information criterion (the model with the lowest value offers the best fit); AIC = Akaike information criterion (the model with the lowest value offers the best fit). A higher entropy value up to a value of one indicates better classification, while < 0.80 is not acceptable. VLMR = Vuong–Lo–Mendell–Rubin likelihood ratio. A significant p-value indicates that the estimated model fits the data well when compared with the fewer class model. With regard to the class probabilities, the higher the value up to a value of one, the better the probability that the cases are correctly classified into the classes.

Research ethics

From the start of the data collection process and the initial disclosure of information, we followed all applicable laws and standards, including the Personal Data Act and the guidelines and local rules set by the University of Turku. Prior to beginning their higher education studies, all of the students were asked by the university administration to give permission for the use of their register data for scientific research purposes. Moreover, the European Union's General Data Protection Regulation came into force in the spring of 2018. As a consequence, we also applied the following guidelines and principles: First, an application for permission to conduct the study and approval of the research design was submitted to the university so that we could access the selection-phase register and study register data concerning students who had given permission to participate in scientific research studies. Second, once permission was granted and access to the two different registers was provided, the data were combined into one longitudinal dataset. During this phase, any sensitive information was pseudonymised – only research codes were used during the subsequent analyses. The research data were stored in electric files with limited access, which were administered by the university's information technology services. Additionally, the data were recorded in the university research data inventory, where all research data processed on behalf of the university must be described. As the present research involved personal data, a privacy statement was used. It should be noted, however, that all of the participants in this study were adults and that no sensitive information (e.g. data concerning health) was gathered. Thus, a separate Finnish ethics review was not required.

Results

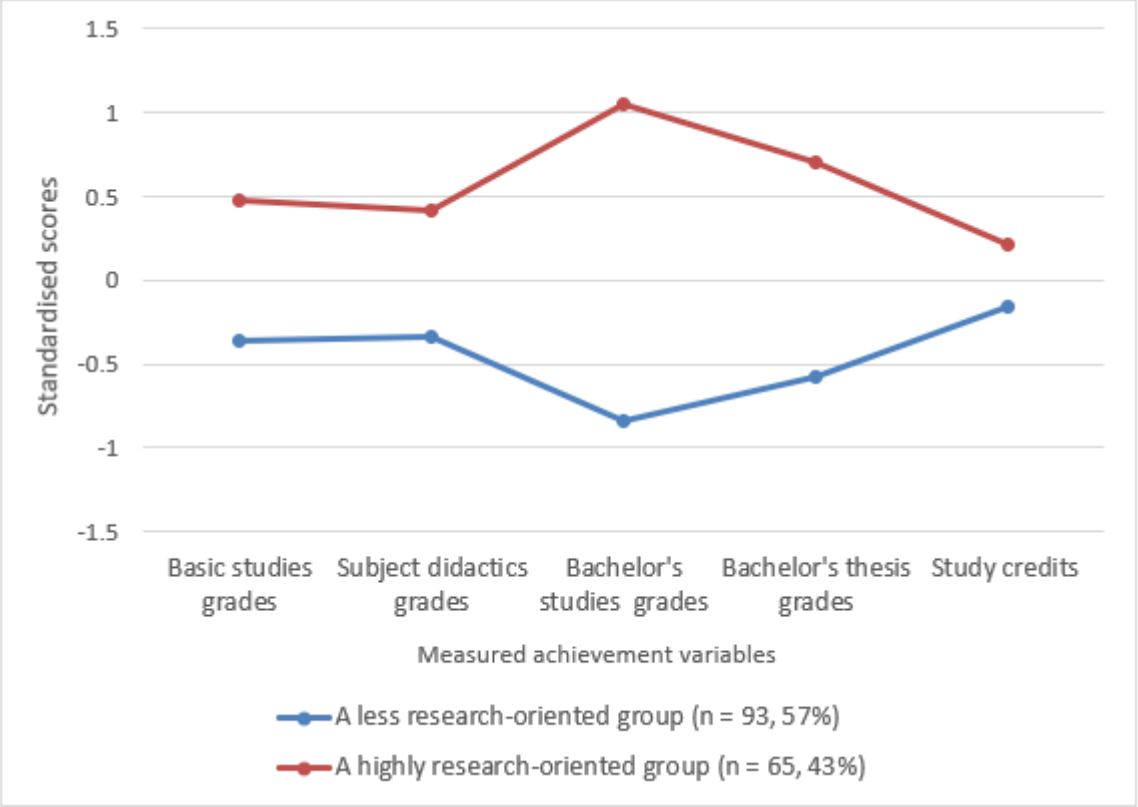
Our first research aim concerned identifying student teachers with varying levels of achievement during the first three years of their study programme, with the focus being on the four main study modules and the study credits gained prior to the bachelor's phase.

Identified student teacher subgroups

The LPA yielded two student teacher subgroups that showed differences in their achievement levels from the basic studies phase through to the bachelor's phase: Group 1 (n = 65, 43%), which represented a highly research-oriented group, and Group 2 (n = 93, 57%), which represented a less research-oriented group. As shown in Figure 1, the identified differences developed over time and between the two groups. In fact, the group differences began to increase immediately after selection and became prominent during the bachelor's phase.

Figure 1

Student Teachers' Study Profiles Based on Five Achievement Variables from Initial Selection Through to the Bachelor's Phase



To understand and clarify the meanings of the different factors involved, such as the study modules included in the determination of the identified student teacher subgroups, we examined each achievement factor separately on the basis of the t-tests and effect sizes (Cohen, 1988).

Table 3

T-Test Comparison of the Student Teachers' Study Profiles

	A less research-oriented group		A highly research-oriented group				95% confidence interval		
Achievement variable measures	M	SD	M	SD	t	*p*	Lower	Upper	*d*
Basic studies grade	-0.36	0.79	0.49	1.04	-5.33	<.001	-1.29	-0.59	-0.94
Subject didactics grade	-0.35	0.85	0.43	1.01	-4.80	<.001	-1.19	-0.49	-0.84
Bachelor's studies grade	-0.84	0.40	1.05	0.23	-34.99	<.001	-6.40	-4.90	-5.65
Bachelor's thesis grade	-0.58	0.73	0.71	0.80	-9.89	.001	-2.07	-1.29	-1.68
Study credits	-0.18	0.95	0.26	1.01	-2.79	.001	-0.77	-0.13	0.45

Note. CI = confidence interval, M = mean, SD = standard deviation, t = t-test ratio used to describe the difference between the two groups, Cohen's d with Hedges' correction = effect size, at least 0.2 = small effect, 0.5 or more = intermediate effect, 0.8 or more = large effect. The p-values are calculated based on the Bonferroni correction. Statistical power in the comparisons between the subgroups was high ((1-β) > 0.98), except for the variable "study credits" ((1-β) = 0.79).

A detailed examination of the student teacher subgroups revealed statistically significant differences with regard to the five study modules and credits (see Table 3). Statistically significant differences concerning the study modules and credits included in the subgroups, the effect sizes were found to large effect in all four study modules (d = -0.84– -5.65) excluding credits to a small extent (d = 0.45). According to the results, the bachelor's phase proved to be the main study module in which differences between the subgroups could be observed based on both the statistical significance and the large effect size (t [122.81] = -34.99, $p \leqslant .001$, d = -5.65). Thus, our results suggest that the main differences occur during this phase of the teacher education programme, wherein student teachers are learning to understand the research-based teaching profession and how to conceptualise theories and apply research skills in practice. Despite this, student teachers' potential and motivation with regard to the

teacher education programme are examined during the selection phase. In addition, student teachers' academic achievements in high school could form a solid base for mastering more advanced university studies, including research studies. Therefore, our analysis also included the applicants' background and selection phase data.

Examining differences in student teacher subgroups

To identify any possible differences in the associations among the student teachers' selection-phase achievements and background characteristics and the two identified subgroups, our second research aim involved examining the possible associations between their selection-phase achievements in terms of the two-phase entrance exams and the subgroups. The analysis revealed that the association between the student teachers' mean score for the matriculation examination and the subgroups was nonsignificant (χ^2 [1, n = 158] = 2.776, p = .096). In addition, similar nonsignificant associations were found with regard to the other variables involved in the two-phase selection process, including the mean multiple-choice test score (χ^2 [1, n = 158] = 2.270, p = .132), group interview score (χ^2 [1, n = 158] = 1.669, p = .196) and mathematics and natural sciences test score (χ^2 [1, n = 158] = .219, p = .640). Our results indicate that highly selected applicants represent a relatively coherent group when it comes to their two-phase selection scores.

A comparison between the student teachers' ages and the identified subgroups revealed no statistically significant differences between the younger student teachers and their levels of achievement (χ^2 [1, n = 158] = 0.865, p = .352). In fact, 64% of the younger student teachers who continued their studies directly after high school were allocated to the less research-orientated subgroup and 36% to the highly research-oriented group. Regarding the older students, a comparison revealed that 55% were allocated to the less research-oriented subgroup and 45% to the highly research-oriented subgroup.

Interestingly, the results revealed gender differences between the two subgroups. Male student teachers were more likely to be allocated to the less research-orientated subgroup (82%) than to the highly research-orientated subgroup (18%). In contrast, female student teachers were more equally divided between the less research-orientated subgroup (52%) and the highly research-orientated subgroup (48%). These gender differences between the two subgroups proved to be statistically significant (χ^2 [1, n = 158] = 13.037, p < .001).

Discussion

The present study sought to examine student teachers' study profiles based on their subgroup allocation and achievement levels from the initial selection through to the bachelor's phase of their teacher education programme. To accomplish this, the study utilised longitudinal datasets concerning two cohorts of highly selected student teachers and investigated their progress during the first three years of the teacher education programme. In line with our

hypothesis, the main results revealed two distinct subgroups among the student teachers over the course of the first three years of their education, including their research studies.

Given the utilised variables, the results indicated that the differences between the achievement levels of the two subgroups occurred during the teacher education programme and that there was no significant association between the student teachers' achievement levels during the selection phase (e.g. their scores for the matriculation examination) and their differing achievement levels during the programme.

With regard to student teachers' achievement levels during the teacher education programme, the LPA revealed variations between the two subgroups. Overall, our detailed examination of the different factors indicated that the main differences between the identified subgroups were particularly prominent during the bachelor's phase, as supported by the intermediate effect size. In this case, the bachelor's phase of the programme included courses wherein the student teachers focused on building an understanding of research skills and the principles of research-based teacher education, linking theories to practice and determining how to utilise the related skills as part of their continuous professional development. When compared with the basic study modules and courses, the bachelor's phase is more demanding, requiring student teachers to engage in more independent study to achieve the desired learning outcomes. However, despite this common goal on the part of teacher education programmes in Finland, it is suggested that preservice teachers could perceive the meanings and benefits of research studies differently, resulting in differences when it comes to their achievement levels (Brew & Saunders, 2020; Heikkilä, 2022; Heikkilä et al., 2020; Munthe & Rogne, 2015; Puustinen et al., 2018). Therefore, simply participating in the courses and practice teaching sessions is no longer sufficient, as the student teachers' active and self-regulated role with regard to mastering their learning process is becoming increasingly critical.

In line with previous findings, our results revealed a short-term positive association between the student teachers' bachelor's phase achievement levels and their higher orientation towards research studies. When it comes to achieving research-based educational aims, prior studies have highlighted the increased usefulness and importance of addressing research and research-related concepts with student teachers (Brew & Saunders, 2020; Byman et al., 2009; Puustinen et al., 2018).

Moreover, our results indicated that the student teachers allocated to the less research-orientated subgroup would particularly benefit from support designed to strengthen their achievement in relation to research studies. Heikkilä et al. (2020) highlighted how fostering an understanding of the meaning of research studies as part of the curriculum can result in student teachers developing an expanded understanding of the usefulness of research skills and, consequently, can support their professional growth.

The results also revealed gender differences between the two subgroups, with the female students being more commonly allocated to the highly research-orientated subgroup and the male students being allocated to the less research-orientated subgroup. Generally speaking, gender is not a focus of the Finnish education selection system; it concentrates on applicants' cognitive and noncognitive factors (Klassen et al., 2018; Metsäpelto et al., 2021). Additionally, based on the selection-phase entrance exam results, all the student teachers who participated in this study exhibited sufficient potential and quality to be selected for the teacher education programme.

Limitations and future research directions

Certain processes or factors were not captured in the selection-phase analyses. For example, we could not determine whether differences already existed between male and female students or whether the teacher education programme involved some elements that male students found particularly difficult (Voyer & Voyer, 2014). Furthermore, it must be acknowledged that the selected cohorts represent a limited number of student teachers when compared with the intakes of all Finnish universities that offer teacher education programmes (Vipunen, 2024).

Selected cohorts and applicants represented one university's teacher education programme at a time when the two-phase selection process had not yet been renewed and standardised. Hence, generalisability and comparison between universities are more complex due to variations in the selection phase. In addition, there was no missing information on the variables used – or it was not regular. However, an exception to this is made by gender in basic studies and subject didactics, which can be considered a limitation of the research. Concerning statistical comparisons, due to the sample size, the results of the power analysis were not high in all cases. Hence, in terms of potential new factors, future studies could benefit from including more representative samples of applicants by covering several Finnish universities and teacher education programmes, including the current renewed two-phase selection system. More research is also needed before and after renewed selection to determine how successful the changes have been and whether we are on track to select and educate student teachers as future professionals.

Researchers have previously modelled and revealed several factors that could affect student teachers' learning outcomes and achievements during their teacher education programmes (Klassen et al., 2018; Vilppu et al., 2022). Based on this expanded research design, additional measurements need to be covered by different universities' teacher education programmes (Jakhelln et al., 2021). For example, rather than solely focusing on achievement in terms of grades, new measurements (e.g. examining different learning strategies or students' perceptions of their learning environments) could provide valuable knowledge concerning the causes of the differences among student teachers when it comes to their study profiles (which were conceptualised as subgroups in the present study). If student teachers are left to

experience difficulties in terms of understanding the role and meaning of research studies during their teacher education programmes, it could prove detrimental to their learning outcomes. Thus, further research is required concerning student-related factors and how student teachers perceive their studies, particularly research studies. In addition, gender differences that might inform our results require further investigation, as does the issue of how widespread gender differences in achievement levels exist in teacher education programmes.

Conclusion

The present study examined student teachers' levels of achievement during their teacher education programmes using a longitudinal research design. It also explored student teachers' allocation to different subgroups based on their study profiles from initial selection through to the bachelor's phase of the programme and investigated the association between research skills development and the teacher education programme's curriculum. The results indicate that there are opportunities with regard to research training and skills development within the curriculum that need to be further explored to enhance the teacher education programme and ensure the graduation of teachers who have mastered the targeted learning outcomes.

It is important to increase our understanding of how teacher education programmes can support different learners and the kinds of learners who are selected for such programmes. Furthermore, the results of this study demonstrate the significance of exploring the selection criteria for teacher education programmes in an effort to ensure greater success and to provide teacher educators with valuable information concerning the needs of student teachers. We are aware that student teachers' performances can vary during the full five-year master's level teacher education programme; although this is similar to other higher education study programmes (e.g. medical education), it is very important to identify and support low-performing students as early as possible (Vilppu et al., 2019). Therefore, longitudinal approaches and multiple methods must be included in the new research framework. Additionally, evaluations and feedback from selected student teachers could provide useful information when it comes to developing education programmes and curricula in a way that facilitates student teachers to achieve the best possible results, graduate in a timely fashion and acquire the necessary teaching competences during their academic studies.

Acknowledgements

This work was supported by the Fostering Finnish Science Capital (FINSCI) research project, financed by the Strategic Research Council at the Academy of Finland under grand 358271, and the Finnish Teacher Education Database (FinTED), financed by the Ministry of Education and Culture under grand OKM/1/524/2023. The funding sources were not involved in the making of this paper.

Article history

Received: 26 March 2024
Accepted: 27 Sept 2024
Published: 8 Nov 2024

References

Bauer, J., & Prenzel, M. (2012). European teacher training reforms. *Science*, *336*(6089), 1642–1643. https://doi.org/10.1126/science.1218387

Blömeke, S., Gustafsson, J.-E., & Shavelson, R. J. (2015). Beyond dichotomies: Competence viewed as a continuum. *Zeitschrift Für Psychologie*, *223*(1), 3–13. https://doi.org/10.1027/2151-2604/a000194

Blömeke, S., & Kaiser, G. (2017). Understanding the development of teachers' professional competencies as personally, situationally and socially determined. In D. J. Clandinin & J. Husu (Eds.), *The SAGE handbook of research on teacher education* (pp. 783–802). SAGE Publications Ltd. https://doi.org/10.4135/9781529716627

Bowles, T., Hattie, J., Dinham, S., Scull, J., & Clinton, J. (2014). Proposing a comprehensive model for identifying teaching candidates. *The Australian Educational Researcher*, *41*(4), 365–380. https://doi:10.1007/s13384-014-0146-z

Brew, A., & Saunders, C. (2020). Making sense of research-based learning in teacher education. *Teaching and Teacher Education*, *87*, 102935. https://doi.org/10.1016/j.tate.2019.102935

Byman, R., Krokfors, L., Toom, A., Maaranen, K., Jyrhämä, R., Kynäslahti, H., & Kansanen, P. (2009). Educating inquiry-oriented teachers: Students' attitudes and experiences towards research-based teacher education. *Educational Research and Evaluation*, *15*(1), 79–92. https://doi.org/10.1080/13803610802591808

Cassidy, S. (2011). Self-regulated learning in higher education: Identifying key component processes. *Studies in Higher Education*, *36*(8), 989–1000. https://doi.org/10.1080/03075079.2010.503269

Cassidy, S. (2012). Exploring individual differences as determining factors in student academic achievement in higher education. *Studies in Higher Education*, *37*(7), 793–810. https://doi.org/10.1080/03075079.2010.545948

Clinton, J., Aston, R., Qing, E., & Keamy, K. (2019). *Teaching practice evaluation framework: Final report*. *Report prepared for the Australian Government Department of Education and Training*. Centre for Program Evaluation, Melbourne Graduate School of Education, The University of Melbourne. Retrieved from https://nla.gov.au/nla.obj-3063333158/view

Clinton, J., & Dawson, G. (2018). Enfranchising the profession through evaluation: A story from Australia. *Teachers and Teaching*, *24*(3), 312–327. https://doi.org/10.1080/13540602.2017.1421162

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, *40*(3), 291–309. https://doi.org/10.1080/02619768.2017.1315399

Darling-Hammond, L. (2021). Defining teaching quality around the world. *European Journal of Teacher Education*, *44*(3), 295–308. https://doi.org/10.1080/02619768.2021.1919080

Darling-Hammond, L., Burns, D., Campbell, C., Goodwin, A. L., Hammerness, K., Low, E.-L., McIntyre, A., Sato, M., & Zeichner, K. (2017). *Empowered educators: How high-performing systems shape teaching quality around the world*. John Wiley & Sons, Inc.

Eraut, M. (1994). *Developing professional knowledge and competence*. Routledge. https://doi.org/10.4324/9780203486016

Ferguson, S. L., Moore, E. W. G., & Hull, D. M. (2020). Finding latent groups in observed data: A primer on latent profile analysis in Mplus for applied researchers. *International Journal of Behavioral Development*, *44*(5), 458–468. https://doi.org/10.1177/0165025419881721

Heikkilä, M. (2022). Methodological insights on teachers' professional agency in narratives. *Professions and Professionalism*, *12*(3). https://doi.org/10.7577/pp.5038

Heikkilä, M., Hermansen, H., Iiskala, T., Mikkilä-Erdmann, M., & Warinowski, A. (2020). Epistemic agency in student teachers' engagement with research skills. *Teaching in Higher Education, 28*(3), 455–472. https://doi.org/10.1080/13562517.2020.1821638

Heikkinen, H.,L.T., Utriainen, J., Markkanen, I., Pennanen, M., Taajamo, M., & Tynjälä, P. (2020). *Opettajankoulutuksen vetovoima – Loppuraportti* [Attractiveness of teacher education]. (Report No. 26). Publications of the Ministry of Education and Culture, Finland. Retrieved from http://urn.fi/URN:ISBN:978-952-263-818-2

Jakhelln, R., Eklund, G., Aspfors, J., Bjørndal, K., & Stølen, G. (2021). Newly qualified teachers' understandings of research-based teacher education practices—Two cases from Finland and Norway. *Scandinavian Journal of Educational Research*, *65*(1), 123–139. https://doi.org/10.1080/00313831.2019.1659402

Klassen, R. M., Durksen, T. L., Al Hashmi, W., Kim, L. E., Longden, K., Metsäpelto, R., Poikkeus, A.-M., & Györi, J. G. (2018). National context and teacher characteristics: Exploring the critical non-cognitive attributes of novice teachers in four countries. *Teaching and Teacher Education*, *72*, 64–74. https://doi.org/10.1016/j.tate.2018.03.001

Klassen, R. M., & Kim, L. E. (2019). Selecting teachers and prospective teachers: A meta-analysis. *Educational Research Review*, *26*, 32–51. https://doi.org/10.1016/j.edurev.2018.12.003

Lavonen, J., Mahlamäki-Kultanen, S., Vahtivuori-Hänninen, S., & Mikkola, A. (2020). A collaborative design for a Finnish teacher education development programme. *Journal of Teacher Education and Educators*, *9*(2), 241–262. http://jtee.org

Lizzio, A., Wilson, K., & Simons, R. (2002). University students' perceptions of the learning environment and academic outcomes: Implications for theory and practice. *Studies in Higher Education*, *27*(1), 27–52. https://doi.org/10.1080/03075070120099359

Mankki, V. (2019). *Opettajankouluttajat portinvartijoina opettajankoulutuksen opiskelijavalinnassa* [Teacher educators as gatekeepers in teacher education student selection]. [Doctoral dissertation, University of Tampere]. http://urn.fi/URN:ISBN:978-952-03-1339-5

Marsh, H. W., Lüdtke, O., Trautwein, U., & Morin, A. J. S. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person- and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling: A Multidisciplinary Journal*, *16*(2), 191–225. https://doi.org/10.1080/10705510902751010

Metsäpelto, R.-L., Poikkeus, A.-M., Heikkilä, M., Husu, J., Laine, A., Lappalainen, K., Lähteenmäki, M., Mikkilä-Erdmann, M., Warinowski, A., Iiskala, T., Hangelin, S., Harmoinen, S., Holmström, A., Kyrö-Ämmälä, O., Lehesvuori, S., Mankki, V., & Suvilehto, P. (2021). A multidimensional adapted process model of teaching. *Educational Assessment, Evaluation and Accountability*, *34*, 143–172. https://doi.org/10.1007/s11092-021-09373-9

Mikkilä-Erdmann, M., Heikkilä, M., Iiskala, T., & Warinowski, A. (2024). Research-based teacher education: A Finnish perspective. In V. Symeonidis (Ed.), *Enhancing the value of teacher education research* (vol. 3, pp. 42–61). BRILL. https://doi.org/10.1163/9789004689992_003

Mikkilä-Erdmann, M., Warinowski, A., & Iiskala, T. (2019). Teacher education in Finland and future directions. In G. W. Noblit (Ed.), *Oxford research encyclopedia of education* (May, 2019). https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-286

Munthe, E., & Rogne, M. (2015). Research based teacher education. *Teaching and Teacher Education*, *46*, 17–24. https://doi.org/10.1016/j.tate.2014.10.006

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(4), 535–569. https://doi.org/10.1080/10705510701575396

Puustinen, M., Santti, J., Koski, A., & Tammi, T. (2018). Teaching: A practical or research-based profession? Teacher candidates' approaches to research-based teacher education. *Teaching and Teacher Education*, *74*, 170–179. https://doi.org/10.1016/j.tate.2018.05.004

Sahlberg, P. (2011). Lessons from Finland. *The Education Digest*, *77*(3), 18–24. https://www.proquest.com/magazines/lessons-finland/docview/900869088/se-2

Spurk, D., Hirschi, A., Wang, M., Valero, D., & Kauffeld, S. (2020). Latent profile analysis: A review and "how to" guide of its application within vocational behavior research. *Journal of Vocational Behavior*, *120*, 103445. https://doi.org/10.1016/j.jvb.2020.103445

Stanley, L., Kellermanns, F. W., & Zellweger, T. M. (2017). Latent profile analysis: Understanding family firm profiles. *Family Business Review*, *30*(1), 84–102. https://doi.org/doi:10.1177/0894486516677426

Tein, J., Coxe, S., & Cham, H. (2013). Statistical power to detect the correct number of classes in latent profile analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, *20*(4), 640–657. https://doi.org/10.1080/10705511.2013.824781

Tirri, K. (2014). The last 40 years in Finnish teacher education. *Journal of Education for Teaching*, *40*(5), 600–609. https://doi.org/10.1080/02607476.2014.956545

Vermunt, J. (1998). The regulation of constructive learning processes. *British Journal of Educational Psychology*, *68*(2), 149–171. https://doi.org/10.1111/j.2044-8279.1998.tb01281.x

Vilppu, H., Laakkonen, E., Mikkilä-Erdmann, M., & Kääpä, P. (2019). Seeing beyond variables: Applying a person-centered approach to identifying regulation strategy profiles among Finnish preclinical medical and dental students. *Canadian Medical Education Journal*, *10*(1), e68–e83. https://doi.org/10.36834/cmej.43364

Vilppu, H., Mankki, V., Lähteenmäki, M., Mikkilä-Erdmann, M., & Warinowski, A. (2022). Debunking the myth of high achievers in Finnish primary teacher education: First-year preservice teachers' learning strategies and study success. *European Journal of Teacher Education*, *47*(3), 508–528. https://doi.org/10.1080/02619768.2022.2047175

Vipunen. (2024). *Applicants and those who accepted a place in a higher education institution*. Education Statistics Finland. Retrieved from https://vipunen.fi/en-gb/Reports/Haku-%20ja%20valintatiedot%20-%20korkeakoulu%20-%20analyysi_EN.xlsb?web=1

Voyer, D., & Voyer, S. D. (2014). Gender differences in scholastic achievement: A meta-analysis. *Psychological Bulletin*, *140*(4), 1174–1204. https://doi.org/10.1037/a0036620

Westbury, I., Hansén, S.-E., Kansanen, P., & Björkvist, O. (2005). Teacher education for research-based practice in expanded roles: Finland's experience. *Scandinavian Journal of Educational Research*, *49*(5), 475–485. https://doi.org/10.1080/00313830500267937