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Situating Boundary Work: Chronic Disease Prevention in Danish Hospitals

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Abstract

This paper investigates how health professions compete and cooperate in addressing emerging local work tasks defined in relation to new globalized health challenges, such as type 2 diabetes. It identifies which professional groups have claimed responsibility for the tasks and by means of which kinds of interactions and infighting. The materials entail workplace-related artefacts and documents; in-depth interviews and extended conversations with health professionals about goals, dilemmas, and practices linked to prevention of lifestyle-related diseases; and site visits at Danish hospitals. Grounding Abbott's framework of jurisdictions and his meso-level vocabulary in a situated account of professional boundary work, the analysis follows the ways that nurses in particular create, and sometimes stabilize or standardize, techniques for a disease prevention programme less than a decade old. The paper argues that processual theory of boundary work would benefit from grounding in a situated account of forms of professional boundaries within emerging jurisdictional tasks.

Keywords

Health promotion, lifestyle modifications, health professions, work practices, boundary objects, workplace artefacts

Introduction

Reducing the global burden of noncommunicable diseases (NCDs), such as type 2 diabetes, is an overriding priority in the work of the World Health Organization (WHO). NCDs are the leading cause of death globally (WHO, 2014, p. xi) and health professionals are mobilized to identify individuals at risk. However, it is not always evident which professions are responsible for this work. From a global perspective, some crucial and increasing risks for NCDs are highlighted by the Global Study of Disease Burden 2015: obesity, high fasting plasma glucose, and alcohol use (Murray et al., 2016). It is well known that such health risk factors are prevalent among patients at hospitals and might aggravate their pathway and clinical outcome (Oppedal et al., 2011). Interventions aimed at helping patients in healthcare settings to quit daily smoking, control alcohol use and nutrition, and attain a healthy level of physical activity—so-called clinical health promotion—have been indicated to improve treatment results, and also have proved cost-effective (Tønnesen, Svane, Groene & Chiou, 2016, p. 13). However, we have few insights into situated work practices for handling the new health challenges.

In Denmark and elsewhere, health professionals in hospitals are mobilized to identify individuals at risk as a way of reducing the probability of their developing, or worsening, the most common and deadly NCDs. In the case of so-called lifestyle-related disease prevention, the transnational authority of the WHO has laid the global epistemic foundation for raising the professional and political stakes of this challenge. The WHO has estimated that four lifestyle factors combined—weight, exercise, diet, and smoking—are associated with an 80 per cent reduction in the risk of common and deadly chronic diseases (Mathers & Loncar, 2005), and lifestyle-related disease prevention figures prominently as a policy idea in numerous public health reports, including in Denmark. Within the last decade, all Danish public hospitals have implemented a screening programme among their inpatients to evaluate their habits of smoking, nutrition, alcohol intake, and physical activity, thereby deciding whether interventions should be recommended to prevent or avoid worsening chronic diseases. Yet, which professions or professional groups are supposed to handle such tasks at hospitals—and how?

Drawing on empirical material gathered from Danish hospitals in 2017 and 2018, this paper investigates how health professions compete and cooperate in addressing emerging local work tasks defined in relation to the new globalized health challenges. It will be demonstrated how nurses account mostly for those who compete, participate, and collaborate in this new area of possible inter-professionality, as well as assuming responsibility for its coordination. In the analysis, professional boundary work is a key concept that covers the varieties of situated work in which professions and professional actors engage in order to forge jurisdictional claims, including symbolic boundaries within and between professions (Gieryn, 1999; Liu, 2015). Such dynamics are demonstrated by considering the lifestyle-related disease prevention programme as a boundary object, first

and foremost by *situating* the boundary work addressing this specific programme. It is argued that the empirical material of local professional work indicates how nurses re-establish professional boundaries in a new territory. The concluding discussion addresses how processual theory of boundary work can benefit from grounding in a situated account of forms of professional boundaries within emerging jurisdictional tasks. In the following section, the theoretical framework and contribution, along with the concepts informing this paper, are outlined, inspired as they are by the American sociologist Andrew Abbott's sociology of professions, as well as by sociological literature on professional boundary work.

Theoretical frame: Professional boundary work on the ground

Exploring how new health promotion initiatives alter the foundations for professional jurisdiction, this paper traces the emergence of *prevention of lifestyle-related diseases* as a trans-local professional proto-jurisdiction by concentrating on profession-driven interventions and initiatives in Denmark. The term "trans-local" refers here to a focus on how professional groups compete and cooperate in creating local change in relation to a border-transcending challenge (Blok, Lindstrøm, Meilvang & Pedersen, 2018). The term "proto-jurisdiction" captures the way professions renegotiate established boundaries under conditions of institutional change (Abbott, 1995). In this case, prevention of lifestyle-related diseases has emerged in the form of novel professional work tasks over the past 10-15 years, thereby still constituting a relatively elastic and ambiguous arena where, in particular, medical doctors and nurses lay claim to certain degrees of control.

In order to contribute new insights into the intra- and inter-professional responses to an emerging work task arena—or proto-jurisdiction of health professions, related to global health problems—this paper employs a jurisdictional (Abbott, 1988, 2005) research approach. According to Abbott (1988, p. 20), professional relations are organized via jurisdictions, defined as "problem-spaces" that link professional groups to particular work tasks over which they claim expert authority. However, how health professionals impact upon, and are themselves influenced by, changing local as well as global contexts for their work is a question yet to be systematically explored within sociological research on global transformations and changes in professionals' work. Addressing lifestyle-related disease prevention is frequently articulated as a border-transcending global challenge that requires new transnational forms of professional expertise and political regulation (Faulconbridge & Muzio, 2011; Kuhlmann & Saks, 2008). Rather than take such "global" claims for granted, this paper will demonstrate how prevention of lifestyle-related diseases as a new trans-local professional proto-jurisdiction is enacted in a workplace arena. In line with this approach, the analysis will ground Abbott's framework (1988, 2005) in a more situated account of professional boundary work and follow the way health professionals create and sometimes stabilize or standardize techniques for lifestyle-related disease prevention at Danish hospitals.

Considering professional boundary work as “situated” involves in this case a focus on both conflict and cooperation at the workplace level between health professionals and professions, or professional segments (Bucher & Strauss, 1961), not to mention occupational strategies that emphasize specific knowledge, training, and skills (Apesoa-Varano, 2013). Given this paper’s aim to forge an analytic vocabulary capable both empirically and conceptually of keeping its focus on dynamic professional interactions within workplace boundaries, I join related attempts at furthering an interactionist approach to inter-professional change (e.g., Liu, 2018). *Situating* boundary work hints at Liu’s very important work on lawyers (e.g., Liu, 2015) and professional change, which places at the centre of attention the situated interaction of professionals and professional groups over, within, and across boundaries. Yet, in defining “boundary maintenance”, he does not include situated workplace-based professional interactions in his three-fold distinction, which also encompasses “boundary making” and “boundary blurring” (Liu, 2018, pp. 48-49; see also Blok, Lindstrøm, Meilvang & Pedersen 2019, p. 595). Likewise, “situating boundary work” critically hints at Abbott’s more abstract work on “linked ecologies” (2005) and his general approach to the workplace arena in *The System of Professions* (1988). As argued elsewhere (Blok et al., 2019), Abbott is pointing to outcomes rather than the means and tactics of boundary work (see for example Abbott’s listing of settlement types, 1988, pp. 69-79). In this paper, interactionist concepts are chosen as a way of exploring situated tactics and workplace processes involved in the making and maintaining of inter-professional boundaries, herein the concept of boundary object (Star & Griesemer, 1989).

By viewing a lifestyle-related disease prevention programme as a boundary object, this paper will show how health professionals articulate their prevention work tasks in terms that are close to what Abbott has called the “jurisdictional dispute” (1988, pp. 69-79). Considering a boundary object implies an analysis of how it functions as a coordinating, but also a contested, object between professional groups. To use Star’s characterization of such objects, they are “a sort of arrangement that allow different groups to work together without consensus”, and what matters for boundary objects is “how practices structure, and language emerges, for doing things together” (Star, 2010, p. 602). The forms this work may take overall are not arbitrary, Star emphasizes. Such forms have arisen owing to “information and work requirements” (Star, 2010, p. 602), and the usefulness of the “boundary object” is underlined at the organizational level in particular (Star, 2010, p. 612). The analytical scope in this paper is concretized to the hospital as the workplace level in which health professionals are developing and using a disease prevention programme—or escaping it, or experiencing limited access to it. Thus, for example, “workplace artifact”, as defined by Bechky (2003), will illustrate workplace relations and how task boundaries are created, maintained, or challenged.

Whereas social boundaries often refer to lines of demarcation (Lamont & Molnár, 2002), Liu characterizes boundary work as a social process and defines the boundary for a profession

as “a site of conflict and cooperation between two or more professional or non-professional actors seeking to establish jurisdictions over similar work” (Liu, 2018, p. 46). As Liu also has suggested (2015, 2018), the varieties of situated boundary work in which professions and professional actors engage in order to forge jurisdictional claims, niches, and linkages have yet to be further explored. Within the goal of tracing “prevention of lifestyle-related diseases” as a new set of professional tasks and identities, I will draw on Liu’s notion of boundary and typology of boundary work. In *situating* boundary work, the discussion will, as mentioned above, deviate from Liu’s proposed typology (Liu, 2015, 2018), since Liu does not retain the definitions of all the forms (i.e., boundary maintenance) at a situated workplace level. By these means, I aim to capture the significant ways that Danish nurses seek to navigate emerging task arenas on the ground as they encounter new health challenges.

Context, methods, and analytical strategy

The Danish hospital sector is mainly publicly owned and regulated through political-administrative decisions. Serving a population of about 5.8 million, the health system is relatively small and the actual number of public hospitals about 50 (see e.g., Kirkpatrick, Dent, & Jespersen, 2011, pp. 494-495, for more information about the Danish health system). Most hospitals are specialized in the treatment of diseases, and yet in Danish hospitals, as well as those in many other countries, health professionals are mobilized to identify individuals at risk in order to reduce the development of the most common and deadly so-called lifestyle-related chronic diseases. In Denmark, there have been inter- and intra-professional discussions about this issue. Who should handle the prevention of such diseases and how? Indeed, the concepts and practices of health promotion and disease prevention are not new to hospitals. However, concepts, along with practices, have changed over recent decades.

The “KRAM screening & intervention” is a less than a decade-old implementation at Danish hospitals, implying that in principle all inpatients should be asked about their so-called lifestyle habits. KRAM (in English: SNAP) is an acronym for smoking, nutrition, alcohol intake, and physical activity—at Danish hospitals, related to lifestyle disease prevention. Managing prevention of such diseases may be presumed to be carried out within an inter-professional area of expertise. In considering “KRAM screening & intervention” as a professional boundary object, I was able in undertaking my research to capitalize on current health policy developments and to “study the ways in which these changes in occupational frontiers were being managed by staff in the workplace” (Allen, 2000, p. 335). As argued elsewhere (Blok et al., 2019), under such conditions of institutional change, and without external specifications about how such tasks should be addressed, inter-professional boundary work takes on a specific importance in that it pertains simultaneously to a renegotiation of established workplace routines.

Methods

This paper draws on research I carried out in four hospitals, mainly in the northern part of Denmark, between May 2017 and June 2018. The study included site visits, field observations, conversations, and in-depth interviews with health professionals and managers about goals, dilemmas, and practices related to “KRAM screening & intervention” (see Table 1 below). Observations were carried out on one of the wards through attendance at “KRAM screening” of new inpatients and “KRAM conversation” about recommended interventions with inpatients close to being discharged from the hospital. Elsewhere in the organization, I observed among other activities patient education about “KRAM risk factors”. On the ward, I mainly accompanied some of the nurses, but also one of the healthcare assistants. I gained insight into informal collaboration on the ward and how personnel communicated among themselves both directly and by means of aids such as laminated pocket sheets, flow charts of working processes, noticeboards, lists of inpatients with messages about the KRAM screening, discharge sheets, etc.

Managers at the hospitals’ divisions for health promotion information all agreed to participate and gave access to the hospitals in which observations, conversations, and interviews were performed. One of them acted as a gatekeeper and granted access to the ward studied here, as well as to patient education meetings about lifestyle risk factors. I generated data through field notes, as far as possible recorded contemporaneously in a notebook; through tape-recorded in-depth semi-structured interviews with ward nurses and other nurses, doctors, dietitians, and clinical and HR managers; as well as through spontaneous or planned extended, sometimes repeat conversations (not tape-recorded, but collected thorough notes), with healthcare assistants, nurses, physiotherapists, and a non-smoking consultant. In all, I engaged in a total of 25 interviews and extended conversations.

Table 1. Overview of data sources

	Site visits	Interviews	Participants	Documents
Lifestyle disease prevention	Danish hospitals (4), one repeat four times (1-4 days per visit); workplace artefacts (23 items)	In-depth interviews (11), extended conversations (14); transcribed material, in sum 578 pages	Nurses (12), dietitians (4), physiotherapists (4), doctors (2), others (e.g., healthcare assistants) (3)	Prevention policy (7) and practical intervention materials (32), educational programmes (9)

In Denmark, there are no institutional boards for the approval of social science studies, but the study was carried out in accordance with the ethical guidelines for the social sciences as

specified by *The Norwegian National Research Ethics Committees* (NESH, 2016). Consent from the individuals or their representatives was obtained and confidentiality promised. Thus, all identifying information has been removed from the material used in this paper. The interviews and not least the extended conversations proved to be an important source of data. The perspectives from different professional groups have afforded an enhanced understanding of my observations. I have compared my own empirical data with materials from different sources in order to make more thorough judgements as to how I should interpret the data or material. This material included documents (e.g., standard procedures and registration forms), reports (for example, by the WHO and the Danish National Health Authorities), workplace artefacts, and educational programmes that have developed or revised their curricula to include disease prevention (see Table 1 above).

Analytical strategy

This paper's qualitative approach follows Abbott's contextual sociology (2001) in stressing the concrete relations, settings, and situations in which professional power is shaped and exercised. The empirical work therefore also includes site visits and observations. The methodology of interviewing provides access to agendas, understandings, and opinions of health professionals based on their daily work and experiences with health promotion and prevention of chronic diseases. The study was directed at eliciting the health professionals' own terms for and ideas about their practices and experiences related to "KRAM screening & intervention". The practices, strategies, and rhetorical devices they employed in exercising occupational demarcation will be treated here as examples of professional boundary work (Gieryn, 1999; see also Allen, 2000, p. 327).

The Danish hospital context is an arena where disease prevention and health promotion are not clearly demarcated as the domain of one specific profession, and so in this analysis it will be demonstrated how different forms of professional boundary work are under way. A situated analysis of boundary work in this instance makes for the first step to discussing professional and wider institutional change. Drawing on Clarke, Friese, & Washburn's *Situational analysis in practice*, it is assumed that "*the conditions of the situation are in the situation*" (2015, p. 98, their italics for emphasis). This means that there is not a "context" for such a notion of situation: Instead, "*the conditional elements of the situation need to be specified in the analysis of the situation itself as they are constitutive of it*" (Clarke et al., 2015, p. 98, their italics for emphasis). This notion of situation—I will not dwell here on philosophical or other disciplines where this notion is seminal (see, for example, Dewey, 1949[1938])—derives its heuristic value when Clarke et al. (2015, p. 99) suggest making different kinds of mapping: situational maps; social worlds/arenas maps; positional maps.

The mapping has been useful to analyse across different types of material and elements, and the initial situational mapping suggests much inter- and intra-professional repositioning of tasks. The following analysis draws on maps of the kind that lay out "the major human,

nonhuman, discursive, historical, symbolic, cultural, political, and other elements in the research situation of concern” (Clarke et al., 2015, p. 100) while also indicating relations among selected elements such as political issues or initiatives and how professionals handle such issues. The overall question underlying the situational mapping was: Who or what matters to “KRAM screening & intervention”? Worth mentioning here is the notion of “workplace artifacts” (Bechky, 2003), which below includes many elements ranging from flow charts to laminated pocket sheets to the manner in which health professionals use the procedure of “KRAM screening & intervention”. Preventive work emerges as a possible arena for nurses in particular, wherein workplace artefacts are developed and demonstrate important professional coordination work at stake.

Situated boundary work

In this section, the findings will encapsulate the ways professionals on the ground—in this case, nurses in particular—seek to navigate emerging task arenas that are not always well defined. These findings are structured into three subsections concentrating in particular on nurses’ efforts to extend, defend, or refashion established work boundaries when handling “KRAM screening & intervention” at Danish hospitals.

Effecting control over the process of screening and intervention

When a nurse engaged in developing a flow chart for the process of “KRAM screening & intervention” mentioned that healthcare assistants were interested in becoming involved in the screening task, she emphasized the importance of knowing about specific diagnoses. In particular, she stressed the importance of knowing about instances of comorbidity in order to administer the programme, not least the intervention part, without risks:

... when you recognize the criteria for a metabolic syndrome, you have to intervene yourself, based on: What are the criteria? And then you say: “Okay, then, in fact I can see my patient really has the precursors to metabolic syndrome. We need to start some kind of KRAM prevention!” This means we’re confronted with certain issues that demand the development of healthcare assistants’ skills to be able to handle the task like the nurses can. (...) This means when we produce guidelines and test them in clinical settings, and we see there are different levels of skill, then ... we see there are differences in how to read guidelines. These are our experiences. And there’s no consensus on in how much detail the tasks should be described. It’s clear that because something’s obvious to a nurse, it doesn’t mean it’s obvious to a healthcare assistant. And I think this may be the same for a nurse and a doctor.

What appear as arguments over safety—namely the importance of having insights into the medical implications of comorbidity, thereby triggering an ethical dilemma if healthcare assistants cross perceived occupational boundaries—might be in fact disguised turf wars.

Arguing for the importance of having achieved knowledge of pathology to handle the screening and intervention programme in a safe and proper manner may indeed be seen as a marker of an occupational identity, thus marking the legitimate boundaries between the nurses' and healthcare assistants' training.

The flow chart of the screening and intervention process documented lifestyle risk factors, as well as different medical conditions, with respect to occupational knowledge and authority. However, this nurse's account also allows for the possibility of knowledge transfer that Abbott calls "workplace assimilation" (1988, pp. 65-66). In particular, when there is too much work to do, which is the case in many hospital wards, subordinate professionals or nonprofessionals (have to) learn from a given profession's knowledge system. Yet, as we will see below, other nurses emphasized that theoretical training equivalent to a nurse's education should be required.

A nurse who worked as a coordinator of health promotion at another hospital emphasized as well that all aspects of the KRAM screening should be carried out by qualified staff who had finished a Professional Bachelor's degree programme:

I've argued that KRAM advisers [appointed in each ward] as a minimum should hold a Professional BA degree. It means they should be physiotherapists or occupational therapists in their department and midwives in the maternity department, and dietitians and nurses. (...) We had some healthcare assistants who wanted to work with it. (...) However, we maintain that although they're allowed to talk to the patients about health promotion—this isn't an issue—those who should serve as the KRAM advisers and have the responsibility in the ward, and who can be asked about concerns regarding organizational issues—"What's meaningful in your area? What do you prefer in this case?" and so on—*this* [the nurse's emphasis] should come under the KRAM advisers' area, for those who hold a Professional BA degree.

Nurses' professional rhetoric about healthcare assistants can be seen as occupational identity work that may be considered a variant of boundary work. Nonetheless, how the labour was divided varied from ward to ward. In ward A, there was too much work for nurses to do all the KRAM screening and so healthcare assistants did it as well.

However, the nurses in ward A distinguished between identifying lifestyle habits and motivating patients. A head nurse said that healthcare assistants, like the nurses themselves, can and in fact do complete KRAM screenings to identify lifestyle habits:

Within some areas, the healthcare assistants have a much greater focus on lifestyle than us [the nurses]—in their training as well.

Yet when it came to disease prevention as a follow-up to the KRAM screening and thereby the task of communicating with patients before they were discharged, the same head nurse stated:

But they [healthcare assistants] are unable to undertake the talk with patients about prevention.

Only nurses completed the “KRAM conversation” to motivate patients close to being discharged. When I asked a nurse if doctors could complete the prevention talk with patients, she replied that this was an option and sometimes it happened, but not in a systematic way:

Maybe they tell the patient not to smoke—and sometimes they ask about alcohol use, but they don’t complete a KRAM screening.

She and more nurses from this ward also emphasized that the discharge sheet for following up on the “KRAM screening & intervention” was a nurses’ tool. The head nurse related how one of the doctors wanted to add something to the discharge sheet:

Yet he hasn’t received it [the authority to modify the sheet]. This [his suggestion] can’t currently be included. Here, on this sheet, we’re focusing on some other aspects.

The current political claim of prevention of lifestyle-related diseases seems to have created among certain segments of the nurses an ambition to establish a domain of professional practice that is relatively removed from doctors’ control. As for the doctors’ concern, attempts to control the “KRAM screening & intervention” can be interpreted as a strategy for maintaining their dominance, whereas for nurses, as illustrated above, this programme can be understood as an opportunity to extend their task area by means of workplace artefacts, for example, flow charts and discharge sheets used as jurisdictional tools.

Instruments to maintain authority

How established work boundaries were defended, in order to be maintained, was evident from the way the interviewees linked the task area to training necessary to handle the programme of “KRAM screening & intervention”. One of the interviewees, a nurse with an MA degree and a supervisor for health professionals involved in prevention of lifestyle-related diseases, said:

I’ve argued that as a professional encountering a patient with lifestyle-related problems, you need to have achieved a certain background knowledge. The reason is that first off, you need knowledge and, second, the situation implies the art of communication. And you definitely have this if you’ve graduated with a Professional BA degree. You’ve been trained, then, in some psychology and

communication, also pedagogy. Moreover, you've succeeded in passing lots of exams where you certainly can delve more deeply into some issues. And you've practised how to convey [these ideas] to other people—and this is the deepest you can go. You must feel 100 per cent confident in what you want to convey to others. Those who hold a Professional BA degree have tested this ability.

Thus, she emphasized that the “KRAM screening & intervention” was made possible through securing the appropriate patient communication derived through training and its grounds for developing qualifications.

Although “health promoter” is one of seven so-called “roles for doctors” included in the specialty training of Danish medical doctors, this area is not much evident or prestigious among doctors at Danish hospitals. As a medical doctor said:

I don't have the full overview of what's known, but of course many people have studied different ... what should we call them? Pedagogical methods? However, it's not the case that I have *one* [the doctor's emphasis] way of doing things. It's a bit like common sense. And I have thought about this in connection with helping our nurses ... with what I'll call “nursing professionalism” —the ability to do this [lifestyle disease prevention and health promotion]. And where ... do they position their professionalism? Is it only a matter of common sense or do they simply have a method they use? And this ... right here, it's not really my strength. And I don't think it's our nurses' either. I don't think so.

This example of downgrading the prevention tasks, and thereby the work of subordinate professionals, sheds some light on the status of lifestyle disease prevention and health-promoting work tasks and how this may affect where the occupational boundaries are drawn. Not least, as demonstrated in this subsection, the doctor's account lends a fresh perspective on how established work boundaries are defended when handling the programme of “KRAM screening & intervention”. As Allen has noted (2000, p. 332), two of nursing's key occupational boundaries are those at the interface with medicine and with support staff, respectively. The accounts above illustrate how the downgrading of these tasks undertaken by the subordinate profession ensures these professionals retain a lower status. This applies also when new work tasks have to be handled.

In order to undertake those tasks not covered in basic training, some of the nurses within this area of prevention and health promotion—in particular those with managerial responsibilities—had acquired extended training certificates such as an MA degree within a relevant area of education, for example, an MA in Public Health. The nurses serving as consultants or managers had reasoned the additional degree would prove advantageous for them. It has been suggested that doctors in this instance, as in some others, have dumped more low-prestige work on occupational groups lower in the implicit hierarchy. Yet changes

in Danish university-based doctor training programmes (SST, 2013) suggest as well that, far from giving up prevention as a task, this profession is also slowly annexing the agenda. With the public hospital system in constant flux and a general shortage of doctors and not least of nurses, as well as a steadily increasing focus on efficiency, it seems—as a third scenario—that occupational groups such as healthcare assistants could assume an enlarged role in the increased efforts to prioritize work tasks related to disease prevention and health promotion. In what follows, I will demonstrate, however, how stable boundaries are kept alive by refashioning occupational boundaries with a variety of workplace artefacts developed by nurses.

Boundary re-establishment in new territory

A nurse coordinating the “KRAM screening & intervention” programme at a local hospital stressed the importance of developing the necessary tools and procedures for this specific programme. She talked about the frustration experienced by nurses in particular when they felt that they had transformed patients previously considered “normal” into “problems”; such shifts resulted not only from the classification of patients into “high risk” categories within the screening system, but also from the placement of so-called lifestyle habits onto an agenda of patient communication in the hospital setting:

They [the health professionals doing the screening] tell me: “Whatever I try to say to the patient and however I say it—then I seem to end up communicating in one way or another, ‘You’re wrong about this!’”

The nurse showed how she herself had developed laminated pocket sheets with helpful knowledge, models, and advice used in particular by nurses in the patient-professional encounter. She explained that the staff themselves had enquired about tools they could use to handle situations with patients when required to ask them about their lifestyle habits, and that they experienced patients who went quiet when it was recommended they stop smoking:

If you’re too quick to present your agenda: “You need to stop smoking because of this and that ...”, then the patient probably won’t say a word. You’re better off asking: “What do you know about smoking? How is it related to your prostate?” This approach will make your message more appealing. So, we’ve created some exercises and (...) the staff asked me: “Can’t you make a framework [produce in writing a form of guidelines they can draw upon in these situations]?”

She summed up:

When do we know we have important knowledge to contribute to work practice? When the staff ask to get it laminated!

This is an example of how the staff needed some tools and received a variety of workplace artefacts, in particular laminated sheets as pedagogical tools, for refashioning their skills to motivate the patient in a non-blaming way. Moreover, this example illustrates how the training in communicative skills was used to justify responsibility for such refashioning.

Indeed, it turned out that how nurses defined their work boundaries was central to the interactional accomplishment of the division of labour among nursing, medical, and assistant staff when handling tasks of lifestyle-related disease prevention and health promotion in the hospital setting. This observation can be seen in light of specific aspects of the Danish healthcare management reform of 2007, not to mention how, since the mid-1980s, both the nursing and other medical professions in Denmark actively have sought to lay claim to the jurisdiction of hospital management (Kirkpatrick et al., 2011). Moreover, since the late 2000s, who does what in the hospitals' KRAM screening division of labour has not been explicitly addressed either at the national or counties level. Responsibility for agreeing to the division of labour is left to local determination, that is, certain doctors at the respective hospitals produce individual plans for staff involved in the screening programme.

However, in the workplace settings observed, it appeared to be the nurses' domain to produce plans for staff involved in the actual KRAM screening. At the level of everyday work practices, including new tasks and established routines, nurses are still sorting out the jurisdictional boundaries, with much inter- and intra-professional repositioning of tasks. National health policy, as well as regional regulations and reforms, is a conditional element, among others, of work task situations in Danish hospitals. From the accounts of health professionals were evident a spectrum of responses to their work environment—from feeling used to continually experiencing changing conditions and pragmatically reshuffling features of how they are accustomed to doing their work, to accommodating themselves by taking control of or suggesting new initiatives and using them for professional purposes (see also Allen, 2000, p. 339; Dent, 2008).

Control of education and training also is vital to retaining professional jurisdiction (Abbott, 1988; see also Allen, 2000, p. 341). In the field of disease prevention and health promotion, not only nurses, but also nutritionists, for example, are changing their jurisdictional claims; educational programmes are revising or have developed their curricula to include specialization within this field. The curricula for a Danish Professional BA degree in Nutrition and Health have changed in recent years (cf. curriculum 2010 compared with curriculum 2016) to include a specialty in health promotion and disease prevention. Thus, at the educational level, different professional areas indeed are involved in developing the field of disease prevention and health promotion. As such, health professionals' boundary work is linked not only to the workplace arena, but also to universities as well as to political institutions (cf. Abbott, 2005, about "linked ecologies"). However, the fact that this field is still developing implies that the practical tasks of handling disease prevention and health

promotion at Danish hospitals form a substantial part of what makes up the (proto-)jurisdictional boundaries.

Concluding discussion: Situating boundary work

In this section, I will discuss and sum up the ways processual theory of boundary work can benefit—or not—from grounding theoretical frameworks in the workplace arena in order to analyse conflicts or other dynamics involved in professional proto-jurisdiction. The focus, then, is on situated boundary work when a jurisdiction is not resolved. In sum, this paper's findings indicate that the onus for defining the boundaries of nursing within the arena of prevention and health promotion at Danish hospitals currently is left sometimes to the local hospital. Second, the findings hypothesize that this trans-local professional proto-jurisdiction is likely to emerge as the next site of well-known inter-professional struggles between doctors and nurses. Indeed, medical doctors have included “health promoter” as one of seven important roles in their specialty training programme. However, at some hospitals' health promotion units, which often are run by nurses as managers, doctors in training draw upon services from the unit. The findings have demonstrated how nurses justify their role and obtain qualifications, hereby distinguishing themselves within this area, which is what Liu (2015, p. 3) has referred to as boundary making.

Considering “KRAM screening & intervention” as a boundary object, this paper has drawn on Star and Griesemer's (1989) understanding of such objects as artefacts fulfilling specific functions in bridging intersecting practices, as well as on Star's (2010) perception of such objects as certain arrangements that allow different professional groups to work together. This paper's findings have demonstrated such dynamics of “KRAM screening & intervention”, first and foremost by *situating* the boundary work addressing this specific boundary object. In using this situating approach, which includes investigation of work practices and workplace artefacts, it has been possible to indicate only slightly other important components in jurisdictional work, such as political agendas, changes in organizations and education, as well as the linking of health professionals to transnational activities (e.g., WHO). The findings are based mainly on one kind of mapping out of the three available from Clarke et al.'s (2015) SA method, namely situational and relational mapping and not (yet) social world/arena and positional mapping. This focus hinders the “linked ecology” approach (Abbott, 2005) from being fully implemented. However, analysing professional boundary work through the lifestyle-related disease prevention programme considered as a boundary object prevents losing sight of the workplace arena and should be seen as an important step towards grounding Abbott's meso-level vocabulary in situated interactions among professionals.

The findings have illustrated how nurses in particular not only are (re-)constructing their own boundaries, but also the boundaries of other occupational groups. Most work tasks in a hospital fall within certain areas over which a specific profession has established

jurisdiction. However, the everyday tasks involving disease prevention and health-promoting work at Danish hospitals are not externally coordinated in their details. As the findings have demonstrated, this work is in many cases negotiable. Sometimes the jurisdictional relations in the workplace are blurred (see also Abbott, 1988, p. 66; Liu, 2015, p. 3). As Christiansen, Taasen, Hagstrøm, Kjellaug, & Norenberg (2017, p. 1), among others, have noted, borderlines between professions can also be “areas of contact that link social worlds and open opportunities for collaboration, learning, and development”, although the delineation between professions “has traditionally been used to construct boundaries around tasks and fields of knowledge and to exclude others”. In the case of creating and implementing the programme of “KRAM screening & intervention”, there are several tasks and situations requiring cooperation and coordination to solve problems and meet challenges, for example, when working under time pressure. As Abbott has noted, in the workplace, boundaries between professional jurisdictions can disappear or at least become very blurred, “particularly in overworked worksites” (1988, p. 65).

However, although Danish hospital wards in general are lacking nurses, in the study sites, it was nurses in particular, who had developed specific tools for doing the “KRAM screening & intervention” work. This paper has mainly focused on demarcation work and less on collaboration when analysing professional boundary work. A jurisdictional approach will often produce certain results and the findings therefore should reflect this perspective. In this study, nurses emphasized that they had the advantage of certain ideas about the most appropriate sites for prevention and knowledge linked to the dangers of health risks, along with an understanding of the importance of distinctly classifying the “normal” and the “pathological”; and they stressed, too, that they knew “how to communicate with patients”. Such statements from nurses could be considered conflictual as well as collaborative. Nurse managers also were establishing alliances with other professional groups with a Professional BA degree, such as physiotherapists, dietitians, midwives, and occupational therapists, while at the same time resisting coming under the control of the medical doctors. The establishing of inter-professional alliances, as well as demarcations, was an important element in the examined boundary work. In future research, collaborative learning will need more attention as well (see also Christiansen et al., 2017).

Medical doctors at Danish hospitals are in many cases formally responsible for areas related to and projects centred on prevention and health promotion. However, in practice, disease preventive work is emerging as a possible arena in which nurses might contest the hierarchized division of labour and management competencies (see also Kirkpatrick et al., 2011)—in part because the commitment of doctors to the prevention agenda seems to fluctuate considerably. Here, WHO recommendations and standards may well come to serve as a resource for nurses to reformulate their projects in ways that simultaneously enjoy professional and political legitimacy. At the same time, the nursing contribution to this new task could entail nurses’ “rejection of the old hierarchy of prestige which elevated technical

(medical) tasks over bedside (nursing) care” (Allen, 2000, p. 334). Future—and transnational—studies are needed to follow up on this issue.

Grounded in empirical material, this paper’s findings have distinguished nurses’ efforts to extend, or defend, or refashion established work boundaries when handling “KRAM screening & intervention” at Danish hospitals. Nurses, along with managers who were trained as nurses, have developed and initiated a number of workplace artefacts to show their competency in practising and managing a process of boundary work. These artefacts include, for example, flow charts and self-instruction packages, and specific discharge sheets for KRAM health risk intervention, but also measures supplementing training and education. The focus on such activities, which considers the programme of “KRAM screening & intervention” as a boundary object, perceived as a set of work arrangements allowing different professional groups to work collaborate, has situated the boundary work. The findings have gained analytical purchase for documenting relations that emerge when task boundaries are challenged. It has been illustrated how the development of workplace artefacts, sometimes distributed as laminated pocket paper sheets used in the patient-professional encounter, as well as flow charts outlining procedures for screening and intervention processes, can serve as jurisdictional tools. In these cases, this is especially true for nurses engaged in hospitals’ disease prevention work.

Thus, by situating processes of boundary making, or maintenance, or blurring (cf. Liu, 2015), this paper can set the situational foundations for moving to more mapping—aimed at tracing the wider local, national, and transnational professional, university, and political linkages at work in the emergence of new jurisdictional tasks (see also Blok et al., 2019). “Prevention of lifestyle-related diseases” considered as a trans-local professional proto-jurisdiction is likely to emerge as the next site of a well-known inter-professional struggle. In particular, the struggle will take place between medical doctors and nurses—but also among other health professionals involved—and this issue can differ transnationally. Thus, the definition and meaning of task areas are likely to become the subject of intense conflict. However, with the current shortage of health professionals in Denmark and elsewhere, nurses do not so much need to reduce the role of possible competitors as to use the new prevention tasks to strengthen their claims for a more elevated status. Indeed, the demonstrations of boundary work presented in this paper indicate this conclusion.

More research is needed to affirm whether doctors, nurses, healthcare assistants, or other professions or occupational groups, perhaps in particular segments within a profession (Bucher & Strauss, 1961), in fact have most to gain from leveraging ties both to local and global health problems. Overall, the interactive effect of the developments within Danish hospitals has created some jurisdictional ambiguity at the work boundaries between the professions of medicine and nursing in particular, and maybe also between nurses and healthcare assistants. This ambiguity raises many questions about the future jurisdiction of

prevention of lifestyle-related diseases in other countries as well, since NCDs represent a global problem.

This paper's grounding of Abbott's framework of linked ecologies and his meso-level vocabulary in a more situated account of professional boundary work hopefully has opened the way to exploring how health professionals create, and sometimes stabilize or standardize, techniques for prevention of lifestyle-related diseases at hospitals, not merely in Denmark but elsewhere. The paper has situated all the different forms of boundary work in Liu's typology (2015)—not only boundary making and blurring, as Liu himself has undertaken, but also boundary maintenance—by drawing on Bechky's (2003) notion of "workplace artifacts". Using this methodology, we have seen how nurses specifically are creating, but also stabilizing and maintaining jurisdictional claims, niches, and linkages. Yet, the ways nurses in particular seek to navigate emerging task arenas, which are not well defined, have been captured only at a situated workplace level, meaning the material does not allow me to draw conclusions about general jurisdictional claims. This type of qualitative study, developed to collect varied material, has been more concerned with obtaining reasonable grounds for the relevance of essential issues to the sociology of professions in order to discuss how prevention of lifestyle-related diseases, addressed as a proto-jurisdictional task, can contribute insights into the dynamics of boundary work on the ground.

Building on empirical observations from ongoing research, I have taken some steps towards fleshing out the trajectories of a novel trans-local professional proto-jurisdiction by sketching an analysis of situated work practices that address emerging local work tasks related to a globalized health challenge. This is only a starting point for further empirical enquiry, for example, elucidating the role of international networks such as *Health Promoting Hospitals* (e.g., Tønnesen et al., 2016), standards, and professional practices in framing the jurisdictional boundaries of global and local health problems. Further enquiry, I hope, will indicate a number of interesting directions for research more generally, both empirically and in terms of theory construction—thus addressing a research agenda resulting from a more comprehensive assessment of trans-local professional projects, including how their linked ecologies, such as those of politics and the university, are transnationalized.

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