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Nicola Waters
University of Calgary

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Towards an Institutional Counter-Cartography of Nurses' Wound Work

NICOLA WATERS

University of Calgary

Under the banner of continuous quality improvement, process mapping has become an increasingly routine feature of healthcare administration. Driven by demands to improve efficiency through standardization, nurses' knowledge of their often-unpredictable work is routinely changed to fit within graphical representations that depict it as objectively controllable. Tensions that arose as I attempted to apply my knowledge as a specialist nurse in the rapidly changing area of outpatient wound clinics formed the direction for my institutional ethnography (IE) inquiry. As a student new to IE, I encountered challenges as I tried to explain to my informants how Dorothy Smith's alternative sociology offered a unique way to explicate how their work is being organized. Recognizing that confusion arose when the term "mapping" was used to identify a key analytic process in both quality improvement projects and IE, I searched for a way to articulate how the two approaches are distinct. Parallels and divergences I discovered between the focus of the "counter-cartography" movement and the problematic emerging in my own study helped me not only to acknowledge my own participation in the ruling relations, but to better appreciate how using IE offered the potential to create a quite different picture of nurses' wound work—one which challenges the official versions of their world on paper.

Key words: Institutional ethnography, social organization, wound care, wound clinics, counter-cartography

Health Reform in Canada

Health care worldwide is undergoing significant reform triggered in large part by an aging population (MacKinnon, 2013). Indeed, a report released by the World Economic Forum (2010) identifies the associated rise in people living with chronic health conditions as among the most significant global

risks for both advanced economies and developing countries over the next decade. In Canada, government agents are challenged in the face of these demographic changes to maintain a single-payer, publicly funded health system within the context of significant fiscal restraints (MacKinnon, 2013). As in other public sector organizations, efforts to control resources while maintaining quality in health care are increasingly organized on the basis of greater managerial control of frontline workers through standardized and quantitative performance measures mirrored on industrial models of productivity (Griffith & Smith, 2014). The alterations to funding structures, increased integration of services, and greater emphasis on technological innovation—all characteristic of this “New Public Management” (NPM) (Griffith & Smith, 2014)—mean that the ways nurses are organized to engage with patients are changing rapidly.

The drive to find more efficient and effective ways to deliver health care has become inextricably linked to evidence-based practice (EBP), which is “arguably the most important contemporary initiative committed to reshaping biomedical reason and practice” (Mykhalovskiy & Weir, 2004, p. 1059). This approach aims to control variability in clinical decision-making through the implementation of standardized protocols informed by scientific research and evaluated through quantifiable outcome measures (Timmermans & Berg, 2003).

While EBP has produced successful outcomes in many areas, it has also resulted in unintended consequences (Greenhalgh, 2014). Although theoretically providing optimal care through EBP involves a synthesis of scientific evidence with professional expertise and individual patient context (Sackett, Rosenberg, Gray, & Haynes, 1996), there is growing recognition that the process of narrowly classifying research within a hierarchy that privileges large scale, tightly controlled studies effectively renders certain forms of experiential knowledge irrelevant (Greenhalgh, 2014; Harper, 2010).

Despite mounting criticism, as this dominating ideology has become a largely unchallenged part of all medical and health fields, nurses, along with other health professionals, administrators and policy makers have expended considerable time and effort to demonstrate how their areas of practice are in compliance with EBP standards (Mykhalovskiy & Weir,

2004). Pressure for nurses to demonstrate improved productivity in terms of readily observable outcomes manifests itself in structured practices replicated for use in textual formats. Quality care is increasingly measured in terms of adherence to best practice guidelines and care pathways (Maylor, 2007; Rankin & Campbell, 2006).

Process Mapping of Health Care Practices

Under the New Public Management banner of continuous quality improvement, health care managers are concerned with identifying and addressing defects in organizational systems. The influence of manufacturing sector priorities is visible in the concepts of managing people as resources and improving the flow of equipment through a facility (George, 2002). Planners, eager to meet evidence-based targets in areas such as patient safety, effectiveness of care and efficient use of resources, apply process knowledge principles to map pathways, procedures and work practices as a way to pinpoint opportunities for improvement (NHS, 2008). While consultation with frontline staff and patients may be built into the process, individuals with backgrounds in strategic management often carry out the mapping work itself (NHS, 2008). Quality project procedures are designed around the priorities on which the smooth running of the system relies, and outcomes are evaluated using predominantly numerical categories predetermined by those commissioning the reports. As a result, the text-based representations of the work that are produced, while often at odds with on-the-ground actualities, are taken up as factual knowledge about what is going on, and these routinely form the basis for further restructuring (Rankin & Campbell, 2009).

Motivated by assurances that following these new initiatives will help them to achieve targeted outcome measures, nurses become active participants in the many changes taking place. Yet, they frequently face frustrations, as what they know about what actually happens is overlooked or distorted to bring it in line with the objectified models on which the restructuring is based (Rankin & Campbell, 2009). Previous institutional ethnography studies have shown how management knowledge of health work processes is constructed on the basis of priorities that are quite different from those on

which nurses' knowledge of their work depends (Folkmann & Rankin, 2010; Limoges, 2010; MacKinnon, 2008; Melon, White, & Rankin, 2013; Urban, 2012). Although improving patients' experience and managing resources may be common aims, disparate views of what constitutes good, efficient and effective care arise as problematic when nurses' knowledge is routinely changed to fit within administrative representations of their work (Hamilton & Campbell, 2011). In an era of increasing professional accountability, changes based on industrial management principles have been shown to regularly lead to negative results for patients and staff (Melon et al., 2013; Urban, 2012).

The tensions that arose in my own everyday experience as a specialist wound care nurse formed the direction for my institutional ethnography (IE) inquiry. My aim was to provide a means for frontline nurses to recognize how different ways of understanding wound work and the contradictory priorities embedded within them are organizing their knowledge and their practice.

The Everyday Experience of People Active in Wound Work

The term "wound" is broadly used to describe any breach to a person's skin. As the largest organ in the body, a person's skin can fail in the same way as their heart, lungs, or kidneys with life-threatening consequences. Yet, in western health-care settings, prevention or treatment of skin breakdown has historically been overshadowed by higher profile conditions (Wound Care Alliance Canada, 2012). Interestingly, however, today's demographic changes and concurrent health reforms are fuelling a perceptible change in the way wound work is regarded.

Wounds can and do occur in people of all ages and backgrounds, at any time of life, and often independently of any other health concerns they may have (Bale & Jones, 2006). Whilst most wounds can be expected to heal with minimal intervention, today's aging population and the dramatic increase in the incidence of chronic disease has led to a substantial rise in the number of people living with wounds that heal slowly or not at all (Sen et al., 2009). Similarly to other developed countries, the focus of Canadian healthcare has shifted away from hospital-based, acute care to a community-based

chronic disease model. Escalating demands to control resource allocation while streamlining service delivery have driven the search for ever more effective ways to reduce the numbers of wounds and the amount of time required for healing¹.

Adapted from models originating in the United States (Ratliff & Rodeheaver, 1995) and United Kingdom (Harrison et al., 2008; Lambourne & Moffat, 1996), the past few decades have seen a rapid rise in Canada in the number of outpatient wound clinics to which patients are referred for specialist assessment and management of potential or actual threats to the skin's defenses that require complex management of underlying factors (Harrison et al., 2008). In these clinics, nurses work in conjunction with other team members, including nutritionists, occupational and physical therapists, physicians, and social workers, to address any areas of concern which have been identified as potential or actual barriers to healing (Association for the Advancement of Wound Care, 2005). Despite criticism that widely-accepted scientific outcome measures, based on studies with extensive exclusion criteria, do not accurately reflect the complexity of patients living with chronic wounds (Fife, Carter, Walker, & Thomson, 2012), team members are taught to assess and categorize wounds with the aid of standardized, evidence-based forms. They then use this information to determine the applicable best practice treatment protocols to follow.

In the Canadian health region where I conducted my study, restructuring based on the principles of integrated, community-based care has resulted in the amalgamation of several outpatient clinics that were previously attached to hospital inpatient services. Staff members from a variety of locations, each of which specialized in managing patients with a specific type of wound, found themselves blended together under one organizational umbrella known as Integrated Home Care. Based on recommendations from a 2002 Federal Government report (Romanow, 2002) on challenges identified within the Canadian health system, the organization had recently adopted a "case-management" model of care (Trojan & Armitage, 2009). According to health region documents, the model "is a collaborative process to assist a client in accessing appropriate services across the continuum of care" (Alberta Health and Wellness, 2008, p. 5). At the time of my

observations, all Integrated Home Care staff had either attended or were scheduled to attend education sessions related to the implementation of this new model.

Highlighting a Problematic

Through experience and education, I have developed a certain familiarity with the world of wounds and have been an enthusiastic proponent of the many changes taking place. Although the physical locations may vary, as practices have become more standardized, if I walk into any setting where wound care is the focus, I will likely recognize the room layout, supplies on the carts, equipment at the bedside, and posters on the wall. Specific words and even certain smells make sense to me in this context. When a person with a wound walks through the door, I am optimistic that I will be able to draw on my expertise to help them. Informed by my nursing background, which acknowledges people as individuals with complex characteristics and needs, I understand that managing the patient's wound will be a multifaceted process, involving identification of the cause, and correction of potential impediments to healing. I am aware that achieving optimal outcomes will require me to work in collaboration with the patient and other team members to address any number of concerns such as pain, mobility, body image, or financial implications, all of which may affect their ability to heal.

The recent structural and funding changes to outpatient wound services appear to be strongly supported by evidence that they will not only result in better outcomes for patients but will also offer significant improvement in working conditions. Yet, as my level of proficiency has increased, I have found it more and more difficult to put my specialized knowledge into practice. Anecdotal evidence and a limited number of publications suggest that nurses in many areas are struggling to understand the contradictions and tensions they experience as they attempt to enact nursing wound knowledge within the rapidly changing organizational controls of their institutional settings (Cutting, 2008; Hallett, Austin, Caress, & Luker, 2000; Maylor, 2007).

As I listened to frustrations increasingly being voiced among my colleagues, in the workplace, in the literature and

at meetings of wound care professionals, I began to question why it was that, in the face of such convincing evidence, I frequently heard nurses describing how they approach patient encounters with an uneasy sense that they will not be able to accomplish what they had expected. Will they have sufficient time to devote to the patient, or will they feel pressured to get them in and out as quickly as possible so they can complete the required paperwork before the next one arrives? Perhaps, as they conduct an assessment, they will suspect that the wound might not have been so complex if they had been asked to see the patient sooner. Maybe, as they work with an individual patient to determine his or her needs, they will discover the client is already following advice from another health care professional which conflicts with what they would recommend for their particular circumstances. Possibly the supplies they consider most appropriate for this case will be unavailable or unfunded.

All of these concerns point to the fact that, even before they meet, the way in which nurses working in wound clinics are able to interact with a patient is somehow being organized by decisions made by unknown others who are not physically present. Despite their best intentions, exactly how they can proceed is, to a large extent, predetermined by external factors in which they are not directly involved. The knowledge nurses need to negotiate these potential issues is different from that of their nursing wound care knowledge, yet increasingly it seems these are the aspects of their work that will most directly determine the care they are able to provide.

In those moments where I saw the work of caring for patients colliding with these decisions made elsewhere, I began to notice that the everyday experiences of people living with wounds and those who work alongside them did not seem to fit into the evolving version of wound work being portrayed in management and governance circles. It is to these perplexing concerns that I applied institutional ethnography, Dorothy Smith's (2005) alternative sociology, in order to unravel how management practices enter into and shape this specialized area of nurses' work.

The Textual Mediation of Work

More than at any other time in history, people's "knowledge, judgment and will" are organized "external to particular individuals" (Smith, 1997, p. 42). The "fields of socially organized activity" that make up these phenomena are what Smith calls the "ruling relations" (Smith, 1999, p. 75). In contemporary society, and particularly in today's busy health care systems, much of the coordination of people's activities happens through the use of texts created at different locations from where they are intended for use. In order for large organizations to run effectively, the actualities of people's lives have to be fitted into the pre-defined categories and concepts of the institutional discourse (Smith, 2005). The text-makers' priorities are conveyed through decisions about what to include, what to leave out and in what format to present the message. Thus, standardization of work practices occurs through the fact that a text may appear in material and identical form no matter where the reader, hearer or watcher may be located. This textual mediation of people's actions, Smith argues, subordinates local knowing and imposes ruling perspectives (Campbell, 2003; Smith, 1990a).

Mapping in Institutional Ethnography

The term *mapping* is commonly used in institutional ethnography research to describe the empirical tracing of sequences of work and texts from a starting place in peoples' accounts into institutional work process and action. Smith (1999) proposes that the results should be as "ordinarily accessible and usable" as a map is (p. 95). Indeed, she suggests that providing an accurate rendition that expands the way we see the world around us, but still makes sense to those who are living in it, means heading "into regions we have not been to, and perhaps could not go to, without the explorer's interests and cartographic skills" (Smith, 2005, p. 2). In keeping with IE's ontology that the social is only to be discovered in the everyday activity of individuals, the analytic process of mapping in IE requires moving beyond the stasis of a text and tracing how, as people talk about and engage in routine work with texts, they are connected to work processes being organized and taking place elsewhere. Like a street map, the product will contain

elements that are recognizable to those who read it. However, rather than providing directions for which way to travel, an IE map makes visible the ways in which we are all connected into extended social relations (Smith, 1999, p. 95).

Locating a Problematic

It is commonly difficult for those located within a particular experience to visualize or understand what aspects of the larger institution contribute to the circumstances in which they find themselves (Smith, 2006). Rather than articulating a formal question or hypothesis, the institutional ethnography researcher studying professional practices often begins with a sense of unease with issues impeding day-to-day activity. In IE the term *problematic* is used, frequently as a noun, to refer to these moments of disjuncture that arise when something which is happening locally is at odds with how it is known about officially or ideologically (Smith, 1987, p. 91). These puzzling instances often appear as a "line of fault between two contradictory ways of knowing something" (Campbell & Gregor, 2002; Deveau, 2008, p. 4). Choosing to begin from the perspective of those whose knowledge locates them on one particular side of this line, the researcher seeks out instances of where these standpoint informants' ways of knowing contradict other ways of knowing. The examples that emerge serve as entry points into the investigation of the social organization of this knowledge.

Based on IE's ontological premise that the social is present only in people's activities and their coordination, my study starts and remains in a situated standpoint, where consciousness is embodied in the actualities of wound nurses' lives. Starting from the sense of unease I recognize in my own and others' experiences of the changes taking place in wound clinics, my goal was to explicate the circumstances of nurses' everyday wound work that may not be visible or understood from where they are located. In order to explore the knowledge that wound clinic nurses rely on, I began by conducting observations and interviews about everyday aspects of their work. The problematic began to emerge as I noticed the puzzles that arose when they attempted to activate their nursing knowledge within the context of the organizational changes taking

place around them. I used these areas of contention as a starting place from where to trace empirically which aspects of the authorized versions of wound work were organizing their experiences.

An Illustration of Refining the Problematic for Inquiry

During my early observations, I heard reports from several nurses of an incident that had taken place the previous week. An elderly gentleman had come to the clinic for assessment of a diabetic foot ulcer. As soon as the nurse removed his shoes to inspect his feet, she became aware of an overpowering odor. She immediately recognized that this patient had a severe wound infection, which she suspected had already spread to the bone. The clinic staff was so concerned about the patient's status that he was sent directly to the emergency department for urgent treatment. They later learned that he did indeed have a gangrenous infection that was so advanced his leg could not be saved and was amputated below the knee soon after his admission to hospital.

The reason the nurses relayed this incident to me was not that this outcome is in itself shocking to those familiar with the risks faced by diabetic patients with foot ulcers. Indeed, recent statistics suggest that, globally, a patient loses a limb due to complications of diabetes every 20 seconds (Bakker, 2011, para. 5). What was causing the nurses concern in this particular case was their sense of frustration with how they saw the sequence of events leading up to this incident. During his visit, it came to light that the patient had been referred to the clinic several weeks prior to his first scheduled appointment. He told staff that, as he became increasingly concerned about his wound, he had phoned the scheduling office to inquire about his status. He was informed each time he called that he would be contacted when an appointment was available.

Drawing on their knowledge as experts in the care of people with diabetic foot ulcers, the nurses are aware that in many cases non-traumatic amputations in this population may be preventable with appropriate screening and intervention (Singh, Armstrong, & Lipsky, 2005). The fact that, had they seen the patient sooner, the outcome might have been different troubled these nurses. The specific issue they identify is that,

unlike the previous arrangements, where clients were referred directly to the specialty clinics, under the new case-management system, all referrals to Integrated Home Care are channelled through a central booking office. As a result, rather than the wound clinic staff making decisions on how quickly patients need to be seen, generalist nurses with limited wound-related expertise do the work of determining when and where referred clients are seen. The clinic nurses speculate about what may be done to prevent a similar incident from happening:

Since they amalgamated, what the high risk foot team has been saying is that when we get referrals, they need to be looked at by somebody who is experienced in wound care, because something that could potentially go bad very quickly can easily be missed by somebody who doesn't really work in the wound care area. (Debbie, wound clinic RN)

The nurses blame the current structure of appointment scheduling for this lapse in care. This point is further illustrated when a nurse tells me how she has encouraged patients in similar situations to write letters to management:

And I know that sometimes those kind of letters are really supported by frontline saying 'yes we know this is a problem, but we can't do anything about it. We can report, but we're not in the position to be making any changes.' (Debbie, wound clinic RN)

As an observer, I am tempted to offer immediate speculation as to what is underlying Debbie's frustration. If I search for answers within what I currently know of the situation, I may find myself siding with some of the nurses who blame the central booking staff for their inability to recognize the severity of the patient's condition. At the same time, I might sympathize with the nurses who criticize an apparent lack of managerial support for their suggestion that a wound specialist take on the role of triage. Yet, as an institutional ethnographer, I recognize that, without further information, any explanations I may reach for why both nurses and patients feel unheard arise from what I have learned to accept about the way things *should* or *could* have been done.

The knowledge these nurses hold about what could go wrong in this situation arises in part from their bodily work with patients at high risk of rapidly deteriorating wounds. Yet, there seems to be no means for them to express this kind of knowledge in the new way their work is being organized. While the nurses suspect that “something” must be behind the changes in the way patients arrive at the clinic, from where they are situated, in direct contact with individuals living with wounds, these new organizational rules make little sense. This apparent disconnect between how the clinic nurses know their patients and the way decisions are being made by those scheduling appointments points me in the direction of organizational relations originating outside of the local situation. What is not clearly visible from the nurses’ vantage point is the administrative organization upon which the practices of the central booking office staff depend. Listening to my informants struggling to make sense of this puzzle, I am reminded of Dorothy Smith’s description of how “the institutional appears as a dark region remaining to be explored” (Smith, 2006, p. 8).

The problematic for me begins just here, where the clinic nurses’ knowledge about their work locates them on one side of the line of fault that becomes visible between the way they know to achieve their commitment to patients, while at the same time fulfilling their obligation to the clinic managers. The tensions I observe and hear between the complex day-to-day activities of caring for individuals whose bodies and lives are affected by skin breakdown and the requirements of the formal work processes in which the nurses are participating become my point of departure for the study. As I take up IE’s lens and move from here to track and explore that “something out there” to which the nurses allude but which remains as yet unknowable from within their location, my aim is to make visible the everyday wound work being accomplished at ground level, that is, those practices of knowledge that never make it into the authorized version of events.

A Troubling Encounter (The “Other” Wound Project)

I had barely begun to explore how it was that patients such as the gentleman with the amputation enter the nurses’ clinic work when I came across something troubling, which appeared to have direct implications for my study. On several occasions,

as I observed and interviewed nurses during my fieldwork, I was asked directly whether I was aware of another project currently taking place. I heard from a variety of sources that Integrated Home Care managers were conducting a review of Skin and Wound services to examine problems that had arisen since the recent restructuring of the wound clinics. I discovered that project leaders had formed committees and conducted focus groups to explore issues identified by managers and frontline staff. I also learned that one of the outcomes was a "process map" which showed how patients with wounds flow through the system (Alberta Health Services [AHS], 2012). Based on the results of this project, new recommendations for practice, such as hiring a clinical nurse specialist in wound care, were being discussed by the Integrated Home Care management team. When I described the aim of my own study as to "map" the work of outpatient wound clinics, I was repeatedly questioned as to why I was replicating work that had recently been completed.

As I learned more about what my primary informants described as "the other wound project," my initial reaction was one of mild panic. Perhaps they were right. Surely if the aim of the existing study was also to explore what is happening in wound clinics, then the people conducting it must be capturing the same information that I was seeking. If, as the nurses were suggesting, a map had already been created of what it is that they do, then is it possible that my research may be redundant. What exactly did I have to offer that had not already been accomplished by a group of well funded project managers working on behalf of administration?

Prior to commencing the study, I had familiarized myself with the struggles faced by previous IE researchers when talking to frontline health care staff "accustomed to speaking from within a ruling discourse" (Rankin, 2009). I had read and even written about how, in situations where both the informant and the researcher are familiar with an area in which they are collecting data, it can be tempting for the researcher to fall into the trap of describing the informants' narratives in terms of the dominant circulating discourses (DeVault & McCoy, 2006; Smith, 2005, p. 119). In my research proposal, I had vowed to remain vigilant to the risk of losing sight of the institutional relations and the social organization of knowledge and of

constituting “people and their activities as the objects of professional or managerial knowledge” (Rankin & Campbell, 2009, para. 41). Why then did I find myself struggling to articulate how my ethnography and inquiry into the social organization of the clinic work was different from the managerial project?

Finding a Different Path into the Reorganization of Wound Care Work

As I listened closely, there was something compelling in the way the informants talked about the management project that evoked the same sense of unease that initially drew me into my study:

In these wound meetings, so we had a group; I think it was about 10 people that were involved, and they also had this person that guided the conversation. She looked at what people said the problems were and how the business kind of was done in a day, and this sort of thing, and what would be more efficient... Now she is not a specialist in wounds. I don't think she's even a specialist in health care. I think she was more of a business solutions type of person, but she had come up with a bunch of recommendations, and it was really still up to management which ones they afforded to take on and which ones they thought were priorities. (Debbie, wound clinic RN)

In this and other similar accounts, I noted contradictions in the nurses' thinking as they attempted to make sense of the project and its implications for their work. Even as they welcomed the idea that they were encouraged to participate in the process, it seemed they were struggling to see where exactly they fit into the outcomes produced. Despite its apparently inclusive and consultative nature, there appeared to be a tangible divide between the everyday world of these nurses and the somewhat obscure world of the project managers to which they alluded.

As I continued to speak with the nurses about the way their work was being represented, it became clear that the embodied knowledge they possess of how patients, such as the gentleman in the above scenario, may not always follow

predictable pathways, had somehow been subsumed into organizational categories defined by individuals whose priorities were quite different from their own.

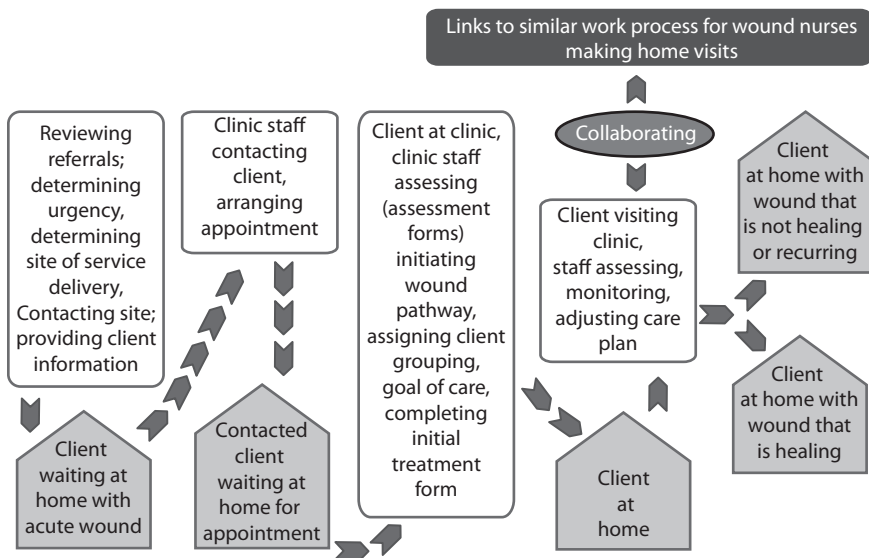
Well there are a lot of interesting things coming out of these focus groups, ... but this is where the confusion is, because when we first started this whole process, we were going to be the wound centre, and now we're a wound clinic. Then it became a home care clinic. So it seems to have changed and that is the biggest issue right now; what are we? (Alison, wound clinic RN)

In asking the question "what are we?" Alison is voicing her concern that, even though the project results had highlighted that the current scheduling process may potentially lead to similar incidents in the future, the feasibility of implementing any recommended changes is contingent upon other organizational restructuring currently underway. As Alison explains later in the interview, the nurses are particularly anxious about reports they have heard that a new quality improvement initiative aimed at streamlining the way patients travel through outpatient services means that all Integrated Home Care clinics are to be designated as generalist clinics, where staff will be expected to provide care for patients requiring a wide variety of services, not just those related to wounds. The wound clinic nurses believe this decision does not take into account the knowledge they hold of the unique scheduling needs of patients with complex wounds, and that this decision will have further implications for those making decisions about how urgently patients need to be seen.

To explore how scheduling decision-making was being portrayed to those charged with making such operational decisions, the process map from the institutional project that I encountered in my fieldwork became part of my data collection (see Figure 1 for an example section). In an attempt to conceptualize the ways a client enters, travels through and leaves the system, the consultants used conventional flow-chart tools to represent the institutional reality of how the work processes proceed. Points at which decisions are made are depicted within white shapes, while the outcomes of these decisions are denoted by gray shapes. We can see evidence of

organizational structures that are expected to coordinate how each process occurs in the criteria that need to be determined before each subsequent step can occur. For example, a patient will follow a different route through the system depending on whether they are initially determined to have an “acute” or a “complex” wound.² Although not visible on the process map in Figure 1, the content of each white shape implicitly references predetermined criteria that define each classification. In almost all cases, a text can be identified that contains outlines of these criteria and instructions for how allocation to a specific category is to happen. The way in which an individual progresses through the healthcare system from the time they are identified by a member of the Integrated Home Care team as a “client with wound or swelling” relies on everyone involved along the way applying these criteria in the ways prescribed in the texts.

Figure 1. Example Section of Process Map



Although the standardization of practice the texts are designed to accomplish enables the planners to depict the work as objectively controllable, as I listen to and observe the wound clinic nurses' actual work as it takes place, the textually-mediated, linear progressions depicted on the map bear

little resemblance to the constantly changing lives of those attending the clinic and the unpredictable nature of a quite different version of reality. Interestingly, however, a red dotted line between certain categories provides the reader with a hint that people mapping the project are aware that these shapes and text do not capture everything the clinic nurses do on a daily basis. Although theoretically this line may represent a considerable portion of the work that the nurses do, it has no content beyond an explanatory category labeled "collaborating." If the aim of my study was to extend the ordinary ways in which wound nurses know their everyday worlds into the unexplored regions around them, how could I describe to those whose standpoint I claimed to be taking exactly how my project diverged from the management one?

In speaking to the nurses, I recognized that my use of the term *mapping* to describe a very different key analytic process from that of the chart produced by management was hindering my ability to explain how what I was doing was distinct. Although flowchart diagrams created by institutional planners are quite different from the images produced by conventional landscape cartographers, both use the term *map* to describe the work of conceptually representing an entity in graphic format that can be navigated by others removed from the source on which it is based. To better understand why the term seemed to bring with it certain assumptions about my approach to nurses' work, I sought answers in the discursive organization of mapping practices.

The Discursive Organization of Mapping Practices

Map-making in one form or another is found in all cultures and can be traced back to ancient times (Blaut, Stea, & Spencer, 2003). Early cartographers provided, for the first time, a two-dimensional, textual representation of the landscape around them. Although their portrayals of familiar territory were often remarkably accurate, the artists' capabilities were constrained within the boundaries of terrain that had already been explored and surveyed (Wilford, 2000). The discipline of cartography has changed exponentially over the intervening centuries. With the recent advent of technologies such as geographical imaging systems (GIS), it is now possible to visualize the entire earth from space and to "zoom in" on any given

coordinate (Wilford, 2000).

Yet as surveying and navigation technology continue to evolve and techniques become increasingly complex, map-makers, and those for whom they work, have come under considerable criticism. From the parchments of long ago, to the digital animations of today, maps have consistently been used to convey the knowledge and power of those who commission them. Decisions about what to include or eliminate and how to plot the selected elements carry within them the agenda of the map's creator and become the means through which the intended reader's perception of the land is coordinated (Bryan, 2008).

Indigenous groups, in particular, have begun to question the taken-for-granted, established processes and rules that form what are commonly accepted as essential cartographic skills (Bryan, 2008). Unlike many aboriginal traditions that represent the landscape as a fluid entity, Western cartography is designed to produce a static depiction of a place, a snapshot of time in which any traces that may identify who the people are and what they actually do are removed (Pearce & Louis, 2008, p. 109). Indeed, it is argued that the process of "making the world known" through this standardized knowledge system has played a crucial role in dispossessing many indigenous communities of their land and resources (Johnson & Louis, 2006, p. 89).

In the latter part of the 20th century, researchers began to question in whose interest these colonial maps had been created (Peluso, 1995). Although earlier examples exist, the term "counter-mapping" was first coined by Peluso in her 1995 study of indigenous activists' attempts to reclaim their traditional rights to forest land in Kalimantan, Indonesia (Peluso, 1995). As similar cases were reported, a "counter-cartography" movement began to emerge. The common aim is to map "from within" and to present cartographic descriptions in ways that are meaningful to and can be understood by those whose ancestors walked the land (Pearce & Louis, 2008). Practices of counter-cartography, which are also referred to as "ethnocartography," "community-based mapping," and "participatory mapping," have now extended beyond indigenous communities and are gaining popularity with activists involved in a variety of political projects (Wainwright & Bryan, 2009).

Counter-cartography and Institutional Ethnography

It is what Dorothy Smith describes as the ontological shift in institutional ethnography that resonates for me as I read about the counter-cartography movement. Smith's search for a new way to do sociology stems from her early days as an academic, when she began to perceive a disconnection between her embodied existence as a mother and the "head world" of the university (Campbell, 2003, p. 14; Smith, 2005). Within this intellectual realm, there seemed to be no medium for her to express the ways she knew about essentials such as feeding the family and caring for small children. The mainstream sociological theories, methods, and concepts in which she was being trained said little, if anything, about her knowledge and experience of the life she left behind when she went to work. Smith was also troubled by the research in which she was participating. Although it claimed to be exploring people's interests from their perspectives, the very fact that it began from a place within concepts and followed processes created from theories meant that it produced objectified accounts of those it investigated (Smith, 2005). As Smith (1990b) writes:

Sociology ... creates a construct of society that is specifically discontinuous with the world known, lived, experienced and acted in. The practice of sociology in which we were trained as graduate students was one that insisted that the sociologist should never go out without a concept; that to encounter the raw world was to encounter a world of irremediable disorder and confusion; to even begin to speak sociologically of that world required a concept, or concepts, to order, select, assemble, a sociological version of the world on paper. (p. 2)

This "version of the world on paper" became central to Smith's understanding of language as a key to the ethnographic discovery of how knowledge is coordinated (Smith, 2005). She saw that the very rules and procedures which made sociology a discipline were part of a language that drew attention away from real people living in the material world (Smith, 2005). In the process of identifying and theorizing social causes for social phenomena, the actualities of peoples' lives were

subsumed. The everyday activities of the subjects involved were effectively rendered invisible in much the same way as a Western cartographic image renders invisible and irrelevant the daily activity of the people who live in the mapped community.

Making Change from Below (Smith, 2008)

The key to understanding “how it works” in IE (Smith, 2006, p. 1), is to “turn upside down” the approach to knowing that privileges this institutional knowledge (Campbell, 2003, p. 14). For institutional ethnographers, the social can only be discovered among actual people and the ongoing moment-by-moment concerting of their activities (McCoy, 2008; Smith, 2006). Smith’s desire to create a sociology which would not subsume people as “instances of theoretical categories” (McCoy, 2008, p. 702) was further shaped by her involvement in the women’s movement and the discovery that, although dominant forms of knowledge might appear to be neutral, they in fact “concealed a standpoint in particular experiences of gender, race and class” (p. 702). At the same time, she recognized that, however unwittingly, women had also taken up these ruling ways of knowing (Smith, 2005). The question which she sought to answer was how it is that what we do comes to have force over us (Smith, 1999).

While IE researchers are concerned with mapping the social landscape, rather than the physical landscapes portrayed by counter cartographers, the two share a common aim to represent a world in which individuals are located as knowers of that world. Both begin from a place where real things happen, a place in which people’s every day activities have been abstracted and conceptualized for ruling practices, where outsiders’ graphical representations of what people know to do have become part of the accepted way in which their world is known to others. Yet here the two approaches begin to diverge. Although the counter cartographers’ ability to demonstrate that a different view exists has proved useful in opening dialogue with governing bodies and even in effecting policy change (Usher, 2003), what is not readily visible in the counter maps is how the everyday activities of those portrayed

are hooked up into and help to produce the ruling relations which they seek to disrupt. Institutional ethnographers, in contrast, do not aim merely to provide an alternate representation of the local experience of individuals. Since knowledge is essentially social, rather than arguing against these abstractions, or presenting a "counter" view of events, IE researchers are concerned with how these abstracted versions of people's experience are put together (Smith, 1992). It is necessary to look beyond the local, to discover the text-mediated ruling relations in which that experience is embedded and in which the individuals participate (Smith, 2005). Rather than asking "whose map is this?" IE researchers ask instead "in what institutional activity is this map located?"

Thus, IE offers a unique way to explicate how the textually-mediated concepts of restructuring have been used to erode the practices of certain groups of people. Rather than producing a chart of organizational structure that begins within and thus reproduces existing conceptualizations of the work taking place, IE's analytical procedure of mapping institutions as work and texts extends beyond people's experience and accounts of their experience to provide an empirical description of how the textual work in which they are engaged organizes "what is getting done and how" (Turner, 2006, p. 159). Susan Turner's (2006) schematic representation of municipal planning for a land development project, for example, shows not only how residents' issues were sidelined, but how, despite the rhetoric of public consultation, as individuals took up the institutional texts involved, they coordinated their actions to put together standardized policies, decisions and outcomes.

Institutional ethnographies of health care organizations offer a way to make visible managerial changes going on "behind our backs" (Smith, 2014). While the information uncovered does not in itself alter the ruling relations, the awareness of the way things are put together that this new knowledge brings can be useful to those caught up in the changes as they make decisions about how to act. As a student new to institutional ethnography, choosing to explore the social organization of an area of practice related to my own field of expertise brought unexpected challenges. Prior to commencing the study, I had been intimately familiar with much of the

literature, as well as the terminology and institutional texts, my informants were using in the clinic setting. Learning to identify the ruling relations embedded within the regulatory texts around which my own education and practice were organized became an unnerving exercise of unpicking the very fabric which held together my understanding of the work in which I had been immersed for many years. I recognized a similar sense of disquiet in counter-cartographers' accounts of recognizing the power relations embedded in maps created by others which they had taken up and used to alter the way they understood and acted on their lands. What I learned from the counter-cartography movement helped me to acknowledge my own part in taking up certain embedded ideologies as factual information and to live with the precariousness of unraveling my own knowledge about wound work.

Examining Wound Clinic Work for the Social Relations

By observing the wound clinic nurses as they take up and implement the changes taking place to their specialized work processes, my aim was to bring into view how they are coordinating their actions to carry out the work of the institution, sometimes with unintended and even devastating consequences. In order to find an entry point into this intricate field of social relations, I returned to my problematic, to those moments in the nurses' experiences where their knowledge conflicts with the official version of events. Beginning with the earlier example of the gentleman whose leg was amputated, I followed one path into the institutional organization of this event that led to where the clinic nurses' work is hooked into the decision-making processes of staff involved in appointment scheduling.

During an interview with one of the generalist nurses responsible for reviewing new referrals, I learned that although her triaging work appears on the project map (in the far left white shape in Figure 1) as a straightforward series of events, in reality determining where and how quickly individuals need to be seen requires her to complete multiple interdependent steps, each coordinated by a different text. First, without direct contact with the client, and based on the often very limited contents of a form completed by a health professional in another location, she is required to assess whether the

wound is "acute" or "chronic" based on criteria outlined in evidence-based guidelines (these will be explored in a subsequent study). She uses a second set of written criteria to determine whether the client is able to attend a clinic or whether a home visit is more suitable. If she deems a clinic visit appropriate, she is then obliged to consider a further set of efficiency-related parameters, including staffing and funding variations before she can allocate the client to a specific location. She records her decision about which "urgency" and "site of service" categories she has designated the client to and passes the form on to a booking clerk, who uses this information to schedule an appointment. The clerk then calls the client to provide details of date, time, and location.

What the triage nurse is not required to record in the standardized documents she completes is any information about whether the client's condition is likely to change. The static points in the process at which data are collected and categorized are not designed to accommodate situations like that of the gentleman whose wound deteriorated after his entry into the processing system had begun. Once certain details have been abstracted from the full story of a client's condition, despite any knowledge a triage nurse may hold about potential risks, the booking process includes no mechanism by which she can transfer him from one category to another prior to his appointment. As each person activates their own portion of this textually-mediated sequence of events, the administrative priorities on which the institutional action depends take precedence over those of direct care, where patients' needs are embodied. Although the familiar landmarks of nurses' wound work are still visible, with the introduction of the central booking system, the routes by which both nurses and patients can navigate the system have been changed.

As I explored further, I learned that one of the recommendations coming out of the managerial project was to have a dedicated wound specialist nurse in the triage position. Interested to know more about how this decision was reached, I interviewed members of the project team and discovered that, during the course of the project, many of the same issues had come to light that I had observed and heard about during my data collection. Contrary to my initial suspicion that team members were disconnected from what was happening on the

ground, I found myself listening to their descriptions of how the everyday work of the clinic is not accurately reflected in managerial work processes. Yet, as an IE researcher, I recognized that since the team members were doing the work as they had been socially organized to do it, we were approaching these issues in quite different ways.

Although fundamentally we shared the same goals, in order to meet the parameters outlined by the directors who had commissioned the report, the "other wound project" consultants were constrained by a specific format in which the information could be presented. In the introduction, the project managers outline how the project was developed in line with the organizational goals of "quality improvement" through streamlining of services (AHS, 2012). Decisions about what was included and what was left out of the review and what outcome measures were used were made in consultation with Integrated Home Care directors. Using the language of the current discursive organization of wound work and mapping techniques that fit with the strategic direction of the quality improvement strategic plan, the project managers created an objectified version of wound work that carried within it the institutional priorities of those financing the project. The team's well-intentioned recommendations for potential solutions emerging from the data collected were limited to those that complied with the evidence-based protocols on which the clinic's very existence depended. In what Smith (1990a) describes at the "organizational impregnability of this circularity" (p. 94) the textual accounts, taken up by others located elsewhere as factual evidence that what is happening fits within the abstracted version of the guidelines and protocols, serve to further abstract the work from the place where it happens.

Wound care is messy and brings with it the messy lives of patients. The work of wound clinic nurses is continually evolving in the context of organizational strategies based in neat and tidy science that is abstract and theorized. Yet, as evidence-based standardization of practice increases, it seems nurses in outpatient wound clinics in Canada are struggling to find ways to articulate the contradictions and tensions they experience as they attempt to enact their unique knowledge within the organizational controls of their institutional settings. IE healthcare researchers have argued previously that, not only

is it important that what nurses know and how they know to do it, not be lost, but that efficiency and safety actually rely on nurses' ability to contribute from their own knowledge about how their work proceeds (Hamilton & Campbell, 2011, p. 281; Rankin, 2009). The challenge is how to make the complex and unpredictable reality of nurses' direct wound care work accessible to those charged with planning healthcare from a standpoint which relies on a map's "genius of omission" and its ability to represent "reality uncluttered, pared to its essence, stripped of all but the essentials" (Muehrcke & Muehrcke, 1998, p. 11).

As I open up for critique the priorities embedded in the Skin and Wound Review project (AHS, 2012), and show how certain knowledge held by nurses working at the frontlines is as necessary to the efficient running of the system as that depicted in other versions of the same landscape, the "map" that is emerging in my own study is not one which is intended to replace or negate the work of institutional process mappers. My explication of how this work happens is not intended to be a static record of what was happening on the days I collected my data. Instead, it is an additional tool that can be used by those working in wound care to understand how the ruling relations enter into and organize how they think, talk and act. Since I completed my data collection, minor changes have already been made to the way work happens in the particular clinics I visited. This merely provides further opportunity to examine the ruling relations at play. As the newly appointed wound specialist triage nurse will also be bound to follow the existing institutional processes and to make scheduling decisions by completing the same coordinating forms as the generalist nurses, the extent to which she will have the capacity to affect the anticipated changes remains to be seen. Rather than speculating about the nature or utility of current and future innovations, my aim is to provide a way for nurses working alongside people with wounds to navigate the complexity of the mysterious regions on which their world borders. This alternative understanding of how their work is organized offers not only an opportunity but also an obligation to speak about their unique knowledge to those making decisions.

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Endnotes

1. Under controlled experimental conditions the relative ease with which the size and duration of wounds can be empirically observed and described in standardized terms means these parameters have become ideally positioned within the evidence-based discourse as reliable ways to monitor and evaluate the effectiveness of interventions (Soon & Chen, 2004). Wound care innovation, defined primarily in terms of new topical interventions, has led to the appearance of an overwhelming number of increasingly sophisticated dressings and advanced modalities, each of which is promoted for its unique ability to improve the process of preventing, diagnosing, treating or healing skin damage (Fette, 2006). As a result, the global wound products market is projected to reach \$20.3 billion by the year 2015 (Global Industry Analysts, 2010). With an estimated annual economic toll of \$3.9 billion, wounds now account for approximately 3% of total health costs in Canada, a figure that is expected to increase by up to 30% over the next few years (Wound Care Alliance Canada, 2012).

2. The definitions 'acute' and 'chronic' wounds are used to distinguish between wounds that repair themselves or can be repaired in an orderly and timely process (acute wounds) and those that do not (chronic wounds) (Lazarus et al., 1994). These categories have become established as part of the standardized language of wound care and can be found in most national and international guidelines. Since the hierarchy of evidence on which many funding decisions are based classifies "clinically relevant" endpoints, often determined by bench scientists, as more rigorous forms of evidence than qualitative or case series studies (Higgins & Green, 2008), the discourse of evidence-based practice continues to rely heavily on the dominance of the cellular physiological understanding of acute wounds and 'normal' wound healing.