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Tele-nursing: the English and Swedish Cases

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Abstract

The application of call centre methodology is evident within the public sector internationally. This can be said to represent the application of information technology, customerization and other aspects of New Public Management, such as performance measurement and post-bureaucratic transformation of the public services. Call centres disrupt careers, occupational structures, and work organisation. To the extent that states internationally apply 'call centre' logics, it is suggested that they are applying 'technological convergence', making work in private and public sector call centres similar; and public sectors similar across the world as they adopt this standard delivery format. To test this proposition, this paper examines health sector call centres in two countries, Sweden and the UK, and explores points of convergence and divergence in the practice of health information. Explaining the outcomes of public sector call centre the paper moves beyond globalisation (convergence) and societal differences (divergence) propositions standard in comparative analysis in the international public management. Instead we apply the system, society and dominance framework and argue that over-lapping contradictory pressures from common technologies (system effects), divergent contexts (societal effects) and unsettled single logic for call centre practice (dominance effects) better explain the comparative findings on nurses working with health call centres.

Introduction - Call centres, comparative analysis and the public sector

This paper aims to examine two questions: firstly, does the application of call centres to the public sector produce the same outcomes as in the commercial sector? Secondly, does the application of call centres in public sectors create *international* convergence processes in terms of common work organisation practices between countries? Our work takes a micro-level comparative approach – examining the practices of tele-nursing in the UK and Sweden - although the application of call centres can be seen as very much part of a New Public Management (NPM) agenda – using private sector practices, information technology and e-government – and a more micro-analysis allows us to 'control for as many sources of variation as possible and focus on the difference of national contexts' (Carre and Tilly, 2012, p. 80).

Taylor and Bain (1999, p. 102) have defined a call centre as 'a dedicated operation in which computer-utilising employees receive inbound – or make outbound - telephone calls processed and controlled either by an Automatic Call Distribution (ACD) or predictive dialling system.' In call centres explored by these authors the ACD system receives the incoming calls and automatically channels calls to waiting 'customer service representatives', or 'agents', removing the need for switchboard operators, and dramatically increasing he productivity and control of employees.

Call centres spread into the public sector are a sign of NPM, as information technology is applied to make the delivery of public services more a choice for consumers, at *their* convenience and not that of professionals. It is a move to e-government – something happening across many countries (Eifert and Puschel, 2004). For example, UK government departments made increasing use of call centres to deliver public services - with 13 public sector call centres in 1989 increasing to 133 by 2002 (NAO, 2002). Similar trends have occurred in many other countries, including Sweden. The move to call

centres was also an opportunity to outsource public sector work to the private sector, with 45 of the 133 public sector call centres being operated in the private sector in the UK. The convenience for the 'citizen/customer' of call centres in the public domain are the same as in the private sector: 'Call centres allow people to access by telephone information, purchase goods and receive advice across a range of services, often more quickly than for example, writing to a department, and at more convenient times' (NAO, 2002, p. 22). Call centres in the public domain are not centrally planned, but organised on a departmental and decentralised basis, but there are central resources that different departments can use, hence drivers in the direction of national standards of call centre practice in the public sector. In terms of customerization, the call centre platform for the delivery of services means applying market techniques to gather information on quality of the services. The NAO survey of 133 public sector call centres found the following practice in use: mystery shopping; customer satisfaction surveys; monitoring complaints; and monitoring performance against a range of measures (NAO, 2002, p. 23).

Call centres are more a *common technology* than a sector, as different industries, including public services, utilise call centre technologies but with potentially different outcomes e.g. civil service (Fisher, 2004) and police (Bain et al 2005). Theoretically, the different contingencies within the public sector are critical regulators of these outcomes. So for example, clinical safety is a key priority of NHS Direct, (Mueller et al., 2008). Taylor and Bain (1999) argue that information technology intensifies the work process by forcing the agents to take call after call. Indeed, early research pointed to a revival of Tayloristic control in call centres, often labelled as 'the new sweatshops' (Fernie and Metcalf 1998) or 'the assembly line in the head' (Taylor and Bain, 1999). The new developments in telecommunication technology seem to enhance the possibility of technological monitoring and control over employees to an even greater extent, *regardless* of these sector contingencies.

Theory and Comparative Public Sectors

Pollitt and Bouckaert (2011: 6) note that until the 1970s analysis and reform in the public sector was largely a national affair with reference to internal country dynamics. This changed in the 1970s with the fiscal crisis of the state and a demand for more efficient use of state assets with the rising costs of welfare. The academic discourse shifted from public *administration* to public *management* (Ackroyd, 1995). Within this was the widespread adoption NPM signified by the transfer of practices from the private sector to the public sector. NPM in turn raised the issue of *convergence* of the management of public services to a common set of practices adopted 'around the world' (Schedler and Proeller, 2002, p. 163). In looking at the forces driving convergence in non-market sectors, Mathiasen (2005) listed 'six drivers', including globalization of trade and capital movements, simultaneous fiscal crises of the state; public discontent about the size of the state; a post-soviet effect (which looks odd against the current return to authoritarianism); TQM; and a renewed interest in civic institutions. Added to this eclectic list, he adds the growth of international public management professionals and international public service associations. Others have been more focused, and placed consultants (international consultancy companies, many dominated by US firms) as the key central actors in the diffusion of NPM, although also stressing that a common language of public sector reform is interpreted through different institutional histories within countries and does not simply produce a common outcome (Saint-Martin, 2000; 2005). Ferlie and Fitzgerald (2002) applied institutional theory to explain the diffusion of NPM taking the case of one country sector, health in the UK, to suggest that four drivers - public attitudes, decline in deference and growth of consumerism, the rise of management as an actor (a 'managerialisation process') across the private-public divide and the spread of information technology have contributed to a 'archetype shift' that has embedded NPM discourse in public sector reforms over a 20 year period. This embedding is not a local affair.

Pollitt (2001; 2002) and Pollitt and Bouckert (2011) support a similar list of drivers for convergence, while also suggesting that 'much of the NPM literature has been anglophone' (*ibid*, p. 12). In stressing universal interest in performance management, partnerships between private and public actors, choice, networks and customisation across public sectors, nevertheless they highlight that research on the 'measures of performance adopted across countries...reveals differences' (ibid p. 14). Pollitt has been

one of the main champions of the enduring legacies of national histories and hence the tendency of 'societal effects' to stubbornly persist and particularise universal or supposedly convergent processes in unique or path dependent ways. Hence instead of convergence, we have persistent *diversity* as a consequence of 'path dependent explanations [which] fit public management rather well' (Pollitt, 2002, p. 277); and further, 'national histories and characteristics of national patterns of institutions have had a tremendous influence on maintaining diversity' (Pollitt and Bouckaert, 2011, p. 12). States remain territorial; public sectors, while increasingly penetrated by Multinational Companies that can choose to standardise practices across borders, are more critically 'political arenas' servicing local electorates, and cultural and institutional spaces where national legacies continue to reproduce diversity.

A problem with this approach is that it does not adequately explain diffusion; and labelling NPM 'anglophone' does not account for its spread or as Ferlie and Fitzgerald (2002) show, it's transformation of traditional public administration and its hegemony or 'dominance' as a recipe for public sector reform internationally. The *system*, *society* and *dominance effects* (SSD) framework (Smith and Meiksins, 1995; Smith, 2005) which we apply here, suggests that there is always an interplay between systemic imperatives such as technology, societal patterning of practices reproducing national diversity, and powerful 'dominant' recipes – such as NPM, or 'standard model' call centre practice – that are available and transferred as 'best practice' for actors in local contexts. We need to see these three forces as interactive.

Taking public health call centres as practices that are identified with e-government and NPM and globally diffused; the paper uses country case studies of England and Sweden to explore micro-convergence pressures that are created when nurses work within call centres. Theoretically, by taking a 'dominant recipe' (call centres) we are able to test convergence claims from call centre literature and NPM. Is a 'dominant recipe' in tele-nursing emerging or are the institutional diversities within these two countries reproducing national models of tele-nursing that are robust and analytically distinct? In other words, do 'societal effects' override 'dominance effects' in the case of tele-nursing, which is a new form of health service delivery in the two countries? In using the *system*, *society* and *dominance effects* (SSD) framework in this context, we are suggesting at the system level, both Sweden and England share the same political economy, namely capitalism, albeit in different forms – the UK neo-liberal and Sweden classical corporatist (Calltorp, 2012). System also means 'technology' (such as used in call centres) and hence the spread of call centres globally can be treated as a symbol of *systemic* rationalisation that possesses standardising features and consequences. However, any such standards of efficiency delivered in this way interact within particular societal contexts, where, call centres might be embedded in particular and quite different ways.

As noted by Pollitt (2002) states are less internationalised and more subject to path dependency, and hence we are likely to see tele-nursing with Swedish and English imprinting. But states are also capable of learning from each other, and borrowing ideas and practices, and even evolving recipes of working practice or policy delivery seen as 'dominant practices' and diffused as 'best practice' if they have great efficiency at home. Hence, the third element of the SSD framework, namely 'dominance effects', while *more likely* to be associated with international agencies such as MNCs, than national actors, such as states, nevertheless allows for a new sector or new technology such as call centres, to create globally dominant practices. Collin Jacques and Smith (2005) for example, looked at US technology providers supplying the healthcare common software as acting as potential diffusion agents for common standards of tele-nursing practice across national boundaries. Swedish government officials undertook several visits to the NHS and were certainly inspired by the British system for health call centres. But as we will show, this did not straightforwardly translate into a common standard being applied.

Comparative call centre research

Evaluating international call centre research, Taylor & Bain (2007, pp. 354-5) suggest an 'emergent paradigm' of a 'mass production call centre' where a 'low-cost, lean-production model tended to

dominate'. This was 'technologically driven' – a *system* imperative in other words that should appear regardless of country and sector context and 'dominant recipe' of how to run call centres. This conclusion is partially supported by Russell (2008, p. 214) and Russell & Thite (2008, p. 629) who suggests call centre work is predominantly 'semi-skilled', a universal archetype. Attempts to differentiate call centres through contingency theory have suggested the following contingencies are important: type of *work* - mass and bespoke (Batt and Moynihan, 2002); *market* – national versus internationally-focussed call centres (Taylor, 2010); types of *worker* – professionals and un-skilled (Collin-Jacques, 2004; Mueller et al, 2008; Smith et al 2008); and types of *sector* – public versus private especially (Glucksmann, 2004; Taylor and Bain, 2007). Our aim here is to hold constant types of work, workers and sector, and then to examine points of difference which emerge from the national institutional setting (that is 'societal effects') for the constitution of tele-nursing. This is similar to the arguments of Collin-Jacques and Smith (2005, p. 26), who compared tele-nursing in Quebec and England, and argued that 'three elements, occupation, national context, and industry formation shape[d] the extent of active social shaping of technology and call centre work for nurses.' Tele-nursing exists in the UK and in Sweden (Andersson Bäck 2008; Faeltholm and Jansson, 2008, and marginally in Finland too, besides the US, Australia (Larsen, 2005: Russell, 2010), and Canada (Collin-Jacques and Smith 2005).

Case choice is important in comparative analysis and our country cases should help to analytically isolate the sources of difference and similarity. We have selected two countries that have been progressive appliers of NPM to minimise the effects that might flow from different pre-dispositions towards policy reform, following the analysis of Saint-Martin (2000, p. 32). Both countries have welfare states, and while the organisation of health care is different, as we discuss below, there are good reasons for looking at Sweden and the UK in relationship to reforms of the public services and applications of modernisation strategies, such as tele-nursing. Sweden and the UK have been noted as high uses of New Public Management, in contrast to 'low NPM' countries such as Germany (Hood, 1995, p. 99; Kirkpatrick, 2006, pp. 126-29). Rubin and Kelly (2005, pp. 574-75) stress the embracing of performance management in Sweden as the fiscal crisis 'subsided in the mid-1990s'. Proeller and Schedler (2005, p. 711) argue that while the Swedish model of civil service was modelled on the Germany, which has been characterised by its reluctance to embrace or see the institutional attractiveness of NPM, 'nowadays, Sweden's civil service system is categorized as an "open" systems more in line with that of Great Britain and the Netherlands than with "closed" systems like those of Germany and France'.

Figure 1 Here

Figure one shows the points of difference and overlap between tele-nursing practice in England and Sweden compared with the so-called 'standard model' of call centre work discussed above. We will elaborate on these differences in the sections below.

Background to the two tele-nursing services

UK - NHS Direct

NHS Direct as 24-hour tele-health help-line was a key part of the Labour government's 1997 proposals to modernise the NHS in England (DoH, 1997). This new service was created in response to growing problems of access to and cost of the NHS (DoH, 1997; DoH, 2003). This new service embedded the NPM principles and aimed to be the 'gateway 'into the NHS in England. It was launched in March 1998 at three pilot sites. NHS Direct rapidly expanded so that, by October 2000, 22 call centres had been established covering the whole of England. On 1 April 2004 NHS Direct was established as special health authority under the *NHS Direct Order 2004.* It had its operating framework, including standing financial instructions. In April 2007 NHS Direct has been transformed from a special health authority to a Trust (NHS Direct Annual Report and Accounts 2005-2006; 2006-2007).

NHS Direct during the years carried on expanding the provision of its services. (NHS Direct Annual Report and Accounts, 2010-2011). It developed a diversification strategy and now offers a series of services. Apart from providing 24 hours telephone helpline carried out by Nurse Advisors and Call Handlers, it also assesses low priority (Cat C) 999 calls for eight ambulance trusts and carries out call handling and clinical assessment for out of hours GP..NHS Direct is the leading provider of NHS 111 services with involvement in current pilots. NHS 111 is a new competitive service which provides a mix of clinical assessment and health information which will replace the current NHS Direct contact number -0845 4647 and will start its national rollout in 2013.

In addition, NHS Direct is also responsible for the management of long term conditions (OwnHealth® and NHS Telehealth Direct) and supports patient choice via the on line decisions aids and the Appointment Line through which patients can book hospital appointments. These recent developments also demonstrate how NHS Direct acknowledges the importance of governance issues in public organisations (Benington, 2011; Moore, 1995).For instance, NHS Direct's concern for the 'patient choice' demonstrates its awareness of taking into account the users' and citizens' point of view.

Nick Chapman, Chief Executive, NHS Direct National Health Service Trust emphasised that NHS Direct played an important role in the NHS, contributing to the £20 billon of efficiency savings. NHS Direct reduced the costs of its services provision by £11.1 in 2010/2011. The ambition of reducing costs, via the introduction of new competitive services (e.g. NHS 111), an emphasis on empowering the patients through the use of web advices and the introduction of the option of working from home, is in line with government's plan to transform NHS Trusts into NHS Foundation Trusts.
NHS Direct is now an independent service; this does not mean that it follows an independent route. The key guidelines of NHS are always present in it agenda and everyday tele-nurses' practices.

From 2005 a Virtual Contact Centre allows calls from anywhere in the country to be routed to any of the current 30 contact centres in England and the 100 nurse advisors who work from home. This is helpful for cutting waiting times. Moreover, the efficiency and the safety of the calls have been improved by introducing a new call streaming technology which allows health advisors to identify the seriousness of calls and route them accordingly. The introduction of the 'Virtual Contact Centre' reinforces the '*centralisation*' strategy adopted by the NHS.

Sweden – TAN (Telephone Advisory Nursing)

Sweden has a decentralised health care system, placing decision-making as close to the activity as possible. The health services rest largely in the hands of regional politicians, directly elected, for 21 county councils/regions. Swedish citizens pay taxes to the local authority and to the counties/ regions, which accordingly have a great deal of freedom to organise the activities in their area. Hence, it is the interests of national and local politicians that predominantly determine the shape of the agenda on health care provision and to a considerable extent that of the medical profession (Dent, 2003, pp. 43-75). In the late 1990s, the arguments in favour of centres for Telephone Advice Nursing (TAN) were advanced in Sweden. In 1997, a national project was set up to evaluate the potential for improving Swedish healthcare. This happened at the same time as the British NHS Direct was proposed (DoH, 1997). However, the Swedish investigation concluded that a central service was not yet possible or desirable (FCC, 2002). Instead, it emphasised the need to follow the overall structure of Swedish healthcare. This meant that quite *different forms* of tele-nursing emerged

at the local and regional levels, due to different conditions such as geographical area and population density.

However by 2012, most counties have joined the national network with one or several sites, which are sharing the same technical system, including the same software for decision support and a common database with health information. These interlinked TAN's are organised as a kind of matrix organisation, where the national organisation (*Vårdråd per Telefon*) provide overall induction, training and meetings for exchange of experience, while each operation is financed and still shaped by the distinctive form of healthcare in each county.

It seems also plausible to assume that this structure has opened up the service for private initiatives and, certainly produced a differentiated pattern to tele-nursing compared with the more centralised pattern in England. Beside the main public actor, there are two private companies in the business, *Med-Help* and *Mavel* (Calltorp, 2012). However these are mainly related to the service provision, while ownership, regulation and control as well as principal financing are still in public hands (Sundin, 2008).

Due to the decentralised organisation of health care in Sweden, the possibilities for governmental action are restricted. However it has been argued that the telephone advisory service is a state-driven project in line with an overall governmental ambition to rationalize healthcare, while introducing a gate-keeper function, standardize advice and referrals based on evidence-based practice as well as improving quality in the first line of care. Like similar initiatives in modern Swedish healthcare, this one implies an expansion of the nursing roles in certain ways making healthcare less dependent on the presence of physicians (Andersson Bäck 2008, p. 242).

Research methodology and considerations

In this section we explore the outcomes of the fieldwork that we conducted in the two countries. In both England and Sweden we researched two sites serving different kinds of localities with respect to population and patterns of service provision: for a provincial/urban area NHSD A in England and West TAN in Sweden; as well as NHSD B and South TAN located in metropolitan areas in the respective country.

We also took into account the size of each call centre by considering the number of staff. In England for both Nurses Advisers (NAs) and Call Handlers (CHs), we selected a medium sized call centre, NHSD A, and a small sized call centre, call NHSD B. The same sampling strategy was adopted in Sweden (South TAN-medium sized call centre and West TAN small sized call centre). Both sites were supervised by a head nurse and assistant team-leaders. In total, the British researchers conducted 27 interviews with nurse advisors, 11 with managers and clinical directors. They also interviewed Call Handlers, Health Information Advisors, Librarians, GPs and Pharmacists, but these are not referred to in this paper. The interviews took place between April 2003 and February 2004. The Swedish researchers followed the development of the service, starting in February 2002 until December 2007 and conducted about 95 interviews with politicians, managers, nurses, ICT-experts and made telephone-interviews with clients (300 persons in 2003 and 100 in 2006).

Interviews lasted between forty-five minutes and one and a half hours and were tape-recorded and fully transcribed. The English as well as the Swedish interviews had the same purpose,

namely focussing on how nursing 'on line' differed from conventional nursing practice; how the work is organised and the level of autonomy over the work; the level of interaction between personnel groups and to what extent if inter- and intra-occupational knowledge is reinforced or transcended.

THE SOFTWARE AND TELE-NURSES' AUTONOMY IN THE TWO COUNTRY CASES

England: NHS Direct: *The dialectic of decision support software*

As we have outlined above, NHS Direct now provides a diverse range of services, in this paper we mainly focus on 24 hours telephone helpline carried out by Nurse Advisors (NA) and Call Handlers.

NAs use an algorithmic software system imported from the US, called CAS, for ensuring a safe telephone advice. CAS forces nurses to ask the caller one automated question at a time, with questions taking one of two forms: either a leading question with a "Yes", "No" or "Uncertain", or a list of symptoms that the callers should answer. Nurses could bypass the list of the questions, even when the NA realised that the algorithm was leading down an inappropriate medical track. The software also included a 'Free Text' box where nurses could add further notes relating to the questions asked; however NAs had little freedom in the assessment process itself.

Evidence revealed that at first sight CAS protocols restricted and prescribed NAs' autonomy, rendering their work repetitive and routinised. Previous research on NHS Direct (Collin-Jacques, 2004) suggested that CAS reflects the third principle of Taylorism (Braverman, 1974) according to which management directly control the labour process and its mode of execution. According to this analysis, within NHS Direct the rigid and scientific algorithms embedded in CAS determined a precise manner in which NAs should execute their tasks. Thus, CAS, through the algorithm based logic, fragmented the assessment process by prompting one question at a time, meticulously co-ordinated by the algorithms. Thus CAS restrained nurses' clinical knowledge by preventing them from seeing 'the whole picture' of the assessment and hence narrowed their clinical reasoning. This is evident from this quote:

> It [CAS] has its moments. … It can be limiting sometimes, so sometimes you actually have to look at the broader picture and basically, not circumvent, but go through the Algorithm …. So it's not interactive from that point of view… (Nurse Advisor, NHSD B)

CAS did not prevent NAs using their critical thinking, and the interviews revealed that NAs used their previous clinical knowledge to bypass the system and still provide a safe advice. Initially NAs needed a minimum of five years' post-qualification experience before starting to work for NHS Direct (National Audit Office, 2002, p.15). This was later reduced to three years. During these years, NAs acquired clinical experience and expertise utilised to 'upgrade' and 'downgrade' the software if they considered the final disposition was not 'safe' according to their clinical knowledge and experience.

The use of clinical knowledge and critical thinking is necessary for providing safe information. A key focus in 2005 was ensuring that NHS Direct met the Department of Health's standards for better health. Many Nurse Advisors admitted that they deviated from the software, since both NAs and managers were conscious that the software was over-cautious. However, under certain circumstances, especially were NAs are outside their

specialist areas (O' Cathain et al. 2004), they relied more on the software for the final disposition, mainly to protect themselves from litigation or management scrutiny. CAS was thus treated as a reference tool but not as a *'global recipe'*. Hence medical knowledge was embedded within particular institutional constraints, and not something, as one might expect, universal and standard. Despite being 'imported' from the USA however NAs by 'upgrading' and 'downgrading' the system were able to change some algorithms. In addition, during 2005-06 all algorithms were updated to ensure they reflected the latest guidelines from the National Institute for Health and Clinical evidence and from the Government's National Service Frameworks. Therefore, the national level has an impact on the software as well.

CAS also facilitated the use types of managerial control employed in mass model call centres. Thus electronic and remote monitoring of data such as the lengths of calls, types of calls, frequency of calls, abandoned calls during the day, week, month and year were available to management. Nurse Advisors and managers indicated that, according to NHS Direct national standards, a telephone consultation ought to last 8-10 minutes. Many NAs highlighted the fact that there was pressure to follow *both* algorithms and call time protocols:

> You're supposed to work methodically through the Assessment and through the Algorithms, not skipping over anything. You're supposed to read the rationale. That can be quite difficult, because I mean, obviously people work at a different pace, they read at a different pace, and sometimes the rationale is a huge page that comes up with, you know every time the computer screen changes, and you don't necessarily have time.. (Nurse Advisor, NHSD A)

Therefore in some ways the '*call centre model'* comes into NHS Direct. However, this did not translate into performance and production values automatically dominating management discourse to the exclusion of other values. As we have argued elsewhere, safety and service are very strong values, and could be used by NAs at those times when management or the pressures of the 'queue' could threaten to push the values of output and quantity at the expense of quality (Mueller et al. 2008). A NHS Direct manager made this point:

> We do seem to talk a lot about productivity but what we are actually about is delivering a patient service. These are patients; it's not like the rest of call centre industry "try to get as many calls out of it as possible because that's where they make profit". This is actually about patients and that's the message we have to push really hard because I think it's been forgotten. (Manager NHSD Team)

This example highlights how despite nurse's professional values (e.g. taking care of patients) and the NHS guidelines being central values, NAs can, under the pressure of call times and delivery, focus on quantity and not quality. Hence it is sometime 'management' (according the above informant) that have to interject these values. This indicates the ever-present pressures from a wider call centre culture despite the obvious differences in the character of tele-nursing.

Call Handling – Nurses or others?

In contrast to other tele-nurses service such as Canada (Collin-Jacques and Smith, 2005), Australia (Larsen, 2005) and Sweden (Andersson Bäck, 2008), calls in NHS Direct are initially taken by call-handlers who re-direct some to NAs. In 2002 a system of prioritisation of calls has been introduced. This meant that Call Handlers no-longer routed all calls to

nurses, but answered some directly, sent others to Health Information Advisors, and then ranked the seriousness of the call using a simple formula before being allocated to NAs. This was possible in NHS Direct because CHs take the initial calls and not Nurses as was the case in other countries. One Manager from NHSD A said this could be taken further with *call screening*:

> Instead of our Call Handlers just asking a few questions, they'll actually be having to ask several minutes worth of questions, but then, instead of jumping say just to the Nurse, they could send people directly to Accident and Emergency, without even going to the Nurse.... Or it could be looked at in a much wider context, such as calls going directly to GP's, or GP Out-of-Hours Centres. (Manager NHSD A)

Prioritisation and Call Screening are call centre industry strategies for managing call volumes. The same manager raised the issue of replacing nurses with another category of labour during the interview, but rather more cautiously. But while in play this 'discourse of transformation' (converting nurses' labour power along the lines of other workers in the sector) was in competition with operational practicalities of delivering 'safe' advice within a health sector context:

> My view is that, conceptually, it is possible, because a lot of the Algorithms that we're working to at the moment are very scripted, and they don't need a lot of interpretation, but we need a lot more work on that to see how much interpretation is actually going into them by the Nurses, because Nurses can override them at the moment, and clearly if you've got somebody less qualified, you couldn't do that. It has to be very much more rigid in the way those are approached, but those thoughts are going on. (Manager NHSD A)

As we discussed previously, NHS Direct is the leading provider of NHS 111 a new competitive service which provides a mix of clinical assessment and health information. NHS Direct is supervising the pilots of this service which will be implemented nationally in 2013. This new service has been criticised by the press which pointed out: 'the new number is free; it is expected to be far cheaper to run than NHS Direct because it is likely to employ fewer medically trained staff' (www.guardian.co.uk/politics/2010/aug/27/nhs-direct-health-phone-service). This reflects similar patterns of employing sub-professional staff to support the existent professional qualified staff, which already exists the public sector in the UK, such as civil servants and police officers (Fisher, 2004; Bain et al. 2005) and seems to follow the cost minimization strategy of the 'call centre model'.

Telephone advisory nursing in Sweden - Working without technical direction

In Sweden the balance of power between tele-nurses and the technology is different. Tele-nurses are more autonomous than other call centre workers and their English colleagues, but have more responsibilities. They operate software which is not based on algorithms, but guidelines and this influences the whole tele-nurse labour process. They are supposed to get support from the system, which is mainly grounded in medical evidence and research. The practice in the public Swedish TANs (1177) is designed in collaboration with nurses in practice and nursing at Swedish universities with the purpose to follow the nursing process (Wahlberg 2004; Forslund 2007; Holmström 2008). The professional association for tele-nursing in Sweden THRIS (www.thris.nu) has developed a template for competence needed

for working as tele-nurses. Formal training in tele-nursing is offered at the universities and university colleges.

Thus the practice of advisory nursing in Sweden is based on the nurse's skills in asking appropriate questions and encouraging the care-seeker to talk about his/her problems. Nurses have flexibility and autonomy to direct the conversation within the frame of their professional training. The work, i.e. the pattern of questioning, is not standardized, either in the form of prompt or by use of explicit questions. It is, therefore, the responsibility of the nurse to conduct interviews and take the opportunity to gain valuable information about the specific problem, reactions, symptoms and other factors that could influence the nurses intervention, such as a the care-seeker's social and cultural background. [1]

The software used by the tele-nurses is a computerised knowledge infrastructure divided in four main parts following the nursing process: i) anamnesis and/or questions; ii) reason of contact; iii) self-care advice; and iv) assessment, advice and measures. With help from the system the tele-nurses asked questions, made assessments, gave advice and educated as well as referred care-seekers to appropriate care if necessary. For each call the tele-nurses are obliged to fill in a 'patient documentation', i.e. a kind of call record card for each care-seeker.

Tele-nursing is based on clinical consultation and filtered through the nursing practice of the Swedish healthcare in general but also through the particular training, policies and technical requirement. The Swedish system provides automation from the call centre (ACD) technology regarding the order and the pace of the calls, and the tele-nurses have no say in what call to treat next. But tele-nurses can decide the length of a call, which is socially created and a result of working methods and nursing practice. Hence, nurse advisors are not subordinated to designed algorithms which are fragmentising the nursing process.

The work process is in some way standardised through institutional factors, such as the socialisation of Swedish nurses in nursing universities and other places for education, training and formation in practice. In a professional organisation like healthcare acts, rules and regulations have a central role and constitute a mandatory framework for Swedish tele-nursing. Thus, Swedish tele-nurses have more autonomy over their work when compared with English tele-nurses. However, autonomy has its drawbacks as well. As we stated above, CAS represents both a restriction and a protection for NHS Direct NAs. In contrast, the Swedish telephone nurses experience and express professional vulnerability while being more autonomous than nurses in polyclinics (more like district nurses). They take professional responsibility for the decision given and their registration/licence might, until recently, be withdrawn. However, due to changes in the Swedish healthcare system, since the January 1st 2012, healthcare staff are no longer directly personal liable for their decisions, neither physicians nor nurses. Mistakes and acts considered to be reported and investigated at the organisational level.

> To have your professional status questioned…it is very, very frustrating… and not only for the person accused of the mistake but for the whole work group and the entire organisation. You get stigmatised … and then there is the writings in the newspapers…(Nurse advisor TAN West May 2003)

[1] The Swedish situation has parallels be with Canadian practice and experience (Collin-Jacques and Smith 2005, pp.14-16). As in the Canadian case the Swedish system consists of guidelines.

Similar to NHS Direct nurses, Swedish tele-nurses' work is intensified by management's pressure. Although these nurses have much more autonomy, the 'call centre model' is again part of the tele-nursing environment. The control has equally become an internalised control and tele-nurses witness how they check their daily 'production' if they have answered the numbers of call recommended - 6-8 per hour - or if they have to speed up their work rate during last part of the shift, in order to get compliance with call centre statistics:

> You feel the pressure that you shall handle the 6-8 conversations per hour. For many of us, it means that you like to check your statistics in the middle of a shift to know how much you have done that day and if you need to work a bit extra. (Nurse advisor TAN West May 2006)[2]

Participant observation revealed that certain nurses worked very hard in order to follow the pace of the system. The documentation of the caller took a lot of time to conclude. Nurses tried hard to document within the pause between two calls given by the system. While some struggled with time, other tele-nurses showed a more self-confident attitude and if they perceived that they needed a longer pause between two calls they pushed the bottom to hold a conversation and asked the next caller to wait. For them it seemed obvious that they might need more time to be professional:

> Between each call I got there is a time of 3 minutes for me to conclude the care-seekers documentation. Sometimes that time is not enough and you have to ask the following person to wait. I used to ask "would you please be so kind and wait while a finish the previous case." It is important that the documentation is correct, understandable and gives a good representation of the conversation. (Nurse advisor TAN West May 2006)

As we have already highlighted in the paper, the issue of nurses' professional values and providing a 'safe advice' are important issues for NHS Direct and Swedish tele-nurses. However in Swedish TAN it seems that nurses' professionalism is much stronger. Professional values are enhanced mainly by two factors: one, the use of more restricted software and the other a different division of labour within TAN call centres. In contrast to NHS Direct, in Sweden the only group handling the calls are the nurse advisors – there are no call handlers, no health information advisors and no librarians. The hierarchy could be described as flat, especially in the smaller health call centre. The work the roles are not divided. The fact that the nursing occupational group dominate TAN also facilitates informal cooperation and team working:

> Basically, it is individual work. However, the coherence in the group is strong and we often ask each other for advice. It is individual work in a group. (Nurse advisor 1, TAN South, March 2005)

As already pointed out in other papers (Smith et al. 2008; Valsecchi et al. 2012), informal team working and co-operation among tele-nurses was part of NHS Direct call centres as well. Through these spontaneous practices NAs were able to exchange their previous clinical knowledge. However, it seems that team working is more widespread among Swedish tele-nurses; this might be the case that team working itself is widely utilised among other occupational groups and work environment, also in call centres (Lindgren and Sederblad,

2004). Again, specific national institutional features influence the work process of tele-nurses.

CONCLUSION

Returning to our original research questions; namely was work organisation in public sector call centres following a '*dominant recipe*' established in the commercial sector and was tele-nursing following a dominant recipe in the two country cases? The answer to the first question is that call centre practices remain potent models, but professional values and practice in the two countries mean the application of the standard model is mixed. Call screening is used in England, but not Sweden; registered nurses shape practice in both countries in ways that CSRs cannot do as they are detached from reference to occupational or professional values and expertise. In addressing the second question, our comparative results show a variety of institutional differences influencing the tele-nursing profession. While NHS Direct adopted American software already utilised by tele-nurses in Colorado, the paper highlights, that the Clinical Assessment System (CAS) did not provide a *'dominant template'* for tele-nursing profession. The Swedish outline of a national telephone advisory service was strongly inspired by the British development of NHS Direct, gradually taking a similar form. It is true that the software facilitated the use of a call centre mass model, however, as our interviewees pointed out, NHS Direct nurse advisors and registered nurses in Sweden were still able to use their clinical knowledge and previous clinical experience, and could resist the 'rigidity' of the software.

Moreover, the software cannot be perceived as a 'global recipe' since we were unable to find other countries, apart from the UK and the USA, which share the same technological supporting tool. But even with this shared decision support software, there is no automatic commonality in the operation of the system. National difference persist (e.g. the introduction of new algorithms in CAS which reflect the NHS agenda and the different ways of deploy the systems by NAs). It appears that national institutional rules (societal effects) over-ride any sign of a dominant best practice emerging from call centre practice. These differences reflect the professionalised nature of tele-nursing in Sweden (with a separate professional body for tele-nurses) compared with the more fragmented nursing practice in the UK. The greater work autonomy in Sweden, with tele-nurses free to give advice unscripted, contrasts with the more hierarchical pattern in the UK. However these contrasting points remain in flux. For instance, recent initiatives in Sweden, such as the adoption of a unique software in several TANs, support a 'centralisation tendency', which is similar to the one adopted by NHS Direct. An important point that the two countries shares, is the focus on *safety* (within NHS Direct through the software and in TAN via nurses' personal responsibility) and *target orientation* (call times look about the same in the two countries). In both cases these two aspects seemed to contradict and complement each other and hence remain points of conflict and contradiction.

The country comparison highlights the fact that tele-nursing is new and evolving; hence there is no settled model of work organisation or service delivery in *either* Sweden or the UK. The early pattern in the UK was for competing clinical support software between different NHS Direct sites, with the service eventually adopting a common software across all sites and between NHS Direct and NHS24 (the Scottish service). In Sweden, there has also been software diversity, as well as geographical and public-private differentiation, which has been eliminated over time, but we have seen that the State has been promoting a national standard, and encouraging participation in one software system. We might predict that convergence is

more likely than divergence as the systems settle down, and therefore a national market for international medical decision making software might open up. This would require the privatisation or outsourcing of the services – something evident in other public call centres in the UK as noted above, but as yet NHS Direct remains a public service. In renewed pressures on public finances, the neo-liberal ideology of choice that facilitated the introduction of the services in both countries, might give rise to a drive for cost efficiencies in the new austerity in Europe and mean the services are used more intensely to save money. In the Swedish context the existence of several private companies alongside public actors who are servicing about 1/3 of the Swedish population complicates the picture, but there is no reason to assume that the UK is not immune to privatisation as the service peels away from administrative controls within the NHS.

Our study has contributed to the debate on whether or not call centres for public services are qualitatively different from those for the private sector. Glucksmann (2004) has claimed that there is a *fundamental differentiation* between commercial, for-profit call centre spaces and non-traded transactions within state, charitable and non-profit organisations non-economic spaces. Fisher (2004) has also noted that public sector call centres have more complex tasks and tend to use labour that has not been transformed and replaced by more routine and new specialist CSRs. Against Glucksmann's position, Bain, Taylor and Dutton (2005) in a study of police control room staff have noted the lack of clear differentiation between the two sectors, and that some public emergency helplines have long been outsourced to private operators and that commercial pressures in the form of performance outcomes or 'budgetary constraints' are evident in public sector call centres and act as functional equivalents to economic, commercial pressures.

Our research has shown that while tele-nurses in Sweden and the UK are pressurised and paced by the force of 'calls waiting', and the automatic software system (as is the case with workers in other call centre environments), a number of factors militate against extreme work intensification.

Firstly, nurses remain qualified and require several years practical nursing before practicing as 'tele-nurses', therefore, up to now there has not been deskilling or labour substitution]. Although the future trends in these two countries seems to be different. While the NHS seems to embrace the idea of replacing NHS Direct with the new competitive service NHS 111, in Sweden tele-nurses will have to gain specific qualification for executing telephone advisory service. Hereby the service could instead be considered as up-skilling for nurses (TRIHS, 2010).

Secondly, the overall concern for clinical safety forms the culture of both services as a core of quality and work value The health call centres are designed to create security and trust for the citizens. As a visual tool for bringing legitimacy to the decision-makers the standard is of major concern.

Thirdly, the autonomy of the nurse as an *expert worker* and the integrity of the nurse-caller/patient interaction mean management control remains difficult. The tele-nurses are in charge of the patient encounter on the line. Although work standardization, intensification and stress, the essential elements of communications, exchanges of experiences and conceptions cannot be rationalised as it is a matter of human being.

Fourthly, the structuring of the division of labour between the call handler who receives and prioritises calls, and the NAs is different from standard call centre practice. Nurses are 'streamed calls' through a social division of labour and not through a technical, automatic process, as is the case in commercial call centres. In Sweden tele-nurses handle call directly, build on a belief that a professional is required to sort the information for the advice. Consequently Swedish tele-nurses have more autonomy in the process. In the UK, there is hierarchy of NAs, Call Handlers and Health Information Advisors, with this more fragmented pattern fitting the dominant tendency in general modernisation agenda of public service which has been for 'less qualified employees design[ated] to support professional groups' such as community-support officers in the police service, teaching assistants and a variety of assistant roles established in health and social care (Bach, Kessler and Heron, 2006, p. 2). This path is supported by the potential implementation of NHS 111. A new competitive service based on staff with mixed medical/non-medical skills, currently under the supervision of NHS Direct. So although NHS 111 to some extent involves a process of deskilling, it must still follow the direction of NHS. In both countries, there is therefore more space for negotiation around work balancing and scheduling compared with commercial call centres.

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Figure 1 –Tele-nurses in the UK and Sweden, points of difference and overlap

Call centre system effects	**Societal effects England**	**Societal effects Sweden**
Call centre technology (ACD)	Yes	Yes
Call screening	Yes	No
Switchboard operatives, receive calls, answer questions	Call handler	Registered Nurses
Who Answers health questions	Health Information Advisors & Registered nurses	Registered nurses
Decision support software	Yes, with "scripts"	Yes, "open" system
Employees move between face-to-face and call centre encounter	Yes – but this is changing	No, Tele-nursing is a semi-settled 'professional role'
Responsibility	Organisation	Professional
Liability	System, expert advise	Nurses profession and physicians' support, now organizational liability
Call handling	Calls are continuously streamed	Calls are streamed, but a 'quota' of calls is expected
Work Organisation	Hierarchy, individual work	Team work
Hierarchical Management	Managerial control	Semi-autonomous teams
Industrial relations	Management and professional organisations, unions	Management and prof/union organisations
Ownership	National system: The state	Regional system and private companies