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Telehealth in community nursing: a negotiated order

1. Introduction

Currently there is a policy drive to use telehealth and other remote care technologies to address the increasing demand for long term health care in the United Kingdom (UK) (Department of Health 2012a). However, adoption has been slow and nurses are uncertain about how to use telehealth in providing holistic healthcare for patients (Broderick and Lindeman 2013; Greenhalgh et al. 2012). There is particular concern about how to balance the remote monitoring of a patient's vital signs with face-to-face patient care. In this paper we show that to overcome these concerns, nurses create a negotiated order from telehealth monitoring and home based care to ensure that patients feel supported and that any risks of using telehealth are managed. The study found key areas of negotiation in the use of telehealth, which are: 'supported care interdependencies', 'nursing-patient relationships', and 'risk management'. The study found that these negotiations are achieved through the relational, communicational and collaborative ethos of nursing practice. We argue that community nurses create a telehealth negotiated order crafted out of nursing practice and telehealth services and this resulting 'give and take' ensures that telehealth is used in a way that supports patient care. Our argument is based on research from a three-and-a-half year project called 'xxxxx xxx xxxxx' (xxxx) (http://project website) [endnote gives project reference number] (Economic and Social Research Council (ESRC) and Technology Strategy Board [now Innovate UK]) that sought to understand the adoption and use of telehealth in community settings (Author A et al. 2014; Author B et al. 2015a; 2015b).

2. Context of telehealth in community nursing

The use of telehealth by the NHS (National Health Service) is based on assumptions that it will support efficient and effective delivery of care and that it can promote greater self-management of chronic conditions (Department of Health 2012a). Definitions of telehealth vary, but it broadly refers to the remote exchange of data between patients and

healthcare professionals for monitoring patients with chronic health conditions (Sanders et al. 2012). In technical terms, it involves the use of specialist units or mobile applications in the home that measure and monitor temperature, blood pressure and other vital signs and symptoms. These are sent for clinical review to a health centre location using broadband technology.

Part of the rationale for investing in telehealth is the push by the Department of Health (UK) to make services more efficient and reduce the costs of services (Department of Health 2012b). However, from a nursing perspective telehealth, like other new healthcare innovations, should be used to benefit patients as well as support nurses to manage their workloads (Author B et al. 2015a). The challenge for nurses is to find ways to fit telehealth into their working practices as well as understanding how patients interact with, and potentially benefit from, telehealth. This process of learning generates unknown factors that may introduce new risks in delivering healthcare. This means that nurses are negotiating the use of telehealth and are adapting nursing practices in community healthcare. To summarise, telehealth is being negotiated in the nursing role within a context of balancing efficient health care provision with delivering personal home-based care (Heath 1998; Alaszewski 2006).

3. 'XXX' project and methodology

The 'XXX' project sought to understand the processes of embedding telehealth in community healthcare. More published details of the methods are in Author B et al. 2015a. The project undertook research in four community healthcare areas in England that were using telehealth to monitor patients living at home. As part of this study, the research team conducted qualitative interviews with 157 research participants, which included 67 nurses and 40 patients (Author B et al. 2015a). The sample of nurses included 49 advanced community nursing staff (e.g. community matrons, specialist nurses and case managers), nine other qualified nursing staff (e.g. district, cardiac or telehealth nurses), and nine clinical nursing leads and nursing service managers. The sample of nurses was predominantly female, with only three male nurse participants in the study, and their experience varied from 5 months to 10 years in their current position. The sample of patients included 21 men and 19 women with long-term health conditions

(Chronic Obstructive Pulmonary Disease and Chronic Heart Failure) who were using telehealth and living in their own homes. All interviews were transcribed verbatim for the analysis process that involved simultaneous data collection and analysis in the creation of analytical codes and categories. The data informed the development of a middle-range analysis of the perceptions, actions and processes of nurses in negotiating telehealth. This level of analysis was developed through memo-making and theoretical sampling in order to identify the areas of negotiation and the characteristics of nurses' negotiation of telehealth.

The data analysis showed that although the level of acceptance of telehealth and extent of use in clinical practice varied within and between teams and different NHS centres, common areas of negotiation could be identified through nurses' concerns about using telehealth, their reflections on their practices of using telehealth, and the ways they developed strategies to work with telehealth. The identification of these areas of negotiation and a subsequent negotiated telehealth order is, therefore, at the level of verbalised concerns, working practices and adaptations of working practice. An added dimension to this is the nurses' reflections on their adaptations – in Corbin and Strauss' (2008) words – their negotiations – of making telehealth work in their own context. The project's rich dataset meant that we could identify areas of negotiation through a range of concerns, working practices and adaptations of working practices, as well as reflections on each of these.

A UK National Research Ethics Committee granted ethical approval for the research. Local NHS governance offices granted access to each of the four research sites. All participants gave informed consent prior to interview.

4. The use of negotiated order to research telehealth

The uncertainty about telehealth means that nurses have to find suitable ways to use it in their nursing practice. They find out how best to use it through negotiation amongst each other, carers and patients (see Table One). The way they negotiate with each other to accomplish care tasks is the basis of a 'negotiated order' of telehealth. The original

concept of negotiated order (Strauss et al. 1963; Strauss 1978; Strauss et al. 1997) remains relevant in examining the patterning of negotiations between social actors in organisations, occupations and professions often in contexts where actors experience ambiguity or uncertainty. This can involve different definitions of organisational routines or different approaches to problems (Copp 2005): contemporary examples include the negotiation of healthcare roles in acute-care discharge planning (Goldman et al. 2016), and how medical-nursing boundaries are negotiated (Liberati, 2017). This paper focuses on negotiations that have a health technology aspect in delivering community care, which brings a technology dimension into healthcare negotiations. However, whatever the particular negotiation, it involves tension between actors, a conscious difference of opinion and some 'give and take' in the interactions of negotiation (Maines and Charlton 1985).

Negotiations are specific and sited within particular contexts (Strauss 1978) and in telehealth, the trigger for negotiated activity is the ambiguity about the best ways to use telehealth in community care and uncertainty about its value in providing holistic healthcare. Negotiated order institutional relationships (Strauss et al. 1963) and it is through negotiation that new practices and new organisational processes emerge. The organisational procedures for using telehealth are not well defined, which means that nurses are finding ways to use telehealth in an ambiguous and uncertain context. Given that negotiation is a patterned activity that follows existing lines of communication and practice (Strauss 1987), negotiating telehealth occurs within the communication and work practices of nursing and their concerns about patient care. Patient care is known to be a key factor in negotiating the way healthcare is delivered (Nugus et al. 2010) and it features in the way technology is negotiated as well as other types of nursing practice.

Negotiation is a temporal process and a recurring feature in how social order changes (Strauss 1978). This means that organisational work interacts and responds by adapting its processes in light of changes in a social order. The temporal aspect in the negotiation of telehealth is the process of moving from nursing based on home visits to nursing shaped by the remote monitoring of data in selecting and planning home visits. Over time, these practice-based changes become part of making sense of change and understanding what it might mean for the order of community nursing. This means that some of the

characteristics of change are also exhibited in a social actor's (in this case nurses) reflexive, dialectic and temporal engagement in a process of negotiation, which is seen in how actors find ways to deal with ambiguity or uncertainty.

Research that uses the concept of negotiated order focuses on order and change as being reflexive, dialectic and temporal (Maines and Charlton 1985). This focus relates specifically to the concept of 'processual ordering' (Strauss 1993), which states that order is malleable and that engaging with this malleability through interaction is a creative process. Strauss writes that:

> *… the lack of fixity of social order, its temporal, mobile and unstable character, and the flexibility of interactants faced with the need to act through interactional processes in specific localized situations where although rules and regulations exist these are not necessarily prescriptive nor peremptorily constraining* (Strauss 1993, p. 255).

This does not mean, however, that order is indefinitely negotiable or that there are no limiting factors in negotiation settings (Benson 1978; Day and Day 1977), rather as Strauss (1978) acknowledges:

> *… not everything is either equally negotiable or—at any given time or period of time—negotiable at all. One of the researcher's main tasks, as it is that of the negotiating parties themselves, is to discover just what is negotiable at any given time* (Strauss 1978, p. 252).

This means that, within specific contexts and at particular times, there may be aspects of the social order that are negotiable, and others that are not but which may become negotiable as actors respond to, and negotiate with, the new social order.

The 'XXX' project uses the concept of 'negotiated order' to address the way in which telehealth is interpreted and used by nurses. The openness of the concept, and its sensitivity to tensions and struggles in organisational and social order, means that it can identify how uncertainties about the use of telehealth are handled, and negotiated.

Research on telehealth to date has not explored how the nurses handle the uncertainty about using telehealth, tending to focus instead on the factors affecting implementation at a broader level (Author B et al. 2015a). Although there are criticisms about the looseness of the concept of negotiated order (Nadia and Maeder 2008), it is also a key strength for the 'XXX' project because it allows research to identify and understand the negotiations that shape the use of telehealth. Insights created by this approach can therefore increase knowledge about the low and uncertain take up of telehealth and identify what support is needed in developing an appropriate use of telehealth in the context of community nursing.

To summarise the project's overall schematic is that it aligns core concepts of negotiation with the context of telehealth as shown in the table below.

Concept of negotiated order	**Situation of concept in telehealth**
There is tension between actors	Tension between policy makers' visions of telehealth and the ways nurses seek to balance face-to-face home based care with remote telehealth based monitoring.
There is conscious difference of opinion or interest between actors in the negotiation	The concerns that nurses have in negotiating the remote monitoring of patients via telehealth (driven by health policy agendas) with person centered and holistic nursing care. How to balance the nurse-patient relationship with remote monitoring of patient data.
There is 'give and take' in the interactions of the negotiation	Seen in the nurses' practices and the adaptations of their practices in working out how to use telehealth in community healthcare.

The interactions and actions are reflective, dialogic and reflexive.	Professional nursing practice is reflective, dialogic and reflexive, seen in reflections and discussions about practices, nursing values and use of telehealth, which is reflexively fed into developing practices to address concerns about patient care.

Table One: Alignment of main concepts of negotiated order with the context of telehealth

The above alignments involve taking into account the characteristics of nurses' professional education, an education that involves knowledge of health and social care and the communicational and relational aspects of nursing practice (Stoddart 2012). In undertaking their duties in the community, nurses negotiate telehealth in relation to their patients' daily experiences. This means that nurses also have to negotiate ways to make telehealth 'liveable' in their patients' everyday lives, as well as in their own nursing practices (Back 2015). In the negotiation of telehealth, nurses and patients work to make something that is initially perceived as being 'extraordinary' into ordinary routines of their everyday (Robinson 2015). Although digital technology, such as the mobile phone, is now very much part of everyday life (Author A 2009, 2013), technology based services such as telehealth go beyond non-specialised use of digital technology because of its specialised healthcare function. Telehealth is new and, in that sense, is extraordinary in patients' everyday lives and nurses' working practices, which creates ambiguity and uncertainty about it. This sense of the extraordinary can also generate feelings of risk in relation to the introduction of new technology and its related practices (Lash 2000).

The agency of users, whether nurses, patients or carers, is important in shaping the ways in which new technology can be negotiated and adapted for use in domestic and organisational settings (Author A 2013). In the context of telehealth, nurses have to find out how to adapt the technology into their daily work routines, while patients undertake a similar process to domesticate the technology into their home lives (Author A 2013). Part of that adaptation involves creating new routines and managing risks that emerge

from changes in working practice. In telehealth, risk is culturally perceived and handled through the ongoing practice of nursing. Risk is also multi-dimensional and influenced by identity formation – in this case nurses – which in turn, shapes the risk that is perceived (Tulloch and Lupton 2003). The education and socialisation of nurses involves knowing how to manage risk and their practices are informed by the need to ensure patient safety – which, for nurses, is synonymous with person-centred and holistic care. The management of risk is part of the negotiation of telehealth.

It is through nurses' practices that technologies such as telehealth become fitted into everyday healthcare routines. 'Practices' are 'embodied, materially mediated arrays of human activity centrally organized around shared practical understanding' (Schatzki 2001: 11). In community nursing these practices are centred on the delivery of individual patient care in home settings. Nurses work with carers and families to support patients to live at home. The emotional labour of nursing is important and well documented (Hochschild 2012) as is the relationship building and communication skills of nurses (Stoddart 2012), and these are both central in the role of community nursing, generating a common base for negotiating telehealth. These aspects of nursing feature in the ways in which negotiations are practiced because negotiation involves nurses drawing on their skills and interpretations to structure and coordinate any negotiation. Thus practices and negotiation are interlinked and shared amongst actors in the process of negotiation, albeit leading to different levels of technology acceptance and utilisation in clinical practice.

Therefore, interactions, skills and interpretations shape orders and are themselves ordered via the features of practice (Schatzki 2001). Interactions and practices vary in negotiated action and in strategies of negotiated action, but require some degree of consensus that acts as a base for negotiation, along with a level of exchange (which varies in terms of frequency, intensity and duration) (Maines and Charlton 1985). We argue that the negotiation of telehealth in patients' everyday lives is shaped through the relational, communicational, emotional and collaborative attributes of nursing practices. Furthermore, these negotiations take place in the interactions between nurses, patients and carers. In the following sections, we discuss the key characteristics and contexts of the ways in which nurses negotiate the use of telehealth that are evidenced in the

patterned routines that they develop through their negotiations. The patterned routines are evidenced at various levels, which are:

- How nurses reflect on health policy in interpreting the use of telehealth and in so doing create supportive care interdependencies.
- How nurses negotiate telehealth and community care through their relationships with patients.
- How nurses manage risk when using telehealth.

The patterned routines of negotiations are achieved through the interaction of the three points above. These are not mutually exclusive, so reflections about meeting levels of patient demand interact with community care practices of nursing teams, time management, relations with patients and carers, and managing risk. These are discussed in Section 5 below.

5. Findings

5.1. Supported care interdependencies: negotiating patient independence and telehealth

At the policy level, telehealth is seen as a tool for providing healthcare for an ageing population in which chronic conditions such as diabetes, chronic obstructive pulmonary disease and chronic heart failure are common (Department of Health 2012a). In the UK, ageing is often seen in terms of a loss of independence (Weicht 2010). This, however, is contested because ageing is malleable, is experienced in different ways and is not necessarily restrictive (Walker 2012). This can be seen in the way that older people with chronic health conditions develop a range of strategies to manage their everyday lives (Author C 2016). This variation suggests that a person-centred approach is helpful in finding the best care for those with common age-related conditions (Taylor and Bury 2007). In this context, health care policy sees telehealth as part of a strategy to support people to lead active and independent lives (Car et al. 2012).

However, nurses in this study highlighted an ambiguity about the ways in which delivering care remotely can support independent ageing. The ambiguity arises because

on the one hand patients want to see nurses while on the other hand patients recognise that telehealth does monitor their condition. The negotiation of this ambiguity is seen in how community nurses seek to support patients to manage their own health whilst also providing social interaction for patients. Many study participants explained that regular home visits provide the social and health support patients need as well as enabling patients to have a sense of independence. Although in technical terms, telehealth might seem to support more patient independence because patients do not have to rely on nurses, participants nonetheless provided many examples of patients using telehealth who still wanted them to visit:

> 'They [patients] would probably be scared that you weren't coming to see them as often as you were. A lot of them just like that face-to-face contact… They are only seeing you once a week and nobody else, so I think it would put them off having a machine instead'. [Case Manager 13, Site D]

Ambiguity arises because although patients are concerned about not seeing a nurse, they also point out that telehealth gives them a sense of security, as one patient commented: 'because I know there's a regular check being made on me whatever' [Mr Kelly, Site C]. The ambiguity about balancing face-to-face care and remote monitoring of patient data is managed by ensuring that senses of security are embedded in a supportive care network that provides face-to-face interactions as well as patient data. This is done in two ways: (a) through organising nursing cover across the team and (b) creating a care network with carers.

To address this ambiguity nurses negotiate cover within the patterned activity of the nursing team. For example, one community matron explained, telehealth is: 'a tool… but you need all the other team work … [so] that the patient stays at home' [Community Matron 2, Site B]. Another community matron supported this and explained that the level of cover they have to negotiate within their teams is a key area of change prompted by the provision of telehealth:

> 'We do a lot of cover. So if we were covering someone else I might… look at what someone else's patients' usual readings are by looking at telehealth and that

> might help give some background information because often when we are covering we don't know the patients very well.' [Community Matron 7, Site A]

Another aspect in managing telehealth is in the ways that nurses include carers into a network of care made up from nurses, telehealth and carers. As one of the participants argued: 'You can show the carer or family how to use the machines to monitor and they can let you know because that's a really important source of care input is the family' [Community Matron 5, Site B]. Support from carers indicates that telehealth needs a carer network as well as a nursing network in the delivery of healthcare and demonstrates the importance of knowing the patient and his or her social relationships to understand how they might interact with telehealth. For example, part of the negotiation is that: 'you have got to get to know a patient a little bit more and the sort of dynamics within the family' [Community Matron 11, Site B].

In this study, the creation of these networks facilitated nurses confidence that the technology fosters interdependencies amongst nurses, patients, carers and telehealth, rather than leading to a reduced sense of technically supported independence where patients are not fully supported. This sentiment was well articulated by one nurse:

> 'In a way they're not actually self-managing by having the telehealth because somebody is advising them… they might alert us to symptoms and… somebody will phone them and advise them'. [Community Matron 5, Site C]

So, although telehealth seeks to promote independence, in practice it is based on a wider patient centred care network of nursing teams (in which nurses cover for each other) and carers. The result of this negotiated order of care means that the use of telehealth by patients within the network creates a form of interdependency rather than acting as a 'stand alone' tool for independent living.

There is a strong emphasis on collaboration between nurses, as well as collaboration between nurses and carers, in ensuring that telehealth supports notions of patient independence. This sense of independence is based on an interdependency that is crafted out of collaboration and communication. Although telehealth is used to promote

independence, it can only do so through being part of a wider interdependent care network. It is this interdependent care network that enables self-management (López and Domènech 2008). This supports Weicht's (2010) argument that the notion of independence needs to be reconsidered in terms of how care might be provided in a more relational way. What we see in the negotiation between nursing practice and policy foci about independence is forms of 'give and take' by nurses in providing nursing cover and care networks. The negotiation work done to achieve a telehealth care network is relational and is shaped by the nursing skills of collaboration and communication. A relational and collaborative approach manages the ambiguity between levels of face-to-face care and the remote monitoring of data in telehealth supported nursing. In so doing the negotiation of telehealth fosters supportive interdependent care.

5.2. Nursing work and telehealth: nursing – patient relationships

In community nursing the patient-nurse relationship is important because it is the base for providing person centred holistic care. As such, a key theme within the data reflected nursing concern about how the use of telehealth may affect their relationships with patients. This concern emerges in terms of (a) caseload management and (b) ensuring that appropriate levels of home visits are maintained.

One aspect of negotiating telehealth relates to how to manage high caseloads whilst ensuring that the social and emotional needs of patients are met as well as their clinical needs. Almost universally, nurses in this study expressed their concerns that they do not have the time to see patients as much as they would like: 'I would love to go and see everyone every day and manage them and sort them out and it's just not possible' [Community Matron 12, Site B]. However, the relationship is not linear and there was uncertainty amongst nurses in this study about the benefits of telehealth in balancing clinical priorities with not being able to see patients regularly because although: ' [telehealth] helps us to keep an eye on them' [Specialist Nurse 11, Site A] it also makes 'more work because she [my patient] has alerted again and I know she is fine but I have to go and make sure she really is fine' [Case Manager 10, Site D]. This is also reflected in balancing reactive work patterns generated by telehealth and the preferred proactive method of working. For instance, a community matron reported: 'The only friction can be

when I've got more patients on telehealth – if they all alerted then all of a sudden the planned work I'd got that day would have to be changed' [Community Matron 20, Site D]. Similarly, a specialist nurse pointed out that: 'because we work in this proactive way and not a reactive way I've not got the capacity to drop everything and go running out there to check a patient's levels to make sure they are right' [Specialist Nurse 16, Site A]. These types of issues create uncertainty about telehealth because it can make managing caseloads in the routines in community healthcare difficult, which in turn affects the way they manage home visits in building relationships with patients.

In negotiating telehealth, the emotional aspects of how patients feel about using telehealth were a key consideration, such as the impact on patients of having reduced nursing contact: 'there is something about me knowing the patients, or me being the person they contact if they have got a problem and that relationship that we have' [Community Matron 12, Site B]. This negotiation extends into a tension between the ongoing monitoring of vital signs in a patient's everyday life and encouraging patients to lead active lives: 'I'm trying to teach patients to live their life and get out there and enjoy themselves. I don't want them tied to a piece of machinery, frightening them to death every day, reminding them of their illness' [Specialist Nurse 14, Site A].

Further, many nurse participants were concerned that telehealth may depersonalise patient care and believe that telehealth, in normative and practical terms, should not replace face-to-face care, and this acted as a clear barrier to acceptance and use in clinical practice. The need to reassure patients that they will still see their nurse when using telehealth was evident, to demonstrate that patients need to 'have the reassurance that you're still going to go. And that you're still supporting them' [Case Manager 14, Site D]. These negotiations become even more sensitive with patients who have been suffering with their long-term health condition for a number of years:

> 'It's very hard to do that with patients who are further down the road of their illness and are already at quite a dependent stage and had already got quite used to frequent visits from a person rather than a piece of machinery'. [Case Manager 18, site D]

In trying to balance face-to-face care with telehealth, we observed how community nurses would adapt to the needs of each patient in holistic terms: they negotiate the delivery of clinical care with a patient's social and emotional needs in deciding whether telehealth is suitable for a patient (see section 5.1).

Patients also negotiate this balance between telehealth and nursing care when reflecting on their use of telehealth, with many patients stressing the importance of personal visits from their nurse:

> 'Well I don't think it's better than face-to-face care; that takes some beating, doesn't it. This is just a check isn't it to make sure you're not getting too far off… You can talk to them [nurses] but you can't talk to a machine.' [Mr Williams, Site A]

Even though telehealth can give patients a sense of security and feelings of independence, another patient highlighted that nonetheless telehealth is: 'a machine. I must be honest I do like personal care you know what I mean, but don't get me wrong for what it is it's fantastic but I do like a body as well' [Mr Matthews, Site A].

As noted above, one of the challenges for nurses in a new negotiated order that balances telehealth with nursing care is finding ways to manage time constraints so that they can offer emotional support to patients. Given this, nurses take a pragmatic negotiated 'give and take' approach to visiting patients, so that they are able to provide personal care for those in most need and use remote monitoring for those who need less care, which can be summed up as:

> 'I can give them [patient] a quick phone call to make sure everything's alright, so in that respect I could probably increase my caseload, you know and be able to be a lot more hands off to patients who are stable and [be] available to the ones who aren't stable'. [Community Matron 9, Site A]

The emotional labour of nursing (Gray 2010; Hochschild 2012) is therefore being shaped through the way visits are allocated in relation to personal care needs as well as

telehealth monitoring and data. Although nurses are uncertain about the use of telehealth, they actively reassure patients that they are being cared for and negotiate their use of time to retain personal contact with patients. In this study, we observed how community nurses were practicing an individualised and professional approach in managing the social and emotional needs of patients – something that is 'part of the everyday working life of health organisations' (Gray 2010: 349). Nurses negotiate telehealth to help them allocate patient visits for those in most need of personal care whilst using telehealth for those who can manage with remote monitoring and telephone support. The use of telehealth is therefore a new feature in the distribution and negotiation of emotional support in patients' everyday lives. There is, however, a shared consensus that forms the basis of the way telehealth is negotiated, which is that personal contact with patients is important because it forms the basis for their clinical, social and emotional care.

5.3. Negotiating risk in telehealth

Healthcare routinely addresses risk (Goffman 1961) and there is a strong institutional framework in constructing and managing risk in healthcare (Alaszewski et al. 1998). The context of community nurses working in patients' homes shaped their sense of risk and they developed their own routines as a 'street-level bureaucracy' that served to 'control clients and reduce the consequences of uncertainty' (Lipsky 1980: 86). Community nurses and nursing teams manage risk by having regular contact with patients at home, which involves checking their symptoms and home environment as well as ensuring that they have support from carers and family.

The introduction of telehealth alters established routines in managing risk, and nurses are instead expected to make decisions about how to manage a patient's care using telehealth data supplemented with phone calls and less frequent visits. The importance of still being able to respond to patients in person, however, remains important in managing risk in telehealth supported community healthcare. This was described in the following ways:

> ‘Sometimes when you do get these little blips in the telehealth… you know when you do get these abnormal [readings] and just for my own reassurance I will say ‘oh I think I will come and see you just to be sure’. [Specialist Nurse 11, Site A]

> ‘You may miss out on a few things, obviously you can’t speak to the patient and if, when you’re visiting them you sort of can pick up on other problems that you may not be able to notice over the phone’. [District Nurse 3, Site A]

These observations show how nurses use their intuition and professional knowledge to be alert to any signs of patient risk. When there are indications of concern about a patient, community nurses would undertake a home visit to see the patient. They therefore negotiate the safety of the patient through home visits that enable them to check patients more fully as well as checking telehealth data.

Nurses also argue that they routinely manage risk in prescribing telehealth because there are no formal guidelines in place to support decisions about who to prescribe it to and for what conditions (Author B et al. 2015b). This meant that nurses had to use their own experience to inform decision-making in this area. In the prescribing process, nurses negotiate commonly held ideas that older people are not necessarily comfortable with digital technology: ‘There is a lot of older people who don’t embrace technology … they don’t know how to use it and find it quite scary’ [Specialist Nurse 1, Site B]. Although it was recognised that patients do not have to be computer literate to use telehealth, nurses are still careful with prescribing: ‘Some of these people are in their eighties and nineties and they’re not, they don’t have a mobile phone, they’re not in any way computer literate [and] they don’t want [to be]’ [Community Matron 6, Site C]. However, there is ambiguity about this commonsense approach, because nurses found that their assumptions about older people’s ability to use telehealth needed to be re-negotiated, for instance:

> ‘Some of the patients that I have put on – I didn’t think they would take to this at all and they have. So I don’t think we should be judgemental about technology because even some of the very elderly patients who I have put on it have really taken to it well’. [Community Matron 9, Site D]

This is also reflected in the ways in which patients talked about telehealth, for example one patient explained: 'Well I'm computer literate you see, so I know how to reboot it and that when it goes down' [Mrs Dalton, Site B]. Another patient reported that she was comfortable with technology, saying: 'I'm quite up to scratch with it all… it's second nature now… Technology doesn't worry me at all' [Mrs Brown, Site A]. Given that some patients are content using telehealth challenges nurses' perceptions about older people's ability to use technology, this however means, that nurses need to be able to assess who is happy using technology and capable of handling telehealth.

As previously discussed, having a trusted relationship with a patient helps community nurses to assess who is capable of using telehealth:

> 'It's just knowing the patient really. It's a difficult one, I mean there are a lot of ones where you will introduce it, and they will say "no I won't be able to do that because it's too complicated". But usually they can and they do usually feel quite good once they are able to do it'. [Community Matron 13, Site B]

Having a trusted relationship also enabled community nurses to help patients overcome fears about using telehealth, or fears that they will lose contact with their nurses. However, the ability to use telehealth, and to feel comfortable with it, varied amongst patients (and nurses), and many participants in this study gave examples of patients who had refused to use telehealth, or had it removed after a short period of use.

A key factor in negotiating the possible benefits and risks of telehealth usage stems from the lack of formal published evidence about its impact on patient self-management and emotional wellbeing. Many nurses used their own experience to negotiate this because of a lack of prescription criteria and the variability in the way in which patients 'take to' telehealth: 'some people it has helped and others it kind of is an extra anxiety for them' [Community Matron 10, Site A]. Again, the importance of knowing the patients to help manage this was emphasised, for example, this community matron said:

> 'I think it's very, very, important that you know the patient before you decide to go with it because I've certainly got other patients where other people have

suggested the person would benefit and I know it would actually be the worst thing you could do'. [Community Matron 8, Site A]

Nurses explained that they 'haven't quite figured out how you can always differentiate' [Community Matron 10, Site A] and were reflexive about whom to prescribe to, and how best to identify appropriate patients. They reported that getting to know patients and talking with them helped in deciding whom to prescribe to. This negotiation is creating practice level understanding about prescribing telehealth (also see Author B et al. 2015a).

To manage these risks, nurses adopt a 'give and take' approach as they negotiate telehealth into nursing practice, including checking up on patients regularly to ensure that important details that are not captured by telehealth can still inform patient care. There is uncertainty amongst community nurses that they might not know patients well enough to prescribe telehealth and that patients will miss the face-to-face interaction with a nurse. Ongoing negotiations about how to balance face-to-face nursing care and telehealth continue because of the shared opinion that telehealth is not a complete picture of a complex patient. Although nurses think that the use of telehealth can support the monitoring of patients' data and help them to prioritise visits (c.f. 5.2 above), they nonetheless feel that patients' wellbeing may be at risk if telehealth is not used within a strong nursing team and carer support network.

6. Conclusion: negotiating the community nursing and telehealth order

Nursing and telehealth is negotiated through the organisation of community healthcare for patients with chronic conditions. By extending the focus of negotiated order to include technology, the study argues that the negotiated order of community nursing and telehealth involves creating supportive care interdependencies. These involve nurses, patients, and carers. Community nurses are negotiating how to balance the use of remotely provided data with home visits within nursing routines, which also includes finding ways to minimise the risks of using telehealth. This is being done through the following patterned negotiations: (a) high levels of cover in nursing teams; (b) nursing

and carer support networks; (c) reflexive management of risk achieved by working closely with patients; and (d) maintaining good nurse-patient relationships.

In these patterns of negotiation, nurses creatively interact with the demands of telehealth by developing carer networks, working with patients in decision making about prescribing telehealth, and organising time and cover within nursing routines. Here, telehealth features in the allocation of 'nursing care', in that nurses use it to negotiate whom to visit and when, in addition to clinical monitoring with telehealth. In particular, nurses are experiencing tensions between proactive and reactive approaches in providing care that involve balancing the emotional and clinical aspects of nursing. They therefore negotiate their routines to find time for those patients in most need of home visits. Nurses also manage the risks of using telehealth by following up any 'blips' in remote patient data, through collaborative teamwork and knowing their patients well.

The way that nurses are gaining experience and understanding of telehealth is through the way they reflect on their practice and experience, which is reflexively fed back into developing their knowledge and practice of using telehealth. This involves ensuring their role interacts within the care networks that support telehealth. There is also negotiation about what independence for older people means by resolving tensions between policy drivers to use telehealth to promote independence and the need in practice to develop supportive interdependent care networks. Nurses find that the notion of interdependence is helpful because it helps ensure that patients feel supported in using telehealth and that they know that they will still have nurse support and interaction.

The negotiation of telehealth is embedded in the tensions, conscious differences of opinions and 'give and take' of fitting it into community nursing practices. The strategies that nurses use to negotiate telehealth draws on their communication and relational skills. Relationships with patients are a central feature of the negotiation of telehealth. This is seen in the ways that nurses draw on their personal knowledge of patients in deciding who to prescribe telehealth to and when to use home visits to check on concerns about telehealth data. The emotional labour of nursing means that nurses are mindful of patients' social and emotional needs and these are supported by the relationship between patients and nurses. This concern and the ones discussed above show that the negotiated

order of telehealth in community care is based on a consensus of person-centred holistic care. From the consensus, the ambiguities and uncertainties of telehealth are negotiated through the collaboration, communication and relational skills and ethos of nursing.

Given that the use of telehealth in community services is still relatively new, and the strategies required to make it fit into community nursing are still developing, there is a lack of fixity in the structural aspect of ordering of this type of healthcare. This means that practice based procedures - a type of street level bureaucracy - is being created such as new patterns of nursing cover that then feature in the negotiated order of telehealth. Creating new rules and procedures requires situated interactions to craft new practice out of the resources at hand, including both established and new resources. The interactions and communication that produces this creativity occurs between nurses as well as among nurses, patients and carers.

The broad patterning of activity is one of patients and carers monitoring their vital signs with the support of nurses and together creating flexible approaches to accommodate telehealth. Here, it is clearly important that nurses and patients know each other, to negotiate and make decisions about using telehealth. There is variability in these negotiations and different strategies are created to deal with this. A negotiated order of nursing practice and telehealth is therefore actively shaping care provision, as nurses adapt the use of telehealth in relation to their patients' needs in managing chronic health conditions. In assessing the way in which telehealth is taken up and used, it is important to understand the way it is negotiated in practice – and that this negotiated order is shaped by characteristics of nursing – because these practices are key for understanding how telehealth can be used as well as indicating what guidelines and support is needed to ensure that telehealth is used in an appropriate and safe manner.

References

ALASZEWSKI A (2006) Managing risk in community practice: nursing, risk and decision-making in Godin P (ed.) *Risk and Nursing Practice*, London: Palgrave Macmillan, p24–41.

ALASZEWSKI A, Alaszewski H, Manthorpe J and Ayer S (1998) *Assessing and Managing Risk in Nursing Education and Practice: Supporting vulnerable people in the community,* London: English National Board for Nursing, Midwifery and Health Visiting.

BACK L (2015) 'Why Everyday Life Matters: Class, Community and Making Life Livable', *Sociology,* Vol. 49, No. 5, p820–836.

BENSON JK, Day RA and Day J V (1978) 'Reply to Maines', *The Sociological Quarterly*, Vol. 19, No. 3, p497–501.

AUTHORS REF

BRODERICK A and Lindeman D (2013) *Scaling Telehealth Programs: Lessons from Early Adopters*, The Commonwealth Fund <http://www.commonwealthfund.org/~/media/Files/Publications/Case Study/2013/Jan/1654_Broderick_telehealth_adoption_synthesis.pdf>

CAR J, Huckvale K and Hermens H (2012) 'Telehealth for long term conditions', *British Medical Journal*, Vol. 344, e4201.

COPP M (2005) Negotiated order i: Ritzer G (ed.) *Encyclopaedia of social theory*, Thousand Oaks, CA: Sage Publications, p526–530.

CORBIN J and Strauss A (2008) *Basics of qualitative research: Techniques and procedures for developing grounded theory*, Thousand Oaks, CA: Sage.

DAY R and Day J (1977) 'A Review of the Current State of Negotiated Order Theory: an Appreciation and a Critique', *Sociological Quarterly*, Vol. 18, No. 1, p126–142.

DEPARTMENT OF HEALTH (2012a) *The Mandate: A mandate from the Government to the NHS Commissioning Board: April 2013 to March 2015*, London: HMSO. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256497/13-15_mandate.pdf.>

DEPARTMENT OF HEALTH (2012b) *A concordat between the Department of Health and the telehealth and telecare industry*, London: HMSO. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216757/Concordat-3-million-lives.pdf.>

GOFFMAN E (1961) *Asylums: essays on the social situation of mental patients and other inmates*, New York: Anchor Books.

GOLDMAN J and Reeves, S. Wu, R .Silver, I. MacMillan, K. and Kitto, S. (2016) 'A sociological exploration of the tensions related to interprofessional collaboration in acute-care discharge planning', *Journal of Interprofessional Care.* 30. 2. Pp 217-225.

GRAY B (2010) 'Emotional labour, gender and professional stereotypes of emotional and physical contact, and personal perspectives on the emotional labour of nursing', *Journal of Gender Studies*, Vol. 19, No. 4, p349–360.

GREENHALGH T, Procter R, Wherton J, Sugarhood P and Shaw S (2012) 'The organising vision for telehealth and telecare: discourse analysis', *BMJ Open,* Vol. 2, No. 4, e001574.

HEATH H (1998) 'Reflection and patterns of knowing in nursing', *Journal of Advanced Nursing* Vol. 27, No. 5, p1054–1059.

HOCHSCHILD AR (2012) *The Managed Heart: Commercialization of Human Feeling*. London: University of California Press.

LASH S (2000) Risk culture in Adam B, Buck U, and Van Loon J (eds.) *The Risk Society and Beyond: Critical Issues for Social Theory*, London: Sage, pp. 47–62.

LIBERATI E A (2017) 'Seperating, replacing, intersecting: The influence of context on the construction of the medical-nursing boundary', *Social Science & Medicine* 172 pp. 135-143.

LIPSKY M (1980) *Street Level Bureaucracy*, New York: Russell Sage.

LOPEZ D and Domènech M (2008) 'Embodying autonomy in a Home Telecare Service' *The Sociological Review* Vol. 56, p181–195.

MAINES D and Charlton JC (1985) 'The negotiated order approach to the analysis of social organisation' in: Faberman HA and Perinbanayagam RS (eds.) *Foundations of Interpretative Sociology: Original Essays in Symbolic Interaction*, Greenwich, Connecticut: JAI Press, p271–308.

NADIA E and Maeder C (2008) 'Negotiations at all Points? Interaction and Organisation', *Forum Qualitative Social Research* Vol. 9. No.1. Art. 32. http://nbn-resolving.de/urn:nbn:de:0114-fqs0801327. Accessed 14th December 2016.

NUGUS P., Greenfield D. Travagkia J. Westbrook J. Braithwaite J. (2010) 'How and where clinicians exercise power: interprofessional relations in healthcare. Soc. Sci. med. 71. 5. Pp 898-909.

ROBINSON V (2015) 'Reconceptualising the Mundane and the Extraordinary: A Lens through Which to Explore Transformation within Women's Everyday Footwear Practices', *Sociology* Vol. 49, No. 5, p903–918.

SANDERS C, Rogers A, Bowen R, Bower P, Hirani S, Cartwright M, Fitzpatrick R, Knapp M, Barlow J, Hendy J, Chrysanthaki T, Bardsley M and Newman S (2012) 'Exploring barriers to participation and adoption of telehealth and telecare within the Whole System Demonstrator trial: a qualitative study', *BMC Health Services Research*, Vol. 12, No. 1, p220.

SCHATZKI TR (2001) Introduction: practice theory in Schatzki TR, Cetina KK, and von Savigny E (eds.) *The Practice Turn in Contemporary Theory*, London: Routledge, p10–23.

STODDART KM (2012) 'Social meanings and understandings in patient-nurse interaction in the community practice setting: a grounded theory study', *BMC Nursing*, Vol. 11, No. 1, p14.

STRAUSS A (1993) *Continual permutations of action*, New York: Aldine de Gruyter.

STRAUSS A, Schatzman L, Ehrlich D, Bucher R and Sabshin M (1963) The hospital and it's negotiated order in Freidson E (ed.) *The Hospital in Modern Society*, New York: Free Press.

STRAUSS A, Fagerhaugh S, Suczek B, Weiner C (1997) *Social Organization of Medical Work,* Chicago: Chicago Press.

STRAUSS A (1978) *Negotiations: varieties, contexts, processes, and social order*. San Francisco: Jossey-Bass.

TAYLOR D and Bury M (2007) 'Chronic illness, expert patients and care transition', *Sociology of Health & Illness,* Vol. 29, No. 1, p27–45.

AUTHORS REF

AUTHORS REF

TULLOCH J and Lupton D (2003) *Risk and Everyday Life*, London: Sage Publications.

WALKER A (2012) 'The New Ageism', *The Political Quarterly*, Vol. 83, No. 4, p812–819.

WEICHT B (2010) 'Embracing dependency: rethinking (in)dependence in the discourse of care', *The Sociological Review* Vol. 58, p205–224.

AUTHORS REF