ARTICLE

Disjunctures in practice: ethnographic observations of orthopaedic ward practices in the care of older adults with hip fracture and presumed cognitive impairment

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Abstract

Organisational priorities for health care focus on efficiency as the health and care needs of populations increase. But evidence suggests that excessive planning can be counterproductive, leading to resistance from staff and patients, particularly those living with cognitive impairment. The current paper adds to this debate reporting an Institutional Ethnography of staff delivering care for older patients with cognitive impairment on acute orthopaedic wards in three National Health Service hospitals in the United Kingdom. A key problematic identified in this study is the point of disjuncture seen between the actualities of staff experience and intentions of protocols and policies. We identified three forms of disjuncture typified as: 'disruptions', where sequenced care was interrupted by patient events; 'discontinuities', where divisions in professional culture, space or time interrupted sequenced tasks; and 'dispersions', where displaced objects or people interrupted sequenced care flow. Arguably disruption is an integral characteristic of care work; it follows that to enable staff to flourish, organisations need to confer staff the autonomy to address systemic disruptions rather than attempt to eradicate them. Ultimately, organisational representations of 'good practice' as readily joined up, impose a care standard 'stereotype' that obscures rather than clarifies the interactional problems encountered by staff.

Keywords: hospital; hip fracture; workflow; disjuncture; Institutional Ethnography

Introduction

Efficiency has become an organisational priority for publicly funded health-care systems as the health and care needs of the population increase

(Kerasidou, 2019). Operational performance targets, protocols and workflow management strategies have been implemented to reduce workflow interruptions, increase the number of patients treated and reduce waiting times (Hannes *et al.*, 2013; McCurdie *et al.*, 2017; Kerasidou, 2019). While the drive to improve the efficiency of health-care systems cannot be disputed, there is evidence to suggest that the organisational environment of health care has become hostile towards the expression of *caring virtues* and staff feel under pressure to 'process' patients rather than engage empathetically with them (Kerasidou, 2019: 179). Under constant pressure from 'the top' to reduce the time devoted to care tasks (Bridges *et al.*, 2013; Kerasidou, 2019), staff strive to adapt to fluctuating workload, interruptions and environmental pressures (Cravo, 2015). Idealised workflow processes map routines and pathways for accomplishing goals, within set times, to meet standards of good practice. But, pressured by targets and constraints of timetabled routines, staff resort to 'guessing their way forward to solve problems' (Eriksson and Saveman, 2002: 82); 'deprioritising patient needs' (Featherstone *et al.*, 2019: 59); 'rejecting protocols and targets in resistance toward "top down" governance' (Allard and Bleakley, 2016: 814) that 'curtail their clinical judgement and professional values [of] empathy, and compassion' (Kerasidou, 2019: 179).

Taking these critical staff experiences as a starting point, this paper argues that the main purpose of workflow modelling (Renolen *et al.*, 2018) is to communicate the *power of organisational expectations* rather than provide staff with the knowledge or resources relevant to the navigation of care delivery in time-pressured environments. We use the methods and concepts of Institutional Ethnography (IE) (Smith, 1987) to examine work processes as a 'point of analytical entry' (Devault, 2006: 294). Analysis then proceeds to examine how these are embedded in power relations and knowledge of the institution. Data are drawn from an ethnographic study of staff providing care for hip fracture patients with presumed cognitive impairment (CI) on acute wards. Analysis is focused on these patients because their complex needs present challenges for staff (Clissett *et al.*, 2013) and thus constitute a 'critical sample'. Using key insights from IE, we show how the disjuncture between the actualities of staff experience and the idealised protocols of health-care settings creates ongoing and fundamental 'interactional problems' for staff, as they come up against challenging knowledge disjunctures (Smith, 1987). Our analysis takes a staff standpoint, and the paper concludes by arguing that health-care organisations should seek to develop workflow processes that confer on frontline staff the autonomy to address the emergent flow of interruptions typical of this type of work rather than seek to suppress or eradicate them.

Background

The empirical causes of disruptions to clinical workflow have been linked to unexpected intrusions, psychological distractions, relief breaks and disagreements caused by uncertainty or lack of knowledge (Monteiro *et al.*, 2015: 170). To minimise the impact of these processes, staff have been encouraged to develop professional aptitudes and coping strategies to maintain quality of care and patient safety (Prates and Silva, 2016; Laustsen and Brahe, 2018; Jensen *et al.*, 2019) or invited to work together with employers to reduce 'unnecessary' interruptions (Baethge and

Rigotti, 2013). Interventions aimed at achieving these goals have had minimal impact: clinical trials are mainly negative, showing limited improvements against control groups (Weigl *et al.*, 2017). Inconclusive results are linked to a reliance on interventions inspired by the 'sterile cockpit' principle (drawn from aviation science) which is unlikely to provide workable solutions suited to the complexity of total patient-centred care (Nelms *et al.*, 2011) in complex health-care domains (Grundgeiger and Sanderson, 2009; Hopkinson and Jennings, 2013; Ly *et al.*, 2013; McCurdie *et al.*, 2017). More critical commentary has suggested that the terms of the debate are unfounded and claims about the 'ill effects' of interruptions on clinical outcomes are 'more a product of conjecture than evidence' (Hopkinson and Jennings, 2013: 48).

Having the autonomy to draw on tacit knowledge to deal with work-related interruptions is one of the hallmarks of the professional role (Traynor *et al.*, 2010). The extent to which nurses and other health-care professionals have been able to claim this status and exert a right to autonomous decision making has been debated since the introduction of structured care pathways and increasing managerialism (Traynor *et al.*, 2010; Oshodi *et al.*, 2019). The historical association of care as 'women's work' has overridden staff's ability to assert their professional autonomy (Traynor *et al.*, 2010). Situated in the context of these organisational discourses and power relations, staff have sought, with variable success, to articulate their autonomy as 'powerful, morally responsible and autonomous professionals promoting … legitimate observations' (Traynor *et al.*, 2010: 1511).

While staff struggle to articulate their autonomy, organisational cultures have become more directly focused on 'safety goals' that prioritise organisational objectives (Scerri *et al.*, 2020) and the implementation of 'treatment orientated tasks that are aligned with standardised best practice care pathways' (Jensen *et al.*, 2019: 9). In this context, disruptions to workflow impact most fundamentally on the staff–patient relationship: staff find it challenging to provide person-centred care for patients with CI and dementia (Jensen *et al.*, 2019: 9) while the patients themselves are likely to respond to rigid care routines with resistance (Featherstone *et al.*, 2019).

Ultimately, working in a culture where the rhetoric of efficiency and safety are the key priorities, staff feel they have little room to modify or go against standard working practices to meet patient needs (Byers and France, 2008; Scheel *et al.*, 2008; Hynninen *et al.*, 2016; Jensen *et al.*, 2019; Yous *et al.*, 2019; Ernst *et al.*, 2020). This leaves staff frustrated and dissatisfied with the care they are able to offer (Nilsson *et al.*, 2013; Fukuda *et al.*, 2015; Ernst *et al.*, 2020) and engenders a sense of 'moral distress' when unable to respond to patient need in the moment (Featherstone *et al.*, 2019: 59). This paper aims to further our understanding of these challenging contexts by examining how interruptions to the flow of care cause interactional problems for ward staff.

Research design and methods

Design

Situated within a programme of research developing an enhanced recovery pathway for people with hip fracture and CI (National Institute for Health Research Programme Grants for Applied Research (PgfAR) Programme ID DTC-RP-

PG-0311-12004), we undertook ethnographic observations and interviews on acute wards and associated Emergency Departments. The study broke new ground by recruiting Public and Patient Involvement (PPI) lay representatives with experience of caring for people living with dementia to carry out observations alongside academic researchers.

Ethical approval and data protection

Ethical approval was provided by the National Research Ethics Service Committee East Midlands – Leicester and the University of East Anglia Faculty of Medicine and Health Science Research Ethics Committee. Data relating to person, place or time presented in this paper have been anonymised in line with the Data Protection Act 1998 and National Health Service (NHS) England Data Protection Policy 2014. Storage of the data is managed by University of East Anglia data security protocols.

Ethical challenges of research design

The team anticipated the ethical challenges that might arise with the use of observation methodology among patients with hip fracture and CI on an acute ward and the deployment of PPI lay observers. Clear strategies were put in place to manage these and (due to word limits) outline two key challenges and the strategies used to manage them. A summary of wider ethical challenges and the strategies used to manage these are provided in Table 1.

The study team invited PPI lay members with personal experience of caring for a person living with dementia to take part in the observational work. To manage concerns regarding confidentiality, PPI observers were recruited, screened and trained using the same safeguards applied to any formal research contract in a clinical context. They underwent Occupational Health screening, Disclosure and Barring Service screening, Good Clinical Practice training (NIHR, 2021) setting out clear criteria for non-disclosure and they received a Research Passport. They were bound by the terms of their contract which set out criteria for misconduct and grounds for dismissal. A wider ethical concern affecting all observers involved in the study, not just those recruited from the PPI forum, was the maintenance of a non-intervention stance in the face of patients' requests for assistance. Here observers were instructed to pass any requests promptly to relevant staff, thus respecting the legal context of their position as lacking the medical training or insurance necessary to provide assistance.

Sampling

Three acute wards (Sites A, B and C) and associated Emergency Departments were purposively selected from a larger sample of ten teaching hospitals in the United Kingdom (UK) enrolled in a feasibility trial (PGfAR Programme ID DTC-RP-PG-0311-12004). Site A was a 36-patient/bed acute ward based in the Eastern Region of the UK, Site B was a 28-patient/bed acute ward based in the Midlands and Site C was a 28-patient/bed acute ward based in Yorkshire (Table 2).

Table 1. Strategies deployed to manage ethical risks arising from involvement of Public and Patient Involvement (PPI) members in observation on the wards

Confidentiality	PPI observers were recruited using a detailed role description and person specification, interviewed and issued with temporary research contracts with the University of East Anglia. They completed Occupational Health screening and Disclosure and Barring Service screening, were issued with Research Passports and undertook Good Clinical Practice training which set out clear criteria for non-disclosure of matters relating to the research and observations. Any breach of these contractual terms was designated as serious misconduct resulting in dismissal
Support	Comprehensive guidelines on supporting public involvement in research set out by INVOLVE (www.invo.org.uk) informed the practices within this study. PPI observers received eight hours of training by University of East Anglia researchers on conducting the ward observations. The primary source of emotional support came from within the core research team supported by Dr Hammond, a psychologist who has worked with vulnerable people, and Mrs Anna Varley, a registered social worker used to supporting vulnerable older people in complex and sensitive situations
Exploitation	To avert exploitation, PPI members were recruited and trained locally to research sites. Travel costs were covered, and free refreshments provided along with a payment of £10 per hour up to a maximum of 20 hours. They were contracted to work short three-hour shifts between 9 am and 6 pm and a researcher always accompanied them during the observation. Each PPI member spent a maximum of 20 hours (including training) on the study
Competency	A contingency plan was in place to deal with the situation where if during or after training a PPI member was identified as unsuitable for the role, a discussion would take place explaining the issues and they would then be invited to apply their skillsets to a different role within the wider PERFECTED project. This process was planned to be handled on a case by case basis with guidance from the recruiting PPI organisation and project PPI experts
Respect and sensitivity	Participating PPI observers were given the contact number of the researcher who accompanied them on their observation so they had a point of contact to support them if they had witnessed any distressing scenes on the ward. In addition, PPI observers did not assist in data collection within the Emergency Department observational space due to the extremely sensitive nature of this care environment

Table 2. Ward characteristics of three observation sites sampled from National Health Service hospitals in England

Site name and regional location	Ward information	Observation hours
Site A: East Anglia	36-bed ward and associated Emergency Department in an urban university teaching hospital admitting 700 hip fractures per year with a fast-track service from Accident and Emergency	110
Site B: East Midlands	28-bed ward and associated Emergency Department in an urban university teaching hospital treating 335 hip fractures per year	40
Site C: Yorkshire	28-bed ward and associated Emergency Department in an urban teaching hospital treating 350 hip fractures per year	54

Access and consent

Site access was negotiated in advance, the details being reported previously (Backhouse *et al.*, 2020). In brief, research nurses working on the PGfAR study provided staff with information sheets; once 75 per cent of ward or Emergency Department staff had consented, the site became a 'research ward'. We informed patients and visitors about the study via posters and information leaflets placed in visible locations on the ward. Patients and visitors were not consented to the study and no personal information was documented about them in the observation notes. No observation notes were written about staff members who declined to take part. No participant is named in this article.

Data collection

Forty-eight observation sessions (204 hours) in four-hour shifts were undertaken between September and December 2015 by five health research associates assisted by three PPI lay researchers. Observation covered the 24-hour cycle (excluding behind-the-curtain care), over seven days of the week, in public spaces of acute ortho-geriatric wards. Associated Emergency Departments were observed opportunistically when a patient with a fractured neck of femur and CI was admitted during an observation period, to learn more about their journey to the ward. Observers rotated across the sites to ensure diverse coverage and adopted an overt 'marginal' role (Hammersley and Atkinson, 1995) as non-participant observers. Observation was directed by an 'indicative observation topic guide' covering (a) patients with presumed CI; (b) patients' situational awareness of the ward environment; (c) ward culture; (d) staff strategies; and (e) strategies of care and treatment (Table 3). Key baseline data of time, person and context were collected for each dimension. In keeping with the traditions of multiple methods in ethnographic studies, observers undertook ethnographic interviews with consenting staff to enhance the contextual interpretation of what they observed (Schensul and LeCompte, 2012). Observations and interviews were recorded as field notes, providing thick descriptions (Geertz, 2000) with reflective comments in distinct typeface. Field notes were written in full view of participants, then typed and anonymised as soon as possible. Transcripts were imported into for NVivo data management.

Rigour and data quality

Observation time slots were structured to cover a range of time contexts (morning, afternoon, evening, night-time) and characteristics (urban/rural) (Baker and Edwards, 2012). The triangulation of data collection across person, time and place added enhanced analytic credibility of cases (Flick, 1992). Rigour and quality in data collection were strengthened by observers writing reflexive field notes after interview and checking the meaning of observed events in ethnographic interviews.

Approach to data analysis

We adopted an abductive approach to analysis (Tavory and Timmermans, 2014) commencing with immersion in the data to identify initial codes and categories

Table 3. Indicative topic guide for hospital ward observations

Prompt to observers: This guide highlights the general contexts and processes to inform your observation of events on selected hospital wards.	
1. Situational awareness	Ward environment: the effects/influences of space 'zones of activity', colour, sound and understanding the passage work within the space
2. Ward culture	Understandings of daily workflows and activities: How does ward culture manifest? What are the norms? How flexible are they? Types of paperwork used and created relating to care delivery in the setting
3. Staff strategies	• rigins, how the strategies operate, staff teamwork, patient strategies, visitor strategies, strategy conflicts
4. Strategies of care and treatment	Staffs' rationales, choices/decisions, timings, availabilities, responsibilities for treating, medicating, caring, feeding and hydrating

by five researchers (TB, JLC, NL, FP, AV) who conducted observations on the wards. Further data interpretation was undertaken by a non-observing researcher (FS) trained in social science approaches, JLC and FMP to ensure data integrity. Second-order codes were refined iteratively in consultation with the dataset (Silverman, 2006) and the sensitising concepts of IE (Smith, 1987). We used the IE concept of 'disjuncture' to investigate 'the disconnection between people's experience and knowledge of the world, and the "ruling" or authoritative representations of these experiences' (Ng *et al*., 2017: 54). Drawing on the associated concepts of 'interactional problems', 'materiality and 'standpoint', we explored the tensions and contradictions that emerged in relations between people and the social world they inhabit and the rules that govern it. Problems identified in the staff standpoint documented at a local level during fieldwork were foregrounded during this analytical process and compared with the materiality of codified texts, policies and protocols that govern the social relations within which interaction takes place (Smith, 1987; Devault, 2006; Ng *et al*., 2017; Rankin, 2017). The contradictions therein were exposed for examination and elucidation.

Findings

Ward environment

The wards were characterised by high noise levels, with patients' requests for help rising in a constant litany above the cacophony of call bells, staff communications, and the jangle of equipment and trolleys. A uniform spatial layout of beds lined in rows along the walls was seen at Sites B and C and followed a corridor arrangement giving a sense of limited room for movement. Site A had a circular layout which the observer noted in their reflexive notes created a sense of 'light and air' (meaning spaciousness and freshness). Private 'side rooms' off the main ward were present

across the three sites and were often reserved for patients with dementia. Small reception areas acted as focal points for overflowing paperwork, doubling as workstations for ward clerks and other staff. Bays on the wards were often colour coded to aid navigation for patients, staff and visitors. Toilets were set aside and identified as male or female.

Ward culture

Institutional norms and expectations were reported in charts on the public wall spaces, setting out performance targets for infection rates, falls, patient throughput and discharge: 'There are charts everywhere showing performance targets' (Site B, Observer 5). In practice, workflow shunted and staggered in 'bottle necks' of staff shortages – 'The ward manager … said they had a night recently where they were two staff down' (Site B, Observer 2) – and endless rounds of paperwork:

> The health-care assistant shows me the food and drink charts they use to record everything a patient has eaten while a nurse squats on the floor writing notes next to me. (Site C, Observer 5)

The disjointed flow of work was mirrored in the journey of patients with a fractured neck of femur and CI as they progressed from the ambulance to the ward:

> Patients go from the Ambulance to examination room, to the Subway, then by trolley to the Immediate Assessment Unit (IAU). Then the X-Ray unit, to a cubicle, then to clinic and finally, their destination ward. (Site A, Observer 2)

Policy documents on the walls promised to 'fast track patients'; staff viewed this kind of target-setting exercise as problematic and observers described how staff felt under pressure to 'offload patients':

> The IAU co-ordinators get fined if the paramedics are not able to 'off load' [a patient] in 30 minutes. Their transfer target time is 20 minutes. (Site A, Observer 2)

Further up the organisational hierarchy, efforts to implement a 'fast track' was viewed by senior staff as 'a bit of a joke':

> Some of the patients with hip fracture were going on the 'fast track'. I ask a female doctor [about what that meant]. She said 'Fast-track' is a bit of a joke really. It's one big logjam. Waiting hours for a cubicle here, can be 3 hours and then 1 hour of care crammed into the 4 hour target. The problem is that there are no beds to send them to. It's not the ward's fault as they are full, as there is nowhere for them to discharge them to. It's getting worse, with more and more patients. (Site A, A&E Suite, Observer 5)

Patients were objectified as an 'increasing volume' or problem as they made their slow process through the disjointed workflow on their journey to the ward.

COMPLETED EVERY TWO HOURS

I.   Ask the patient if they are comfortable.
II.   Check they have the call bell to hand
III.   Check if they need toileting
IV.   Do obs (blood pressure)
V.   Mouth care
VI.   Assess pain
VII.   Check have drink to hand
VIII. Pressure relief
IX.   Wound care
I.   Falls risk assessment
II.   Equipment check

Figure 1. Care Round Checklist, Site A.

Staff strategies: caring on the wards

The institution directed every detail of staff routine from the regular turning of patients 'at 10 pm, 2 am and 6 am, then 2 hourly and 1 hourly' (Ward B, Observer 8), to the processing of their bodily outputs recorded on 'care sheets' that required 'name; age; history; skin; mobility; continence; waterlow (pressure area chart); stool sample; blood pressure' (Ward C, Observer 2). The institutional benefits of the timely processing of patients were reflected back to staff from the ward walls:

> A display board has a notice about the best practice tariff, showing how much money the Trust can make in a month and how much they lose when these targets aren't achieved. (Ward A, Observer 3)

Institutional expectations routinised an hourly sequence of key care tasks, codified in a Care Round Checklist for staff (Figure 1) and a Caring Round the Clock leaflet for patients (Figure 2).

These documents set out the expected ward workflow which one staff member described as a 'conveyor belt' and another as a 'sequence'. We argue that this organisational prioritisation of workflow objectified patients as the passive recipient of sequenced care interventions:

WARD LEAFLET

Caring round the Clock

Aim of the leaflet. This leaflet is aimed at patients, families and carers and provides information about *Caring around the Clock*.

☐ **What is Caring around the Clock?**
This is the ward campaign to ensure our patients have excellent care all the time and to support nurses in taking control of their work.

Also, we have made a pledge to or patients 'we want our patients and their families to feel safe cared for and confident in their treatment.'

Also, we share a set of values to ensure we provide thoughtful patient care. Caring around the Clock helps us show you and their families that we are caring and thoughtful sage and vigilant and clinically excellent.

☐ **Why are we doing it?**
Your care and safety is the most important thing. Caring round the Clock helps us to make sure you are receiving care at regular intervals and that your care is consistently good.

☐ **What can I expect form Caring around the Clock?**
You should expect a member of staff who is caring for you to visit you approximately hourly during the houses of 8am -11pm, the two hourly overnight. This may not be at the same time every hour. When staff visit you, they may perform care task (for example take your blood pressure) but they may also talk to you about other care needs that are specific to you.
A ward sister/ charge nurse or their deputy many also talk to you and your family to discuss the standards of care you are receiving. They may also ask who is giving your goof care, so that we can recognise our staff for the exceptional work they are doing.

☐ **What does the clock mean?**
The clock is for us to show you when a nurse will be back to care for you. This will help you to see our routines and to reassure you that we will take good care of you.

☐ **What are the benefits to me?**
You will receive good care at regular intervals to ensure you are safe and comfortable

☐ **What are the benefits to the nurses?**
Nurses will be able to provide your care needs into their routine visits so making sure you have everything you need for the next hours. This will help save the nurses time and work so they can focus on caring for you without so many interruptions.

☐ FREQUENTLY ASKED QUESTIONS
Can I still use my call button if I need a nurse?
Yes of course. Caring round the Clock will just help nurses to take care of your routine needs at regular planned times. If you should need anything in between visits, then please use your call button.

Will you wake me up if I am asleep?
No, we will not wake you up, but we will still visit to check on you. We will still move your clock so when you wake you will know when your next visit will be.

Is it an extra cost?
The clocks have replaced a piece of documentation, so actually because the clocks are reused everyday it will save money, Caring around the Clock helps nurses to organise care into regular intervals, so helps us to work more effectively with less waste. Showing you when your next planned visit will be and enabling us to keep you safe will also help us to save money.

Figure 2. Caring Round the Clock patient leaflet, Site B.

'Cos sometimes it is a bit like a conveyor belt isn't it? You do one you go straight onto the other and you don't give them that quality of time. (Staff member, Ward A) There is a sequence with each patient; breakfast, seen by doctors, bed made, moved to a chair, given a drink, check they have their teeth in, check they have their bell. Move on. The HCA [Health Care Assistant, not medically qualified] explains, they are supposed to carry out care rounds every two hours … record what they did on the tick chart but '*it doesn't always happen*'. (Ward A, Observer 2, morning)

In the analysis below we aim to explore point of disjuncture between the actualities of staff experience ('it doesn't always happen') and the idealised expectations of

Table 4. Disjunctures between actualities of experience and intentions of protocols

Disruptions	When usual or expected care practices are interrupted by unscheduled demands from patients or their resistance to scheduled care tasks and staff are required to adapt and manage care flow delivery more or less easily
Discontinuities	When divisions in culture, spaces and timing interrupt the delivery of tasks
Dispersions	Occasions when artefacts (documents, object(s) and/or people) are mislaid and disrupt the process of care flow

institutional protocols and policies. We examine this disjuncture as it is manifest through the recurring interruptions to workflow that staff manage alongside of the delivery of routine care.

Strategies of care and treatment: disruptions, discontinuities and dispersions

In the analysis set out below, we group the reoccurring interruptions observed in our data under the abductively derived (Tavory and Timmermans, 2014) concepts of 'disruptions', 'discontinuities' and 'dispersions' (Table 4). We situate these concepts as 'middle range' (Merton, 1968) and use them to identify where 'disjunctures' are manifest in the empirical data.

The concept 'disruption' classifies situations where expected care practices are interrupted by patients' unscheduled needs or resistance and staff have to adapt and manage care flow delivery more or less easily. Our application of the concept 'discontinuities' identifies divisions in culture, spaces and timing which interrupt the smooth delivery of tasks and breaches collaborative working between staff, or between staff and patients (Allen and Pilnick, 2005). These discontinuities may reflect, activate or reinforce divisions between individuals and groups (Strauss *et al.*, 1982; Braithwaite *et al.*, 2016). The concept 'dispersions' classifies interruptions triggered by the misplacement or displacement of information, people or sequence within the information system and is consistent with previous applications in the wider literature (Murdoch, 2016).

Our analysis focuses on patients with hip fracture and CI; we use the term 'patient' from now on to refer to these specific patients to avoid repetition of terms.

Disruptions (in routines and care sequences)

Disruptions to routines and care sequences are clustered around patients' orientation to place; physical resistance to safeguarding/intimate care; unscheduled/urgent needs to use the toilet; and sleeping patterns that deviated from the expected routines of the ward.

Orientation to place

During data collection, observations were directed towards the care of patients with presumed CI. This focus identified recurrent disruptions and disjunctures in hospital routines arising from patients' repetitive requests for assistance that disrupted staff workflow:

> 3.25 pm: Patient 6 says: 'It's not fair. I never did think I would end up like this. Emily are you there? I just want you a minute.' Nurse calls out to Patient 6 'One second, I'll be there.'

3.30 pm: The patient asks 'Can you give me your hand for one minute? I'll not ask for anything else. I need your hand to steady me.' Nurse asks, 'Where are you going?' The patient replies 'I'm sick of my things being in the wrong place.' Nurse says 'You're in hospital. Do you want to get back into bed?' I don't hear what the patient answers, but Nurse leaves the patient much calmer and not calling for help.

3.40 pm: Patient 6 calls out 'Is that you...' Nurse goes over to speak to her. The Patient is worrying about where some of her things are. Nurse reassures 'You're in hospital. Don't worry about your things'. The Patient wants her cardigan placed on a hanger but there isn't one. Nurse offers to hang it by the TV, but the Patient doesn't want this. Nurse looks at a loss for a moment and then offers to 'fold it up nicely' which she [Patient 6] accepts. (Site A, Observer 2, afternoon)

A resolution of the patient's distress is found only when the nurse steps outside her organisationally defined medical role to perform the 'homely' chore of 'folding clothes'. The latter action eases the patient's disorientation in the unfamiliar hospital environment.

Patient anxiety about place or home was a common cause of disruption to workflow. One strategy used by staff to keep institutionalised workflow moving forward was to acknowledge the request and move it forward to another time:

'Can I go home now' the patient asks. 'Yes, in a bit' the HCA replies. (Site C, Observer 1, night)

But some patients' distress and requests 'to go home' were ongoing and could not be deflected so readily. In the transcript example below, prolonged agitation culminating in a request to go home made by a patient with hearing difficulties continued intermittently over an 18-hour observation period:

Monday evening: 10.10 pm: HCA goes to quieten Patient 4 who is hard of hearing, [and] is now agitated 'I must go home, I've got no one here.' Various staff attempt to quieten Patient 4, but disruptions continue through the night.

Tuesday afternoon: 2.55 pm: 'I can never hear a thing they tell me' Patient 4 says [to her daughter]. Daughter asks a Senior Nurse for some blank paper and a pen [and] uses it to communicate with her Mum. [Daughter leaves] HCA is ... trying to sort out [Patient 4's] hearing aid – the batteries are dead it seems.

4.30 pm: Patient 4 [is trying to get out of bed and remove her catheter]. Patient 4 tells staff 'Well you'll have to get the police duck, I'm on my own, I need to go [home]'. HCA is trying to rationalise with her [saying] that she's broken her hip, so she cannot get out of bed and go home.

5.05 pm: Staff seem at a loss as to what to do. Lead Nurse discusses Patient 4 with the Dr who ... gets some paper and a pen and ... converses with Patient 4 in writing [she communicates] that she wants to go home. (Site B, Observer 5)

Numerous frontline staff were drawn into the management of Patient 4's distress but were unable to repair her sense of isolation which escalated over a lengthy period. The opportunity for meaningful engagement with the patient was broken by the ongoing interruption of care and exacerbated by the lack of functioning hearing aids.

Physical resistance to safeguarding and intimate care

Substantial disruptions to workflow were also likely when patients who had been designated a 'falls risk' by organisational guidelines were unable to comprehend or follow staff instructions. This typically involved the patient attempting to get out of bed or stand which, in the ward context, presented staff with a challenging unscheduled care need to manage:

> Nurse 1 cannot leave Patient 2 as she keeps standing up and is a '*falls risk*'. Nurse 1 says to Patient 2 'There is no day room, this is your chair'. The Nurse in Charge (NinC) is still negotiating with Patient 6: NinC says 'You can't, you'll be over the floor'. Patient 6 responds 'I want to go over, push me'. The NinC says 'I can't, you'll be over. Do you want to sit up a bit? Do you want to sit on the edge of the bed? Come on then'. Patient 6 replies 'Get me up'. NinC says 'Sit up then and then you can get up. Get on your back then and we'll get your legs out'. Patient 6 says 'Get me up. I'm trying to get this elbow'. NinC says 'I think you're confused. We can only get you up if you get on your back'. (Site B, Observer 3, afternoon)

Patients' physical resistance to intimate care practices also disrupted workflow. Staff typically managed this form of active resistance to care by orientating the patient to the routines of the ward using distraction and reassurance:

> Evening: 9.50 pm: I hear shouts of pain from yellow bay and louder ones from green bay. Behind the curtain I hear a patient scream 'Oh you bitch, you bitch, you bitch.' There are two HCAs in there changing her pad and getting her ready for the night. One HCA explains [to the other] 'It really hurts the hip patients when they are moved'. They give the patient reassurance 'You're doing ever so well' and orientation 'It's 10 o'clock now. OK the last little bit, I've got some warm water.' As they wash her, they change the subject to 'Do you like dancing? What do you like doing?' The patient quietens. (Site A, Observer 2, evening)

Within the social relations of the acute ward, the staff acknowledgement that 'it really hurts the hip patients when they are moved' is a statement of fact; pain is a 'given', accepted as intrinsic to the 'situation of the hip fracture patient'. This practice makes sense within the institutionalised order of the ward where pain, like any other bodily process, is 'assessed' and checked according to pre-defined targets.

Unscheduled or urgent physical care: using the toilet

The unscheduled need of individual patients to go to the toilet disrupted workflow of staff from various specialities, each making small diversions from their timetabled tasks but without completely re-prioritising:

> Site A evening: 8.30 pm: Patient 6 'Can someone do something about my…? I want a pee.' Patient 6 asks [a] pharmacist for help. The pharmacist explains he cannot help and will get a nurse. The pharmacist [finds] a HCA [who] closes the curtains around the patient and gets a bottle saying, 'You're o.k. to use this aren't you?' and leaves him to it.

> 8.40 pm: Patient 6 calls out 'Nurse. I must have a worm.' 'Can someone help me', a member of staff walks past the bay not taking any notice. 'Where can I get into weeing position/I wanna pee.' No staff around.
> 8.45 pm: Patient 6 'Nurse' he calls and again 'Nurse' louder. A nurse hears [and asks] 'What's wrong'. Patient 6: 'I want to wee but I'm not very good at it.' [Nurse replies] 'Just try and relax, you can do it. I'll come back and check on you shortly.'
> 8.50 pm: Patient 6 'Is someone gonna help me. I'm now gonna pee in my pants.' A nurse calls 'I'm coming'. (Site A, Observer 2, evening)

Individual staff resist taking ownership of the task, their reluctance conditioned by the specific organisational context (of understaffing and work overload) which foregrounds and reinforces professional role demarcations.

In the example below, nursing staff respond to a disruption prompted by the need to catheterise which is unscheduled and medically urgent. Patient resistance renders the procedure difficult:

> 9:53 am: Snr Nurse tells Nurse 2 that Patient 1 is retaining 'a lot' and needs to be catheterised … I hear the Snr Nurse say 'You are hurting both of us now. Put your hands on your chest.' The Snr Nurse tells Nurse 2 'This is probably the worst catheter I've had to do in my life' and apologises to the Nurse 2.
> 10:00 am: They are still trying to insert the catheter. The Snr Nurse tells Patient 1 they have to turn her [on to her] side. She tells Patient 1 it's because she's 'fighting them.' Patient 1 tearfully says she doesn't mean to. It's really distressing to listen to. The Nurses are not being unkind. They repeatedly tell Patient 1 how 'much better it will feel when it's done.' (Site B, Observer 2, morning)

The patient's resistance to the catheterisation of her urinary system is both defensive and reflexive. The distress recorded by the observer in a reflexive note contrasts with the apparent emotional detachment of the senior staff member, who apologises to her junior colleague for the difficulty of the process. Realistically, the objectification of the patient during the process enables staff to achieve the utilitarian and medically urgent task that will restore the patient to comfort.

Sleep: disruption and deviation on the ward
Patients with CI slept at the 'wrong time of day', woke after midnight, became active and disrupted others' sleep:

> Patient 1 told off again – 'Get some sleep please.'
> Staff try to get Patient 4 to sleep.
> Patient 1 is finally settled. Patient 1 thanks the nurse. 'Now get a good night's sleep.' A message she repeats; 'Good night.'
> Staff still try and get Patient 4 to sleep, they try and convince her its night-time, but she's not convinced. Patient 5 chips in – arguing about something. (Site B, Observer 1, evening)

While the need to minimise the disruption of patients' sleep at night was a frontline staff priority, organisational expectations and ward practices around its

management were inconsistent. Data show that bed managers could override protocol and authorise the movement of sleeping patients:

> Moving a patient whilst asleep is called 'to sleep them out'. They wake the patient and tell them, but if confused, they may not retain the information and wake in a completely different environment with different staff … They are not meant to move dementia patients, but the bed manager can override. (Site B, Observer 2, morning)

Frontline staff viewed the practice of 'sleeping patients out' as a primary example of low-quality care:

> Nurse: 'I know we don't have the best reputation [at this hospital] but we don't care for patients in corridors. However, one good thing in the other hospital [I worked at] was that they don't *sleep people out*.' (Site C, Observer 2, Night)

The challenges staff faced around the management of sleep on the ward reflected the busy organisational context which was underscored by understaffing and work overload.

Discontinuities (in culture, ethos and information exchange)

Discontinuities in professional culture, ethos and information interrupted the smooth delivery of tasks, coordination and collaborative working, both between staff, and between staff and patients. Discontinuities across professional cultures reduced collaboration in addressing patients' requests:

> Bay 2: Patient 1 requests loudly to go to the toilet, [saying…] she 'didn't want to wet the bed'. Medical professionals in the bay include two doctors, two physiotherapists and senior nurse [none of whom respond to patient's request] … Requests from same patient continue … physiotherapist 1 goes [to patient and asks] 'Do you need to go to the bathroom?' … physiotherapist 2 comes over, both help patient to her feet and using frame assist patient [towards the] toilet … physiotherapist 3 appears, questions what is going on … physiotherapist 2 [steps aside and leaves] physiotherapist 1 to bring patient back to bed [who then] instructs patient to 'use bell to call for a nurse … to go to toilet or anything'. Patient repeats need for the toilet, stating she didn't want to 'wet the bed'. (Site A, Observer 4, morning)

In the example above, professional role demarcations are foregrounded, stimulated by the wider contextual factors of understaffing and work overload. In the context of limited resources, staff resisted changing from *their own* work to deliver *others'* work. Ward spaces and objects reproduced these discontinuities in professional culture and ethos:

> I look at the staff suggestion board. It is divided in two and headed 'The qualified view' and the 'HCA [Health Care Assistant] view'. Comments from HCAs request more teamwork, helping each other, especially filling out food forms. 'The qualified view' appears pragmatic – 'We don't have staff numbers. We'll just have to cope'. (Site C, Observer 1, evening)

Oppositional viewpoints collide, one stressing *professional individualism* the other *collaborative inter-professionalism*, the opposition underlining the lack of coherent *organisational knowledge* to draw professionals together in the task of caring for patients with complex needs. Observers' observation notes reflected on rare exceptions to these professional demarcations:

> Patient on a Zimmer asks the female Dr for a towel. Dr says, 'I'll ask a nurse', she disappears and returns 20 seconds later with a towel, this was 'unusual'. (Site A, Observer 1, morning)

The use of 'professional jargon' in the context of time-pressured handover meetings sustained discontinuities of information flow *within* professional cultures:

> They [staff] each carry around a piece of paper with basic details of each patient [supplied to all in handover meetings]. One nurse reads from this [list full of abbreviations] and frequently asks others what abbreviations mean. They don't all know them all. (Site A, Observer 2, evening)

Information discontinuities extended beyond the life of the ward to impact on patient transitions in care:

> One patient couldn't get discharged because the care home refused to take them as paperwork was incomplete. (Site C, Observer 1, evening)

Discontinuities around objects and their use were specific to patients with CI who often had a very disconnected relationship with the familiar objects used to deliver care:

> 8.45 am: A nurse comes into the bay and offers a patient a drink. She puts her hand on his back and confirms he would like a drink of juice, but doesn't give it to him, [she puts it on his tray on the side table] then leaves him. The patient then 'drinks' from his call bell. So convincing is he, that I question whether it contains drink, it doesn't, it's a call bell. After a few minutes (a different) nurse comes and takes the call bell from the patient saying 'What's wrong? You've been ringing the bell and didn't mean to' … The nurse briskly walks away … At 11.45 I see the patient taking a sip of drink. Staff then move the tray, with the drink on, away and draw the curtain. (Site A, Observer 2, morning)

Staff involvement with the patient is fragmented; there is no time allocated to observe and orientate the patient to unfamiliar objects. The ward care plan can be checked affirming the patient has been *offered a drink*, but in practice the patient does not *get to drink*.

Strategies of care and treatment: dispersions (of paperwork, information and medication)

Dispersions of paperwork information and medication were commonly encountered. Staff preferred or ignored various note-taking practices and methods of

storing clinical, administrative and personal notes. Electronic systems and work overload cut across and reinforced staff practices and extended these dispersions.

Documents relevant to the co-ordination of interventions associated with analgesia administration, essential to fracture care, and the difficulties staff faced locating these notes constantly feature in these data:

> The nurse moves to Patient 6 and asks 'How's your pain at the moment? Not long before you go down, just waiting for your blood result. Are you on Warfarin?' The nurse looks around. 'I don't know where your paperwork is – it's a mystery.' They walk around the circuit of the ward looking for the notes; eventually finding them in the wrong trolley. (Site A, Observer 3, afternoon)

Delays in the location and processing of forms were also attributed to the lack of time and work overload; these systemic issues could have serious implications for the wellbeing of patients:

> A social worker is completing an NHS Decision Support Tool [DST], a form that assesses patients' eligibility for NHS funding for continuing care. It was for a patient who'd been in hospital for 8 weeks. She emphasised, 'Some patients can literally die waiting … The nurses don't have the time to fill out the DSTs. (Site A, Observer 5, afternoon)

Site A was making the transition to electronic forms and prescriptions which promised to resolve problems associated with paper forms and missed or lost prescriptions:

> The pharmacist says: 'It's great, it will make a big difference' she beams and points to a small blank square in a very busy multi-page checklist form. 'It's a missed prescription – this should not happen'. (Site A, Observer 5, morning)

But the transition phase was causing problems of its own:

> On Site A ward the hybrid of paper and digital system is causing some issues. A nurse reports a problem linked to when two people log onto the same patient at the same time – the patient notes just 'disappeared' from the screen. (Site A, Observer 5, afternoon)

Discrepancies between new systems of electronic prescribing and paper notes created difficult choices for staff:

> Nurse 3 goes to Nurse 2 with the Green Meds trolley and asks her about something on the laptop 'am I giving both?' Nurse 2 says 'is that on electronic prescribing?' Nurse 3 says '12,000, that can't be right, it says 5,000 on the notes and that's [the electronic prescribing system] saying 12,500 units, but she's on Warfarin'. Nurse 2 says 'look on notes for yesterday. I think we can give it 'cause it says it's been given'. (Site A, Observer 8, evening)

Staff rationales and preferences for different systems in the management of paper-work created ambiguity and dispersions in workflow across departments:

> Staff discuss where the Obs notes [observation notes typically for handover to next staff member] are, they use two systems; some put them in the trays others leave them on the table by the Obs board. There is jovial conflict between staff at the start of every shift [as] they discuss which system to use. This means sometimes Obs get missed, sheets mislaid or left in cubicles. Obs notes should go to the ward with the patient but get left, then must be sent on. (Site A, Emergency Department, Observer 2, morning)

A minority of staff, typically those with fewer professional qualifications, exerted a preference for the prioritisation of their responsibilities for feeding and hydrating patients over and above the institutionalised obligation to complete paperwork:

> HCA: 'I don't bother with all the forms as I should. You may have noticed me spend an hour feeding Patient 4, she is almost blind. She needs that attention, but while I'm doing that, I'm not filling out the forms. (Site A, Observer 1, morning)

The lack of consistency in staffs' use of information systems can be interpreted a form of passive resistance to organisational norms.

Discussion

Our data contribute to claims that staff lack the autonomy they require to meet patients' needs (Byers and France, 2008; Scheel *et al.*, 2008; Hynninen *et al.*, 2016; Jensen *et al.*, 2019; Yous *et al.*, 2019; Ernst *et al.*, 2020) and frequently must 'guess their way forward' (Eriksson and Saveman, 2002). The challenges we describe speak to the limited capacity staff have for building relationships with patients in acute settings due to instances of 'partial disengagement' in the staff–patient relationship caused by interruptions to the flow of care. Ultimately, the ongoing and repetitive nature of breaks in the care relationship cause staff to lose the opportunity to deliver person-centred care with decision making compromised by lack of time and autonomy (Benner and Wrubel, 1989; McCormack and McCance, 2016). The vulnerability of person-centred care in systems that overload staffs' ability to process their responses and limit time available for care work has been highlighted previously (Laird *et al.*, 2015); our findings add to these insights.

The constraining influence of institutionalised protocols on staff responsiveness to patient need has also been brought to the foreground of recent debate (Featherstone *et al.*, 2019). Our analysis extends this to critique institutional protocols as perpetuating the stereotype that the only 'good care' is that which is 'smoothly joined up' and target focused. This corresponds with previous commentators' (Kerasidou, 2019) warnings that excessive planning and timetabling on acute hospital wards risk creating a health-care system that counteracts the practical expression of *caring virtues* and encourages staff to 'process' patients rather than engage empathetically with them. Our data provide clear examples of prolonged

process and discomfort of patients which underscores the disjuncture between the actualities of staff experience and the naivety of idealised ward protocols.

Our findings underline the fact that professional autonomy is necessary for staff to deliver person-centred care. More specifically, we show the main barrier to delivering such care in acute settings is lack of time to step outside the pressured routinised process and work towards an understanding of individual patient's difficulties and needs (McCormack, 2016; Schindel *et al.*, 2016).

Implications

Idealised ward protocols communicate organisational power. By perpetuating the stereotype of 'good care' as 'joined up care', protocols obscure the interruptions intrinsic to responsive care work. Our data indicate that workflow procedures denied staff the autonomy they required to care holistically. It is only where organisations can recognise and legitimise the continuous flow of interruptions as part of care work that they can extend autonomy to staff to manage these. Such organisational change can enable the development of well-integrated practice and knowledge to address the complexity of acute hip fracture care in the case of patients with CI.

Strengths and limitations

This study was focused on the UK/NHS context and may have limited application to wider international audiences. Accepting this limitation, we suggest that the findings will have resonance where large health-care organisations prioritise efficiency. This paper adds to a growing body of literature showing that while training may address some issues, the fundamental barriers to achieving patient-centred care are cultural and organisational (McCormack *et al.*, 2021; Featherstone *et al.*, 2019).

We acknowledge a limitation of observational data where it is not possible to rule out the possibility that people alter their behaviour when they are observed. There is also a risk of observer recall bias whereby the social action or events under observation were not recorded accurately or fully. A final consideration is the small sample size and risk of selection bias which could produce over- or understated associations. Finally, the lack of control over the study population, which was a purposive selection of site, may fail to represent the population of interest.

Ethical standards. National Research Ethics Committees reviewed and subsequently approved the various ethical submissions and protocols over the duration of the PERFECTED research programme. Ethical approval was granted by the National Research Ethics Service Committee East Midlands – Leicester (reference 14/EM/1020) and the University of East Anglia Faculty of Medicine and Health Science Research Ethics Committee on 24 January 2014 (reference 2013/2014–24). Verbal informed consent was obtained at the beginning of each call with participants informed that data might be available for further investigations after the programme.

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