The habitus of ‘rescue’ and its significance for implementation of rapid response systems in acute health care

Abstract

The need to focus on patient safety and improve the quality, efficiency and consistency of medical care in acute hospital settings has been highlighted in a number of UK and international reports. When patients on a hospital ward become acutely unwell there is often a window of opportunity for staff, patients and relatives to contribute to the ‘rescue’ process by intervening in the trajectory of clinical deterioration. This paper explores the social and institutional processes associated with the practice of rescue, and implications for the implementation and effectiveness of rapid response systems (RRSs) within acute health care. An ethnographic case study was conducted in 2009 in two UK hospitals (focusing on a ward within each of the medical directorates). Data collection involved 180 hours of observation, 35 staff interviews (doctors, nurses, healthcare assistants and managers) and documentary review. Analysis and interpretation were informed by Bourdieu’s logic of practice and his relational concept of the ‘field’ of the general medical ward. Three themes illustrated the nature of rescue work within the field and collective rules which guided associated occupational distinction practices: (1) the ‘dirty work’ of vital sign recording and its distinction from diagnostic (higher order) interpretive work; (2) the moral order of legitimacy claims for additional help; and (3) professional deference and the selective managerial control of rescue work. The discourse of rescue provided a means of exercising greater control over clinical uncertainty. The acquisition of ‘rescue capital’ enabled the social positioning of health care assistants, nurses and doctors, and shaped use of the RRS on the wards. Boundary work, professional legitimation and jurisdictional claims defined the social practice of rescue, as clinical staff had to balance safety, professional and organisational concerns within the field. This paper offers a nuanced understanding of patient safety on the frontline, challenging notions of the ‘quick fix’ safety solution.
Keywords
Bourdieu, ethnography, patient safety, acute care, failure to rescue, early warning systems, division of labour, interprofessional working

Policy background
A number of deaths that occur in hospitals are considered potentially predictable and preventable (Brennan et al., 1991; McGloin, Adam, & Singer, 1999). The problem of ‘failure to rescue’ of patients who display signs of acute illness has attracted national and international policy attention (Australian Commission on Safety and Quality in Health Care, 2008; HCC, 2009) and is regularly reported in the news media (BBC News, 2011; NBC News, 2008). Missed, misinterpreted or mismanaged changes in vital signs (such as heart rate, respiratory rate and blood pressure) can result in unanticipated admissions to the intensive care unit (ICU), increased length of hospital stay, cardiac arrest or death (McQuillan et al., 1998).

A structured, systems approach to management of acutely ill patients is now widely advocated (DeVita et al., 2006). While the majority of acute hospitals have implemented some form of rapid response system (RRS), research has shown considerable heterogeneity between the approaches adopted by different organisations. Critical care experts have suggested that a ‘gold standard’ RRS includes an early warning system (EWS), a rapid response team, and an evaluative process improvement and governance / administrative structure (DeVita et al., 2006). EWS are observation charts with predetermined ‘calling criteria’ (based on periodic recording of vital signs) as indicators of the need to escalate monitoring or call for assistance (Smith & Prytherch, 2011). A rapid response team, comprised of personnel with critical care competencies and diagnostic skills aims to provide support for ward staff, enable timely management of sick patients, and in some cases, avert the
need for ICU admission. Some teams comprise critical care physicians as in the case of the Medical Emergency Team while others can be nurse led such as the Critical Care Outreach Team (CCOT).

The number of different systems in use, implementation strategies and contexts has made it difficult to interpret research findings related to the RRS. A recent systematic review concluded that there was moderate evidence that RRSs are associated with reduced rates of cardio-respiratory arrests outside of the intensive care unit and reduced mortality (Winters et al., 2013). RRSs have been assessed as one of the top Patient Safety Strategies ready for adoption (Shekelle et al., 2013). However, research has highlighted difficulties with implementation of the RRS, with poor completion of observation charts and early warning scores, and ward staff reluctance to ask for help from response teams (Buist, 2008). In 2012, the Royal College of Physicians endorsed a standardised UK EWS for acute care to aid familiarity and consistency (RCP, 2012).

In this paper, we explore the daily enactment of the RRS in the medical directorates of two UK NHS hospitals. Previous studies have tended to focus on RRS implementation within a technical framework. We shift the focus to the social practice of ‘rescue’ at micro level, and to the structural conditions that shape delivery of the RRS. We draw on Pierre Bourdieu’s logic of practice (Bourdieu, 1977, 1984, 1990) to act as an interpretive aid. Application of Bourdieu’s concepts to the social practice of rescue facilitates appreciation of the influence of health care’s hierarchical and institutional structures, the ways in which staff negotiate these structures to implement the RRS, and the consequences of this for the care of acutely ill patients.

**Bourdieu’s habitus, field and capital**

For Bourdieu, the ‘field’ provides a frame of analysis for the study of social life. The field represents a discrete social space, a network of objective historical relations between social positions anchored in certain forms of power (Bourdieu, 1977, 1990; Bourdieu & Wacquant, 1992). Each overlapping field
constitutes an objective hierarchy, has its own values and regulative principles, and shapes and authorises particular discourses and activities (Webb et al., 2002). In this paper, our focus is on the field of general medicine within the acute hospital setting. Detection of and response to acute deterioration in patients’ conditions offers us a lens into the nature of health care work on medical wards. Interpretation of the construct of deterioration, calls for help and response behaviour encompass the sociological themes of medical uncertainty and diagnostic labelling, the division of labour and technological influences, and the articulation of professional cultures and hierarchies.

We focus on the doctors, nurses, healthcare assistants (HCAs) and managers that are ‘players’ within this field in order to make sense of how culture and power shapes rescue practice on medical wards.

Bourdieu notes that dominant norms characterise fields. He describes struggles and competition among individuals and groups because of their different stakes within the field (McDonald, 2009). He identifies four types of capital (goods or resources) that determine positions within the field, namely: economic capital (financial resources); cultural capital (legitimated knowledge, cultural credentials); social capital (a network of relationships); and symbolic capital (prestige and social honour). The four types are inextricably linked (Bourdieu, 1977). Capital is context specific but is influenced (valued, traded or ignored) by other fields. Thus the status and resource available to nurses and medical staff working within general medical wards is likely to contrast with their position in overlapping health care fields such as emergency and critical care.

In the UK setting, the hospital provides an example of a classic bureaucracy (Du Toit, 1995) due to the clustering of knowledge-based specialisation within its medical, surgical and critical care wards. HCAs, nurses and doctors have to negotiate hierarchical, occupational, temporal-spatial and bureaucratic boundaries (Bowker & Star, 1999) in order to promptly recognise and respond to patients whose conditions are deteriorating. While medical hegemony and the logic of managerialism dominate acute care (Finn et al., 2010), clinical staff also have scope to enact agency,
change and recreate social relations within its structural constraints (Svensson, 1996). A plethora of national policy guidance provides resource for staff caring for acutely ill patients on hospital wards (NCEPOD, 2005; NICE, 2007; NPSA, 2007). Staff training programmes offer a systematic approach to the assessment and care of the severely ill, while the RRS with its rules and early warning systems potentially provides staff with the resource to negotiate occupational and hierarchical boundaries (Mackintosh & Sandall, 2010).

Bourdieu conceptualises social structures as both objective and subjective - objectively, capital can be quantified and described, while subjectively, the process of acquisition and distribution engenders individual sense-making and normalisation. The various groups of social agents, working in this case in medical directorates, each have their own ‘habitus’, or embodied, internalised history (Travaglia & Braithwaite, 2009). A person’s (or occupation’s or profession’s) habitus is a system of ‘durable, transposable dispositions, that are structured, inculcated and generative’ (Bourdieu, 1977 p.53). These forms of knowledge are often partially recognised by those involved. The nature of this knowledge allows the dominant agents in the field to ‘impose (or even inculcate) the arbitrary instruments of knowledge and expression (taxonomies) of social reality’ (Bourdieu, 1991 p.168).

Existing structures, cultures and hierarchical working practices within acute care have emerged under the influence of professional, organisational, technical, economic and political constraints. In this paper we explore the rules of rescue within general medical wards to highlight collective norms and patterns of behaviour, and how these inter-relate with the RRS. Our analysis focuses on the processes of risk detection and diagnosis, asking for help, and response, drawing on ethnographic data collected over a two year period. It provides a nuanced understanding of inter-occupational interaction within medical wards and associated issues of legitimacy, power and conflict, offering theoretical insight into the social processes affecting RRS effectiveness.
Methods

Methodological approach

We adopted an ‘ethnographic perspective’ (Green & Bloome, 1997) to the study of the RRS. Ethnography is defined by a commitment to first-hand experience and exploration of a particular socio-cultural setting through participant observation (Atkinson et al., 2007). The researcher is the principal research tool (Allen, 2004). Observations are supplemented by conversations, interviews and textual material (Atkinson et al., 2007). Ethnographic inquiry offered the opportunity to add significantly to the existing evidence base regarding the RRS, which has come mainly from staff surveys and interviews (Rowan, 2007).

Participants and settings

Two tertiary UK NHS teaching hospitals were purposively selected on account of their different RRSs. The pseudonyms, Eastward and Westward, are used to maintain anonymity of sites. Each hospital’s medical directorate admitted 15,000 – 20,000 patients per year.

Rapid response systems

Acute services at Westward had an established RRS which included a standardised EWS and a CCOT which was staffed by critical care nurses and physiotherapists to help ward staff manage acutely ill patients. Eastward had a number of EWSs across its acute service and was piloting an intelligent assessment technology (IAT) on two medical wards that replaced paper observation charts with electronic charting. Vital signs data were directly entered by the nurse or HCA into a handheld device. This data was uploaded and accessible via the intranet. The technology electronically calculated an early warning score and provided prompts for repeat observations and calls for help. There was no CCOT at Eastward. Further details about each system are provided in Appendix 1.

Data collection and analysis
Following NHS Research Ethics Committee approval [08/H0808/178], X (a social science researcher with a background in critical care nursing) undertook 180 hours of observations during January to December 2009 (see Appendix 2). The activities observed included interactions between health care staff, recording of patients’ vital signs, ward rounds, handovers and multi-disciplinary team meetings. Observations focused on HCA and nursing activity on one medical ward in each of the hospitals (at Eastward, this was one of the wards piloting the IAT) together with periods of shadowing a sample of medical staff and the outreach team at Westward, that covered wards across the medical directorates. The sample was purposively selected for theoretical representativeness, in terms of categories, substructures and networks from the social organisation (Johnson, 1990). X also attended committee meetings where risk, safety and care of acutely ill patients were the focus, collecting approximately 30 hours of meso-level data. Documentary evidence (protocols and audit data) was collected. Observation notes were contemporaneously dictated into a digital recorder and transcribed, enabling sharing of data with other members of the study team.

Observations were supplemented by 35 semi-structured, face-to-face, individual interviews with HCAs, nurses, physicians, critical care staff and managers. Purposive, maximum variation sampling (Sandelowski, 1995) was employed to capture a diverse sample of opinions and experiences, across occupational and professional groups (see Appendix 2). Patients (14) and relatives (7) were also interviewed; the findings from those interviews have been reported elsewhere (X). Interviews with staff focused on the management of escalation of care, the role of the RRS, and the influence of organisational contextual factors on its application. All interviews were recorded and transcribed. Consent was obtained before attending ward rounds and meetings, undertaking interviews and collecting hospital documents. Assurances about anonymity and confidentiality were given to participants.
Data were inductively and deductively coded using NVivo v8 and organised thematically (Ritchie & Spencer, 1994). The team (comprising x and 2 social scientists, x and x) iteratively reviewed the coding framework and emerging themes at team meetings. Once data collection was complete, emerging themes were presented to clinical staff, and academic audiences at conferences to test the validity of emerging interpretations (Morse et al., 2002). In this paper we apply Bourdieu’s concepts of field, capital and habitus to our five substantive codes: ‘routine work’; ‘identification of a problem’; ‘asking for help’; ‘responding’; and ‘structural influences’. We present three themes, ‘dirty work’, ‘calling for help’ and ‘auditing practices’, which illustrate the rules of rescue, the power struggles and contradictions that clinical staff had to balance within the field.

Results

Our observations aimed to focus on the daily routines as well as episodes of step-up in care, thus situating monitoring, detection and response practices within the wider social structure of clinical work on the medical wards. Use of Bourdieu’s theory enabled us to acknowledge historical and durable dispositions, as well as differences and regularity due to context (McDonald 2009).

Dirty work: the routinisation of vital sign monitoring

Bourdieu refers to the taking-in of rules, values and dispositions as ‘doxa’, or ‘what is taken for granted’, comprising the unquestioned beliefs constitutive of a field (Deer, 2008). Within the social system of rescue, the categorisation of tasks offered insight into the moral value attached to certain activities, and competing workplace priorities and codes of practice.

Participants from all occupations emphasised the core value of observing patients’ vital signs as a means of detecting changes in their condition. This activity reflected a fundamental function of acute hospital care, ensuring the safety of patients admitted to medical wards.
'We’re a hospital, we do observations, that’s what we should do, this is one of the most basic aspects of hospital care' [Westward, Nurse Manager, 10]

However, alongside the rhetoric acknowledging the value of this activity was a narrative conceding its ‘basic’ function. We observed a hierarchical division of labour regarding monitoring practices on the medical wards. The routine checking of patients’ vital signs was perceived by nurses to be a task that could be safely delegated to HCAs. Nurses, as part of the modernization agenda, have taken on additional technical and managerial responsibilities, including drugs administration and discharge planning, which have made them too busy to undertake elements of hands-on patient care (Bach, Kessler, & Heron, 2012). This shift was socially sanctioned by managers who rationalised that delegation of the task of taking vital signs to HCAs was necessary because of the need to maximise efficiency within the hospital setting.

‘It’s inevitable that the HCAs do the observations because of the staffing levels. The qualified nurse can’t be doing absolutely everything. [...] I would prefer it if qualified nurses did them but it’s not going to happen is it? HCAs can be shown how to do it safely and effectively’ (Westward, Nurse Manager, 6).

The nurse participants drew a distinction between routine monitoring of patients’ vital signs (which could be safely delegated to HCAs), and the more complex interpretive work required for assessing those patients categorised as unstable. This enabled them to resist the ‘dirty work’ (Emerson & Pollner, 1976) of routinized observation as a task, while retaining jurisdiction over the diagnostic skills required for ongoing assessment of those patients who were causing concern.

‘We are supposed to do the observations once a shift. But it’s whether we get round to doing them ... if you’re doing all the drugs then that’s not likely to happen’ (Eastward, Nurse, 5).
'We only have one health care assistant on this ward at night. Sometimes I end up doing all the observations, which is not nice, even though the manager said that everybody needs to combine and do them ... the nurses do the drugs and I have to do all 28 observations’ (Eastward, HCA, 3).

The introduction of the EWS at each organisation provided important capital for nurses and managers to defend these jurisdictional boundaries. The systems offered an additional safety net, thereby legitimising the division of labour. A script was built into each EWS to provide guidance about those vital signs which were potentially of concern, and the follow-up actions that were required. This diagnostic script further legitimised nurse separation from the task.

‘All of the shifts in nursing practice are away from the patient. It is too simplistic to say, just make the nurses do the observations, because that isn’t ever going to work. That’s where the electronic system is great because it is acknowledging what the problem is and helping people use what they are used to, i.e. modern technology to get back there. It’s so easy to use and it gives such clear instructions, [...] anybody can use it. It removes a huge potential for error at a swathe’ (Eastward, Nurse Manager, 20).

‘HCAs can be shown how to do the observations safely and effectively. The interpretation’s more difficult but the EWS has given them a little bit more insight into it’ (Westward, Nurse Manager, 6).

As can be seen in the following extracts, nurses selectively engaged in monitoring activities at both sites. This was particularly evident at Eastward, where HCAs used the PDAs to both enter and view vital sign data, while the ‘computers on wheels’ became the domain of the nursing and medical staff,
thereby reinforcing hierarchies and divides between those involved in the mechanistic activity, and those responsible for interpreting and responding to the data.

At 1am, the staff nurse, Sarah, is called to see a patient who is complaining of breathlessness. Sarah checks her respiratory rate and returns to the desk where Maria, the HCA is stationed. She asks Maria ‘Can you do the observations on bed 4, she’s not feeling well. Her respiratory rate is 29, can you do the rest of the observations for me?’ Meanwhile Sarah starts preparing some intravenous drugs. [Field notes extract, Westward, FN6]

About 4am, Amy, the doctor comes back to check on the condition of a patient. Amy asks if his observations have been done. Lisa, the staff nurse reports ‘Not yet’. Jane, the HCA is on her break. Lisa disappears down the ward to check the patient’s vital signs. Lisa does not use the PDA and enter the vital sign data herself; she writes the observations down on a kitchen towel and then when Jane comes back from her break she gives the towel to her for Jane to enter the data. [Field notes extract, Eastward, FN6]

The HCAs position at the bedside brought with it privileged access to assessment and diagnostic information. During caring work, HCA were often the first to spot subtle changes in patients’ conditions.

‘one of our patients, he had severe shortness of breath, just as we were serving breakfast I found him really chilly, changing colour as well. This is a man that, although he’s got his problems he’ll go to the wash room, with help of course, but he normally has colour and this time he was pale and not responding. So that kind of triggered me, I tapped him, ‘Are you all right?’ and he was just like ... very drowsy. I thought he was gone, I just ran to the nurse’ (Westward, HCA, 2).
HCAs reported that ‘knowing’ the patient was an important form of capital in enabling early detection of subtle changes in a patient’s condition. Previous admission and ongoing relationships enabled them to make sense of patients’ individual signs and symptoms. Taking on large numbers of observation checks made it harder for HCAs to use the data in the context of other embodied knowledge, a point picked up by this nurse manager.

‘HCAs can pick up [changes in a patient’s condition], you don’t have to be qualified to work with somebody for three days in a row and then think, you’re not the same as you were yesterday[...]. But if you make the HCAs do all the observations on the ward, then the observations might be OK or just on the edge but because they don’t actually know the patient they’re not going to pick up changes’ (Eastward, Nurse Manager, 20).

Paradoxically, while nurses defended delegation of routine monitoring to HCAs on account of its basic function and the ‘safety net’ of the EWS, use of the paper based chart and electronic system brought with it opportunities for the HCAs to demonstrate competence in detection of deterioration and calling for help. Both systems helped blur distinctions between the doing of observations, interpretive work and remedial action, and enabled HCAs to articulate and make visible their important role within patients’ rescue trajectories.

‘As soon as we get a high score we’re supposed to go straight to the staff nurse and inform them that this patient’s observations have been outside normal. And then the staff nurse will inform the doctor and say, ‘this patient’s blood pressure is below normal, is x, y, z, so if you could come and review this patient.’

I: Do you ever ring the doctors yourselves?

‘Yes. If [the nurses] know you’re competent to do it they will allow you’ (Eastward, HCA, 2)
Historically, nurses’ relationship continuity with patients has put them in a relative position of strength in relation to the doctor who was less likely to be aware of changes in the patient’s condition (Svensson, 1996). Across both sites, while the new division of labour strengthened managerial control of the labour process (Daykin & Clarke, 2000), it reduced nurses’ autonomy and control of rescue processes. For periods of time, HCAs had a monopoly over information regarding the observations. Through HCAs judgements and reports they controlled diagnostic work and rescue processes (Kessler et al., 2010, Cohen, 2011). Increasing specialisation brings with it adverse consequences of compartmentalisation of knowledge and structural secrecy (Vaughan, 1999).

Calling for help: the significance of epistemological, hierarchical and bureaucratic boundaries

Safety protocols for escalation of care are designed to provide license for staff to raise concerns across hierarchical and occupational boundaries (Mackintosh & Sandall, 2010). At both sites the EWSs were used to mediate the nurse (HCA) - medical boundary. Local use of the tools reflected professional and epistemological differences in utilisation of protocols (Manias & Street, 2000). Medical staff exercised their professional authority over the diagnosis of deterioration, minimising the importance of the scoring system for their own sense making. The purpose of the EWS was perceived to aid nurse recognition and referral of a potential problem to the medical team, so the doctor could then assess the clinical significance of the call for help.

‘I don’t find the score that useful, I’d rather know the [vital sign] parameters. The score’s good because it makes sure that nurses phone a doctor or alert someone if the score’s going up, but some people run at a persistently low blood pressure or at low saturations because they’ve got Chronic Obstructive Pulmonary Disease. Even if nurses told me they’re scoring 9 I’d still want to know exactly what the different things were’ [Eastward, Junior Doctor, 10]
The exercise of professional power was legitimated by the systems (Manias & Street, 2000). The EWS acted as a form of jurisdictional control, simultaneously enabling and constraining escalation of care. If patients scored, the system provided additional authority for HCAs and nurses to call for help. However, if their concerns lay outside the codification implicit within the system (for example, tacit markers such as increasing restlessness, change in colour), it was often harder to be taken seriously. Status and professional boundaries provided a frame for doctors to label nurse calls for help as ‘over-reactive’.

‘I’ve never had reason to believe if a patient wasn’t scoring that the patient was deteriorating. Nurses often are worried about a patient because the patient describes feeling really poorly or doesn’t look well, but that’s why they are in hospital. Their concern is often down to their lack of experience. If patients are not scoring I feel less worried about them’ (Westward, Junior Doctor, 4)

For junior doctors, the socialisation of recognition and response behaviour included learning the professional norms operating within the medical teams. Junior medical staff learnt that a comprehensive ‘chart talk’ style handover facilitated medical response. The handover process was an important mechanism for conveying junior staff’s level of competence.

Emily [a senior house officer] is called by a foundation year 1 doctor (FY1) who requests she reviews a patient with a collection of fluid on her leg. Emily asks whether the patient is showing signs of cellulitis or has a temperature. Emily ends the call exasperated, saying she hasn’t the time to see the patient until the FY1 ‘gets her facts together’. She expresses annoyance with the FY1 for wasting her time and not being better prepared. [Field notes extract, Westward, FN9]
While the juniors interviewed noted that it was important to involve seniors earlier rather than later on in rescue work, also distinguishable from the interview data were the ‘restitutive sanctions’, noted by Bosk (1979 p.169), which occurred when junior doctors made technical errors in the process of escalating care. Juniors learnt that managing on their own was an important process to master. Seniors expected only to be called once a patient’s condition had deteriorated beyond a certain point.

‘You know that you wouldn’t call your seniors unless you felt it was important ... there’s a trust there, otherwise you’re calling them and they ... can get quite angry’ (Eastward, Junior Doctor, I9)

The addition of the CCOT at Westward provided a welcome resource for junior medical staff learning how to manage the patient without necessarily calling in senior medical support.

The ward nurse has called the outreach team and the FY1 to review a patient transferred from the High Dependency Unit yesterday. Since his transfer his condition has deteriorated. The outreach nurse sees the patient and starts him on some oxygen therapy. The FY1 arrives while she is there and seems visibly relieved to see her; they discuss the patient’s plan of care. [Field notes extract, Westward FN 5]

However, while junior doctors noted mentorship benefits from the outreach nurses, more senior house staff expressed concerns about the consequence of associated jurisdictional shifts in responsibility for acutely ill patients. Both the asset of a well-resourced critical care service at Westward and policy support for the RRS (NICE, 2007) had enabled the CCOT to improve their positional power within the medical directorate. Some doctors expressed concerns about the consequence of this for their professional development particularly in the light of their jurisdictional
control over treatment processes in the rescue pathway.

A foundation year 2 Dr reports to me that there have been a number of occasions where the team have been called in place of the junior doctor and he has only got to hear about changes in patient’s condition well after the event. He notes that there’s a limit to the team’s effectiveness as they cannot prescribe treatment; the patient still needs to see a registrar who can then decide on appropriate intervention [Field notes extract, Westward, FN2]

Distinction practices were also apparent in the management of the interface between general medicine and other specialities such as surgery, neurology and cardiology. Intra-professional jurisdictional disputes are organisationally driven and relate to the structuring of care delivery (Oh, 2013). Durable dispositions within the field included the acceptance of delays with referral and response linked to structural boundaries, and a reluctance to speak up and challenge medical colleagues about these practices (Bosk, 1979).

21.00 The outgoing medical teams are handing over to the night staff. The senior medical registrar reports that a patient is waiting review. The patient fell off his scooter earlier today and has fractured 6 ribs. He has been accepted by the thoracic team but they have no beds. The junior registrar adds that his condition has deteriorated over the day. A lumbar puncture is now indicated but routine bloods including clotting were not taken on admission and have only just been drawn. The night registrar asks whether the bed on the thoracic ward is available. He hears that the cardio-thoracic registrar is due to see the patient, but they are not sure when. He responds ‘We’ll wait for the cardio-thoracic team to review the patient.’ [Field notes extract, Westward, FN9]
The generative nature of the habitus establishes an active relationship between actors and the external determinants of practice. Negotiation of the hierarchical and hegemonic landscape of the medical ward involved learning how to trade safety with professional and organisational concerns.

**Auditing practices: the visibility of rescue work**

The ‘securitization of healthcare work’ is the process of detecting and accounting for threats to patient safety and exercising the authority to characterise and control them (Brown, 2008, p1050). National policy emphasised the importance of organisations self-assessing their efforts to improve detection of and response to clinical deterioration (NCEPOD, 2005; NICE, 2007; NPSA, 2007).

At Westward, several of the physicians had successfully implemented safety improvement programmes (e.g. falls prevention) within the medical directorate. These successes generated economic resource for the directorate and provided the clinicians with the cultural capital to take on improving care of acutely ill patients not only within the directorate but across the organisation.

‘We ran a lot of pretty successful programmes to reduce harm events. *C*-difficile infections disappeared as a condition in medicine, although not necessarily across the rest of the hospital. And hospital falls went down by about 50%. And linked to that was a massive reduction in length of stay. [...] We thought [with regards to] the recognition and response to acutely ill patients, [...] we can use the thoughts, ideas, principles of quality improvement and quality control here’ (Westward, Consultant Physician, 11).

The securitization process of auditing involves ‘the production of a certain kind of truth or cultural capital and is a discourse through which relations of power are exercised’ (Brown, 2008, p1050). Compliance with the escalation protocol was reported weekly at the medical directorate senior nurse meeting. Charts were displayed within ward corridors detailing the latest audit results of
completeness of observations and documentation of the EW score. Poor compliance to protocol was followed up at ward level. Early warning scores appeared to be part of the verbal and written vernacular.

Night nurse: ‘Scoring 2 due to heart rate of 112, Michael also feels short of breath, producing yellow sputum over night’

FYI Doctor: ‘He is very nauseous, scoring 1-2, short of breath, 93-94% on room air, blood pressure was low, 98 / 62’

Physiotherapist: ‘The patient reports his chest feels tight, has coughed up thin green secretions. Observations at 7am, blood pressure 109, saturations 95%, scoring 1.

[Extracts from patient record, Westward]

For those general physicians and managers involved in implementation of the RRS, there was the opportunity to demonstrate success at not only directorate but organisational level. High rates of compliance with vital sign monitoring standards, reductions in cardiac arrests, and relatively low mortality comparative to other local hospitals helped these individuals to gain individual status beyond the field.

‘I’ve now become involved in informal consultancy, it’s getting on for half the NHS I’ve given informal advice for free. [Other hospitals] know our performance data is good’ (Westward, Consultant Physician, 12).

At Eastward, the decision to pilot the IAT as a means of monitoring vital signs on two of the medical wards was taken by the Trust Board. The IAT was perceived to offer additional capital to help secure the hospital’s reputation as a successful adopter of cutting edge innovative technologies.
‘The chief executive feels we’ve got to be at the forefront of things, the board have all agreed that IT is going to be the area which can help us do that’ (Eastward, Nurse Manager, 18).

Board support for the IAT was driven primarily by its ‘fit’ with the hospital’s programme for rolling out an electronic records system. The decision to implement the IAT was taken without consulting the senior nurses who were in charge of the two pilot wards or the consultant physicians whose firms were located there. Medical staff disengagement in the system (particularly at senior level) was observed.

I attend a post-take ward round. The foundation year doctor can’t find an available computer on wheels to take to the bedside. This does not appear to bother the team. They have the patient’s medical notes (in paper form) with them. They focus on the patient’s vital signs that were recorded on admission to the emergency department. They do not have access to any vital signs data since the patient’s admission to the ward as they are only available in electronic form. They write a treatment plan in the notes and move onto the next patient [Field notes extract, Eastward, FN2]

The nurse managers reported the benefits of real-time surveillance of vital sign monitoring practices. The IAT offered them the opportunity to shape the ordering of this work. Managers were able to log when the observations were done and who had recorded them. Audits documenting late observations, and adherence to protocol were fed back to the nursing teams every few weeks.

‘You can see clearly the time of day the HCAs and nurses do observations and the dip at night time. [...] It was very apparent that one of the wards wasn’t doing any pain scores’ (Eastward, Nurse Manager, 20).
Over the research period, the process of self-monitoring was observed to become less frequent. Senior nurse feedback of the data to the nursing team for quality improvement purposes tailed off. Electronic flags denoting late observations appeared to lose their disciplinary impact. Breaches of protocol were normalised by senior nursing staff on the ward when the ward was busy. While HCAs prioritised monitoring of those patients with established signs of critical illness, the routine surveillance of patients at risk of clinical deterioration was generally marginalised.

When Emily, a staff nurse and I start the afternoon shift we look at the screen of the computer on wheels. We can see that all the observations for the two bays are overdue, none of the patients have had theirs checked since six o’clock that morning. The washes and bed-making have been completed. [Field notes extract, Eastward, FN14]

What was evident across both hospitals was that directorate management and audit of rescue processes focused on ‘basic’ HCA and nursing activities such as monitoring observations and calling for help. Routine ‘basic’ medical tasks such as checking blood tests, ordering diagnostic procedures and chasing up results, which facilitated timely diagnosis and decision making, lay under the radar in terms of what was recognised by the organisation as rescue work. Decision making processes within medical teams and medical response behaviour were also not routinely scrutinised. The rescue processes that were selected for oversight fell mostly within the jurisdiction of HCA and nurse control, perpetuating distinctions and ‘blame’ for errant behaviour between professions and occupations.

‘I did some observations on my patient; she was really going downhill. The doctors had all the charts, so I wrote them down on a note and gave it to the staff nurse, saying ‘Can you let the doctors know, as they have the charts’. She completely forgot. Later that afternoon, [the doctor] came straight to me and said, ‘Are you in charge of this patient?’ I said ‘yes’. ‘Did
anybody do observations for this gentleman?’ I was panicking and said, ‘Yes I did and I gave it to ...’ [...] He was really upset. He told me, ‘Do you know how important these things are to us?’ I was like, ‘I’m really, really sorry, I’ll make sure it doesn’t happen again’ (Westward, HCA, 1).

‘[The IAT] can show you that we don’t do the observations through the night. [...] I know in the morning Sister’s going to check the computer first, so I’m going to do my observations because I don’t want her saying ‘you were on yesterday, why hasn’t this been done?’’ (Eastward, HCA, 3).

Our data illustrates the inter-relationship between the field, capital and hierarchical divisions of labour. Audit processes offered only a partial lens on rescue work and managers’ gatekeeping functions were limited by symbolic power imbalances.

**Discussion**

As noted in sociological critiques of the safety literature (Silbey, 2009; Rowley & Waring, 2011), there is scant reference to power, group interests, conflict, or inequality within existing research exploring front-line use of the RRS. This paper broadens the frame of reference from a policy oriented ‘fix it’ model aimed at improving ‘poor implementation’ of the RRS to a sociologically informed model of the habitus of rescue with its associated paradoxes between professionalism and safety systems theory, disparities of power and cultural legacies. Our research provides a situated exploration of the particularities of rescue work within two organisational case studies. Bourdieu’s approach enables critique of structuralist assumptions regarding system universality by exploration of local performative processes. We present three themes which illustrate the nature of rescue work within the field of the general medical ward and the collective rules which guide associated occupational distinction practices. These themes are (1) the ‘dirty work’ of vital sign recording and
its distinction from diagnostic (higher order) interpretive work; (2) the moral order of legitimacy claims for additional help; and (3) professional deference and the selective managerial control of rescue work.

In our ‘non-touching culture’, the requirement for nurses to carry out body care activities has meant that elements of nursing have an association with ‘dirty work’ (Lawler, 2006). Nursing work was traditionally organised into a hierarchy of tasks structured such that as nurses assumed a higher status they moved from ‘dirty work’ to cleaner tasks associated with less bodily contact (Lawler, 2006). Nurses have sought to delegate body care work to care assistants (Daykin & Clarke, 2000). While the holistic discourse in nursing emphasises the importance of ‘basic hands on’ care as a means of assessing patients’ emotional and physical condition (Bach, Kessler, & Heron, 2012), our research shows that nurses’ technical competence in drug administration and care management allowed them to distance themselves from the bodily task of routinely taking patients’ vital signs. Routine aspects of professional practice are often degraded to the paraprofessional level (Freidson, 1970; Abbott, 1981). These jurisdictions were legitimated by managers and senior nurses on account of interpretations of reliability, trustworthiness and safety associated with the safety technologies, despite evidence which highlights the EWS’ lack of accuracy in identifying critically ill patients (Rowan, 2007; Gao et al., 2007).

This research supports findings from other studies that, through their judgements and reports, HCAs control aspects of healthcare work and influence processes such as diagnostic work (Kessler et al., 2010; Cohen, 2011). As nurses’ embodied engagement with a patient’s body is reduced, their reliance on HCAs’ abilities to offer cogent verbal and written explanations of the patients’ changing condition increases (Cohen, 2011). While HCAs had jurisdiction in aspects of rescue work, nurses were held accountable for patient care. The HCAs generally held the situated knowledge about the patient’s condition yet the usual practice was for nurses to escalate care to the medical team. The
division of labour, hierarchy, and specialisation associated with this aspect of rescue practice segregated knowledge about vital signs with adverse implications for safety (Vaughan, 1999). In addition, the safety technologies delineated the physical task from the cognitive process, with a decision script built into the EWS, further stigmatising the act of checking observations. The IAT functioned as an ‘e-panopticon’ (Foucault, 1976) with its remote access to vital sign data, removing understandings of deterioration from the need for visualising or touching the body.

Associated with the division of labour in rescue work is a problem long recognised within sociological understandings of patient safety, that ‘lower-level actors are often repositories of critical information’, yet ‘unable to persuade higher-ups in the organization of either the credibility of their knowledge or relevance of their perspectives’ (Silbey, 2009, p.361). Our research highlights how gendered ideologies shape medical responses to nurses’ means of raising the alarm (Porter, 1992). Concern for the patient may be perceived as ‘over reactive’ and dismissed accordingly on account of underpinning masculinist ideals which value rationality, objectivity and self control (Davies, 1995).

Rescue work mirrors restaurant work in that HCAs, nurses and junior doctors have to overcome lines of authority and initiate work of higher status. Written orders in hierarchical restaurant work have been found to minimise interaction and serve as a means of reducing friction (Whyte, 1949). The EWS provided a mandate for nurses and HCAs to escalate their concerns across hierarchical and occupational boundaries providing their concerns aligned with the codification implicit within the system. The EWSs offered a reductionist representation of rescue work which made it harder for nursing staff and HCAs to operate outside their boundaries, potentially reproducing hierarchies and power structures. As found with safety checklists (Bosk et al., 2009), the restructuring of relationships was a significant social challenge for those trying to overcome occupational hierarchies.
For junior doctors, calling for help was observed to be a complex judgement that balanced the desire for clinical autonomy with an understanding of consequences to self, senior colleagues and patients (Stewart 2008). Being seen to be clinically and technically competent was important. This code appeared at times to contradict the normative code of seeking appropriate help (Bosk, 1979). Hierarchical relationships between specialist and generalist teams contributed to delays in response as specialists set and controlled caseload boundaries (Abbott, 1981). Senior staff within general medical teams were reluctant to challenge these hegemonic practices. Delays in response due to boundaries between medical teams largely escaped organisational attention.

Although safety interventions may have mutual benefits, ‘all are not made equally better off’ by them (Silbey, 2009 p.362). The prevailing meanings that informed rescue practice reflected the preferences, actions and cultural norms of specific occupational groups, reinforcing the status quo and power differentials of the wider healthcare system. While the positional power of critical care nurses had improved relative to junior doctors, the habitus of rescue largely reinforced the social power and influence of the medical profession. Interprofessional differences in adherence and violations associated with EWS use were socially sanctioned. Doctors strongly advocate the freedom to reject protocols or innovate in individual cases, and are less likely to report violations or judge the behaviour of colleagues negatively, even in cases with a bad outcome (Manias & Street 2000, Parker & Lawton 2000).

Parameters of audit data regarding each organisation’s RRS reinforced local knowledge about the practice of rescue (Power, 1997). This legitimated hierarchical and professional divides; performance management was limited to monitoring of vital signs alone rather than inclusive of diagnostic decision making and medical team response practices. At Westward, the power of effective safety management when operated by doctors (functioning with dual legitimacy as safety lead and clinician), for doctors (Waring, 2007 p.174) was evident. However, given the historical and cultural
shaping of medical hegemonic practice, tackling hierarchical segregation of authority and knowledge within and across medical teams appeared a significant challenge. Further examination of the cultural setting of rescue including the framing of performance ‘success’ at organisational level, and how this legitimises the exercise of power and decision making at micro-level is likely to provide an important contribution to this field of study.

Conclusion
Using Bourdieu’s framework, this paper has conceptualised the habitus of rescue and relationships between associated organisational structures, processes and cultures and the RRS within the socially complex field of acute health care practice. Our analysis has shown how the values and practices of the healthcare field can be shaped by rescue capital in the form of policies, governance frameworks and technological systems. Yet aspects such as the mundane routine and task delegation of rescue work, and structural and professional inequalities require greater focus. While policy tends to locate responsibility for rescue at the frontline, implicating HCAs, junior nurses and doctors in their ability to detect and raise the alarm appropriately, this research demonstrates that responsibility is distributed across the organisation; individual responsibility spans various hierarchical levels. Powerful elites may be removed from hands on risk-assessment and response processes, but their decisions and actions also enable and compromise rescue work. Safety solutions such as centralised electronic systems designed to include both monitoring and medical response strategies, and the inclusion of patient/family concerns into calling criteria for rapid response teams (Odell, Gerber, & Gager, 2010) offer potential for further shifts in the habitus of rescue and power relations within the field. These require further study.

References


Mackintosh, N., & Sandall, J. (2010). Overcoming gendered and professional hierarchies in order to facilitate escalation of care in emergency situations: The role of standardised communication protocols. *Social Science and Medicine, 71*(9), 1683-1686.


Stewart J. (2008) To call or not to call: A judgement of risk by pre-registration house officers. *Medical Education* 42(9), 938-944

30


