Patient safety as a science of ‘muddling through’?
Incident reporting systems and organizational learning - towards more effective use of incident data

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Abstract
Incident reporting systems are now well established in the National Health Service (NHS) in the U.K. as a result of government initiatives and stakeholders’ efforts to invest in the necessary systems to avoid preventable adverse events and improve the quality of health care. The rationale for incident reporting systems is that they will enable NHS Trusts to learn from accidents and implement improvements to care processes. Despite the emphasis on incident reporting as a source of learning, there has been little empirical research examining how incident data is used to increase safety and whether learning from incidents is effective. The aim of this study was to investigate in detail how two NHS Trusts (acute care and mental health) use incident data to increase patient safety. The first stage of the research analysed organizational processes for monitoring, reviewing and acting on incident reports, using documentary analysis of key policies, and interviews with key individuals at both trusts. The analysis revealed a highly complex process of review at many organizational levels with multiple lines of responsibility. These findings suggest potential problems surrounding the integration of incident data with other patient safety related information and a lack of coordination of actions across different organizational levels.

We adopt Lindblom’s approach of ‘muddling through’, which helps to highlight how patient-safety policies may reflect the numerous conflicting priorities and constraints within an organization which affect change, rather than reflecting a thorough weighing-up of the available evidence followed by rational planning and sustained implementation of improvements. This research ultimately aims to promote a better understanding of the use of incident data and how it can be used as a means of risk management.
Introduction
Since the publication of the Department of Health report “An organization with a memory” (OWAM) (Department of Health 2000), the British Government has successfully embedded the tools and language of patient safety in the mainstream of the NHS in England and Wales, and patient safety has become an integral part of clinical governance (Gray and Harrison 2004; Ham 2004). Following government consultation on OWAM and subsequent reports (Department of Health 2001a, 2001b), incident reporting (IR) systems were introduced as a ‘learning mechanism’ (NAO 2003: p.11). As a result, IR systems are now well established in the NHS as a major component of clinical governance, alongside risk management, clinical audit, patient complaints and education and training. As part of this, the National Reporting and Learning System (NRLS) was founded in 2004. As of May 2009, 94% of NHS Trusts in England had reported at least once to the NRLS in the past quarter. This amounted to 3,290,848 incidents in total (NPSA, 2009).

The rationale for introducing IR systems was that they would enable NHS Trusts to learn from errors and accidents in a blame-free environment and implement improvements to care processes to increase safety. As with other ‘evidence-based’ policy interventions advocated under the New Labour government (Parsons 2002; Perri6 and Peck 2004), data produced and collected both nationally and locally by IR systems were thus viewed as a potentially significant resource to promote a more systematic approach to patient safety.

Despite this wide use of IR systems geared towards ‘learning’ (NPSA 2006; NHSLA 2009), there has been little empirical research examining how incident data is used to improve safety at the Trust level and whether learning from incidents is effective. In the healthcare literature, discussions about incident reporting have focused more on how many incidents are reported and how they are classified rather than on how the data are used to address weaknesses in processes and produce safer care (Battles and Stevens 2009; Shojania 2008). For example, the NHS Staff Survey, published annually by
the Healthcare Commission (now the Care Quality Commission, CQC) since 2003, features a series of questions concerning errors, near misses and incidents and how they are perceived to be handled by each Trust. However, the questions are focused primarily on incentives and hindrances to staff reporting, rather than what they learn from IR systems and what changes are made as a result of these.

Ten years on since the OWAM, a report published by the Health Select Committee in the House of Commons in July 2009 noted: “the NHS has succeeded in establishing an incident-reporting system (comprising both local systems and the NRLS) that is unique in the world in its scale and comprehensiveness” (Health Select Committee 2009: para.100). However, the report concedes that ‘its effectiveness is restricted’ by three factors: (i) the significant extent of under-reporting, (ii) the lack of focus in the NRLS, and (iii) the inherent limitations of data from reporting systems as a means of generating information about patient safety issues and solutions.

Lindblom proposed “the science of ‘muddling through’” (Lindblom 1959) in order to help understand why policy-making at the macro level often failed to fit with ‘rational’ or ‘scientific’ models of policy-making. We can usefully and appropriately apply Lindblom’s analysis to consider how health care professionals deal with incident data, and in particular, how they make decisions concerning corrective actions with limited time and resources.

Drawing on previous research findings combined with interview and observation data gathered at an acute and mental health trust, this article seeks to explain why, ultimately, current IR systems and learning activities are necessarily limited in their scope and impact. The paper also helps explain some of the challenges facing the policy goal of producing ‘self-learning’ hospitals (Parsons 2002).

‘Muddling through’
In his seminal article ‘The Science of “Muddling Through”’, Lindblom contrasted two approaches to policymaking. One is rational-comprehensive
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(‘Root’) and the other involves successive limited comparisons (‘Branch’) (see the summary in the table below). As opposed to the traditional rational models of administrative decision making, which separated ends from means, Lindblom argues that policy makers often undertake decisions under conditions where means and ends are considered simultaneously.

<table>
<thead>
<tr>
<th>Rational-Comprehensive (Root)</th>
<th>Successive Limited Comparisons (Branch)</th>
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<tr>
<td>1a. Clarification of values or objectives distinct from and usually prerequisite to empirical analysis of alternative policies.</td>
<td>1b. Selection of value goals and empirical analysis of the needed action are not distinct from one another but are closely intertwined.</td>
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<tr>
<td>2a. Policy-formulation is therefore approached through means-end analysis: First the ends are isolated, then the means to achieve them are sought.</td>
<td>2b. Since means and ends are not distinct, means-end analysis is often inappropriate or limited.</td>
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<tr>
<td>3a. The test of a &quot;good&quot; policy is that it can be shown to be the most appropriate means to desired ends.</td>
<td>3b. The test of a &quot;good&quot; policy is typically that various analysts find themselves directly agreeing on a policy (without their agreeing that it is the most appropriate means to an agreed objective).</td>
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</table>
| 4a. Analysis is comprehensive; every important relevant factor is taken into account. | 4b. Analysis is drastically limited: i) Important possible outcomes are neglected.  
ii) Important alternative potential policies are neglected.  
iii) Important affected values are neglected. |
| 5a. Theory is often heavily relied upon. | 5b. A succession of comparisons greatly reduces or eliminates reliance on theory. |

Table 1. Two methods of policymaking (Lindblom 1959: p.81).
The idea of ‘successive limited comparisons’ was later developed as ‘incrementalism’ (Lindblom 1979) and is now widely applied in research on decision making (Morçöl 2007) and public policy (Hill and Hupe 2006; Weiss and Woodhouse 1992). Despite the original focus of Lindblom’s paper on policy makers at the macro (societal) level, it can be extended to the analysis of the implementation stage of policy where ‘street level bureaucrats’ (Lipsky 1980) (i.e. medical professionals with responsibilities in the area of risk management) are required to take decisions on ameliorative actions, often under conditions of uncertainty. While the goals and instruments available to staff with risk management responsibilities in hospitals may certainly be more circumscribed than those of policy-makers at macro level, the problems they face are similarly complex in kind if not degree compared to those mentioned by Lindblom (1959: p.81). Hence, for example, the decisions made by staff with risk management responsibilities also involve trade-offs, either explicit or more likely implicit, between values, objectives, and the interests of different groups.

**Methodology**

Three methods were used to gather data for this study. First, key Trust documents (strategy and policy documents) were analysed to identify the organizational structures and processes used for dealing with incident data. Discussion of incidents and proposed actions were also analysed by reviewing meeting minutes and investigation reports.

Second, selected incident review meetings at the two Trusts have been observed for a three month period (n=15). Observation will continue to be carried out for another three months. This ethnographic observation was undertaken to provide an insight into the process of reviewing incident data and deciding on actions. The meetings were not audio taped but full field notes were produced immediately after the meetings based on a semi-structured observation checklist.
Third, semi structured, face-to-face interviews were conducted with clinical staff with some managerial responsibilities (n=40). Most such staff regularly attend incident review meetings at some level within their Trusts. Interviews were audio recorded with the participants’ permission and thematically analysed. A semi-structured interview guide was used but questions varied slightly to consider issues uncovered in previous interviews and/or observation and to follow up points raised by participants requiring further exploration.

The following sections present preliminary results from the data with a particular focus on a number of challenges and obstacles for effective decision-making on the basis of incident data, which were either identified by interviewees or observed by the research team. For this paper, our data will be focused on the questions raised by Lindblom’s distinction between scientific, rational decision-making and ‘muddling through’. At the end of this paper, some of the implications of our findings for policy making and research questions are suggested which might usefully be further explored in future studies.

**Challenges for organizational learning from incidents**

As Øvretveit (2009) argues, patient safety problems are multifaceted and need to be examined accordingly, by adapting, combining and applying theories focused on psychological, social and cultural aspects which might otherwise be investigated separately. As he points out, an organizational perspective combining these theories can provide a useful lens to examine the learning activities of healthcare organizations after an adverse incident.

There is a vast literature on organizational learning and knowledge management within organizations (Argyris and Schön 1978; Nonaka and Takeuchi 1995; Senge 2006). Drawing on the work of Fiol and Lyles (1985) and Huber (1991), organizational learning is defined here as the process whereby organization change their behaviour following the processing of information.
Previous studies have demonstrated that the use of incident data at the organizational level is constrained by a number of factors. Learning on the organizational level is complex “partly because learning is vicarious rather than enactive, hence has to be mediated, and partly because a number of people and/or organizational functions may be required for learning to take place” (Hollnagel 2005: p.908).

Learning from failures within healthcare organizations involves a series of actions, including detection of an incident, analysis of and investigation into an incident, making decisions on corrective actions, implementation and evaluation. Lindblom’s approach, along with previous findings, would suggest that several challenges exist at every stage of those actions, which can be summarised as follows. First, there is the potential for conflict and confusion over values in relation to patient safety. Although some goals (e.g. increasing patient safety and reducing incidents) may not be contested, different stakeholders take different views on the current state of safety and weigh it differently in comparison to other priorities such as efficiency and accessibility. Such value judgements are, however, often implicit rather than explicit, and often cannot be divorced from the empirical analysis of needed actions (see 1b and 2b in Table 1).

Additionally, incident review meetings tend to be structured along clinical specialties (surgery) or location (boroughs), reinforcing a silo structure within an organization, which could create a barrier to sharing lessons across Trusts. Group discussions at a departmental level also have different dynamics, depending on their remit, membership and style of chairing. Participants’ views of what they can and should do in those meetings are often rather narrow, while some people seek to pursue their agenda (or that of their care group or specialism) rather than engage in critical analysis of each incident presented of data from IR systems.

Third, the lack of resources (financial and time) has several implications for learning. Without additional assistance, structured investigations heavily rely
on clinical staff who are already tasked with preparing for incident review meetings. Resources are often not sufficiently available for systematic review of corrective actions and evaluation of their effectiveness. As a result, decision makers (i.e. clinicians, nurses and risk managers) tend to agree on solutions without reaching considered agreement that these constitute the most appropriate means to an agreed objective (3b in Table 1).

Fourth, the involvement of frontline staff in the process of learning from adverse incidents can be prohibited by the perceived negative and sensitive nature of this task. Studies have suggested that local participation in learning activities using incident data is weak. It is extremely difficult to keep key stakeholders engaged and passionate about the IR systems when they have to go through a large amount of recurring serious untoward incidents in their regular meetings. The absence of tangible benefits from incident reporting (such as the lack of feedback) can partly account for their limited participation in the system. This creates a situation where important alternative solutions might be neglected (4b in Table 1).

The rest of this paper interrogates these issues referring to preliminary findings from our data.

Ownership of incident data: whose business, whose values?
Hignett argues that ‘a hospital is not only multi-professional, but has the additional problem of at least three managerial lines. There will be a clinical line for the management of the patient, a professional line (e.g. for medical staff) and an administrative line for each service area (e.g. surgery)’ (2003: p.888). The complex aims of health service providers result in a lack of clear accountability and lines of authority between medical professional groups, which are frequently mentioned as a source of tensions and constitute a barrier to team work and knowledge sharing (Barach and Small 2000a; Currie and Suhomlinova 2006).

In both Trusts examined here, discussions of adverse incidents take place formally in specific meetings at various levels of the organization. These
meetings are attended by both non-clinical and clinical staff with some management capacity (e.g. ward managers and team leaders). Action plans and recommendations normally are discussed in detail at the levels of clinical department or borough-based directorate and reviewed and signed off in higher-level or Trust-wide meetings. Therefore, robust processes are in place and people with responsibilities are acting responsively within the formal structure. However, when it comes to tackling specific patient safety problems, various challenges to ensuring clear accountability for decision-making were noted. First, there is a sense that disproportionate responsibilities are placed upon the shoulders of nursing staff vis-à-vis the medical team.

I think one of the key issues would be for the medical team to have more responsibility, more ownership, rather than the nurses all the time. (Senior nurse, critical care)

In trying to investigate that incident, we had a consultant involved in the investigation and he asked to meet the doctors and the nurses and we met everybody in turn (…) nurses bring me a statement because I've asked for it and I wanted it and they know that. The doctors don't bring me a statement. I have no written statement from the doctors to date on that. (…) And getting them to see that we all need to take it equally seriously and treat it the same way. … (Head of nursing, cardiac)

Second, some expressed concerns about value conflict between the goals of providing high-quality and safer care and those of ensuring efficient management.

There's a dual kind of element to it. (…) as a manager, there's that initial reaction of like oh how much work involved. And then there's the second kind of thing of okay there's a patient involved here often, what actually happened there, why don't I know about it and is there something that I really need to be concerned about in terms of patient care. (Ward manager, specialist services)

There are some areas in which my professional accountability as a doctor to the General Medical Council may actually come into conflict with my responsibilities to the Borough Director and to the management of the Trust in ways which are very seldom made explicit and which have to be resolved on a case-by-case basis. (Consultant psychiatrist, mental health)

[M]anagement feel that the financial and waiting target risks are greater than the clinical risks to patients (…) (Consultant anaesthetist).
Such conflict was also evident from our observations, which indicated apparently entrenched differences between the apparent priorities of certain professional groups (e.g. paediatricians vs. anaesthetists, midwives vs. consultants) and different units (e.g. liver division vs. blood bank). Conflicting roles and unequal burden sharing between different professional groups can undermine the processes and value of analysing incident data and finding appropriate actions. The ownership of incident data plays a crucial role in how cases are presented in incident review meetings, and whether they are escalated to higher-level committees, as well as whether findings from incident reviews can mobilise staff across care groups. The issue of ownership is also closely linked to how incidents are discussed and analysed in group settings, which is looked at in the next section.

**Group decision making: means and ends?**

In a study investigating the space shuttle Challenger disaster, Moorhead et al. underlined the implication of group decision fiascos for safety critical industries, highlighting the eight symptoms of Janis’ concept ‘groupthink’: excessive optimism, rationalising warnings, unquestioned belief, stereotyping the opposition, pressure on dissent, self-censorship, illusions of unanimity and mind-guarding (Moorhead et al. 1991: pp.542-545). They found that time pressure and leadership style in this particular case played a moderating role and worsened the situation. In another study of organizational decision making, group size and the allocation of responsibility for individually assigned tasks are stressed as important factors helping determine the quality of decision making processes (Ingham et al. 1974; Latane et al. 1979).

In incident review meetings in the healthcare setting, strong pressure for quick decisions and social conformity also needs to be taken into consideration, as suggested by Henriksen and Dayton (2006). The review process can involve a vast number of meetings, which are generally structured along clinical specialties or in relation to specific locations (e.g. boroughs).
Such structuring according to group can lead to internecine competition or lack of coordination between groups affecting the scope of possible solutions being advocated.

I suppose it depends on [long pause] where the incident crosses divisions (...) there's a resource implication and the resources are not controlled by our division (...) so that there is an issue with – yeah, for instance, yeah, a current problem that would be an example just – that comes to mind, is air quality and compliance with the isolation room requirements for our bone marrow transplant patients. We know that our current facilities are not in line with Building Regulations. We know to be compliant so therefore to eliminate the risk would require corrective action that is probably to the tune of millions of pounds ...(Head of nursing, specialist medicine)

Our observation data from incident review meetings also confirmed that time pressure and leadership styles play a very significant role. Concerning time pressure, one Trust has a clear target for each unit to close an incident investigation and submit a report from it. Under this tight timetable, staff members at the table are constantly reminded of deadlines and aware of the need to draw up action plans quickly.

Differences in leadership styles also play a central role in giving a certain structure and setting the tone of the meetings. When a chairperson (either clinician or non-clinical manager) leads the discussion with some authority, the meeting is highly focused and smooth. On the other hand, participants rarely challenge such authority and strong chairing can lead to little space being available for more wideranging discussion. As a result, each member can become a reporter rather than a ‘safety expert’.

You have the opportunity to raise the issue (...) but having any influence over the decision is much more difficult to achieve if it’s not your primary responsibility. (Medical equipment officer, Theatres)

I think if any manager, if they’re too micro managing and too controlling, you stop that creativity that’s going to come from everybody else, isn’t it? They’re just a bit, ‘I’m going to be told what to do and I can’t be responsible for this.’ Therefore they stop being responsible and they stop thinking, which is what you don’t want, isn’t it? You want them to be able to feel they can make a difference and challenge you (Senior nurse, critical care).
Management of incident review meetings is often devolved to local units i.e. care groups. This decentralised approach has a positive impact on learning, if individuals feel comfortable within their affiliated group. Reagan and McEvily (2003) found that social cohesion between group members was an important component of high-quality information exchange, as it affects the willingness and motivation of individuals to invest time, energy and effort in sharing knowledge with others. At the departmental level, some meetings actually seek to solve problems by combining review of incidents with wider management issues including resource management. However, such a devolved approach may potentially hinder critical analysis of each incident. Some members of staff may use the forum to bring their own, albeit justifiable, agendas to bear. Such agendas can include understaffing, non-compliant behaviour towards certain guidelines by temporary staff, communication problems with other clinical departments, and equipment failures, which can inhibit consideration by all relevant contributors to the organizational problem at hand.

These findings underscore the importance of understanding the main arena and mechanisms of how incident data are used to inform decision makers. Depending on the structure and membership of the meetings and leadership styles adopted within them, the quality of discussions varies considerably.

**Characteristics of decision-making on the basis of incident data**

Several studies of healthcare work have found that it is characterized by a culture of short-term problem solving. In a study of nurses’ responses to system failures in ward environments, Tucker and Edmondson (2002) argue that problem solving in healthcare often involves short term remedies rather than organizational changes that would prevent the same problems from recurring. They argue that short-term problem solving is fostered by a culture that expects healthcare practitioners to take individual responsibility for solving problems. Other factors that contribute to short term problem solving include the drive for efficiency and productivity (Amalberti et al. 2005) that means that hospital staff have little time for more extensive problem solving.
and the lack of managers who have the capacity to solve problems which cross departmental boundaries.

I think sometimes as an organization, there are tendencies to go for knee jerk rather than planned action. (…) I often don’t disagree with the intent but perhaps the way in which the action plan is being rolled out (Ward manager, specialist services).

The way to get things done within the Trust is to use the Performance Management Structures because they are so over-bearing and so powerful that anything that isn’t in the Performance Management Structure suffers by comparison so, when we’re under relentless pressure to deliver on targets at the Chief Executives meeting every month, if something isn’t a target it’s likely to be regarded as a lower priority (Consultant psychiatrist).

A perceived lack of time was also explicitly linked by one interviewee to an explicit rejection of thorough analysis of possible solutions, in favour of quick actions which did not involve “looking into” the problem “too deeply”:

And also if you are looking at an investigation there is often so many things that come out of it that I think sometimes we were trying to fix too many things. So now I am very much of the opinion, ‘well what are the most important couple of things that we can fix? Fix quite quickly that might make a difference and hopefully will reduce the chance of this happening again. [Right] so I try and not look into it too deeply as I was originally because I know I can’t fix absolutely everything, I can’t guarantee that what I do will eliminate that risk completely so I just try and do the most important things that would have the biggest impact. (Head of nursing, child health).

Some interviewees expressed concerns for capacity and resources in relation to decision-making concerning patient safety, and to a lesser degree, questioned the quality of recommendations following an investigation.

They (the Trust) cannot provide that level of resource and, while that’s the case, you will get people who are essentially amateurs producing investigation reports with recommendations that are not SMART (specific, measurable, attainable, realistic and timely) (Consultant, psychiatrist).

This was echoed when it came to the issue of assessing the effectiveness of changes made following incidents. A NAO report in 2005 found that few trusts had calculated the cost of specific patient safety incidents or undertaken an analysis of the savings made by intervening to improve patient safety (NAO
2005: p.43). Although there are a number of reasons for the failure to evaluate safety improvements in healthcare, cost and capacity issues are normally raised. Even when medical audit is carried out, the lack of resources can be an obstacle. “It was felt that leaving changes identified as required by the analysis unresourced would rapidly bring the system into disrepute” (Coles et al. 2001: p.44).

So they've no actual timetable or time to be free to do that [evaluate the success or otherwise of previous decisions on patient safety], so they're both juggling things around and, as I say, I suppose if you have somebody who clinically had time set aside to do that kind of thing it might be a bit easier but it's an organizational headache (Team leader, mental health).

In some areas of the Trusts under investigation, attempts were made to regularly evaluate the effectiveness of actions taken to deal with particular patient safety problems. In many other cases, however, the only possible way of knowing whether implemented actions were effective was to wait and see if the same incident re-occurs.

Your data tells you if you've made it or not. Or you've still got the same high volume low threat that you had a year before (Consultant, A&E).

One would hope to see that you would, you would I mean that's partly why I came into this role really was just to see that you would have less numbers or less severe incidents … (Support nurse, mental health).

**Defining the scope of analysis – the (non-)involvement of key groups**

Individual members of staff experience the effects of the failure as the people “at the sharp-end, i.e., the time and place where things do happen, where failures are made and noticed, and where the harmful effects often are released” (Hollnagel 2005: p.906). The general absence of participation of frontline staff in the process of analysis of and learning from adverse incidents is noted as a peculiar feature of the IR system in the NHS, compared to that in other industries such as aviation (Macrae 2007). Such involvement is important because the experience of front line staff in relation to patient safety
incidents, and their knowledge as to the appropriateness of different potential solutions, would help make decision-making following incidents more comprehensive and effective. Without such involvement, alternative potential solutions are neglected, analysis of the outcomes of different possible solutions is circumscribed, and important values are not taken into account in decision-making- as suggested by Lindblom’s analysis.

Our research has identified two barriers to participation by front line staff in decision-making on the basis of incident data: the emotional aspect of discussing and acting following adverse incidents, and the lack of feedback.

Emotional reactions to serious untoward incidents can undermine the ability to learn from incidents, as well as discouraging healthcare professionals from admitting and reporting their mistakes (Bosk 1979; Braithwaite 2005; Vincent et al. 1999). Research focusing on the emotional impact of adverse events on health care professionals indicates that physicians and nurses clearly experience negative emotional responses and psychological distress (Laposa et al. 2003; Christensen et al. 1992; Mizrahi 1984). Manser et al. argue that healthcare organizations need to address the emotional needs of professionals in the aftermath of an adverse incident (Manser and Staender 2005: p.4).

For example we did have a death but the patient died of natural causes, but we still had a team debrief because the patient had been here a very long time (…) So we had a debrief which was more to do with the team’s health (Team leader, mental health).

Oh, oh, not very good. My stomach goes uugh. Really. Yes it does. I don’t like it. I have been to the Coroner’s Court as well to present some of this stuff so it is not pleasant and it is not pleasant for the family sitting there, the family are there and it is no it is not good, not good. But sometimes these incidents do bring out things that are better for other patients (Head of nursing, critical care).

Second, there is a lack of safety feedback to frontline staff. As much as error detection, feedback to frontline clinical staff who have been involved in incidents is considered to be a prerequisite for focused improvements in patient safety (Shojania et al. 2001; Leape et al. 2002; see also Benn et al.
2009; Hogan et al. 2008; Barach and Small 2000b; Kaplan and Fastman 2003; Wallace 2006; Coles et al. 2001). A study conducted by Coles et al. demonstrated that “the current lack of feedback following reporting of an incident creates a negative effect” (Coles et al. 2001: p.32). Limited feedback and repetition of similar incidents without resolution reinforces the image that “nothing ever changes”, and discourages involvement of front line staff in decision-making following incidents.

If you did get feedback you would be more motivated because you would feel a sense of change and a sense of control over the process. And it would be a feedback loop that would actually move towards improving systems. But if you're not getting feedback, then there is quite a strong, well what's the point? Nothing ever happens (Psychiatrist, mental health).

If frontline staff are not fully engaged in the process, the analysis of incident data will only bring about limited effect on the ground. As Lindblom pointed out, not every important relevant factor can be taken into account. As mentioned above, this results in important possible outcomes, alternative potential policies and/or affected values being neglected. However, too much ‘feedback’ can be viewed as simply transmitting irrelevant information which, again, discourages participation.

The risks elsewhere are not totally relevant – I mean all of the stuff about general medical stuff isn't us. (...) So it's to do with generalities against specificities. I'm sure it must be cascaded down; do we notice it? Probably not. Would it help us? Almost certainly not very much (Consultant physician, rheumatology).

**Muddling through- a synonym for inertia?**

As Dror and others have noted, ‘muddling through’ can simply become a recipe for inertia (1964). Many respondents in our interviews referred to an ‘implementation gap’ including a general resistance to change as the major challenge.

The challenge would be getting the staff to change and to understand why they need to change (Practice development nurse, specialist services).
People don’t like change, and how you actually instigate it, how do you get people – how do you make people aware of it (Nurse specialist falls, geriatrics).

Grol and Grimshaw (2003) have underlined the difficulties of implementing changes to daily practice. Particularly relevant for our interviewees was the fact that changes on the basis of incident reporting were promoted at the same time as the other, numerous, processes of organizational change that have become characteristic of the NHS over recent years.

One of the other challenges is that there are so many changes. There are some obviously that are out of my control that are from the senior management, from middle management, whatever it is. There were so, so many changes and there are so many different bits of work that need to be done. Very often it's very difficult to see what are the important things here (Team leader, mental health).

CONCLUSION

The above analysis suggests that many healthcare staff are ‘muddling through’ the process of making decisions on the basis of incident data, while providing care on a day-to-day basis, attempting to fulfil a wide range of different, sometimes conflicting, priorities, and, in many cases, also attempting to manage a number of other staff.

The analysis has indicated how, in many cases, it is extremely difficult to “think deeply” about possible solutions to patient safety problems, given pressures of time and resources, information overload, and the continuing existence of professional and organizational rivalries and hierarchies. As a result, decision-making often takes the form not of a ‘rational-scientific’ assessment of the goals to be achieved and then the means to reach them, but a quick consideration of what appears to be possible at the time, so as to ‘close’ discussion of the incident. Such decisions themselves are frequently only evaluated to the extent that the patient safety incidents they were designed to prevent, fail to recur.
Our analysis therefore cautions against the frequent, baldly-presented injunction to simply ‘learn from mistakes’, as if this were an easily accomplished aim which is simply common sense. Decision-making concerning patient safety in health care organizations involves a number of complex trade-offs. It places huge responsibilities on those required to discharge a managerial role in relation to risk, for whom ‘theory’ may necessarily be less important than ‘speed’, given the existence of time and resource constraints. Decision-making concerning patient safety occurs in an emotionally charged, professionally stratified context where the ultimate goals of decision-making are unclear and techniques and procedures for evaluation, weak. In such a context, ‘muddling through’ may be not cause for concern, but a predictable response to challenging circumstances.
Notes

1 Clinical governance has been ‘the centrepiece of the quality improvement initiative’ (NAO 2003) under the New Labour government and has been defined as ‘a framework through which NHS organizations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish’ (Scally and Donaldson 1998).

2 This approach has also been applied to the decisions of service users, as well as health care professionals (Pescosolido et al., 1998); this article, however, focuses on the activities of staff rather than service users.
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