

# Learning from error

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It is one thing to show a man that he is in error, and another to put him in possession of truth.

(John Locke, 1690)

We often discover what *will* do, by finding out what will not do; and, probably, he who never made a mistake, never made a discovery.

(Samuel Smiles, 1859)

This chapter describes how learning organisations increase both patient safety and professional job satisfaction.

The level of errors is reported to be high in healthcare. For example, the US Institute of Medicine, estimates that at least 44 000 people a year die as a result of medical error, and some studies suggest that the real number is twice that value. This has become a major concern for the media, the public, the Government and the professions. *An Organisation with a Memory*<sup>1</sup> was a Department of Health publication which focused on ways of recognising and reporting errors and learning from them so that their recurrence was made impossible or less likely. As a result of this document, a number of agencies have been created either to collect data on errors nationally and thus learn from them, or to assess doctors in difficulties.

My own interest in this area arose partly from my research on medical stress and mistakes<sup>2,3</sup> where doctors 'confessed' to incidents of poor care that they had given (some serious, and some in which the patient died as a result) which had often never been reported or previously discussed. The enduring guilt and anxiety about errors had been noted in previous studies,<sup>4</sup> and the need to confess was apparent from my conversations with others who had conducted similar surveys. The making of errors was clearly a major source of stress among doctors and probably among most healthcare staff.

My interest also arose from seeing young and not-so-young doctors who had been suspended for various reasons concerning errors or behaviours which had persisted for years but that had never been dealt with until suspension occurred. Failure to report these incidents earlier was leading to loss of doctors, and possibly also of patients, and to all the pain and distress that this involved for everyone concerned.

A considerable number of policy changes in the UK have led to better methods of collecting data on errors, but what is clearly needed to make these successful is to make learning from error the cultural norm. If we are to learn from error, we

need to have accurate information about the errors that are being made, and this clearly requires a cultural change involving the development of sufficient trust to allow staff to report. This chapter will look first at a study of what people actually do when they see errors being committed or when they make them themselves,<sup>5</sup> and will then go on to consider how we can increase error reporting by developing higher levels of organisational trust.

## What do staff do when they make or see an error?

In 2001, colleagues from the Northern and London Deaneries of Postgraduate Medicine and myself ran a series of focus groups for nurses and doctors of different grades to ask them what they actually did when they saw poor standards of care being given, or when they made an error themselves (*see* Box 11.1).<sup>5</sup> Interestingly, we could not persuade any of the four medical groups to discuss their own errors, although the nursing groups provided some examples. Therefore almost all of the results come from other people's errors or bad behaviour. Whether reporting these is more or less difficult than reporting one's own sub-optimal care is an interesting research question that has yet to be studied.

### **Box 11.1** A senior nurse talks about learning from error<sup>5</sup>

I never checked the pump setting, I just whacked the thing in when I was doing a few other things and I suddenly looked at this guy's blood pressure and went 'Holy God!!', and that was it. The sweat was pouring off me, I thought I was going to be sick on the floor. He was absolutely fine, laying flat for a while but ... I remember this absolute battle-axe of a nursing officer coming up, and she said to me 'Every matron's made a mistake ... but how you feel is how everybody will feel when they've done it. But what have you learned from it?'

However serious the consequences, all of the groups described situations where reporting of errors would not take place (whether this was a single incident of poor care or bad behaviour). This was the most striking aspect of the group discussions (*see* Box 11.2).

### **Box 11.2** Errors that participants said they would *not* report

- Minor rather than major errors
- 'One-off' events rather than patterns of similar problems
- An error where the person making it was 'sorry' or showed insight
- Unavoidable error, where equipment might be to blame
- Bad behaviour, as opposed to error
- An 'otherwise good' doctor or nurse whom they would not wish to lose
- Unintentional errors

As a result of these consistently cited categories, silence about even very serious errors was ensured, and some errors which went unreported were described. However, there were slight differences between the groups. General practitioners appeared to be even less likely to report their concerns. This may have been partly due to the fact that they felt they could contain and remedy poor care within the practice, but it was also clearly due to their more acute need not to lose a doctor who would be difficult to replace. Senior nurses, overwhelmed by protocols which, if followed to the letter, could sometimes result in harm to patients, wondered whether action or inaction over a protocol was the error. Pre-registration house officers who had been clearly told by their consultants to report all mistakes to them said that they would never do this in practice: 'It's the worry that you won't get the support you need if you start complaining or pointing out errors.' The culture of silence had already enveloped them.

Bad behaviour was even more difficult to confront or report than poor clinical care, particularly in relation to doctors. This is partly due to enduring aspects of a macho medical culture and the question of what is acceptable within that culture. We were told that coming to work inebriated or seriously hung-over from the night before was not regarded as really unacceptable until doctors obtained their membership, at which point true professional behaviour was expected. Similarly, poor ways of interacting with patients and colleagues were tolerated or handled privately with enormous tact and sensitivity, rather than being addressed fully or reported.

There were examples of good practice, too, but these were rare. A consultant in Accident and Emergency reported the local learning that took place in their 'missed fracture' groups, where X-rays of fractures which had gone unnoticed were studied anonymously at regular intervals as a team learning session. Another consultant talked about the benefits of a ward-based 'time-out' in which care in general, including critical incidents, was discussed. Pre-registration house officers talked about the benefits of a group led by a nurse, discussing error and practice on the ward. A consultant talked about working with a colleague to address his poor behaviour over a period of years, and another had mentored a registrar who had problems with interpersonal skills. However, the point was made that these ways of addressing suboptimal care took up a considerable amount of time, which was becoming more and more difficult to find.

## Barriers to change

There were other barriers to change (*see* Box 11.3) as well as a lack of time and resources to address errors properly, whether within the team or through the form-filling required to do this more systematically within the organisation. These barriers included an uncertainty about what was right or wrong, the difficulty of addressing problems in someone senior to oneself, and defining error too narrowly in the ways described above. The length of a contract was also given as a reason for not reporting someone's substandard care (both the short-term nature of medical and nursing training, and because someone would retire eventually) – for example, 'I thought, it's not a problem to me – I'm off soon' or 'All they did was say he'll retire soon'. However, a comparison was also made of the long-term 'here-for-the-duration' nature of the consultant's job, compared with the brief duration of many chief executives' time in post. For example, 'When you're talking

about long-term problems that are to do with people's attitude and behaviour, you're the one who is going to be there for 20 years, needing effective working relationships with these people as colleagues. ... Deciding should we say something or not depends on what it might do to our working relationships' and 'NHS managers aren't always the right people to be looking at this. ... There's no point in having someone who is there for only a short time try and deal with a really difficult long-term problem.'

**Box 11.3** Barriers to reporting

- Defining reportable errors too narrowly
- Length of contract provides excuses do do nothing
- The workload involved in reporting errors and the lack of resources to tackle this
- The persecutory ways in which error is handled – the culture of fear and the desire not to lose 'an otherwise good' nurse or doctor
- The fact that reporting has not been seen to bring about beneficial change
- Uncertainty about what is right or wrong

Some of these are likely to be – at least in part – defences against the very real anxiety about reporting error that was apparent in the groups. For many people it was fear that stopped them reporting. First, there was a lack of trust that the matter would be dealt with sensibly and sensitively (a dread of the 'dog-eat-dog' culture that currently exists in healthcare, or worries about losing an 'otherwise good' doctor or nurse who would be judged 'guilty until proven innocent'). Secondly, there was a fear that the individual who reported another's errors would suffer (that they would be ostracised, or would no longer get a good reference, and would be an 'easy scapegoat'). Fear was greatest among the nurses, particularly those at senior level, and among house officers, but to some extent all of the groups felt it.

This perceived culture of blame, shame and punishment prevents people from reporting the errors and behaviours of others, and almost certainly their own. It is strengthened by the wider societal culture of 'not telling tales' and, within healthcare, by stories and experiences of what will happen to a person if they do ('for about four months of that person's life it was made hell at work ... she just left'). This culture also contains the solidarity apparent in all of the groups that 'there but for the grace of God go I'. Such solidarity is likely to make the trust between colleagues greater, which will reduce the likelihood of their reporting incidents. In fact, what we see most clearly in this study, and in the culture that it describes, is a system where the culture of trust that is necessary for reporting error is almost entirely absent.

## The context

What is the context in which people are able to take this trusting step? Lucien Leape describes the current emotional context very well:

... Patients and physicians ... live and interact in a culture characterized by anger, blame, guilt, fear, frustration, and distrust regarding health-care errors. The public has responded by escalating the punishment for error. Clinicians and some healthcare organizations generally have responded by suppression, stonewalling and cover-up.<sup>6</sup>

This culture certainly provides strong incentives not to report error, and is one of the primary barriers that needs to be tackled. However, this level of distrust by the public has not always been present. Not so long ago doctors and health workers enjoyed exceptionally high levels of trust, despite the fact that errors were unlikely to be fewer in number than they are today. Errors went unacknowledged in what has been termed 'a conspiracy of silence', although many whose errors harmed or threatened patients suffered within this silence.<sup>2</sup> The reason for not reporting errors then was not the culture of fear, but may rather have reflected the fact that recognising and acknowledging a mistake which might well cause a patient suffering or even death is to acknowledge the unthinkable – that one has harmed someone whom one intended only to help. In an analysis of the psychodynamics of safety at an oil refinery which had suffered two recent fires, Hirschhorn and Young describe the ways in which dangerous environments are sometimes dealt with psychologically – ways that create denial of the difficulties, that let staff feel invulnerable and stop any thoughts of danger, and that use independent and risk-taking 'heroes' to contain the anxiety that is felt by everyone, but who allow poor work to continue as part of their macho risk-taking world.

Thinking about the emotional and psychological context of risk and safety is immensely useful, and we can certainly learn from other industries, such as aviation.<sup>7</sup> However, we also need to remember that healthcare is an arena which, I would suggest, creates far more anxiety about error than any other,<sup>8</sup> and thus it is one where the recognition that harm has been caused to those we are trying to help becomes much more difficult, while acknowledging error in others raises anxiety about the very real possibility, or memory, of making a mistake oneself. When considering how to build sufficient trust to enable us to learn from error, we must be careful not to underestimate the level of this anxiety, and to acknowledge and contain it as much as possible.<sup>9</sup>

The public will undoubtedly share this anxiety. After all, error is equally unthinkable to individuals who are about to put their own lives (if they are patients) or those of their loved ones into the hands of others. Offering patients a deluge of information about death rates, complications and substandard care, as has been happening over the last few years, may seem like a way of involving them in improvements in their care. However, if it is done without thought it can only lead to the type of anger, punishment and rage that is so often seen nowadays if the medical profession – trusted like a parent figure – then fails them. The stonewalling and cover-up described by Leape follow as the doctors try to protect themselves from both external blame and an internal acknowledgment of their own human shortcomings. As O'Neill pointed out in her 2002 Reith Lectures,<sup>10</sup> 'Increasing transparency can produce a flood of unsorted information and misinformation that provides little but confusion unless it can be sorted and assessed. It may add to uncertainty rather than to trust'. Rather than increasing 'transparency', she suggests, we would do better to reduce deception. However, as we

have seen from the way in which waiting-list reporting has sometimes been economical with the truth, deception is likely to increase as the punishment for failure grows.

Another aspect of the context which affects the development or loss of trust involves the policy changes of the last decade or more. A growth in competition for the provision of healthcare is likely to have contributed to the cover-ups that Leape describes, while the reaching down by Government deep into healthcare itself is likely to begin to tarnish healthcare staff with the trust levels of politicians – not a welcome thought. In addition, a punitive, bullying approach by Government to management and clinicians is only likely to result in cover-ups. Finally, there is the ever-changing face of healthcare organisation. Such constant reorganisations disrupt relationships and networks, cause upheavals in established background assumptions, and thereby weaken trust which has sometimes taken years to build.

## Trust and error making

In this context, the types of trust involved in learning from errors are complex and sometimes potentially conflicting. Trust is based on an underlying assumption of an implicit moral duty,<sup>11</sup> but here both trust to tell the truth and trust not to tell tales are involved, and they are rarely compatible. Similarly, we need trust to report our own errors, which is somewhat different to the trust that is needed to report the errors of others. In the case of reporting error, is this duty owed to the organisation who pays our salary and who wants to improve its safety record? Or is it owed to our colleagues with whom we experience solidarity, and whom we therefore want to protect from blame and punishment? Is it owed to current patients who have a right to know when things go wrong, or to future patients whose care we want to improve? In terms of the employing organisation, there needs to be trust by the management that they will have the full facts upon which to base decisions and improve quality, but there must also be reciprocal trust by the staff that management will not use the information to harm them. If reputation and its protection are an aspect of trust, what type of reputation is best protected? Are doctors protecting their reputations for honesty by owning up to errors and near-misses? Or are they protecting their reputations for providing the error-free care that the public expects? Historically, a considerable part of a doctor's power arose from the rise of science and his special knowledge, skills and mystery which resulted from this.<sup>12</sup> Therefore a recognition of error may be accompanied, in the short term at least, by a diminution of power, and we have seen this over the last decade as the imperfections of healthcare have become more apparent. I would suggest that in encouraging the development of the trust that is necessary to report errors and to learn from these errors in ways which will improve patient care, all of these facets of the trusting relationship need to be systematically taken into account, as well as the context in which those concerned perform their roles.

The rest of the chapter will discuss some of the ways in which trust can be developed and maintained so that organisations develop which can use error as an essential tool for learning and improving patient care.

## Raising trust

Although some of the barriers to reporting error (e.g. problems with defining what is an error, uncertainty about what is right or wrong, and lack of time to complete forms) may be partly defensive against the anxiety that the recognition of error raises for staff, these barriers are nevertheless real. They are also among the first which need to be addressed, since when they are lowered we can see much more clearly what it is that still prevents people from reporting.

## Clarifying accountability

There has been considerable talk of the 'no-blame' culture, which then became known as the 'just' culture,<sup>1</sup> and which our report<sup>5</sup> showed is clearly not believed in by many health service staff, overshadowed as it is by fear. There is no doubt that 'no blame' sits rather uncomfortably with 'accountability' (another byword of modern times which is rarely clarified). O'Neill, in her first 2002 Reith Lecture, questions the extent to which elaborate measures of accountability can ensure trust. There is no doubt that we have seen a meteoric rise in the development of protocols and of auditing them along with most other areas of both healthcare and public life in general. During this period it is true that, as O'Neill suggests, there is little evidence that trust has increased – rather the opposite. Nevertheless, I would still argue that, in aspects of life which involve real anxiety (and I have suggested that healthcare is certainly one of these), reducing aspects of uncertainty as much as possible, particularly in terms of role and responsibilities, is an important step. Brittain and Langill<sup>13</sup> describe the way in which their organisation did this by a process of outlining in detail the accountability and authority of employees and managers, the first assumption of which was that 'good working relationships require trust, and trust requires clarity of role definition'.

Clarification of accountability will be one step towards increasing people's understanding of what is error and what is acceptable behaviour. For example, in our study<sup>5</sup> it became apparent that young doctors coming to work under the influence of alcohol was not a situation that was regarded as totally unacceptable, but rather it was viewed as something that most people grew out of in time. Intoxicated doctors were sent home, but they were not reported. Such a misconception would be an easy place to start the process of defining which behaviours are not to be tolerated. In this way, staff with potential or real drink problems can be helped to overcome them. Another place where we could begin to clarify accountability is to emphasise that not reporting errors because our contract (or that of the error maker) is about to end is unacceptable. Staff need to understand that every error counts positively towards learning.

Organisational rewards must be directed towards the growth of error reporting, followed by learning and change, followed by rewards for demonstrated improvements in patient care.

## Systems for gathering data

Emphasising the importance of recognising and collecting data on 'near-misses' as well as everything beyond them may help to show that 'trivial' or non-harmful

incidents can still lead to valuable learning. Training staff in what is a near-miss, and what to do when they either have or see one, is another useful area in which to begin developing the organisation towards learning, since it involves errors which are not associated with the anxiety which arises from actually harming patients. However, whether errors cause harm or not, it is vital that systems for collecting the data, analysing it within the team or elsewhere, and learning lessons from it are made as streamlined and straightforward as possible, and that regular time is set aside for this activity.

The final essential step in increasing trust in this area is to ensure that change takes place as a result of the reporting activity. Managers and clinical staff must join together to make such change a priority, and to monitor its benefits carefully and publicise what has been done. Not following through on error reporting can be interpreted as demonstrating contempt for the real difficulties it involves for staff, and the efforts that they have made to overcome these obstacles.

These are the key organisational steps involved in raising levels of trust. However, none of these steps will be successful without leaders who are personally capable of gaining and maintaining the trust of their staff. This was clearly demonstrated by a study<sup>14</sup> which related team functioning to medication errors. It was found that good teams reported making more errors than poor teams – a result that only made sense when the further finding emerged that poor teams had more authoritarian leaders!

## Better leadership

Of course, some people will find it easier to trust their leaders than others. A number of studies have shown that individual differences in the propensity to trust are considerable.<sup>15</sup> There is not much that can be done about this, apart from recognising that gaining the trust of a few brave souls may not imply that the rest are ready to reveal all. More important, therefore, is the research which demonstrates the characteristics of those who must be trusted if a learning organisation is to be created – characteristics which increase the perceived trustworthiness of leaders, whether they are managers or clinicians.

Within aviation, the training of leaders who are able to listen to others and who understand the nature of human error, the part played by stress and fatigue in error making, and the importance of two-way communication and monitoring<sup>7,16</sup> has been developed in response to terrible safety blunders in the past. A review of the characteristics of those who are trusted<sup>17</sup> revealed three attributes which appear across most of the literature – if they are to be trusted, leaders must have ability, benevolence and integrity.

In encouraging a climate of trust for reporting errors, I would suggest that one of the most important *abilities* to possess is an ability to admit openly to one's own errors. Trusting behaviours are necessary in relationships where power is unevenly distributed, as in the case of leaders and their staff. Gathering information about what those staff have done wrong is bound to increase the unevenness of power, whereas managers acknowledging their own mistakes is likely to balance things more evenly and thus to increase the likelihood of admissions of error in the future. Other crucial abilities involve listening skills, being able to provide a good, clear rationale for the need for error reporting and learning, and being able to follow through on the necessary changes.

*Benevolence* involves the appearance of wanting to do the best by one's staff, beyond one's own self-protection or profit. Within this area, benevolence involves the necessary recognition of the difficulties of clinical care, the stress and heavy workload that many face,<sup>18</sup> and the real anxiety that is involved in error making. Providing training in risk management and safety, and time to gather data and learn lessons from it, would all be essential steps in establishing that the difficulties are understood. Staff need to believe that their leaders intend the best for them and their patients, and demonstrating this is important. For example, where the media are involved in reporting an adverse incident, the leader has an opportunity to stand by his or her staff, their dedication and the excellence of their work almost all of the time. Another example would involve the leader being regularly seen at the coal-face so that he or she can experience directly the difficulties and anxieties of both staff and patients.

*Integrity* stands back-to-back with benevolence. It needs to be clear to those who trust that the trustee has values and principles and stands by them. Keeping one's word that errors will be treated non-punitively so long as safety protocols or agreed responsibilities have been adhered to would be one example of this. Within organisations such as Nissan, integrity is regarded as absolutely essential to the maintenance of quality – for once a manager allows something poor to pass through the system because of some expediency, trust is lost.<sup>19</sup> The characteristics of benevolence and integrity can be a real challenge to leaders who are given two conflicting roles by Government – to show ever greater efficiency while at the same time increasing the quality of care. Unless these characteristics of good leadership are in turn demonstrated to healthcare managers by those who control them, they are going to find it particularly difficult to have the capability to treat their staff in ways which will increase their trust.

## Conclusions

This chapter has demonstrated the difficulties that staff experience with regard to reporting of errors, and thus the potential barriers to creating a learning organisation. It has outlined some of the ways in which these can be overcome and good leaders can take them forward as a process of organisational development. Most importantly, it has demonstrated the complexity of trust in this area – something which needs to be borne in mind constantly as steps are taken systematically to increase and maintain trust which will be sufficient to overcome the anxieties of staff about reporting when things go wrong.

- Medical errors are a frequent, daily occurrence.
- Professionals who make errors feel both stressed and guilty.
- A culture for reporting errors must be based on trust, not blame.
- Within teams, clarity of roles builds trust.
- Teams also need good leadership that is based on ability, benevolence and integrity.
- Learning organisations develop by reflecting on errors and changing behaviours appropriately.

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