Framework for better care: reconciling approaches to patient safety and quality

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Abstract. In September 2017, the Royal Australasian College of Medical Administrators adopted a new clinical governance framework that recognised healthcare as a complex adaptive system, and embraced the need for resilient thinking and understanding the differences between work-as-imagined by managers and work-as-done at the front line of patient care. Directors of medical services may soon be implementing the framework in health services across Australia. This perspective describes a new conceptual model that underpins the Royal Australasian College of Medical Administrators framework, and characterises the challenges faced by all healthcare professionals when trying to achieve safe care for patients in an environment of variable complexity and unpredictability.

Additional keyword: resilient health care.

Introduction

The past 20 years of health care have been appropriately characterised by an increasing and relentless focus on improvement in quality and safety, with little measurable improvement for patients.1–3 Approaches to safety, such as the methods of high-reliability organisations,4 have until now focused on compliance and use tools such as Six Sigma,5 Lean6 and Plan, Do, Study, Act.7 Hollnagel et al. describe this thinking as ‘Safety-I’.8 However, the use of tools derived from other industries raises the potential for the inherent differences with healthcare confounding the outcomes from those tools. For example, a tool developed for use in a manufacturing plant that is characterised by repetitive and predictable processes may not be valid in healthcare due to the normal variation that is often necessary to meet the needs of patient care.

An emerging theme in patient safety and quality, ‘Safety-II’,8 recognises healthcare as a complex adaptive system.9 Safety-II thinking challenges us to identify interconnected and interrelated elements in the real world that make things go right, in addition to traditional reliability focused methodology. Safety-II concepts are beginning to underpin new approaches to safety management, such as the Royal Australasian College of Medical Administrators Clinical Governance Training Framework.10

Making sense of different approaches is challenging. A variety of tools are available to improve safety and quality in health care, but no one tool has been shown to deliver improvement in all situations. Healthcare professionals need to have a better understanding of what tools work the best, either alone or in conjunction with other tools.11,12

An agile approach

A starting point to assist healthcare professionals in choosing the right tool for the job may be to characterise the problem to be solved in terms of its complexity and unpredictability, then aim to reduce complexity and unpredictability to the maximum extent possible (Fig. 1; follow the arrows on the axes). System predictability is a function of input uncertainty (e.g. how many inputs, are they known, are they consistent, when will they happen?) and process variability (e.g. is the process linear or non-linear, is variation understood?).13 In low-complexity, predictable situations, tools that focus on compliance and controlling variability, such as standardisation, are effective.14 Because complexity is low and outcomes are predictable, we are able to apply process-oriented engineering solutions that are reliable and more able to be automated. Humans in this space are regarded as points of potential failure.15

In contrast, high-complexity, unpredictable situations require goal-oriented solutions that give healthcare workers the flexibility to adjust their work to meet changing conditions. Because variability cannot be controlled in a complex adaptive system,9 solutions need to engineer-in success by identifying
will facilitate implementation of evidence-based care. Here, the tools of standardisation are most useful, including using linear cause-and-effect approaches, such as root cause analysis; such as the TenC model, \(^{23}\) which proposes 10 behaviours that contribute to safe patient care in unpredictable and complex environments and to ensure effectiveness and safety in the introduction of new technologies and models of care. For example, paediatric in situ simulation has been successfully implemented in Australia \(^{19}\) and the US, \(^{20}\) leading to improved training in how to safely cope with unexpected and emergent paediatric events. Modelling tools, such as FRAM, \(^{21}\) facilitate understanding work complexity, mapping interdependent and variable tasks, rather than using linear mapping tools such as RCA. Interventions based on linear depictions of processes in complex adaptive systems are unlikely to be effective.

The US Institute for Healthcare Improvement (IHI) has embraced the concepts of Safety-II in its white paper A Framework for Safe, Effective and Reliable Care, \(^{22}\) which lists negotiation as a key skill for healthcare workers to engage patients and families in complex environments. Evolving tools such as the TenC model, \(^{23}\) which proposes 10 behaviours that contribute to safe patient care in unpredictable and complex healthcare environments, advocate negotiation as a central component of teamwork in a complex adaptive system.

These tools are likely to be effective in areas such as emergency surgery, chronic illness management and caring for the deteriorating patient, where the inter-relatedness of parties,
environment and other parameters creates dynamic complexity. In the Resilient band, we are focused on exercising principles of practice, rather than applying standards or care or complying with standardised processes.

Conclusion

In Australian healthcare, we need to get better at finding the right tools for the problem at hand. Using the wrong tool, we waste critical resources: time, money and, importantly, motivation. The frustration that results from failed or unsustainable improvement activities has a detrimental effect on the willingness of managers and clinicians to engage in future safety and quality efforts. The Framework for Better Care provides an opportunity to think and act differently. An agile approach to matching the tool to the task is essential to maximise the value of our improvement investments.

Competing interests

The authors have no competing interests to declare.

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