Training healthcare professionals in quality improvement

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ABSTRACT

The Academy of Medical Royal College's report *Quality improvement – training for better outcomes* sets a path for the normalisation of quality improvement as part of all health professionals' jobs. This accompanies similar calls to action by the King's Fund and the Faculty of Medical Leadership and Management and is aligned with NHS Improvement and Health Education England future strategies. These exhortations to action come on the backdrop of increased fiscal constraints within the NHS, low morale, a burgeoning volume of research evidence and audit outputs and increasing complexity of how we deliver care in a bewildering NHS landscape. Asking the question 'how can we do something better?' or 'do we really need to do this?', and building our resilience and capability to respond effectively gives us new purpose, the right skills and a means to influence and make a difference to the safety, effectiveness and experience of patient care. Most importantly, we do this through harnessing the talents of multiprofessional teams – with meaningful patient involvement – to rediscover the joy and optimism in our work and what truly motivates us and to see this translated into improved sustainable outcomes for our patients and our working days.

KEYWORDS: Healthcare professionals, interprofessional learning, quality improvement, training

Why should health professionals be trained in quality improvement?

Everyone in healthcare really has two jobs when they come to work every day: to do their work and to improve it

Batalden and Davidoff

Batalden PB, Davidoff F. What is "quality improvement" and how can it transform healthcare? *Qual Saf Health Care* 2007;16:2–3.

Ask any health professional and they will tell you they want to do the best for their patients. However, variation in practice and data demonstrating how rarely best evidence is reliably implemented within complex healthcare systems (with their many competing demands) demonstrates how difficult this actually is in real-life practice.[1,2] Many are already undertaking improvement work without recognising it as such, therefore potentially losing the rich learning to be had from their endeavours. Other staff often appear demoralised by involvement in cost improvement programmes that feel like imposed change, or by imposed demands to demonstrate involvement in clinical audit, which is often for assurance or just data collection rather than the intended repeated improvement cycles.[3]

Quality improvement (QI) science gives us a systematic approach to design, test and implement change using real-time data for improvement, with the ultimate aim of delivering a tangible and evidence-based difference. QI provides a basis from which to scrutinise and use data collected over time (time-series data) to drive improvement in a real-time and dynamic way. This underpins a change in conversations within teams, engenders a sense of ownership in how we deliver care, and allows staff to experience the autonomy of being part of empowered teams that make meaningful change happen. Inevitably, a process like QI starts with testing small scale changes. These initial steps are critical and important parts of the improvement journey. The small steps and marginal gains are all worthwhile pursuits, improving both outcomes for the patients and the experience and morale of staff involved. What start as small scale tests may develop into system-wide change and all improvement activity, including the ideas that never quite work, enable a culture of learning and curiosity, valuing the roles and intrinsic motivators that staff (and patients) have in making a difference as part of everyday life. It has been demonstrated by several UK healthcare organisations that developing and sustaining improvement capability on a large scale can deliver real improvements of care across multiple areas.[4,5]

It is a legitimate goal of QI to improve value, ie achieve the best possible outcomes from lowest costs or inputs.[6] This includes ensuring that the right care is provided to the right patients at the right time (to achieve the outcomes that they value), and that waste (of time and material) is minimised across the system. Developing an understanding of the concept of sustainability (social, environmental and financial) and a culture of resource stewardship as part of QI can encourage whole-systems thinking, directing projects systematically towards the highest value improvements, motivating new people to engage and providing a new energy for change. Furthermore, enabling staff and patients to improve the care experience is more likely to achieve buy-in and measured improvement than starting with cost-cutting and a sense that change is being done to them.

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Why should health professionals want to learn about quality improvement?

Research is what's possible; audit is what's actual; QI is what makes the possible actual

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For some, QI is a no brainer, part of our psyche as a healthcare professional; safety is our *raison d'etre* and QI provides the framework to enable this. For others, QI is just another tick-box exercise that has to be done because the Annual Review of Competence Progression and revalidation dictates it or time pressures don't allow more. Poorly defined and tick-box driven clinical audit in the hands of many has reinforced these beliefs.[7]

QI presents a real opportunity to rediscover the fun and enjoyment in work. QI enables us to connect in multiprofessional teams, rediscovering what motivates us and taking ownership of how we respond to the changing NHS and the subsequent challenges we face in delivering best and safe practice. We would argue that leadership skills and management development are not optional attractive add-ons in the delivery of 21st century healthcare, but essential capabilities as inextricably interwoven threads in QI activities.[8] There is no doubt implementing change is tough (it is primarily about getting people to work in different ways). However, it is through 'learning by doing' that we learn more about ourselves, lead change, manage complexity and enhance our QI methodology skills in practice. Programmes that empower health professionals to share a vision and common purpose and that give them the freedom, capability and capacity to make changes and act on the results, not only improve patient care but also increase staff satisfaction, morale and motivation (Box 1).[9,10]

There are parallels to be drawn with, and lessons to be learned from, the research world and the extent to which it is integrated within a medical career. QI provides a methodology for translation of research findings into practice, and QI itself is underpinned by disciplined, rigorous methodologies. Parity of esteem of QI and research within healthcare education and practice would result in much more cohesive efforts to improve the quality of care and outcomes. It would help distance true QI activity from what many see as a tick-box exercise.[3] Moreover, by being closer to where the results are actually visible, QI gives an opportunity for people to enable change in a way that regulation and central diktats cannot. It has the power to unleash the potential of staff and to move us and the service beyond what we currently know is possible through innovation.

Be a top researcher or top educator – there is a third way, be a top systems improver

Stephen Webb, consultant anaesthetist, 2015

What do health professionals need to learn?

In order to practise medicine in the 21st century, a core understanding of quality improvement is as important as our understanding of anatomy, physiology and biochemistry

Stephen Powis, Medical Director, Royal Free London NHS Foundation Trust, 2015

Box 1. Royal Berkshire NHS Foundation Trust Quality Academy.

In its fourth year, this is an annual 5-day modular programme that runs over 1 year to educate and equip future leaders with the necessary management, leadership and quality improvement (QI) skills to contribute to the rapidly changing demands of a national health service and improve patient care, service provision and system-wide improvement capability.

Lessons learnt – quotes from 2015/16 Academy participants:

You can't do one without having the knowledge and skills in all three.

I hugely underestimated the complexity in which we work but perhaps understanding and having the collaborative will make change happen.

I now think differently about change – I am more adaptive and feel I can empower others.

I have my voice, a new confidence, people can listen, people will listen.

Starting small has made QI accessible and doable – before I thought you had to have some great idea and make a massive difference – I've learnt not to be scared of QI through small scale, incremental changes.

I used to give up easily but I'm learning how not to procrastinate and persevere.

Get on and do it – I'm now interested, think differently and learnt it's OK to be myself.

The definition of quality improvement education outlined in Box 2 reinforces the idea that those at the frontline who have the tools, ability and energy to make the changes are in the best position to do so by rooting QI in an understanding of the complex healthcare environment they experience every day.

The path to sustained improvement is through using a systematic approach; designing, testing and implementing changes with real-time measurement demonstrating improvement. There is value in recognising that the principles of QI have parallels in established clinical practice: the process of differential diagnosis (assess the patient, treat according to your judgement, monitor the patient's progress, update and reassess management in light of their progress) is an excellent example of the plan-do-study-act (PDSA) cycle that is core to QI.

The acquisition of knowledge in improvement science, systems and measurement (which form the backbone of QI theory) needs to be put into practical application without

Box 2. Consensus definition of quality improvement education.[3]

Training health professionals in quality improvement (QI) develops capability and resilience to put QI into action through the acquisition, assimilation and application of:

- knowledge in improvement science, systems and measurement
- skills in managing complexity, leading change, learning and reflection, and ensuring sustainability
- training in human factors that impact capability
- involvement of patients throughout the process.

getting lost in alienating jargon. The Institute for Healthcare Improvement's Model for Improvement is a good example that brings these factors together in an accessible way, based around the PDSA cycle, while encouraging a grounded overview of what improvement is sought and how measurement is designed to capture progress towards the goal.[11]

Training in human factors goes in parallel with this, guiding the design of system improvements that enable everyone to do the right thing every time, reduce the potential for making errors, and allow clinical staff to focus directly on improving patient care. Developing skills in managing complexity, leading change and ensuring that change is sustained is deeply valuable to QI projects and these are desirable skills in a flexible modern healthcare professional, whatever their role. The transferability of these skills beyond the QI setting should be attractive both to healthcare professionals and the organisations for which they work.

There is enormous value in involvement of patients throughout the QI process, both in the context of feedback from patients as service users and through co-design and co-production with staff in their pursuit of that improvement.[3] There is still a long way to go to achieve meaningful patient involvement that has the potential to open up a whole array of avenues for improvement that doctors and other healthcare professionals alone may not recognise. #HelloMyNameIs is just one such example of what can be achieved through such involvement.[12]

How should health professionals learn about quality improvement?

It is not enough to do your best; you must know what to do, and then do your best

W Edwards Deming

There are numerous educational resources on QI available to healthcare professionals; however, these currently only attract the interested few.[13] The benefits of learning QI skills remain largely unrecognised and the resources can be difficult to find unless you know where to look. Many trainees say they get most of their QI education in an ad hoc fashion from their senior colleagues.[14] While there is much to be said for the role of a practical education in a discipline dealing in the practical application of research, there is a great deal to be gained through providing those who will practise QI with a sound knowledge of the theory behind it.[15,16] This is particularly true at undergraduate level where formal QI teaching is currently scarce, although where undertaken these usually improve participants' knowledge and frequently result in changes in clinical processes.[17] Greater familiarity with the QI lexicon and knowledge of the fundamentals of improvement science delivered early in health professionals' careers would empower trainees to seek out and participate in improvement initiatives post-graduation, even where there is a lack of availability of advice or training.[14]

The content

It is important to acknowledge that many working within healthcare are making improvements already. *Quality improvement – training for better outcomes* outline recommends a systematic framework to build on this existing work and lays the foundations to ensure a better understanding of what needs to be done much earlier in healthcare professionals' careers.[3] Progressive curricula content through undergraduate to postgraduate training, aligned with the upcoming General Medical Council Generic Professional Capabilities, is intended to provide the impetus to drive QI learning by doing, while acknowledging assessment also drives learning. Alignment of revalidation, appraisal, continuous professional development, recruitment, job descriptions and assessment is critical in underpinning the right environment for QI to flourish in the hands of healthcare professionals. Lessons can be learnt from three decades of confusion over clinical audit for improvement and clinical audit for assurance and how unleashed potential may be stifled with bureaucratic process.

The approach

The ultimate aim should be to embed the improvement habit into our everyday lives. The five core habits of an improver have been described as learning, influencing, resilience, creativity and systems thinking.[18] The landscape of supporting infrastructure and networks to achieve this are very different at every level across the UK, be it government, college, specialist society, deanery, region or healthcare organisation. The essential core to success is creating the right environment with time and support alongside staff to enable meaningful and sustainable change to happen. Currently, most QI activity requires discretionary time and effort. Key ingredients for successful implementation of a QI culture are for all to have access to QI training, support to be provided (in the form of enabling 'core' QI facilitation aligned with existing educational and organisational structures to permit expert input), coaching, mentoring, and interprofessional learning and networking, and for individuals to have protected time to undertake this vital aspect of healthcare delivery. Health and social care executives and non-executives should role model best practice QI approaches and create an open culture that focuses on learning, ownership and accountability. Without these steps the mantra that QI is everyone's responsibility is merely rhetoric.

In their report, *Improving quality in the English NHS*,[19] the King's Fund reinforces the point that improvement requires both local action as well as central coordination of resources. It highlights several successful QI schemes that underline the value of institutional memory and the support of experienced improvers in establishing and maintaining a burgeoning improvement culture. Other initiatives demonstrate the potential power of social movements, such as the School for Health and Care Radicals,[20] how networks can work (such as SQuARes Network),[21] and how developing new hybrid clinical roles, such as the chief registrar,[22] may support QI activity.

Shared learning and spread

A repository of knowledge is required both to support the learning of QI skills and to provide a place to share what has worked and, just as importantly, what has not in different settings and circumstances. This would facilitate the delivery and maintenance of an improvement culture.[3] An effective repository would potentially allow the spread of simple lessons learnt from 'low hanging fruit', sowing the early seeds of

improvement and supporting innovative collaboration between departments that may have either not been considered, or thought to be unfeasible.

Conclusions

In time, QI should become a basic skill like cardiopulmonary resuscitation; one that all health professionals acquire early in their training as an integral part of their future work. When everyone shares this basic understanding, communication and collaboration become easier, and continuous improvement throughout the workplace becomes habit. The skills themselves are transferrable across any discipline. Creating capability and capacity so that staff are able and encouraged to ask and respond to the question 'what can I do to make a difference?' without having to wait to be asked, has the power to empower and counteract the feeling of 'learned helplessness' as described in the Francis report[23] and enable us to rediscover the joy in our work. ■

Conflicts of interests

The authors have no conflicts of interests to declare.

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