Untapping the potential of medical trainees to improve the quality of healthcare

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ABSTRACT

Doctors in training have the potential to make important contributions to improving healthcare services, at the same time as developing their own skills and knowledge about quality improvement (QI). However, meaningful improvements in healthcare quality and useful educational experiences for trainees are unlikely to occur unless employers and training organisations develop systematic approaches to involving trainees in QI. Organisations need to provide trainees with the time, resources, mentorship, educational supervision and training in QI methods required for them to carry out QI projects successfully. Focusing the efforts of trainees in tackling high value and strategically important problems, working together as teams rather than as individuals, and learning from and contributing to published QI reports will make it more likely that genuine improvements are achieved and sustained over time. Finally, career pathways should be developed to allow trainees to gain in-depth, specialist knowledge and experience of QI, and work towards becoming the improvement leaders of the future NHS.

KEYWORDS: Junior doctors, trainees, quality improvement

Introduction

Medical trainees are an underused resource for improving the NHS. Highly qualified and trained and often enthusiastic to make a difference,[1] trainees have many of the skills and attributes that could usefully contribute to improving the quality and safety of healthcare services. They are also the consultants of the future, who will be working in healthcare systems where their responsibilities extend beyond clinical work to include leading and improving clinical services.

The importance of quality improvement (QI) is now recognised; it has become an established part of undergraduate curricula and postgraduate training.[2] However, previous attempts to involve trainees in audit and clinical governance met with mixed success,[3] with many trainees feeling disengaged from efforts to integrate clinical audit into clinical training, and very little evidence that their efforts led to actual improvements in care quality.[4] Although there may be more enthusiasm for QI as a more engaging and relevant activity for trainees,[5] there is a danger that past lessons are not learnt and we simply create a new generation of doctors with a wearily cynical attitude to institutionalised efforts to involve them in improving services. How then can QI avoid being seen as merely a matter of 'box ticking' curriculum requirements[6] and instead be an activity that inspires passion and makes a meaningful contribution to improving the quality and safety of healthcare?

1) Provide trainees with the time and resources to do meaningful improvement work

One person working in isolation is unlikely to be able to make a meaningful change to an organisation, and most changes are not sustained over time without specific efforts to maintain and embed them. Frequent transitions between clinical attachments and the pressure of simply getting the 'day job' done make it hard for junior doctors to find the opportunity to set up and maintain improvement projects.[7] Trainees also report that they often perceive their clinical workplaces to be unsupportive of their involvement in improvement work.[1]

Organisations can tackle these problems by fostering a workplace environment and culture that supports QI by providing opportunities for mentoring from leaders and freeing up time and resources for trainees to work on improvement projects.[8]

2) Aim to tackle high priority problems and challenges

Involving trainees in unfocused, short-term QI projects that fail to achieve meaningful change is unlikely to be very useful as an educational activity and risks generating cynicism and disappointment. Identifying projects that address important and high-value problems is much more likely to be both fulfilling for trainees and contribute to meaningful improvements in care. Focusing on projects that align with wider improvement programmes (such as national clinical audits[9]) or build on previous work might also help to ensure that improvements made by trainees are sustained in the long term.

3) Think teams, not individuals

QI is not a solo activity and is largely carried out by teams of people. Having trainees take on roles in QI teams, or collaborate on joint projects, offers them the chance to learn new skills and contribute to projects that will be maintained after they have moved on to new clinical attachments.

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4) Provide training in improvement methods

Enthusiasm and the energy to make things better is helpful but not in itself enough to make an improvement project a success. The best chance of doing a QI project that delivers meaningful change is through applying specific improvement skills. These include improvement methodologies, analytical skills in understanding data for improvement, project management and the types of leadership skills that are hard to master but important for making change within organisations, such as influencing, managing conflict, team working and negotiation.

There are now a variety of regional and national programmes to involve junior doctors in QI projects and provide training in QI methods. Many clinical leadership programmes (such as the NHS Medical Director's Clinical Fellow Scheme in England and the Welsh Clinical Leadership Fellowship scheme) also include QI as a major component of teaching. Royal colleges also provide a variety of educational resources and training opportunities for trainees to learn about QI, such as the Royal College of Physicians *Learning to make a difference* project.[10] There are also many learning resources available online that explain the theory behind QI.[11]

5) Learn from and apply what has worked elsewhere

It is hard to imagine a problem in healthcare that someone, somewhere has not already tried to fix – and may already have found a solution. Of course, it is naïve to assume that improvement 'solutions' can be simply transferred from one setting to another as QI is a complex intervention and often not easily replicated.[12] Nonetheless, there is potentially much to learn from others' attempts to address the same improvement goal. Recent efforts to standardise the reporting of QI interventions (eg through the SQUIRE reporting guidelines[13]) have increased the quality and availability of information about QI projects. There are now also several journals (eg *Future Hospital Journal* and *BMJ Quality Improvement Reports*) that focus on publishing reports of QI interventions and are becoming increasingly useful resources for sharing and learning.

Trainees can use these to help plan and carry out improvement projects, but also need to be aware of the importance of critically appraising the literature. For example, it is still far more common to see published accounts of successful change than write ups of projects that tried but failed to achieve improvement (or indeed caused harm). This is not simply a source of publication bias, but also a lost opportunity to share learning. QI projects may also not have been evaluated in ways that provide strong evidence of impact (for example, using weak forms of analysis such as uncontrolled before and after comparisons). Publishing the results of improvement work (whether successful or not) is an opportunity for trainees to develop their own skills and knowledge, and contribute to helping others learn from their experience.

6) Build quality improvement into career pathways

Being able to make and sustain organisational change, lead teams, use data in sophisticated ways and manage projects are the types of non-clinical skills that are hard to acquire during training but are very useful for doctors later in their careers.

Offering trainees the opportunity to develop specialist expertise in QI (through, for example, fellowships and out-of-programme opportunities) could contribute to training consultants of the future who would be well placed to take on leadership and medical management roles later in their career. This might also help to mitigate the risk that improvement skills and knowledge are spread widely but thinly among the workforce, with few doctors having more than a basic knowledge about how to carry out and evaluate QI effectively.

Conclusions

Tapping into the talents of medical trainees can help the NHS tackle the challenges of today, as well as help build a consultant workforce of the future that has the right skills to lead and improve healthcare services. However, doing this well will take commitment and support from NHS organisations and, perhaps, require a critical look at some of our current efforts to engage trainees in audit and QI. ■

Conflicts of interest

The author has no conflicts of interest to declare.

References

1 Gilbert A, Hockey P, Vaithianathan R, Curzen N, Lees P. Perceptions of junior doctors in the NHS about their training: results of a regional questionnaire. *BMJ Qual Saf* 2012;21:234–8.
2 General Medical Council. *Quality improvement framework*. London: GMC, 2015.
3 Johnston G, Crombie IK, Davies HT *et al.* Reviewing audit: barriers and facilitating factors for effective clinical audit. *Qual Health Care* 2000;9:23–36.
4 Greenwood JP, Lindsay SJ, Batin PD, Robinson MB. Junior doctors and clinical audit. *J R Coll Physicians Lond* 1997;31:648–51.
5 Hillman T, Roueche A. *Quality improvement*. London: BMJ Careers, 2011. http://careers.bmj.com/careers/advice/Quality_improvement [Accessed 12 December 2016].
6 Glew S, Sornalingam S, Crossman T. Audit: time to review the cycle. *Br J Gen Pract* 2014;64:606–7.
7 Bagnall P. Facilitators and barriers to leadership and quality improvement. London: The King's Fund, 2012.
8 The Health Foundation. *Involving junior doctors in quality improvement*. London: The Health Foundation, 2011.
9 Stewart K, Bray B, Buckingham R. Improving quality of care through national clinical audit. *Future Hospital Journal* 2016;3:203–6.
10 Royal College of Physicians. Learning to make a difference. www.rcplondon.ac.uk/projects/learning-make-difference-ltmd [Accessed 12 December 2016].
11 The Health Foundation. *Quality improvement made simple: what everyone should know about healthcare quality improvement*. London: The Health Foundation, 2013.
12 Dixon-Woods M, Martin GP. Does quality improvement improve quality? *Future Hospital Journal* 2016;3:191–4.
13 SQUIRE. Revised Standards for Quality Improvement Reporting Excellence: SQUIRE 2.0. www.squire-statement.org/index.cfm?fuseaction=Page.ViewPage&PageID=471 [Accessed 12 December 2016].

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