Getting the improvement habit: why QI is not enough

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‘Healthcare will not realise its full potential unless change making becomes an intrinsic part of everyone’s job, every day, in all parts of the system.’

Batalden, P., and Davidoff, F. (2007) What is ‘quality improvement’ and how can it transform healthcare? Quality and safety in healthcare 16 (1) 2-3
Does quality improvement improve quality?

Authors: Mary Dixon-Woods and Graham P Martin

Although quality improvement (QI) is frequently advocated as a way of addressing the problems with healthcare, evidence of its effectiveness has remained very mixed. The reasons for this are varied but the growing literature highlights particular challenges. Fidelity in the application of QI methods is often variable. QI work is often pursued through time-limited, small-scale projects, led by professionals who may lack the expertise, power or resources to instigate the changes required. There is insufficient attention to rigorous evaluation of improvement and to sharing the lessons of successes and failures. Too many QI interventions are seen as ‘magic bullets’ that will produce improvement in any situation, regardless of context. Too much improvement work is undertaken in isolation at a local level, failing to pool resources and develop collective solutions, and introducing new hazards in the process. This article considers these challenges and proposes four key ways in which QI might itself be improved.

**KEYWORDS:** evaluation, healthcare organisation, hospitals, patient safety, quality improvement, research design/methods

**Introduction**

The quality and safety of healthcare worldwide remain

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US studies suggest that nurses deal with an average of 8–4 work system failures per 8-hour shift, and they are continually interrupted. The need for staff to learn and re-learn, associated with the variability in fundamental processes, is significant. Much professional time is consumed unproductively in learning how to undertake tasks as basic as ordering tests, knowing whether equipment has been cleaned, or how things are arranged in the resuscitation trolley in each setting. Personnel may also make errors as they move from place to place, either because they have not yet learned the new procedures or they apply previous learning to new but different contexts, sometimes with tragic outcomes.

**The problems with quality improvement**

Healthcare has increasingly been encouraged to use quality improvement (QI) techniques to tackle these operational defects (clearly, healthcare faces many other challenges but they may require different approaches). Capacity to improve quality is clearly critical to healthcare organisations; every organisation needs to be able to detect its operational (and other) problems and solve them using structured methods. For many problems (although far from all), that may mean using methods adapted from other industries, such as Lean and Six Sigma, or approaches developed within healthcare, such as the Institute for Healthcare Improvement's Model for Improvement. This widely used model combines measurement—using statistical process control, for example—with small tests of change (plan-do-study-act...). But despite the widespread advocacy for QI, the...
Why is changing habits hard?
Gleicher’s Formula
Gleicher’s Formula

\[ D \times V \times F > R \]
Why now?

- Growth of interest in science of improvement
- Expansion of ‘courses’ in ‘QI’
- Growing interest from Medical Royal Colleges
- Q community
- Lack of buy-in from health and social care
- Groups like AHSNs and CLAHRCs
- Support from Scottish CMO
- Growing international interest
- Lack of compelling Theory of Change
Doctors and the Management of Clinical Risk

Managing risk in healthcare is a universal challenge for doctors and other professionals. Doctors tread a difficult path, with the expectation that they will make robust decisions balanced against criticisms of being overly paternalistic.

This is risk associated with every clinical decision, whether it is to do something, or do nothing. Beyond risk factors identified by statistical analysis there is no substitute for clinical experience. An early sign in burn out of doctors is their reduced ability to tolerate the anxiety of making risky decisions.

Good risk management is also dependent on communication of risk with others.

Changing our Practice to Support Improvement

Scotland’s medical staff, working with all our colleagues in health and social care, continue to be at the forefront of the wide range of improvements in the safety, effectiveness and quality of care and treatment within our National Health Service.

Improvements in the quality of care are often dependent upon having the right conditions in place – positive relationships with colleagues, a learning culture and an understanding of tried and tested ways of implementing change in complex systems.

We should be focusing completely and relentlessly on what matters most to the people who look to us for care, support and treatment.

Translation of Medical Research into Routine Clinical Practice

The translation of research findings into clinical practice has transformed healthcare. It is a cornerstone of modern evidence-based medicine and of an advanced healthcare system. However, the route to translation can be challenging. High costs, scarce funds, shortages in key research infrastructure, capacity or capabilities, slow and incomplete recruitment to trials are amongst the potential barriers to the progress of translational research studies. Medical research and development can follow ill-defined and circuitous paths before being taken up into improved patient care.

If:
- we clearly articulate the range of habits which improvers need to have, and
- the knowledge and skills which will help them improve care

Then:
- we can more precisely specify the learning required, and
- the kinds of methods which are most likely to be helpful, and
- when the best times for this learning to take place are

So that:
- learning to build improvement capability becomes more widespread, and
- more staff want to change their practices, and
- more staff want to and have time and support to undertake learning

So that:
- the NHS embraces an ethic of learning, and
- the experiences of all patients and service-users are improved, and
- considerable value is created for all those who create, deliver and use and co-produce NHS services.
[The idea of habits]
‘Intelligence is the habit of persistently trying to understand things and make them function better. Intelligence is working to figure things out, varying strategies until a workable solution is found… One’s intelligence is the sum of one’s habits of mind.’

Scientific Habits of Mind

like

Open-mindedness, Scepticism, Rationality, Objectivity, Curiosity, Mistrust of arguments from authority, Suspension of belief…

Learning habits of mind

- Curiosity
- Open-mindedness

Engineering habits of mind

- Improving
- Systems thinking
- Adapting
- Problem-finding
- Creative problem solving
- Visualising

Core engineering mind

Making ‘things’ that work and making ‘things’ work better

Ethical consideration

- Reflection
- Collaboration
- Resourcefulness

Resilience
The Habits of an Improver

- Reflective
- Questioning
- Connecting
- Synthesising
- Accepting Change
- Team Playing
- Generating Ideas
- Critical Thinking
- Creative Thinking
- Co-producing Health and Social Care
- Communication
- Resilience
- Optimistic
- Calculated Risk Taking
- Tolerating Uncertainty
- Influencing
- Empathetic
- Facilitative
- Comfortable with Conflict
Getting the improvement habit

Bill Lucas

Improving healthcare services can all too easily become synonymous with the use of certain in vogue tools for improving quality. Trigger tools, run charts and driver diagrams are just three examples of techniques used by frontline staff who are undertaking improvement work. Educators seeking to teach improvement are similarly faced with long lists of possible approaches and techniques with which to fill their course descriptions. As a consequence the temptation for improvement leaders and teachers is to include yet another technique in an already crowded curriculum, to add in more “stuff”.

But what if focusing so much on the tools is actually unhelpful? What if our attempts to create better and safer organisations is muddled rather than enhanced by the growing interest in so many techniques? Could we be putting off the very people we need to engage by the use of what can be seen as jargon? Might it lead people to see improvement as an add-on to their existing duties?
Might a Habits of Mind perspective help us to:

1. Think more about the desired outcomes of learning?
2. Avoid simply adding more ‘stuff’ into the curriculum?
3. Provide a framework for formative conversations between curriculum developers and learners, academics and those in health and social care?
4. Act as spur for debate about how people actually think and act when they are improving services?
5. Help make improvement normal rather than a ‘project’ or a ‘tool’?
[The idea of signature pedagogies]
The challenge of converting knowledge and/or skill/competence into Habits of Mind/Dispositions
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Aristotle’s idea of φρόνησις – phronesis (practical wisdom and situational awareness)
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David Perkins and ‘sensitivity to occasion’
Merrill-Palmer Quarterly 39:1 1-21
Our current learning methods are not up to the job

‘To the extent that quality and safety are addressed at all, they are taught using pedagogies with a narrow focus on content transmission, didactic sessions that are spatially and temporally distant from clinical work, and quality and safety projects segregated from the provision of actual patient care…’

The idea of ‘signature pedagogy’

What might it be for improving healthcare services?

Figure 13 - The engineering design process

Source - NASA\textsuperscript{142}
Learning habits of mind

Curiosity
Open-mindedness

Engineering habits of mind

Improving
Systems thinking

Visualising
Adapting

Creative problem solving
Problem-finding

Core engineering mind

Making ‘things’ that work and making ‘things’ work better

Ethical consideration
Reflection
Collaboration
Resourcefulness
Resilience
Games, computer modelling, complex simulations, role playing

Deep exploration of the engineering problem-solving cycle

Planning, hypothesising, analysing, experimenting, reflecting, refining – developing a ‘growth mindset’

Modelling, mental rehearsal, infographics storyboarding

Reframing, analysing, practising in different contexts

Project-based learning, thinking routines

Making ‘things’ that work and making ‘things’ work better

Creative problem solving

Problem-finding

Adapting

Improving

Systems thinking

Visualising

Engage Habits of Mind

Resilience

Growth
What are the signature learning methods for developing improvement capability?

1. Sustained opportunities to critically observe and be part of health and social care contexts
2. Coached projects/assignments
3. Peer learning and group critique
4. Mentoring
5. Enquiry-led processes such as action research...

How best to determine the balance of theory and practice?
Which knowledge domains/systems and skill areas?
Patient shadowing

Process mapping

Service re-design

Patient experience interviews and feedback to teams

An example from work by Peter Davey and colleagues
Desirable capabilities – 7Cs

Craftsmanship  Confidence

Commitment  Curiosity

Creativity  Collaboration

Communication
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www.winchester.ac.uk/realworldlearning
www.health.org.uk