The Review

Outside the Box

Beyond improvement tools

For the last month I have been abroad, visiting some centres of applied research. I have met some fine leaders and seen presentations from exceptional front-line staff. The priority in the places I've visited, as in the UK, is 'improvement science'.

As I have listened to colleagues who share my values and goals (effective, efficient primary health care services; better health outcomes; fewer adverse events; reduction in inequalities; fulfilled, committed staff and so on), I have been struck by the predominance of mechanical metaphors in the improvement field. We all seem to like talking about 'tools', 'levers', 'bridges', and even '[re-]engineering'. The format of a typical research study (whether in the UK or abroad) is to identify something that needs 'fixing', design a tool, apply the tool, 'leverage change', and then write a paper describing the tool and how its application improved practice.

This approach to improvement science research has produced some mighty fine tools (algorithms, checklists, software packages and so on), and health services are undoubtedly the better for them. But the tools, by and large, seem to stack up in the literature rather than — as good tools should — get taken up and used for work. Enter a new character on the research stage: the study of 'resistance'. We identify people, teams, and organisations that are not using particular (evidence-based) tools and study their resistance to doing so. We then develop another set of mechanically-based interventions to 'overcome resistance'.

I think it's time for a paradigm shift. We don't need to throw away the tools, but we do need to decentre the technical and focus our attention on the social. Tools are designed by creative, motivated people. They are used — or not — by staff who feel and care, and by organisations that are nested in social institutions. The extent to which tools 'work' is the extent to which their adoption and use resonates with values, motives, relationships, commitments, accountabilities, and historical ways of interacting.

If you can't see why I'm making this distinction, take a look at the paper by Mary Dixon-Woods and colleagues on a checklist intended to reduce central venous catheter infections on intensive care units.[1]

The original conclusion reached by the US research team was that the checklist, introduced in over 100 units, had produced a dramatic reduction in infection rates by making the care process more systematic, rational, consistent, and evidence based.

But social scientists who saw this work presented challenged the original 'technical' interpretation of what happened. They undertook post-hoc interviews and re-analysed the data. They came up with a new theory of change that was predominantly social rather than technical. For example, the programme came to be seen as something a 'good' intensive care unit should be signing up to. Relationships between participating units strengthened as a result of participation, resulting in extensive cross-talk and lateral support. The initiative took on the characteristics of a 'grass-roots social movement' in which people wanted to be involved. And so on.

None of these social aspects of improvement had been factored in or systematically analysed in the original report of the study, whose authors had initially concluded simply that the 'tool' had 'worked'. The Dixon-Woods paper is a hard read, but if we are serious about taking improvement science to a higher level of sophistication, it's time to learn the language of social science and apply its methods.

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