Improvement science and the future of family medicine

Nicholas Pimlott MD CCFP, SCIENTIFIC EDITOR

The best thing about the future is that it comes one day at a time.

Abraham Lincoln

Like most Canadian family physicians, my past few years in practice have been marked by profound changes, including a move from paper-based charts to electronic medical records, the establishment of a family health team in which I now work with a large group of other nonphysician health professionals, the measurement and monitoring of preventive care delivery, and the participation of our large group practice in local and national practice-based research networks. Among the expected outcomes of these and other changes in the way that family physicians work are improved access, better health outcomes, and more cost-effective care. But will the changes produce these results? How will we achieve them?

Recently I had the pleasure of attending a lecture by Dr Martin Marshall, a British GP and researcher, who spoke at Women's College Hospital in Toronto, Ont. The title of his presentation was "Moving improvement research closer to practice: the researcher-in-residence model."[1] According to Marshall, the researcher-in-residence model emerged to deal with the tendency of experts to work and socialize only with like-minded people, distancing the expert from the wider society in which they operate and, in many cases, to which they are accountable. He described 6 case studies in which researchers in residence were able to help solve thorny problems in health care delivery.

As a GP and researcher whose work is informed by the experiences of practice, Marshall has given a lot of thought to the future of general practice and family medicine as we face the many challenges of health care delivery in the 21st century. He predicts that 3 changes will have important effects on our profession over the next 30 years.[2] His first prediction is that what it means to be a doctor will look very different in 3 decades. For much of the history of medicine we have seen our job as looking after our individual patients. Marshall predicts that in the future we will be more accountable not just to individual patients but also to peers and our employers. We will be responsible for all aspects of quality, not just traditional clinical elements.

His second prediction is that

> patients will be a lot more informed about, and less willing to tolerate, poor quality care .... In 30 years time, patients are likely to be much more active consumers of health care, searching out the 'best' and ignoring or demanding improvements in the worst performers. Doctors will be judged not only on how personable or humane they are, but also judged routinely on how competent they are.[2]

Marshall's third prediction is that

> new technologies will transform the dynamic between doctors and patients. The current dominant model of care delivery requires patients and doctors to meet face to face, for a short period of time, with minimal preparation and only a little more follow-up. This model has barely changed for centuries and is oriented around the needs of those providing the service rather than those receiving it. It is an inefficient and ineffective use of a precious resource—the personal interaction between two people—and a massive inconvenience to patients.[2]

If Marshall's predictions come true, clearly the role of family physicians will change profoundly—in ways most of us are ill-prepared for, given that our training is still mainly based in the medical sciences and a clinical method focused on patients who have, or think they have, something wrong with them. This training prepares us well for the confines of our offices and examination rooms, but not for our roles in interdisciplinary teams, our changing hospitals, local health integration networks, provincial ministries, or society as a whole. Most of us sense this and are uncertain and uneasy about what our future practices will look and feel like.

There is a way, Marshall argues convincingly, that physicians can adapt and thrive in this brave new world of health care. It is crucial that we embrace the lessons of improvement science, a discipline that draws on basic sciences ranging from mathematics to engineering, statistics, and behavioural sciences. It is now an integral part of most manufacturing and many service industries.[2,3] Learning the science of improvement must take place in undergraduate and postgraduate medical training, as well as in continuing professional development, if we are to be an integral part of medicine's next leap forward. Luckily we have colleagues like Dr Marshall to help us navigate the future.

Cet article se trouve aussi en français à la **page 398.**

References

1. Marshall M, Pagel C, French C, Utley M, Allwood D, Fulop N, et al. Moving improvement research closer to practice: the researcher-in-residence model. *BMJ Qual Saf* 2014;23:801-5.
2. Marshall M. Seeing with new eyes: what can general practice learn from the science of improvement? *Br J Gen Pract* 2011;61(586):352-5.
3. Hockey PM, Marshall MN. Doctors and quality improvement. *J R Soc Med* 2009;102:173-6.