Doctors learning by research

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Background

The modern day medical professional needs to be able to work successfully in a team to ensure that the provision of a full range of care is provided to meet the wide needs of patients. However, traditional team skill training, that is much beloved of many Business School curricula, is expensive, time intensive and difficult to align alongside the clear mission statement of delivering patient care.

Context

Recent calls have highlighted the need for trainee doctors to engage with research practice. Being an active researcher improves the quality of care by doctors. The nature of modern research requires team working. This is the very same skill will benefit newly qualified doctors.

Innovation

The proposed innovation is to place research experience at the very heart of a contemporary medical curriculum. By engaging with modern collaborative research practice at the start of their medical training, clinicians will embrace the learning potential that is acquired through an expertise in working effectively with others.

Implications

Developing opportunities for research practice throughout the medical curriculum will ensure that the trainee doctors of today will become reflective medical practitioners of tomorrow.
The ability to work closely with other professionals is clearly a valuable skillset for an effective doctor (1), and yet it is surprisingly difficult for the development of this skillset to be prioritized in formal medical education programs. Notable initiatives have incorporated some elements of non-technical skill development in the curriculum but Directors of Medical Education Programs are frequently exhorted to include “more” of a range of topics in the curriculum without suggestion as to what should be removed to make way for it. Here, we propose a way in which this vital skillset can be acquired in a relatively straightforward fashion – incorporating research experience within training programs.

In a landmark paper “Every doctor a scientist and a scholar” (2) The British Medical Association makes the radical proposal that all doctors should be active researchers and that medical students actively engage in scientific research during their training. While there is a solid evidence base linking an active research culture and positive patient outcomes (3), what has the already overburdened medical student got to gain by carrying out research projects? Here we argue that it is not only the product of research outputs that leads to improved patient outcomes, but the process by which research is undertaken that is important.

The skills required for successful research include creativity, scientific knowledge, critique, thoroughness, analysis and communication as an appreciation of how to work well in a team (4). Clearly there are significant advantages to collaboration as it provides the researcher with a wider knowledge base to work from, the ability to critically assess data and other’s research, and is likely to have additional data collection benefit (5). From a clinical perspective “real” teamwork is
strongly correlated with reduced mortality rates in hospitals (6). However, the development of this skillset is not straightforward and there are significant challenges to creating effective teamwork skills (7).

Scholars have known for some years that the key to successful teamworking involves a mental shift such that sees a person’s function divided into taskwork (the technical task) and teamwork (how the group works together) with the latter largely consisting of activities relating to communication and coordination. For teams to be effective, both tasks must be done well. The difficulty in achieving the benefits of collaboration stems from a lack of attention to the teamwork by over-focus on the task because groups typically feel they haven’t got time to think about team elements of their work (8). However, we have recently highlighted that engaging in a structured research activity can produce wide-ranging set of team-based skills including experience of the clinically important notion of real-team skills (9).

A Real Team is one that delivers above and beyond the abilities of the individuals within it through the positive collaborative influence achieved by the interpersonal support of the team members. Compared to pseudo-team members who lack the opportunity for social reflection during the team task and thus show significantly lower levels of task satisfaction and reported higher levels of errors, stress and injury. This is a vitally important distinction that has significant implications for clinical practice. A long-term review of healthcare performance across a wide variety of trusts in the UK showed that real-team activity predicts greater levels of innovation in patient care as well as higher levels of service and patient length of stay in hospital (and associated costs) was significantly shorter (10).
The development of such skills need not occur solely in a face-to-face context and perhaps even moving this type experience to at least contain an element of virtual interaction would be in keeping with the way clinical practice is developing. Indeed, despite the universal and ubiquitous use of the Internet that has driven a generation of students who are defined by their interaction with it, literature is starting to emerge which clearly highlights the beneficial role that it can play in effective learning of transferable skills in the modern-day clinical workforce (11).

It is understandable that medical educational programs focus on the development of understanding in topics such as anatomy or biochemistry as these are obviously essential. However, the limited amount of time spent on the development of soft skills – especially teamworking – perhaps reinforces a widespread self-image of doctors as being able to work without needing anyone else around them. Very little clinical practice involves solo working and so doctors can find themselves with insufficient grounding in the type of interpersonal skills required to ensure that medical graduates become effective collaborators, researchers and medical doctors. Yet merely engaging with research practice can allow medical trainees to develop the necessary social skills that will enable them to be work effectively in groups.

Our proposition is that team skills behaviors are vital additions to the modern-day medical skillset. This concept is vital to enable ever more diverse medical teams to perform at the level they should. At the very least, medical students should experience research activity and be given exposure an environment that can form the basis for a shared understanding of what it is to be in a real team.
Not only will such research experience place medical students at the forefront of existing knowledge but will give them the necessary social skills to become more effective doctors.
References


