

## Editorial

# Education and training: the neglected healthcare technologies?

There is a dearth of rigorous evaluation of both education and training of health professionals. Todres *et al.* reviewed the state of research in medical education and training concluding that ‘Medical education research lacks methodological rigour and support from funding councils’ (Todres *et al.*, 2007). The same is undoubtedly true of other healthcare disciplines; for example, only six papers could be included in a recent systematic review of interprofessional education (Reeves *et al.*, 2008). Todres *et al.* go on to argue that the medical education community needs to develop its research tools and infrastructure. They draw a powerful parallel with the evolution of primary care and health services research which, over the last 20 years, has developed a vibrant research community which now competes successfully with the long established and still dominant biomedical research community for funding. Todres *et al.* argue that this transformation started when ‘fundors began to understand the importance of a firm evidence base for clinical care and the delivery of services’ (Todres *et al.*, 2007) and the echoes of this realization are evident in the emphasis on ‘translation of research excellence into health and economic benefit’ in the *English Comprehensive Review* (Chancellor of the Exchequer, 2007). They further argue that the medical education and, by extension, the whole health professional education and training community needs to ‘create a critical mass of educational researchers so that cross-centre, inter-institutional, and multidisciplinary studies can be conducted’ (Todres *et al.*, 2007). While an essential step, this will not on its own be sufficient if such studies cannot be funded.

This need for a strong evidence base for education and training is vividly illustrated by the requirements placed by the UK government on

its National Health Service (NHS). By 2011 it must become more innovative, personalised and accessible with increased diffusion of best practice and translation of research excellence into health and economic benefit (Chancellor of the Exchequer, 2007). This will be supported by an increase in its annual budget of £90bn in 2007/8 to £110bn in 2010/11 and a major co-investment in workforce training (Chancellor of the Exchequer, 2007) which was reemphasised by Darzi in *A high quality workforce: NHS Next Stage review* (Department of Health, 2008). Training is an already substantial cost to the NHS: in 2007/8 the NHS committed 5% of its total budget to training (Andalo, 2007) which was of the same magnitude as the total hospital prescribing budget which was estimated to be 4% of the budget in the same year (Secretary of State for Health, 2007). Workforce development and training is critical to achieving the aims set for the NHS, a great deal of expenditure is, and quite rightly will be committed to it, but this spend is without a sound evidence base and risks being unevaluated.

One of the major research funding streams in the Department of Health for England is the Health Technology Assessment (HTA) programme, part of the National Institute for Health Research. The HTA programme defines Health Technology as ‘a range of methods used to promote health, prevent and treat disease and improve rehabilitation and long-term care including: Drugs ..., Devices ..., Procedures ..., Settings of care ..., [and] Screening ...’ (NIHR Health Technology Assessment Programme, 2008). It is axiomatic that education and training of healthcare professionals is necessary to enable them to ‘promote health, prevent and treat disease’; no one would seriously posit that we abandon our patients to untrained health workers

or that patients have to accept care from untrained staff. Education and training are therefore manifestly within this definition of Healthcare Technology. Furthermore, HTA is interested in whether 'the technology works, for whom, at what cost [and] how it compares with the alternatives' (NIHR Health Technology Assessment Programme, 2008). These are surely apposite questions to ask of an activity which currently consumes 5% of the NHS budget and without which the NHS will be unable to deliver what is expected of it.

The explicit expansion of the HTA funding remit to include education and training of healthcare professionals may be dismissed as an unnecessary dilution of the proportionally small NHS expenditure (less than 1% of turnover (Mathers and Gray, 2005; Chancellor of the Exchequer, 2007)) on research and development. It might be argued after all that much of the education and training budget is embedded in pre-registration programmes which are regulated by independent professional bodies which control entry to the professions. Most qualifications which can be registered are awarded by institutions which are independent of the NHS and are relatively immune to pressure from the NHS. So what is the point of diverting scarce resources into an activity which is unlikely to effect change? Furthermore, the healthcare professional educational research community is unsure about the applicability of standard research methods to education (Norman, 2003). Such a nihilistic discourse would be unacceptable in any other healthcare field and must be unacceptable in healthcare professional education and training. As a result of this neglect, we have lost opportunities to advance knowledge. Pre-registration medical education has been transformed since the publication by the GMC of *Tomorrow's Doctors* in 1993 (Education Committee of the General Medical Council, 1993) yet we have no clear idea to what end and whether newly graduating doctors are better as a result. Similarly, *Modernizing Medical Careers* was to have transformed postgraduate medical education but, following another untried innovation in applications for postgraduate medical training, is widely seen as a failure (Shannon, 2007; Barron, 2008; Delamothe, 2008). Whether or not the quality of postgraduate medical training had been enhanced, maintained or degraded is unknown

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but further wide scale change is in the air (Tooke, 2008). Can we really afford to continue to neglect the healthcare professional education and training research agenda?

Todres *et al.* (2007) have challenged us to develop the skills and networks required to prosecute high quality research in healthcare professional education and training but without access to funding this will count for little. The simple change of explicitly including education and training in the remit of the HTA would legitimise and encourage applications for funding of education and training research. The necessary parallel challenge for the education and training research community, many of whom work in primary health care, is to ensure that this case is heard and that our research proposals are considered alongside others which seek to evaluate health care technologies.

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