

### What is already known on this topic

Traditionally, the foundation years of medical education have grounded students in biomedical sciences but offered little, if any, clinical exposure

Worldwide, curriculums are moving towards becoming more “vertically integrated”

This move is parallel to and loosely tied with an increasing emphasis on personal and professional development in medical curriculums

There is, however, a paucity of empirical evidence or even arguments that are soundly grounded in theory to support early experience

### What this study adds

“Experience” can be defined as authentic human contact in a social or clinical context that enhances learning of health, illness or disease, and the role of the health professional

A lack of early experience can demotivate students and leave them vulnerable to negative emotions when they finally enter the clinical environment

An inventory of likely benefits of early experience includes greater motivation and confidence, greater social and self awareness, and more rounded and practically relevant theoretical understanding

Viewing medical education as a process of socialisation—into the population that the future doctors will serve, and the profession they will join—helps redefine the task of medical education in the 21st century

shows much early experience research to be poorly grounded in theory, methodologically weak, and at the level of opinion rather than learning outcomes.<sup>9</sup> However, it supports our respondents’ view that awareness of professional roles, preparedness for clerkships, and early detection of students with difficulties are probable benefits of early experience. Two recent qualitative studies have, like ours, characterised medical education as developing a professional identity.<sup>10 11</sup>

The blend of cognitive, social, and affective learning fits well with social cognitive theory.<sup>12</sup> Our results also fit well with new conceptualisations of apprenticeship, according to which an important part of professional learning is developing a sense of identity within a community of practice.<sup>7</sup>

The challenge for future research is for educators to base their interventions on theory and evaluate them rigorously enough to advance knowledge through implementation.<sup>13</sup>

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Contributors: See [bmj.com](http://bmj.com)

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- Gordon J, Hazlett C, ten Cate O, Mann K, Kilminster S, Prince K, et al. Strategic planning in medical education: enhancing the learning environment in clinical settings. *Med Educ* 2000;34:841-50.
- Dahle LO, Brynhildsen J, Berbohm Fallsberg M, Rundquist I, Hammar M. Pros and cons of vertical integration between clinical medicine and basic science within a problem-based undergraduate medical curriculum: examples and experiences from Linköping, Sweden. *Med Teach* 2002;24:280-5.
- Kachur EK. Observation during early clinical exposure—an effective instructional tool or a bore? *Med Educ* 2003;37:88-9.
- General Medical Council. *Tomorrow’s doctors*. 2nd ed. London: GMC, 2002.
- Howe A. Professional development in undergraduate medical curricula—the key to the door of a new culture? *Med Educ* 2002;36:353-9.
- Gordon J. Fostering students’ personal and professional development in medicine: a new framework for PPD. *Med Educ* 2003;37:341-9.
- Wenger E. *Communities of practice. Learning, meaning and identity*. Cambridge: Cambridge University Press, 1998.
- Medical Professionalism Project. Medical professionalism in the new millennium. *Clin Med JRCPL* 2002;2:116-8.
- Dornan T, Littlewood S, Margolis S, Scherpbier A, Spencer J, Ypinazar V. *How can early experience contribute to the basic education of health professionals?* September 2004. [www.bemecollaboration.org/reports/Earlyclinicalexperience.pdf](http://www.bemecollaboration.org/reports/Earlyclinicalexperience.pdf) (accessed 20 Sep 2004).
- Pitkala KH, Mantyranta T. Professional socialization revised: medical students’ own conceptions related to adoption of the future physician’s role—a qualitative study. *Med Teach* 2003;25:155-60.
- Radcliffe C, Lester H. Perceived stress during undergraduate medical training: a qualitative study. *Med Educ* 2003;37:32-8.
- Bandura A. *Social foundations of thought and action*. Englewood Cliffs: Prentice-Hall, 1986.
- The Design-Based Research Collective. Design-based research: an emerging paradigm for educational inquiry. *Educ Res* 2003;32:5-8. (Accepted 29 April 2004)

### Corrections and clarifications

*Taking account of future technology in cost effectiveness analysis*

An oversight during our editorial process resulted in a line drawing being omitted from this education and debate article by Joshua A Salomon and colleagues (25 September, pp 733-6). The picture printed was a computer generated image of hepatitis C virus, whereas the line drawing, which can now be seen on [bmj.com](http://bmj.com), shows the natural course of hepatitis C infection.

*Effect of a flow chart on use of blood transfusions in primary total hip and knee replacement: prospective before and after study*

In this quality improvement report by Muller and colleagues (*BMJ* 2004;328:934-8) a misunderstanding during editing led to an error in reporting the authors’ methods. In the third paragraph of the section “Strategy for change,” the correct text should read, “We provided [not obtained] feedback twice during routine staff meetings” and “We presented [not determined] the proportion of patients who had received allogenic or autologous blood transfusion after total joint replacement.” Technology led to a further slip, this time at proof stage. At the end of the fourth paragraph of the section “Effects of change,” a confusion caused by “track changes” resulted in the misrepresentation of an increase in units of transfused blood. The correct increase in units of transfused blood in Zurich should be from 52 700 to 60 600 (+15%) [not plus/minus 15%].