without giving any academic evaluation of its desirability. It is arguable that the quality of research in medical colleges will be improved by the closer juxtaposition of clinicians and basic scientists in multifaculty colleges with excellence in biological sciences. None the less, there is a counter argument that it is more appropriate for basic sciences to be embedded in a clinical environment to foster excellence in clinically orientated research.[19] These arguments oscillate in fashionable swings and we do not propose to debate this issue here.

There are, however, few data to support the thesis that undergraduate medical education is more effective when conducted within a multifaculty environment. Indeed, the resulting medical colleges within the capital would be extraordinarily large, with some medical student intakes approaching 350. The General Medical Council's proposals for undergraduate education strongly recommend a reduction in the factual overload often generated within basic science faculties.[3] But there is evidence that it is difficult to achieve both a reduction in facts and horizontal and vertical integration within basic science departments. Our own experience within the City and East London Confederation confirms this. The GMC stated that clinical medical schools which had not already lost their basic science faculties should fight to retain them.

Furthermore, medical education is essentially different from other types of undergraduate education. The medical course is longer, there are fewer holidays, and school leavers face an unparalleled gamut of emotional experiences. Students face decay and death at a time when most others of the same age will be spared. There is need for a strong personalised component to support this process, which may be much more difficult to achieve in large medical schools. Such personal support cannot be humanely achieved in an organisation where teachers do not know the names of the learners. Indeed, when the Tomlinson report was published London University students spoke out in defence of the diversity of medical education within the university (for which it is famed) and strongly in favour of retaining some smaller institutions.

If the Tomlinson proposal was grounded in the belief that such mergers would produce economies of scale there "is in fact little evidence to suggest that economies of scale exist," in institutions that have merged.[20]

Our personal prediction would be that in 10-20 years the debate will focus on how to unscramble these large schools, bringing ourselves into line with those in the United States, where intakes of 100 to 150 students are deemed desirable.

Thus, the potential for increasing excellence in medical research are in some ways at odds with our understanding of the educational experience required to prepare the doctor for the challenges of the next century. Furthermore, staff support and development will be essential both for those primarily employed by universities and NHS clinicians involved in teaching. Teaching must be rewarded, and this may be aided by the requirements of academic audits of teaching.[7] Again we can learn lessons from primary care, where the development of teaching skills predates the recent discussions about undergraduate medical education by many years.

Costs

Tomlinson requires major investment to achieve improved primary care. Pump priming and continued investment will also be needed for research and development and the new modes of teaching. The funds will be required for new staff with a remit for managing curriculum change and overlap as well as for staff development programmes. Some colleges already require newly appointed staff to participate in more effective teaching programmes, but staff development must go further. Staff in medical colleges have too few opportunities to meet and develop ideas together, an essential prerequisite for developing and sustaining a curriculum. The focus of such activity should properly be in academic medical education departments. Facilities for modernising teaching are also essential, and clinical skills laboratories are expensive to establish. Community based teaching does not come cheap, and resources are needed for the organisational aspects of these programmes. In one of three major foundation programmes in the United States US$47·5m is being spent on developing seven new community based teaching centres.

The future

An immediate concern is that medical colleges involved in a fight for survival or in a major institutional reorganisation will not have the time or energy to innovate. Other pressures which may hinder or help change, including the unravelling of the service increment for teaching and research, have not been discussed in this article. Furthermore, the pressure to acquire more and more management and accounting skills in the new NHS[21] will result in ever greater pressures on staff, who may find teaching and research ever more squeezed. If curriculum development is to be a priority medical college staff will need to be designated as having responsibility for managing change, given protected time and recognition for their responsibilities, and rewarded for their achievement.

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Correction

Alternative allergy and the General Medical Council

We regret two errors in this paper by Professor A B Kay (9 January, p 122). Dr Keith Mumby was not found guilty of serious professional misconduct in 1982. In addition, although Dr Mumby was found guilty of serious professional misconduct in relation to two charges in July 1992, he was not found guilty of failing to give adequate medical attention to a patient he had injected. We apologise unreservedly to Dr Mumby for these errors.

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