Should Medical Schools Stop Research and Dedicate Themselves Solely to Teaching?

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Medical school faculty spend a lot of time on research and this can distract them from medical teaching. This is probably true, and yet it is an argument that has been made numerous times in the past. According to Graeme Catto, “research interests of medical schools and their parent university may take precedence over teaching commitments and clinical duties” [1]. Some would therefore say that schools should do less research and more teaching. The counterargument is that medical research is a core activity of medical schools—that it is impossible to envisage a medical school that is not undertaking research. This counterargument enumerates the multiple benefits of conducting research [2]. There are undoubtedly multiple benefits to conducting research—but it is questionable whether these genuinely benefit the school. In reality the “benefits” to the school are limited in number and questionable in impact. In this short perspective, I make the case that research confers little benefit on schools and may actually cause harm.

One of the commonly heard arguments for conducting research in medical schools is that this exposes medical learners to the most innovative minds in medicine. However, the reality is that this is often not the case. Active researchers have little time for teaching and often resent time that they must spend teaching. Researchers are also recruited for their research skills and not for their teaching skills. So, even some researchers who might want to pass on their ideas might not have the teaching skills to do this. Certainly, there is evidence that many faculty members are not always fully prepared for their teaching role [3]. However, there are a growing number

of faculty development programmes for medical educators [4]. Nonetheless, even for researchers with good teaching skills, there is the inconvenient fact that their research subject might not be on the curriculum for medical students or even postgraduate learners. So their research subject might not be something that students should learn, and all educational activities in medical school are increasingly driven by curricula [5].

A second argument for making schools centres of research is an economic one. Research brings in huge funding to the school, and without this funding, schools would not be able to employ faculty or even survive [6]. It is certainly true that research does bring in funding; however, that funding is spent on research. Research funding bodies now monitor their spending carefully and must be reassured that their grants are spent on their intended purpose. Some research funding may help to cover the overhead or indirect costs of the institution—to cover real costs to the school to support the infrastructure required for research. These include costs incurred for accounting, human resources and payroll, and support for libraries, utilities, and facilities. Some of these costs benefit both the research and teaching missions of the school because both missions may be occurring in the same location. However, it remains clearly unacceptable for a research grant recipient to tell their funder that they are going to spend some money on teaching as the medical school needs it.

Another problem with the economic argument is that it is questionable whether research funding actually pays for all the research at the institution or whether the research funding activities are actually loss making [7]. Certainly, there are cases where academics who are paid to do teaching actually end up doing research. Could the funding brought in to conduct research actually be worsening the financial performance of schools? The simple fact is that nobody knows. However, what is certain is that medical education is expensive and it

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does medical school budgets few favours in the long term by blurring the boundaries between research and education [8].

A third argument for conducting research at schools is that it exposes medical students to the most innovative ideas and the innovative minds of researchers during research projects. It does expose students to new ideas; however, it often exposes them to commercial ideas. Much of medical research funding comes from the pharmaceutical and device manufacturing sectors—and they only fund research in areas that are of commercial interest to themselves [9]. This is perfectly understandable from their perspective, but it can at best unbalance and at worst corrupt the educational activities at the school. The psychiatry curriculum at a school might be dominated by the biological model of psychiatry and by psychopharmacology because that is the type of research that wins grants and attracts faculty. Treatments such as cognitive behavioural therapy will thus be sidelined in the curriculum. The needs of the medical students and the population of patients that the medical school should serve will thus be secondary. This is an example of an unbalanced curriculum. An example of a corrupted curriculum would be an academic who receives personal funding from commercial sources and who then modifies their teaching because of that funding. Some would argue that faculty should not be receiving “personal funding,” and curriculum should be vetted and voted upon by a curriculum committee in order to avoid these issues. However, the fact remains that some faculty do receive personal funding. Another viewpoint is that much research is funded by national, non-commercial bodies and that even if some research is biased, much of it will be sound [10]. However, much research at medical schools is commercial, and research funded by the pharmaceutical industry is most likely to have outcomes that are favourable to the pharmaceutical products that industry produces [11, 12].

A fourth and final argument in favour of carrying out research at medical schools is that it gives students an opportunity to take part in research themselves [13]. This is true—but in reality, such activity often has limited long-term impact. Only a minority of medical students will ever take up research careers (5–10 % of the UK medical workforce according to the Medical Schools Council) [14]. Their undergraduate experience in research will be at best passing and at worst a distraction. Some might argue that people are better able to work with others and be empathetic when they have experienced their viewpoints and that this understanding of another person’s role can have long-term impact, especially in the case of research as physicians should understand the process of acquiring any new medical knowledge. However, students can also do small research projects without the school being involved in research.

In summary, the evidence that research confers benefits on medical schools is questionable. There is some evidence that research activities can sometimes interfere with the primary purpose of schools. This is not to say that research is not worthwhile—clearly it has many benefits—however, it might be better undertaken at dedicated research institutions which do not have educational duties. Most medical schools have multiple functions—from advancing knowledge to providing care—however, they should all have one core mission: teaching [15].

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References

1. Catto G. Interface between university and medical school: the way ahead? *BMJ*. 2000;320:633.
2. Tunis SR, Stryer DB, Clancy CM. Practical clinical trials: increasing the value of clinical research for decision making in clinical and health policy. *JAMA*. 2003;290(12):1624–32.
3. Higgs J, McAllister L. Educating clinical educators: using a model of the experience of being a clinical educator. *Med Teach*. 2007;29(2–3):e51–7.
4. Leslie K, Baker L, Egan-Lee E, Esdaile M, Reeves S. Advancing faculty development in medical education: a systematic review. *Acad Med*. 2013;88(7):1038–45.
5. Grant J. Principles of curriculum design. In: Swanwick T, editor. *Understanding medical education*. Chichester: Wiley Blackwell; 2010.
6. Holmes W, Burks TF, Dzau V, Hindery MA, Jones RF, Kaye CI, et al. Measuring contributions to the research mission of medical schools. *Acad Med*. 2000;75(3):304–13.
7. Samuels R. *Why public higher education should be free*. New Jersey: Rutgers University Press; 2013.
8. Walsh K, Jaye P. Cost and value in medical education. *Educ Prim Care*. 2013;24(6):391–3.
9. Lexchin JR. Implications of pharmaceutical industry funding on clinical research. *Ann Pharmacother*. 2005;39(1):194–7.
10. Cooksey D. UK health research funding. 2006. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228984/0118404881.pdf. Accessed 5 April 15
11. Lexchin J, Bero L, Djulbegovic B, Clark O. Pharmaceutical industry sponsorship and research outcome and quality: systematic review. *BMJ*. 2003;326:1167.
12. Newson J. The corporate-linked university: from social project to market force. 1998; 23:1.
13. Zee M, de Boer M, Jaarsma AD. Acquiring evidence-based medicine and research skills in the undergraduate medical curriculum: three different didactical formats compared. *Perspect Med Educ*. 2014;3(5):357–70.
14. <http://www.medschools.ac.uk/Students/careers/clinicalacademicmedicine/Pages/default.aspx> (accessed 20.3.15)
15. Valsangkar B, Chen C, Wohltjen H, Mullan F. Do medical school mission statements align with the nation’s health care needs? *Acad Med*. 2014;89(6):892–5.