Knowledge as Practice: Rethinking Medical Education

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There is a long tradition of general internists being involved in medical education as teachers, educational administrators, and, increasingly, medical education scholars and researchers. In recent years, the medical education journals have contained rather lively and impassioned debates about the best ways in which to carry out that sort of research. During the first years of the 21st century, editorial debates in the top journals in the field (e.g., Medical Education, Academic Medicine, Advances in Health Sciences Education) were divided on such basic issues as these:

1. What are the most important research questions that medical education research should be addressing?
2. Who is the target audience of that research – the deans and course directors and clinical teachers, or other researchers in the field?
3. Which research methodologies should be used?

These issues were also discussed at conferences, in meetings, and informally among colleagues.

What was going on? And does it matter? Through my research, I’ve come to understand that such debates really do matter because the ways in which we think about and do research allow us to study certain things while hiding others.

In order to understand these debates within medical education research, we need to clearly define a key term that is used in everyday language but has a particular meaning in this research context: legitimacy. The work of sociologist Pierre Bourdieu showed that every research field, like every other field of practice, can be described as a field of struggle for legitimacy and power. Everybody who claims membership in a particular field wants to succeed in that field – to win at that “game.”

Take, for example, the field of art, which, like all fields, constitutes a field of struggle and competition for what is “good.” The history of 20th century European art reveals that what was thought of as good art in 1880 is very different from what was thought of as good art in 1920 or in 2000. Producing realist bronzes today, such as Rodin did in the 1880s, would probably not get an artist much money – which in the art world is part of the currency for legitimacy – or a big solo show in a reputable gallery – which is another part of what gives an artist a certain kind of legitimacy. It also wouldn’t get an artist loud acclaim from art critics, a professorial job in a fine arts department, or laudatory books by serious art historians – which are other things that give an artist a different kind of legitimacy. So, in his day, Rodin might have been “it,” but since then other artists have changed the rules of the game. Some try to be shocking in order to be trendy, to be “the next big thing,” while others make an effort to do work that expands our understanding of art or connects art to society in a new way. It just depends on which legitimacy game they’re playing.

In science, as in art, some people do well by playing by the current rules of the game – by doing the kind of research that is already recognized as good, as legitimate. Everybody wants to be able to publish their research in the “best” journals and speak at the “best” conferences, whatever best means in their particular field. Some people accomplish that by doing the kind of research that is already accepted in their field; by doing something already seen as legitimate, they legitimate themselves and their research.

However, if people who do novel or unusual kinds of research also want to succeed, they have to redefine what counts as successful. That might, for example, mean helping the smaller journal in which they publish, or the more obscure conference where they present, become more successful and so more legitimate – and more legitimating to those who present or publish there. It might also mean reshaping the definitions of research productivity in their departments (e.g., their promotion criteria) to allow research about new subjects, and to include publications in what were initially much less prestigious journals. It means changing the rules of the game – changing the definition of legitimate research to make it match what they do.

Needless to say, the people who are already doing well by the
current rules of any game, be it science, art, or Monopoly, don’t want those rules changed. Struggles therefore ensue. In medical education research, as in other scientific fields, these struggles usually take place in the public forums of the field – in its journals and conferences. With this understanding, we can see that medical education research has been having all these debates in the literature because of an ongoing struggle for the definition of legitimacy in that field. In that case, what have they actually been struggling about? Just as artistic legitimacy is about good art, scientific legitimacy is about “good knowledge.” More specifically, it is about producing “legitimate knowledge” in legitimate ways. Are the debates in medical education research actually about legitimate knowledge and its production? Let’s revisit some of the issues they’ve been debating.

What Are the Most Important Research Questions That Medical Education Research Should Be Addressing?

The issue of the most important research questions that medical education research should be addressing is certainly about what knowledge should be counted as important, funded, and published. From a sociological perspective, people can be expected to advocate for the kinds of knowledge they produce or otherwise benefit from, whether individually or through the prestige of being attached to a group that produces that kind of knowledge. Not surprisingly, there is no actual consensus on these “most important research questions,” even within the Canadian context. As a case in point, the undergraduate medical education component of the Association of Faculties of Medicine of Canada’s Future of Medical Education in Canada project identifies at least 10 major priorities and many smaller niche issues, while the draft report of the residency component includes seven different priorities, each with between three and 11 action items; almost all of these would require research to support their implementation or evaluation.

Who Is the Target Audience of That Research?

The question of the target audience of medical education research has recently been the subject of sociological research, which found that there is an important debate between two camps of medical education researchers: those who see legitimate knowledge production in their field as being for other producers of that knowledge (i.e., for other medical education researchers), and those who see legitimate knowledge production as being for users of that knowledge (i.e., to serve the practical needs of the teachers and administrators with and for whom they work). The production-for-users camp was winning for a while, but there has recently been a resurgence from the production-for-producers camp, the “basic scientists of education,” arguing for theoretically based research programs rather than for research that answers immediate curricular and pedagogical needs.

Which Research Methodologies Should Be Used?

The question of which research methodologies should be used in medical education research, which is directly about legitimate ways to make new knowledge, is a major issue in medical education research right now. As an interdisciplinary field, medical education research increasingly draws in researchers from disciplines in the social sciences and the humanities who ask the kinds of research questions that require whole different sets of research tools from the randomized controlled trials common in clinical medical research. Many medical education researchers do conduct statistical research, but the highest impact factor journals within medical education research are now strongly advocating a diversity of methodological approaches. Whereas even 5 years ago qualitative research was relegated to the fringes of big international medical education meetings such as the annual conference of the Association for Medical Education in Europe (AMEE), over the past several years it has clearly become an accepted component of those meetings. The medical education journals, which used to be tightly modelled after medical journals, have recently increased their word limits to accommodate qualitative research papers. Methodologies such as grounded theory, ethnography, and discourse analysis, each with its own decades and sometimes centuries of tradition and rules and markers of rigour, have become increasingly popular in medical education. All of this is happening despite the fact that the people with the most money and power in the field – the research users, generally physicians, who still authorize and fund a fair amount of medical education research (and in whose clinical departments most medical education researchers work) – don’t always understand these methodologies, don’t think they’re legitimate, or sometimes don’t even know that they exist! Understandably, confusion ensues as the struggle for the definition of legitimate knowledge production continues.

Discussion

This last issue, of legitimate research methodologies, is a major subject area of my own research. I want to understand why medical education research decided, at one point in time, that certain ways of producing knowledge were legitimate and other ones weren’t, and then why, at other points in time, the situation changed. For example, why did psychometric research (the statistical science of educational measurement, of test reliability and validity) dominate medical education research for several decades, and why is psychometrics no longer so dominant? My first study in this area identified and analyzed the early days of the field, which my research dated to the mid- to late 1950s. My
work identified socio-historical factors that enabled and promoted the emergence of the field in that place, at that time, and in that particular way.\textsuperscript{29} I also found that, in the early days of the field, some specific disciplines (e.g., psychology, sociology, education) developed an increased research focus on medical education, and the different ways in which this focus was operationalized were linked in the historical material to their various perceptions of legitimate research.\textsuperscript{30,31} Some disciplines also worked harder than others to increase the legitimacy of their methods of knowledge production in the eyes of the medical education establishment (the knowledge users).\textsuperscript{30,31} For example, at one large meeting of senior medical administrators, mostly deans, organized by the Association of American Medical Colleges in 1956, a group of psychologists worked hard to show the importance of their type of research. Their rhetoric was impressive; one even gave a speech that proclaimed to the doctors that “psychology puts in your hands the power to change the nature of the entire profession. Such power is almost frightening, but refusal to use it may be an abdication of responsibility.”\textsuperscript{32} Texts from that era show that the psychologists made a huge impression at this meeting\textsuperscript{33}; with the support of the doctors whom they were addressing, they went on to dominate the medical education research agenda for many years to follow. In other words, all of their hard work at legitimizing their knowledge was successful – for a time.

These issues of legitimacy and knowledge from decades ago are echoed in those we encounter today. By following this history forward in time, one can trace the social dynamics that continue to shape this field and so illuminate its present-day debates. This may seem rather abstract, especially for those used to more practical education research. It is, however, analogous to basic science research in any other field – it sets the underpinnings and leads to new possibilities in other, perhaps more practical domains. For example, by challenging the roots of our conceptions of legitimate research, it allows us to present, as a potential way forward out of some of these debates, the idea that a broader definition of “good research” might be attainable if we could try to understand (at the very least) how good is defined differently in the domains from which we’ve borrowed the different methods we’re now using.

What is, however, even more important about an understanding of how we came to have certain legitimate ways of producing knowledge in medical education research is that the narrow kind of research that medical education used to think was legitimate both limited and guided the kinds of questions education researchers were able to ask and to answer. There were things we couldn’t study – or couldn’t study well – and, as it has been argued in the literature, our educational practice was therefore also limited to the things that our research methods were well oriented to study.\textsuperscript{14,35} That’s what happens when, as is almost inevitable, we privilege certain methods of knowledge production in any field. It can hide important research questions and, more importantly, conceal useful ways of finding answers.

References


