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It's just common sense! Why do negative perceptions of sociology teaching in medical education persist and is there any change in sight?

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Abstract

Based on a review of the literature pertaining to sociology teaching in medical education, this paper asks why does the problem of relevance with regards to sociology teaching in medical education still persist? And is there any change in sight?

The literature suggests that epistemological understandings of medicine as represented by the biomedical model are deeply entrenched with far reaching consequences for sociology teaching. Notions of the social components of medicine as 'irrelevant' or 'common sense' have over time been reinforced by students' expectations of medicine on entering medical education; by the attitudes of clinical and biomedical staff members who can act as negative role models and by institutional barriers including the organization of curricula content, decisions about 'who teaches what', timetabling and assessment.

Changing such deeply ingrained practices may be an insurmountable task for educators working alone in individual medical schools. However, pedagogical changes emphasizing 'integration' and a growing understanding within medicine and higher education of alternative epistemologies predicated on social paradigms, means that increasingly, persons from different disciplinary and professional backgrounds share similar understandings about the complexities of medical care.

As associated ideas filter into medical education new opportunities are arising to challenge collectively the structural forces at play which in turn could lead to a major shift in medical students' thinking. If sociologists are to have a role in guiding the transmission of sociological ideas about health and illness it is crucial to understand and take part in these developments.

Keywords: Sociology, Medical Education

Introduction

The school keeps banging on about a holistic model ... but the sociology that's kind of ... we tend to have a quick chat about it at the end of PBL if I'm honest... if we have covered all of the important stuff.
(Alex, year 2 UK medical student, cited in Collett et al 2012).

One of the key challenges associated with teaching sociology in medical education is student engagement and helping students appreciate the relevance of sociology to their future clinical practice. Whilst studies have revealed some positive attitudes towards sociology as applied to medicine (and other behavioral and social sciences subjects), amongst medical students (e.g. Gallagher et al 2013) sociology has low status compared to biomedical subjects and is often labelled negatively. Perhaps ironically sociology is often seen by many students as irrelevant to medical practice and derided for being: 'simply commonsense', 'unscientific', 'touchy feely' and 'not real medicine' (see Chur-Hansen et al 2008, Satterfield et al 2004). In extreme cases students have demonstrated outright contempt towards social science topics and social science teachers (Benbassat et al 2003).

This is a longstanding issue that has been reported in the literature for some 50 years. This paper asks why the problem of relevance with regards to sociology teaching in medical education still persists? And whether there is any change in sight?

Sources, searching and synthesis

This article is based on a review of the literature that explored the history of sociology teaching in medical education with the intention of thinking how this might inform current practice. We used the database EBSCO and identified papers by combining the terms 'sociology', and 'social science' with 'medical education', 'medical curriculum' and 'medical school'. In the search we considered titles only.

The subset of papers relating to student perceptions used in this article are mainly United Kingdom (UK) and United States (US) based (thus this work represents a 'piece of the international jigsaw' and not the full picture). We have also included literature that we have followed up as a result of our reading as well as sources that we have encountered through our engagement with the fields of sociology, medical education and health professions research. Whilst we have sought to convey the sum of our reading in as much detail as possible and to be true to the comments of each author, responsibility for any omissions is entirely our own.

The importance of learning the 'right' knowledge

It is widely believed that attitudes towards sociology held by undergraduate students in medical education need to be understood against the backdrop of the broader historical, political and cultural events that have shaped the profession of medicine over the past 250 years. That is, medical students' assumptions about 'what knowledge is valid' are closely allied to what is commonly held to be true of modern medicine (see Good and Good 1993, Brosnan, 2009).

After the 1800s the medical profession grew in status and power. Advances in human health were attributed to the success of science and, despite the improvements in health bought about through the work of social

medicine and public health, a version of the traditional scientific method predicated on an observational / experimental approach became dominant (McKeown, 1979). This scientific way of understanding the world, that privileges 'cause and effect' over other ways of understanding has been associated with a positivist paradigm (Campbell & Johnson, 1999) and embodies what has come to be known as the 'biomedical model'.

Sociology, which in the Khunian sense is a less philosophically rule bound, therefore softer paradigm, (Khun, 1962, Matthew & Pritchard, 2009) is not perceived as relevant to medical practice because it is epistemologically at odds with what medicine traditionally values as important (Jefferys, 1974). As Begun and Reiker (1980) suggest, it is hard to demonstrate the significance of multiple structural influences on health, illness and disease, in a context that is primarily concerned with identifying and treating individual pathological anomalies.

The epistemological position of medicine underpins the numerous barriers to social science learning reported in the literature. Field (1988), for example, argues that sociology may be problematic for medical students as it questions their taken for granted assumptions about the world. Supported by their families and teachers, students enter medical school with a strong sense of commitment to medicine including assumptions about the authority of the scientific method and beliefs about the essential benevolence of medicine (Lempp, 2009).

The public, (world) view of medicine held by new medical students is reinforced in a number of ways. Popular images of medical professionals are rooted in the biomedical model, (see Lupton, 2012); entry requirements for medical school are based on high achievement in the natural sciences and students are rarely exposed (in their early education) to alternative ways of seeing the world. Moreover, it is argued that the traditional view of medicine prevails amongst the medical student intake because the majority of students are from the socioeconomic class least likely to challenge dominant assumptions (Sinclair, 1997). As a consequence of their 'position on medicine' some students may find sociological topics hard to grasp, whilst others reject sociology altogether as they perceive that it threatens their beliefs and values (Field, 1988).

During medical school, the biomedical model is reinforced by clinical and non-clinical staff via the hidden curriculum (Sinclair, 1997, Hafferty & Castellani, 2009). Astin et al (2006) argue that, attitudes towards sociology range from apathy and indifference to hostility and rejection. Similarly, Litva and Peters (2008) found that a negative bias towards the social sciences is often held by clinical and senior staff who are important role models with particular influence over students. Litva and Peters propose that there is a persistent dominance, in medical undergraduate training, of 'old school thinking' or the 'biomedical mindset'. These entrenched views are transmitted to students as they progress through their training.

Crucially, and in relation to the hidden curriculum, institutional activities have been found to have a significant effect on students' perceptions of sociology. Chur-Hansen et al (2008) claim that Deans of medical faculties and Heads of School control the allocation of resources and influence what is taught, when and by whom and therefore may promote or hinder the development of sociology teaching in the curriculum. Similarly, in a review of US medical schools (Cuff & Vanselow, 2004), the primary barrier to the integration of the behavioral and social sciences in medicine was found to be administrative. The Deans and Chairs, who the authors claimed were generally a product of the traditional biomedical model, controlled the allocation of resources and influenced who taught, what was taught and when (Cuff and Vanselow, 2004). According to Fox (1989), in comparison with the biomedical science subjects, sociology and subjects such as psychology and ethics are usually allocated much less time as they are viewed as less important and competition for space in the timetable is fierce. In addition, sociology teaching often has to conform with modes of assessment such

as multiple choice questions which, it has been argued, are not well-suited to the evaluation of forms of knowledge and understanding associated with the subject (Scambler, 2010). Furthermore, the comparative weighting given to sociology in exams may add to perceptions of its irrelevance and lack of value and result in students devoting less time to learning it (Gallagher et al 2013).

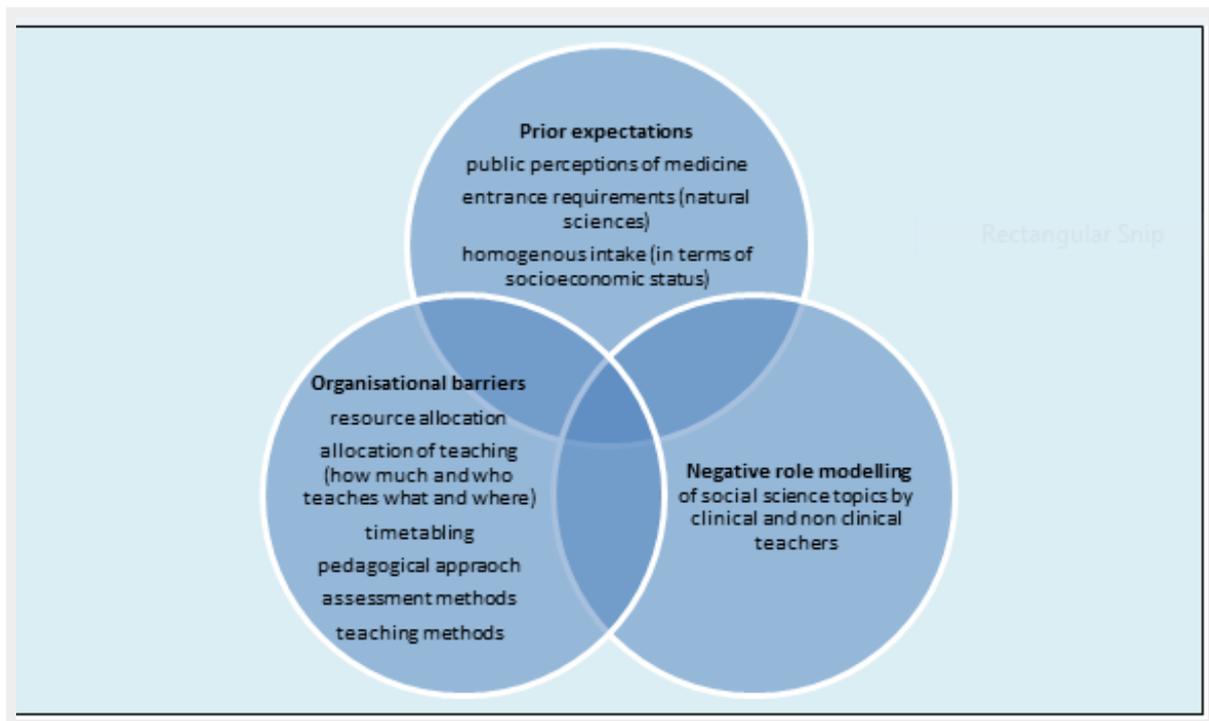
The teaching approaches of various medical schools might contribute to students' perceptions of sociology. For instance, studies have suggested that early patient exposure may facilitate greater appreciation of behavioral and social sciences by demonstrating how theories and concepts apply in a clinical context (Littlewood et al 2005). Another approach is 'team teaching' whereby social scientists and clinicians teach side-by-side providing evidence of the value clinicians attach to the social sciences as well as access to clinical case examples. It has been argued that problem based learning (PBL) is a more effective way for students to learn about sociology than traditional lecture based curricula (Nandi et al, 2000), as students are able to learn about these issues in the context of a clinical scenario, thus, reinforcing their importance for medical practice. And since 2010, particularly in the US, there has been a rise in the number of medical schools advocating the introduction of new social science 'core' strands framed within the language of 'medical systems' (see Satterfield et al, 2004)

To date there has been little systematic evaluation of the effectiveness of the above approaches. However, a number of commentators have raised concerns about the way in which sociology is taught within undergraduate medical curricula. Russell et al. (2004) claim that it is not uncommon for clinicians to be solely responsible for teaching sociology within medical schools. Whilst this may help students to appreciate the relevance of social science for medical practice, often clinicians do not have a background or qualifications in social science. This serves arguably to reinforce the idea that such subjects are commonsense as anyone can teach them. Others have argued that attempts to accommodate teaching in the timetable and to demonstrate the relevance for medical practice may result in the oversimplification of content and ideas or the sacrifice of the teaching of 'core' sociological concepts (Field, 1988) and cramming (Litva and Peters, 2008). Finally, it has been suggested that the PBL approach favours biomedicine (Chur-Hansen et al. 2008), and can result in the marginalisation or superficial learning of social science topics. Consequently, some argue that PBL is not effective in stimulating engagement in the social sciences (Jacobs et al. 2005, Gallagher et al 2013). These latter positions are reflected in empirical research that suggests that whilst sociology (and behavioral sciences) teachers support an integrated approach, in reality, there is a perceived lack of effort when it comes to assimilating sociology into the medical curriculum: for example, information is often presented awkwardly by facilitators with backgrounds in other disciplines, potentially reinforcing negative views (Litva & Peters, 2008).

Opportunities for change?

The literature suggests then that negative perceptions of sociology teaching in medical education are associated with structural forces that persist largely because medical practice and medical education are still historically rooted in the biomedical model. Within this context it might be useful heuristically to think of 3 broad domains that require attention. These are: 1. students' prior expectations, 2. the hidden curriculum, in the form of negative role modelling, and 3. the hidden curriculum via elements of course organization.

Figure 1. The three domains of influence impacting on students' perceptions of sociology in medical education

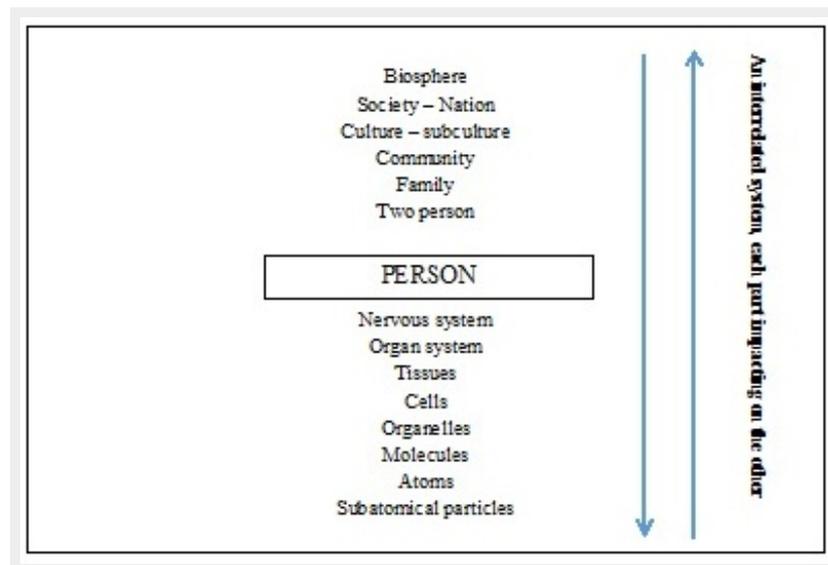


Given that (against a biomedical back drop) students' experiences of medical education are demarcated by such powerful influences, it is perhaps not surprising that sociology as applied to medicine is often seen as 'common sense', 'nice to know, not need to know', or simply 'not relevant'. The literature has consistently shown that it is almost impossible for students to grasp the entire volume of material presented to them and they therefore must reach compromises about how they focus their attention (Davis, 1970, Hunt & Sobal, 1990). As described in studies of identity formation (see Sinclair, 1997 and Lempp, 2009), medical students cope by discriminating between what they perceive as important and unimportant for the attainment of their immediate goals, namely passing exams and qualifying as a doctor. Satterfield et al. (2004) found that lower performing medical students in particular, resented having to spend time learning about sociology and psychology, which were perceived as commonsense. These students felt that a greater emphasis on anatomy would serve them better in clinical practice.

So what of the future? From the perspective of many individual teachers, the problems relating to the successful teaching of sociology may appear insurmountable, although it is clear that some medical schools in the UK at least seem to have more authority and support when it comes to sociology teaching than others (Besst, 2012).

A popular solution to the central and most thorny challenge related to students' perceptions of sociology: the epistemological foundation of medical knowledge, was first provided by Engel in 1979. Engel's concern was to include psychological and sociological insights into health professionals' education without sacrificing the advantages of the biomedical approach. Thus, he developed the biopsychosocial model which separated the biological, the psychological and the social into interlinked areas (figure 2). Each area, was shown to have a bearing on the individual person (positioned at the centre of the model).

Figure 2: The biopsychosocial model (based on Engel, 1980)



The concept of the biopsychosocial model has been widely used in health professions' education as an 'antidote' to the biomedical model and adapted in ways that may have enabled additional depth (see Alder, 2009). Yet despite its appeal to students and clinicians (Russell, 2009), the biopsychosocial model has been criticised for bringing the social and psychological into the traditional scientific paradigm and continuing to suggest simple 'cause and affect' relationships. Armstrong (1987) for example argues that Engels' model is premised on biological 'systems' theory. There is no sociological critique of scientific knowledge, science is (still) accepted as fact and the psychosocial is 'tacked on'. As such the biopsychosocial model has posed no threat to the epistemological foundations of medical knowledge.

In 2016 medical education is in the process of historical change and we suggest that attempts to understand and promote better perceptions of sociology amongst medical students need to be carried out with an understanding of the contemporary situation. Atkinson and Delamont (2009) use medical education as an exemplar to test the theoretical work of Basil Bernstein. This analytical work provides useful insights into the current position of the knowledge taught and learned in medical education. Bernstein was concerned with the forms of knowledge production in educational institutions. He contrasted two ideal types of knowledge code underpinning curricular organization: the 'collection type code' and the 'integration type code'. The underlying principle of the collection code is a series of sharply defined differences between boundaries: the curriculum is made up of knowledge domains. The collection code typically underscores traditional medical school curricula with an emphasis on pre-clinical learning (the separate subjects of the sciences) and then clinical learning (with emphasis on learning the different specialties). Symbolic cultural meanings are conveyed strongly throughout this type of education which also contains important rites of passage (for example, the dissecting room, the move from student to junior colleague).

In contrast to the collection type code, the integration code is typified by weak symbolic boundaries – the underlying principle is one of synthesis not separation. With the integrated code the separate subjects (the *raison d'être* of the collected code) become subordinated under general principles such as 'the physical underpinnings of disease' and 'the individual in society' and the essence of the traditional subject matter is explicated in general guiding principles rather than implicitly derived as students learn about each individual subject.

Atkinson and Delamont explain how in the UK, in response to criticisms of the traditional overburdened

model, Tomorrows Doctors (1993) created an integrated code and promoted new forms of knowledge management through promoting new pedagogical encounters. Within this new framework: first disciplinary boundaries have become blurred and many of the symbolic aspects of medical education have been removed. Second, new organising curricular principles have come to the fore that emphasise attitudes, values and professionalism. Atkinson and Delamont enable us to understand why we find ourselves not to be the sole owners of sociology in the curriculum. Their work also helps us begin to see where the opportunities for sociology might lie.

In the contemporary climate of medical education another promising solution to the underlying problem of perspective is emerging from the fields of higher education and healthcare professions research. In education, learning theories now embrace social cognitive theory (see for example, Kaufmann & Mann, 2007) and socio-cultural theory (Mann et al 2011). Socially oriented theories of learning have made available to educators alternative epistemologies that align with social research methodologies. For example, socio-cognitive theories acknowledge the interactive aspect of learning and emphasise the importance of experience and interpretation in mediating learning. Within socio-cognitive theory, reflection (the importance of being able to put oneself in the position of multiple others for example) is key to making sense of the world (rendering social facts contestable). Socio-cultural theory, on the other hand, opens the world up to a critical perspective: to the influence of powerful groups in driving learning. Within medical and medical education research it is now common to see literature citing Bourdieu, Marxist theory, Feminist theory and Foucault (see for example, Reeves et al 2008).

These new methodological approaches may provide more legitimate opportunities to include sociological content into medical school curricula. For example, with regards to professionalism in medicine, there is now broad agreement that it is viewed as well as a complex, multi-dimensional and dynamic concept encompassing attitudes and aspirations, as well as knowledge and reasoning (Heggen, and Terum 2013). Professionalism is seen as having individual, societal and interpersonal dimensions (Hodges et al. 2011) and the importance of being part of 'a community of professionals' is recognised (Wilson et al. 2013). Medical students are now required to critically reflect on their social position so that they can mitigate against personal bias (GMC, 2016).

Within the healthcare literature there is also a trend towards theoretical paradigms that adopt a more socially oriented position. An example is complexity theory. Complexity theory examines how living phenomena emerge in a web of relationships that form among social and material things such as bodies, instruments, desires, politics, settings and protocols: such things do not come together in a linear cause (Fenwick and Dahlgren, 2015). In the foreword to the book 'Complexity and Healthcare' (2002) consultant Paul Plsek argues:

Much of medicine is built upon the foundation of the classic scientific model however could it be that we have now solved most of the problems in the world where this model is most useful? Could it be that much of the widely felt frustration in health care as we enter the 21st century is the result of the model that we bring with us no longer being useful for many of the complex challenges we now face? (Plsek, 2002, p.v)

The literature relating to complexity in health care whilst predicated on later scientific developments may also allow for a more nuanced view of medical practice that provides space for sociology to be articulated. For example, a complexity perspective authorises teachers and healthcare professionals to (for the benefits of improving health care) re-examine relations between patients, doctors and the artefacts of medicine, as well as the public, families, work, the media and evidence based protocols.

As interest in more socially oriented epistemologies expands, a contemporary inter-professional / interdisciplinary community of practice may be ‘emerging’ with whom teachers of sociology in medical education might find common ground, new allegiances and potential collaborations. Working collectively and sharing some of the same underlying suppositions about healthcare there may be a real opportunity to address practically: the ‘3 domains’ (see figure 1), thus shifting students’ perceptions about the relevance of the social and supporting policy initiatives that call for socially minded doctors (GMC, 2009, GMC, 2015, Frenk et al 2010; Cuff & Vaneslow, 2004).

The case study below provides a glimpse of how interventions within medical education have altered students’ perceptions of social science content. It addresses negative role modelling. Importantly these changes were bought about not by sociologists but by interdisciplinary teams with shared goals.

Case study: Threshold concepts and applied medical sociology

New ways of thinking from health care research and practice are arguably filtering through into medical education as new practitioner role models adopt the terminology. In a recent paper that utilises audio-diaries to explore students’ experiences of social science learning in GP facilitated small group settings. Neve et al (2016) found evidence of shifts in students’ understanding of the nature of medicine based on the realisation that medicine in practice is complex, uncertain and messy (as opposed to black and white or unambiguous). Neve et al argue that complexity is likely to be a threshold concept (Meyer & Land 2016) inasmuch as whilst a troublesome concept to ‘get’, once ‘known’, students cannot unlearn it: they are changed forever. Other threshold concepts may include: the hidden curriculum (an empowering concept allowing students to recognise power and bias in medical practice) and the culture of medicine (opening students’ eyes to the symbols and artefacts of medicine and how they operate to form a medical identity which students are being socialised into). Whilst these concepts arise through integrated curricula they are arguably expressions of sociological understanding that are promoted by GP facilitators who in this instance are modelling positive ideas about the social context of medicine.

Conclusion

This paper asks why having been reported in western medical education for some 50 years, does the problem of relevance with regards to sociology teaching in medical education still persist? And is there any change in sight? It has been argued that epistemological understandings of medicine as represented by the biomedical model are deeply entrenched with far reaching consequences for sociology teaching. Notions of the social components of medicine as irrelevant or common sense have over time been reinforced by students’ expectations of medicine on entering medical education, by the attitudes of clinical and biomedical staff members who can act as negative role models and by institutional barriers including the organization of

curricula content, decisions about who teaches what, timetabling and assessment.

Despite the multiple challenges posed to students, new opportunities exist to contest persisting views. Growing understanding within medicine and higher and medical education of alternative epistemologies predicated on social paradigms are leading to a growing number of individuals from different disciplinary and professional backgrounds who have in common similar understandings of the social foundations of medical care. There is an opportunity that such changes when acted on could lead to a major shift in medical students' thinking. If sociologists are to understand and have a role in guiding the transmission of sociological ideas about health and illness it is crucial to understand and take part in these developments.

Take Home Messages

1. Sociology has been a part of UK undergraduate medical education for over 50 years and yet negative perceptions of the discipline amongst students persist. A key challenge for sociology teachers involves 'selling' the subject and convincing students of its relevance for clinical practice.
2. The biomedical model remains deeply entrenched within medical practice and medical education and acts as a major barrier to students' acceptance of sociology as a legitimate part of their studies.
3. Three domains of influence impact on students' perceptions of sociology in medical education. Students' prior expectations, attitudes of clinical and biomedical staff via negative role modelling and the hidden curriculum, and institutional barriers such as the organisation of curricula content, decisions about who teaches what, and assessment.
4. Despite such challenges new opportunities have arisen which may help shift students' thinking. Growing interest in more socially oriented epistemologies amongst medical educators could lead to an interprofessional/interdisciplinary community of practice with whom teachers of sociology in medical education might find common ground.
5. This presents opportunities for those teaching sociology within medical schools to work alongside colleagues to collectively challenge structural forces that influence student perceptions.

Notes On Contributors

Dr Lauren Brooks has an academic background in the sociology of health and illness and until recently led sociology teaching at Keele Medical School. A key member of BeSST and co author of the core curriculum for sociology teaching in medical education, Lauren is currently working as an independent scholar based in Brighton, Sussex.

Dr Tracey Collett is Associate Professor at Plymouth University Medical School. She is lead for the Sociology of Health and Illness and treasurer to the network BeSST (Behavioural and Social Science Teaching in Medicine). Her work with BeSST involves helping to facilitate workshops in the UK and internationally in order to learn about and spread good practice with regards to social science teaching and learning in medical education. Tracey co authored the core curriculum for sociology in medical education and is involved in other educational projects related to threshold concepts, identity development of faculty members and living anatomy. The thread of this research is integrating sociology in medical education for the benefit of the public and patients.

Professor Simon Forrest is Head of the School of Medicine, Pharmacy and Health at Durham University. Simon is chair of BeSST and co author of the core curriculum for sociology in medical education. Simon has an extensive background in sociology, specialising in health promotion and young people.

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Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.