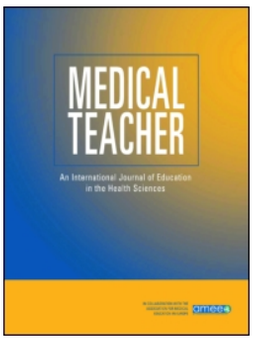

Medical Teacher

ISSN: 0142-159X (Print) 1466-187X (Online) Journal homepage: http://www.tandfonline.com/loi/imte20

Teaching sociology to undergraduate medical students

Kathleen Kendall, Tracey Collett, Anya de Iongh, Simon Forrest & Moira Kelly

To cite this article: Kathleen Kendall, Tracey Collett, Anya de Iongh, Simon Forrest & Moira Kelly (2018): Teaching sociology to undergraduate medical students, Medical Teacher, DOI: 10.1080/0142159X.2018.1505038

To link to this article: https://doi.org/10.1080/0142159X.2018.1505038

Published online: 08 Oct 2018.

MEDICAL TEACHER
https://doi.org/10.1080/0142159X.2018.1505038

MEDICAL TEACHER
Taylor & Francis
Taylor & Francis Group

AMEE GUIDE

Teaching sociology to undergraduate medical students

Kathleen Kendall[a], Tracey Collett[b], Anya de Iongh[c], Simon Forrest[d] and Moira Kelly[e]

[a]Medical Education, Faculty of Medicine, University of Southampton, Southampton, UK; [b]Sociology of Health and Illness, Peninsula Schools of Medicine and Dentistry, Plymouth University, Plymouth, UK; [c]Patient Educator across a range of UK universities; [d]Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK; [e]Blizard Institute, Queen Mary University of London, London, UK

ABSTRACT

Understanding the social basis of health and medicine and the contexts of clinical care are essential components of good medical practice. This includes the ways in which social factors such as class, ethnicity, and gender influence health outcomes and how people experience health, illness, and health care. In our Guide we describe what sociology is and what it brings to medicine, beginning with the nature of the "sociological imagination." Sociological theory and methods are reviewed to explain and illustrate the role of sociology in the context of undergraduate medical education. Reference is made to the 2016 report, *A Core Curriculum for Sociology in UK Undergraduate Medical Education* by Collett et al. Teaching and student learning are discussed in terms of organization and delivery, with an emphasis on practice. Sections are also included on assessment, evaluation, opportunities, and challenges and the value of a "community of practice" for sociology teachers in medical education.

Introduction

This Guide discusses the role and delivery of medical sociology in undergraduate medical education. It has emerged from the work of sociologists in the Behavioural and Social Sciences Teaching in Medicine (BeSST) network in the UK. We believe that sociology matters: that our health is profoundly affected by social factors. We aim to provide an internationally relevant Guide for teaching sociology in medical undergraduate education. We begin by defining sociology and introducing its fundamental ideas and assumptions to explain why sociology is integral to medicine. The sections that follow address key approaches and practical strategies for teaching, evaluating, and assessing sociology in medical education. We also identify some current challenges, as well as opportunities and propose communities of practice as a means of helping to address these and improving teaching quality.

What is sociology?

> The fascination of sociology lies in the fact that its perspective makes us see in a new light the very world in which we have lived all our lives (Berger 1963, p. 32–33).

Sociology is the main social science included in medical education under the broad grouping of "behavioral and social sciences." It is the study of society, which can be taken to mean a group of people who share common cultural features, such as language, ways of behaving and values (Giddens and Sutton 2013). Thinking sociologically is about seeing the relationship between individuals' personal "troubles" and the society within which they live. In his landmark book *The Sociological Imagination*, Mills (1959) argued that a problem or challenge faced by one individual often has its roots in broader, largely unnoticed, social arrangements. To possess the sociological imagination, he suggested, is to have a vivid awareness of how personal experiences are influenced by social factors.

Fundamental to the sociological imagination is the notion of social structures. These are patterned relationships within society created by human beings over time. They exist outside of individuals and constrain or enable actions. At a broad level, social structures can include

Practice points

- The sociological imagination (thinking sociologically) is a vivid awareness of how personal experiences, such as illness and health, are influenced by social factors.
- Medical sociologists help learners become competent doctors by teaching them about the relationship between social determinants of health and people's experiences of health, illness, and health care. They do this by drawing on research and theory.
- Good practices around the delivery and assessment of teaching help to embed sociology within medical education and negotiate opportunities and challenges.
- Patient, carer, and public involvement is central to demonstrating the relevance of sociology to clinical practice.
- To improve the consistency and quality of medical sociology teaching we need to develop a flexible international "community of practice." This can also provide a way to share advice, support, and suggestions for learning, teaching, and assessment.

CONTACT Kathleen Kendall k.a.kendall@soton.ac.uk Medical Education, Faculty of Medicine, University of Southampton, B85, Highfield Campus, University Road, Southampton, S017 1BJ, UK

nation states, institutions, and organizations (such as medicine and religion). At an intermediate level, they may take the form of social networks (including family and friends) and social norms (formal and informal rules that govern behavior). Social structures at both levels inform individual actions. For example, a young person's "binge" drinking may be influenced by alcohol promotion campaigns, as well as peer pressure encouraging alcohol consumption. However, another person's faith and family may mediate these pressures.

The example of "binge" drinking demonstrates how a health problem can be looked at from different levels and reveals how humans both shape and are shaped by society. The sociological imagination avoids viewing people as either societal puppets or entirely autonomous agents. Instead, it recognizes that although individuals make choices, social forces inform the thoughts contributing to a person's decisions and behavior, the kinds of choices available to them, and the context within which their choices are made. Although sociologists consider both agency (the ability to choose and act freely) and social structure, the weight given to each may differ.

In allowing learners to see how society shapes individuals, the sociological imagination may challenge their assumptions about the world and encourage them to observe and engage with it differently. Thomas (2016) suggests that the sociological imagination is a *threshold concept* as it operates like a portal into a fresh way of thinking and because, in challenging students' individualistic worldview, it is troublesome. This situation is unsurprising as society tends to individualize social problems.

Medical sociology and the practice of medicine

> … every patient is a person, and illness occurs in the context of multifaceted lives. We need to listen to our patients with the recognition that the most important information they can give us about their illness often lies in the folds of their social circumstances. And it's our obligation to tailor our prescriptions to an illness in its full context (Srivastava 2011, p. 589).

Medical sociology is the sociological study of health, illness, and medicine. Sociology has a strong track record of contributing toward important health care knowledge, policies, and practices. Growing evidence of the social determinants of health and increasing emphasis on people's experiences of health, illness, and health care have encouraged professional bodies (Cuff and Vanselow 2004; AAMC 2011), as well as global commissions and agencies (WHO 2006; Frenk et al. 2010) to call for medical education curricula to prepare graduates with the knowledge and skills needed to address them. Sociology plays a critical role in meeting these needs.

Sociological tools

Making sense of the social world requires us to adopt a different set of tools and frameworks from those in biomedical science teaching and research. The tools of sociology are theory and qualitative and quantitative research methods. Sociological theories are conceptual frameworks (usually based on prior empirical research) that systematically explain social phenomena by identifying and examining connections across them. They attempt to answer why and how something happens and thereby have the potential to inform helpful responses.

Although faculty members responsible for teaching sociology must have a good grounding in sociological theory and research, it is not necessary for medical undergraduate students to have an exhaustive knowledge of these. It is important that students grasp key sociological principles and concepts and their relevance to medicine and health, rather than detailed sociological theory and research. Table 1 provides some examples of how different sociological theories and methods can be applied to medical practice.

Approaches to learning and teaching

Core curriculum

Accreditation bodies across the world require undergraduate medical students to demonstrate competency in social and behavioral science (SBS) outcomes. Collett et al. (2016) developed a detailed core curriculum specific to sociology in the UK but which also covers key topics collated from international bodies (Harden and Carr 2017). Table 2 illustrates the overarching topics and core learning outcomes.

Table 1. Sociological theory and methods: application to medical practice.

Theory	Theorist	Methods	Area of application to medicine/health
Social construction of mental health	Foucault (1967)	Historical analysis of documents	Different perspectives on mental health
Stigmatization	Goffman (1963)	Observation	Impact of diagnostic and societal labels; and experiences of illness
Biographical disruption	Bury (1982)	Qualitative interviews	Experiences of people living with chronic illness
Social deprivation is associated with smoking behavior	Graham (1993)	Survey	Health inequalities
Surveillance medicine as a new form of medical knowledge	Armstrong (1995)	Documents	Risk factors are constituted as diseases that require treatment
Medicine works with multiple forms of the body	Mol (2002)	Observation	Understanding of how, despite being made up of different specialties, medicine works
Sick role	Parsons (1951)	Theoretically informed	Understanding of medical and patient roles and access to care
Patient identities/identification with "asthma" disease label	Adams et al. (1997)	Qualitative interviews	Adherence with treatment is associated with patients' identification with disease labels (which may be resisted)

Table 2. A core curriculum for sociology in UK undergraduate medical education: topics and core learning outcomes.

Topic	Core learning outcomes
A sociological perspective	To describe and apply sociological principles, concepts, theories, and evidence to health, illness, and medical practice.
The social patterning of health and illness	To demonstrate an understanding of the ways in which health and illness are socially determined.
Experiences of health, illness, disability, and health care	To demonstrate an understanding of the experience of health, illness, disability, and health care from different patient perspectives.
Knowledge about health and illness	To demonstrate an understanding of how medical and lay knowledge are socially constructed.
Health policy and practice	To understand the social influences on the development of health policy and medical practice.
Research and evidence	To demonstrate an understanding of the ways in which different forms of sociological research evidence are produced and used.

Adapted from Collett et al. 2016.

Where sociology is taught

How sociology is embedded into the medical curriculum varies, either as a discrete course or as part of modules. As a separate unit, sociology teaching benefits from protected time for greater depth and breadth and increased control over content, delivery, and assessment. However, as a discrete course, it needs clear links and relevance to other subjects and clinical medicine.

As disciplinary integration, with its emphasis on clinical relevance, has become dominant, a common approach is to weave sociology across modules and apply relevant concepts to whatever system, theme, or topic is being addressed at that point. For example, if during a cardiorespiratory module students are learning about heart disease, teachers can address how heart disease morbidity and mortality relate to socioeconomic, ethnic, and gender health inequalities.

The stage of training in which sociology is delivered varies. If, as in the UK, the majority of teaching takes place in the first two years, sociology should be revisited subsequently to reinforce its significance and develop knowledge in practice (Harden and Carr 2017). For example, when on a psychiatry attachment in their later years, students can be reminded of the concept of stigma and apply it to patients they see.

Teaching leadership

It is important to appoint a lead with expertise in sociology to ensure rigorous, robust, coherent, and current content. The individual(s) responsible for sociology within the curriculum can support the delivery and assessment of sociology throughout the curriculum in key ways:

- Agree on a sociology curriculum with an associated map that makes clear the basis of the teaching, where it is taught, by whom, and the assessment process.
- Meet with subject and module leads to outline a teaching approach, gain support, reinforce a uniform message, and identify opportunities for innovative and mutually beneficial teaching.
- Participate in appropriate department, school, and university pedagogical activities.
- Evaluate and develop the sociology curriculum to ensure that it reflects current best practice and is clinically relevant.
- Involve patients, students, carers, and the public in curriculum developments (Harden, Collett and Kendall 2017).

Engaging students

Teaching sociology to medical students provides unique opportunities to positively inform how doctors practice medicine in the future and to work in an interdisciplinary way with health professionals, biomedical scientists, patients, carers, and the public. It also presents distinctive challenges. Many students will have little background in sociology and come from educational backgrounds emphasizing biomedical science, which tends to assume that there is a single, constant reality or truth which can be measured and known; whereas sociology generally maintains that there is no absolute underlying truth or reality but rather, multiple truths and realities.

Lack of prior knowledge and paradigmatic differences mean that the subject may provoke negative reactions from medical students. In such circumstances, it is helpful to use the sociological imagination and situate such responses within the social context, including the points discussed above (Benbassat et al. 2003, Litva and Peters 2008; Brooks et al. 2016). This reminds us to consider students' starting points and to carefully frame sociological principles and explanations to develop learning and to engage constructively with any push back. Below are some practical strategies for teaching sociology to undergraduate medical students:

- Remember that we are not producing sociologists but providing students with a solid and robust understanding of sociology necessary to practice medicine.
- Identify the outcomes you want students to learn and clearly align teaching and assessment with them to highlight relevance for clinical practice.
- Be creative and encourage active learning. For example, consider using some of the following methods: health diaries, theatrical performances, simulated patients, debates, games, graphic novels, viewing and/or creating videos and films, podcasts, constructing Wikipedia entries, and the flipped classroom.
- Involve patient educators. Sociological theories are the day-to-day reality for people with health conditions or using health services. Patient educators can bring theory to life, and help make sociology feel relevant and important. Their personal experience and expertise is not often heard by medical students through the

standard patient contact they may have while training. Teaching with patients helps model approaches we expect students to adopt in clinical practice.
- Co-teach with other subject leads and clinicians to demonstrate integration in practice and the medical relevance of sociology. It also role models teamwork.
- Embed sociology into clinical and nonclinical student placements.
- Offer Student Selected Components (SSCs) allowing students to engage more deeply with sociology; or projects exploring medical sociology topics.

Evaluating teaching

Eliciting and using student feedback is one of the most powerful and important means of ensuring quality enhancement and assurance in teaching and learning.

However, if the content is integrated with other subjects it may be difficult to pick out information specifically relevant to teaching sociology. In addition, evaluations may reflect medical students' personal and academic struggles with the subject rather than the quality of teaching content and delivery. Illustrating this point, Scambler (2012) notes that he received the following disparate student comments for the same mini-series of teaching sessions: "'he was awesome,' 'he was a waste of space,' 'he never turned up.'"

If possible, it may be useful to solicit student feedback about sociology as students near the end of their course as it may not be until a later stage in their learning that they fully grasp the meaning and relevance of sociology to medicine. Learners move through intellectual stages as they progress through their undergraduate education (see, for example, Perry 1999). In the early years, students are more likely to be dualistic thinkers, expecting teachers to provide them with "facts" and "right," or "wrong" answers (Knight and Mattick 2006; Moore 2007). However, as they advance through the curriculum, they are better able to comprehend complexity, ambiguity, relativism, and pluralism. Therefore, one of the reasons why students in the early years struggle with sociology is because it necessitates a more advanced stage of cognitive thinking. This highlights the importance of revisiting sociology in later years of the curriculum or of working with later year teachers, particularly clinicians, to help them identify ways of supporting students in applying core sociological concepts to their learning and practice.

Assessing sociology

A much cited maxim "assessment drives student learning" simplistically highlights that the assessment of a subject may be seen as a proxy of its worth within a curriculum. The inclusion of sociology within high stakes assessments that need to be passed sends out a strong message that the subject is important to medicine (Gibbs 1999; Fenwick et al. 2013).

Sociology content may be integrated with other subjects or assessed separately and the type of curriculum and method of assessment will often drive this. An advantage of incorporating sociology within other assessments is that it encourages students to make connections between the different subjects and to see their clinical relevance. However, students have less space dedicated to sociology and therefore may produce simplistic answers.

Methods for assessing sociology

Currently, there is very limited evidence of best practice for the assessment of sociology in medical education (Carney et al. 2016; Hothersall 2017). Nonetheless, there are some key principles to guide us (Fenwick et al. 2013). For example, teachers must consider the learning outcomes that are being assessed and the most suitable means of evaluating them. Crucially, it is important to recognize that all methods of assessment have both strengths and weaknesses and the value of each method is a compromise between different aspects of quality including validity, reliability, and feasibility (Schuwirth and van der Vleuten 2012; Harden and Carr 2017). Table 3 outlines key methods of assessing sociology including their advantages and disadvantages.

Opportunities and challenges for teaching sociology in the medical curriculum

Increased embedding of sociology across various teaching modalities, including problem based learning (PBL), community programs, and clinician facilitated small group work, provides opportunities for students to engage with and use this knowledge. However, we must consider how we secure students' access to subject expertise and address a commonly held belief by students that sociology is "over taught" (Benbassat et al. 2003). At the same time, it is important to recognize that teachers often feel that there is a lack of time and space in the medical curriculum for sociology to be adequately covered. This seemingly contradictory situation contributes to a sense that sociology is both everywhere and nowhere in medical undergraduate education (Russell et al. 2004; Satterfield 2010; Brooks et al. 2016). Making the sociology curriculum overtly visible to all can help address these issues. Working closely as a team of teachers in order to streamline teaching and ensure consistency can also be useful.

It is also important to consider the deeper issues associated with sociology in medicine and the status of the subject and its practitioners. Some scholars are concerned that as sociology is increasingly integrated into medicine it is becoming diluted and tamed and that sociologists are handmaidens to clinicians (Wardwell 1982; Atkinson and Delamont 2009; Scambler 2009). Although not new, these criticisms have real consequences for individuals teaching medical students, including feelings of isolation from their parent discipline and marginalization by their host discipline (Russell et al. 2004) that may lead to reduced work satisfaction and increased stress (Field 1988).

Medical sociology educators as a "community of practice" (CoP)

It is helpful for individuals responsible for teaching sociology in the medical curriculum to engage in scholarship activities and participate in networks related to their parent discipline. It is also vital to foster links with other sociology

Table 3. Key methods of assessing sociology.

Method	Description	Advantages	Disadvantages
Multiple Choice Questions (MCQs): • One Best Answers (OBAs)/Single Best Answers (SBAs) • Extended Matching Items (EMIs) • Situational Judgement Tests (SJTs)	A problem, scenario, or question is presented and students are asked to choose from a list of fixed answers that include the correct one and distractors that are plausible but incorrect.	Can be marked by computers saving time and increasing reliability. Can be banked, developed, and re-used in future years. Can be useful for testing basic knowledge. Can be linked with a clinical scenario.	It is very difficult to write valid questions as there is rarely a "right" or "wrong"' answer in sociology.
Essays • Long essays • Short essays	Structured writing submitted in-class or as part of an exam, which assesses the ability of students to select and synthesize information, critically evaluate it, construct effective sustained arguments, and write coherently and concisely. Typically requires students to undertake research on a topic or question to make a convincing position or argument. Can link sociological concepts with actual patient interviews or observations.	Aligned with the sociological paradigm. A larger word count allows greater opportunity to demonstrate the depth of understanding and nuance. Individual written feedback can be provided.	Reliant on the subjectivity of markers and therefore reliability can be a problem but inconsistency can be improved through staff development, clear marking schemes, benchmarking, double-marking, and moderation. Arduous to mark.
Constructed responses • Short Answer Questions (SAQs) • Modified Essay Questions (MEQs) • Long Structured Questions (LSQs)	Questions comprise different parts, each requiring a brief answer with a specific number of marks awarded. Often set around a patient scenario and includes different subjects.	Applies sociology to clinical scenarios. Can be graded in "marking parties" where all markers meet to grade sociology components. This helps address consistency.	Inappropriate for assessing complex learning outcomes or for demonstrating depth of understanding. Care should be taken to construct suitable questions or students will provide trite answers. Reliant on the subjectivity of markers and therefore reliability can be a problem but inconsistency can be improved through staff development, clear marking schemes, benchmarking, double-marking, marking parties, and moderation.
Direct observation assessments of clinical practice • Objective Structured Clinical Exams (OSCEs) • Mini-Clinical Evaluation Exercise (Mini-CEX) • Assessment of Clinical Competence (ACC)	Students are observed and graded by examiners on their interaction with either simulated patients or real patients.	Helps students to see the clinical relevance of sociology.	Can be difficult to incorporate sociology unless there is support from clinicians and the assessment team.

teachers working in medical education to learn from one another and support continuing professional development. The BeSST network we are part of has become a "community of practice" (CoP). The overall benefits of a CoP for those teaching sociology to medical students are:

- Working and learning together.
- Supporting teaching.
- Developing new ideas and innovative practices.
- Sharing ideas and questions and challenging one another.
- Guidance and support to those new to the subject.
- An identifiable presence for groups to engage with.
- Helps us tell others about our work.
- Helps us strengthen the position of medical sociology.

Conclusions

Addressing challenges for medicine in the twenty-first century will involve a considerable rethinking of both its potential and its limits. Social factors, while always present in the background of health care, are now moving to the foreground. Currently, there is particular concern that medicine adequately addresses quality of care issues associated with people living longer with noncommunicable diseases given the limited resources of public health services. Medical sociology, with its extensive evidence base spanning the social determinants of health in populations to patient experiences of health, illness, and health care, is the key social science included in the medical curriculum. It develops theory through research that is used to help students better understand population health and the social lives of the patients under their care. It aims to provide medical students with knowledge and skills that will help them in their future practice both as individual doctors and as members of wider medical bodies.

To possess the sociological imagination is to have a vivid awareness of how personal experiences, including health, illness, and health care, are influenced by social factors. In encouraging learners to see how society shapes individuals, the sociological imagination may challenge their taken-for-granted assumptions about the world and encourage them to look at their own lives and the social world in a new way. Given this, and how most students lack prior knowledge of sociology, as well as paradigmatic differences between sociology and biomedical sciences, it can provoke discomfort and resistance. Nonetheless, sociologists can help undergraduate students to see the relevance and significance of sociology by adopting key approaches and practical strategies. We recommend that to improve the consistency and quality of medical sociology teaching, a flexible international "community of practice," through organizations such as AMEE, be developed. This can provide a means of sharing advice, support,

and suggestions for teaching and assessment. We hope that this Guide becomes part of such a community and that others develop it further.

Acknowledgments

The authors thank members of the UK network, "Behavioural and Social Sciences Teaching in Medicine" (BeSST), as well as those delegates who have attended and contributed to their workshops at AMEE conferences.

Disclosure statement

The authors are members of the Behavioural and Social Sciences Teaching in Medicine (BeSST) network. The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

Glossary

Sociology: The study of society, which can be taken to mean a group of people who share common cultural features, such as language, ways of behaving, and values.

Medical sociology: The sociological study of health, illness, and medicine.

The sociological imagination: A vivid awareness of how personal experiences are influenced by social factors.

Social structures: Patterned relationships within society created by human beings over time. They exist outside of individuals and constrain or enable actions.

Notes on contributors

Kathleen Kendall, PhD, has taught medical students at the University of Southampton since 1999. While at Southampton she has received three vice-chancellor teaching awards. She completed the Program for Educators in Healthcare Professions at Harvard Macy Institute; and the Walls to Bridges Facilitator training in Canada, which brings together incarcerated and non-incarcerated students. Kathy led a curriculum development and has served as year leads. In addition to medical education, her research interests focus on forensic mental health.

Tracey Collett, PhD, lectures in the Sociology of Health and Illness at Plymouth University Peninsula Medical School. In addition, she undertakes a variety of teaching and learning activities including problem-based learning, academic tutoring, and leading on evaluation within the school. Her research to date has focused on the experience of chronic illness and many aspects of teaching and learning in medical education

Anya de Iongh, BA Hons Cantab, is the first to be awarded HEA Associate Fellowship for her work in medical education as a patient leader. She has contributed to a review of the BeSTT curriculum, and been one of the core authors of a new Health Education England Education and Training Framework for Person-Centred Approaches. She contributes to the teaching of medical and healthcare professional students across a range of universities, combining her patient experience and perspective with the core theory of these modules. Anya is also the BMJ Patient Editor.

Simon Forrest, PhD, is currently a Professor at the Institute of Health and Society at Newcastle University. He was Head of the School of Medicine, Pharmacy and Health at Durham University between 2014 and 2017. He has a background in teaching the social sciences in medicine and is especially interested in experiential learning about the social basis and context of health through nonclinical student placements. His research interests extend beyond medical education to sex, gender, and sexualities.

Moira Kelly, PhD, is Honorary Senior Lecturer in Medical Sociology in the Centre for Primary Care and Public Health, Queen Mary University of London. She has extensive experience as a medical educator. As a social researcher, she specializes in qualitative research in primary health care.

ORCID

Kathleen Kendall http://orcid.org/0000-0002-4235-0741
Tracey Collett http://orcid.org/0000-0002-8541-0417
Anya de Iongh http://orcid.org/0000-0002-5431-5281
Simon Forrest http://orcid.org/0000-0002-3040-479X
Moira Kelly http://orcid.org/0000-0001-7911-1149

References

Adams S, Pill R, Jones A. 1997. Medication, chronic illness and identity: the perspective of people with asthma. Soc Sci Med. 45:189–201.

Armstrong D. 1995. The rise of surveillance medicine. Sociol Health Illness.17:393–404.

Association of American Medical Colleges (AAMC). 2011. Behavioral and social science foundations for future physicians. Washington (DC): AAMC; [accessed 2017 Jul 25]. https://www.aamc.org/download/271020/data/behavioralandsocialsciencefoundationsforfuture-physicians.pdf

Atkinson P, Delamont S. 2009. From classification to integration: Bernstein and the sociology of medical education. In: Brosnan C, Turner B, editors. Handbook of the sociology of medical education. Oxon: Routledge; p. 36–50.

Benbassat J, Baumal R, Borkan JM, Ber R. 2003. Overcoming barriers to teaching the behavioural and social sciences to medical students. Acad Med. 78:372–380.

Berger P. 1963. Invitation to sociology: a humanistic perspective. Harmondsworth: Penguin.

Brooks L, Collett T, Forrest S. 2016. Why do negative perceptions of sociology in medical education persist and is there a change in sight? Med Ed Publish. December edition; [accessed 2017 Jul 25]. https://www.mededpublish.org/manuscripts/733/v1

Bury M. 1982. Chronic illness as biographical disruption. Sociol Health Illn. 4:167–182.

Carney PA, Palmer RT, Fuqua Miller M, Thayer EK, Estroff SE, Litzelman DK, Biagioli FE, Teal CR, Lambros A, Hatt WJ, et al. 2016. Tools to assess behavioural and social science competencies in medical education: a systematic review. Acad Med. 91:730–742.

Collett T, Brooks L, Forrest S, Harden J, Kelly M, Kendall K, MacBride-Stewart S, Sbaiti M, Stevenson F. 2016. A core curriculum for sociology in UK undergraduate medical education: a report from the Behavioural & Social Sciences Teaching in Medicine (BeSST) Sociology Steering Group. Cardiff: Cardiff University; [accessed 2017 July 25]. http://www.besst.info/publications

Cuff PA, Vanselow NA. 2004. Improving medical education. Enhancing the behavioural and social science content of medical school curricula. Washington: Institute of Medicine, National Academies Press.

Fenwick A, Johnston C, Knight R, Testa G, Tillyard A. 2013. Medical ethics and law. A practical guide to the assessment of the core content of learning. A Report from the Education Steering Group of the Institute of Medical Ethics. Old Bussage, Gloucestershire: Institute of Medical Ethics.

Field D. 1988. Teaching sociology in UK medical schools. Med Educ. 22:294–300.

Foucault M. 1967. Madness and civilisation: a history of insanity in the age of reason. London: Tavistock/Routledge.

Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, Fineberg H, Garcia P, Ke Y, Kelley P, et al. 2010. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 376:1923–1958.

Gibbs G. 1999. Using assessment strategically to change the way students learn. In: Brown S, Glasner A, editors. Assessment matters in higher education. Buckingham: Society for Research into Higher Education and Open University Press; p. 41–53.

Giddens A, Sutton PW. 2013. Sociology. 7th ed. Cambridge (UK): Polity.

Goffman E. 1963. Stigma: notes on the management of a spoiled identity. London: Penguin Books.
Graham H. 1993. When life's a drag: women, smoking and disadvantage. London: HMSO.
Harden J, Carr JE. 2017. Social and behavioural sciences in medical school curricula. In: Dent J, Harden R, Hunt DA, editors. Practical guide for medical teachers, 5th ed. China: Elsevier; p. 180–187.
Harden J, Collett T, Kendall K. 2017. Teaching Social and Behavioural Sciences in Medical Education, Pre-Conference Workshop. Association for Medical Education in Europe Annual Conference; Aug 27; Helskinki, Finland.
Hothersall E. 2017. Assessing the Behavioural and Social Science Curricula Components for Undergraduate Medical Students: a BEME Systematic Review. Association for Medical Education in Europe Annual Conference; Aug 29; Helsinki, Finland.
Knight LV, Mattick K. 2006. 'When I first came here, I thought medicine was black and white': making sense of medical students' ways of knowing. Soc Sci Med. 63:1084–1096.
Litva A, Peters S. 2008. Exploring barriers to teaching behavioural and social sciences in medical education. Med Educ. 42:309–314.
Mills CW. 1959. The sociological imagination. Oxford: Oxford University Press.
Mol A. 2002. The body multiple: ontology in medical practice. Durham (NC): Duke University Press.
Moore H. 2007. Student resistance in sociology classrooms: tools for learning and teaching. Sociological Viewpoints. 23(Fall):29–44.
Parsons T. 1951. The social system. Glencoe (US): Free Press.
Perry WG. 1999. Forms of ethical and intellectual development in the college years: a scheme. San Francisco (CA): Jossey-Bass Inc.
Russell A, van Teijlingen E, Lambert H, Stacy R. 2004. Social and behavioural science education in UK medical schools: current practice and future directions. Med Educ. 38:409–417.
Satterfield JM, Adler SR, Chen HC, Hauer KE, Saba GW, Salazar R. 2010. Creating an ideal social and behavioural sciences curriculum for medical students. Med Educ. 44:1194–1202.
Scambler G. 2009. Sociology in medical education. In: Brosnan C, Turner B, editors. Handbook of the sociology of medical education. London and New York: Routledge; p. 191–206.
Scambler G. 2012. Teaching sociology to medical students. [accessed 2017 July 18]. http://www.grahamscambler.com/teaching-sociology-to-medical-students/
Schuwirth L, van der Vleuten C. 2012. Programmatic assessment and Kane's validity perspective. Med Educ. 46:38–48.
Srivastava R. 2011. Complicated lives-taking the social history. N Engl J Med. 365:587–589.
Thomas A. 2016. 'Things are a lot more gray now, as opposed to black vs. white': student uncertainty on the edge of a threshold in introductory sociology. 6th Biennial Threshold Concepts Conference; Jun 17; Dalhousie University, Halifax, Canada.
Wardwell W. 1982. The state of medical sociology – a review essay. Sociol Quarterly. 23:563–571.
World Health Organisation (WHO). 2006. Working together for health. Geneva: WHO.