Health professionals prepared for the future. Why Social Sciences and Humanities teaching in Medical Faculties matter

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Abstract
This article was migrated. The article was marked as recommended.

A public debate took place in France in 2018 concerning ethical and social issues of biomedicine and life science and technologies. As faculty members of French medical schools and scholars in Social Sciences and Humanities, we contributed to introduce the central theme of health professionals education. What roles and what place should we assign to the social sciences and Humanities in preparing health professionals who will work in a transforming and largely unpredictable context? In this paper, we list 4 crucial issues for the present and the future of healthcare profession, concerning changes of medical roles; new biomedical concepts and innovations; long term consequences on health social contract; ethical issues in health care daily life settings. Then, we list 4 kinds of resources that are brought to students by Social Sciences and Humanities courses. They concern the connection to patients's experiences the social and cultural construction of these experiences; the social responsibility of medical doctors; and the independence of their professional judgments. This is a plea for the development of reflexivity and critical thought backed up by well identified, well integrated and sufficiently developed Social Sciences and Humanities courses in French medical schools.

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1. Trevor Gibbs, AMEE
2. Alexandre Berkesse, Université de Montréal
3. Alexandre Wenger, Université de Genève

Any reports and responses or comments on the article can be found at the end of the article.
Keywords
Social Sciences and Humanities, France, curriculum development, reflexivity, critical thinking, Social roles, ethics, public debate, patient participation, responsibilisation, bias, patient-centred care, personalized medicine, Philosophy, Anthropology, History, Arts, Litterature.

Corresponding author: Nicolas Lechopier (nicolas.lechopier@univ-lyon1.fr)
Competing interests: No competing interests were disclosed.
Grant information: The author(s) declared that no grants were involved in supporting this work.
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How to cite this article: Lechopier N, Moutot G, Lefève C et al. Health professionals prepared for the future. Why Social Sciences and Humanities teaching in Medical Faculties matter [version 1] MedEdPublish 2018, 7:195
https://doi.org/10.15694/mep.2018.0000195.1
First published: 05 Sep 2018, 7:195 https://doi.org/10.15694/mep.2018.0000195.1
**Introduction**

In today’s societies, the ethical, social and political challenges raised by the technical possibilities of the biomedicine, concerning artificial intelligence, the enhancement of human beings, procreation, etc. give rise to many passionate discussions. In many Western countries, diseases are more and more often chronic and related to environments, the population is ageing and inequalities in health care are growing. Health care system is affected by social and technological changes (mobile health, big data, robotics, etc.) and is generating political challenges (increasing drug costs, development of preventive medicine, the biopolitics of risk, etc.). Patients are aware about their rights to solidarity and justice. They request health professionals to listen to their personal experiences, to be kept informed and participate in all decisions that concern them.

In 2018, the French National Consultative Ethics Committee for health and life sciences called for a public debate on this topic. This debate has been instrumental in the process of updating the regulatory and legal French framework concerning biomedical practices and research. However, while discussing the transformations that are affecting health care system and health professions, this public debate barely addressed educational issues. As teachers in medical schools and Social Sciences and Humanities scholars, we think that the training of health professionals is decisive to meet these challenges to society. It would be pointless to discuss social, technological and anthropological changes in care and medicine without considering how to best “equip” the players in the front line of change.

The following is a collective contribution by the “Collège des humanités médicales - Enseignants de sciences humaines et sociales en médecine et santé”. For us, the multidisciplinary of the medical humanities, including history, anthropology, sociology, philosophy, ethics as well as the Arts and Literature is of crucial importance to the training of the future health professionals the population expects. Vis-à-vis social and ethical challenges and health policies, future health professionals need to develop certain resources and analytical capacities. They have to become aware of the presuppositions and the implications of their professional roles. They need to develop their imagination so as not to be locked into a narrow range of alternatives. Thus, what roles and what place should we assign to the social sciences and Humanities?

**How do we “equip” tomorrow's health professionals?**

The transdisciplinary field of medical humanities can contribute to the “equipment” of the future health professionals, in at least 4 fundamental dimensions.

1. Medical students need to think about their roles in the “medicine of the future”. Today we are confronted with futuristic and even prophetic speeches which orientate our medical imagination. The job of “care coordinator” seems to be gaining ground over “caring for the body”. These words formulate ideals and standards which we assign to human life and reflect the central focus on consumer societies - the central focus on the body and its performances in social communications and the central focus on therapeutics in industrial societies (Gaudillière, 2008). In the 20th century, the definition of health has become “the state of complete physical, mental and social wellbeing”, extending the concept of social medicine and public health invented in the 19th century. Starting in the 1970s, the Utopia of perfect health and the medicalisation of existence were denounced (Illich, 1975). Precisely, far from the slogans vaunting or condemning these evolutions, social sciences and humanities document them with precision and in their historical depth. They make it possible for students to understand and assess the transformations of normalcy and the pathological in the light of scientific innovations, social values and public policies (Foucault, 1973; Canguilhem, 1978, 2012). Today, from chronic diseases to the many pathologies occurring with age including cancers and depression, there is a vast multiplication in the number of interventions by many kinds of specialists (pharmacopoeias, rehabilitations, therapeutic education) for a wide range of motives (organic, psychological, cognitive, social, etc). Understanding at the same time the scientific and social constructions of health and diseases makes it possible to question the finalities and the sense of medical care and measure the observable or projected changes in the social functions of medicine.

2. Health care students need a critical analysis of the concepts of biomedicine. For example, in the field of “personalised medicine”, the word “personal” concerns each individual, increasingly differentiated by molecular profile, membership of the most homogeneous possible sub-groups, with “layers”. The uniqueness on which “personalisation” is based is in fact the contrary to what is usually understood - the uniqueness of “people” following the philosophical steps forward in the 18thcentury and the promotion of autonomy and moral pluralism - which is what makes all of us singular and incommensurable (i.e. not able to be measured by the same standards). In “personalised” medicine, on the contrary, commensurability is a principle. As Xavier Guchet showed, each little difference is singularised as an element in a series. Insight from epistemology of medicine is essential when we come to question both the definition of diseases, therapeutic hopes and their ethical challenges (Guchet 2016).

3. Health care students need tools to understand the long-term consequences of scientific and technical research. For example, collecting health data shapes the infrastructure of tomorrow’s research and care. In the extension of health
protocols already based on knowledge about individual risk factors, financing the health model and the mutualisation of risks will be transformed, with individualisation of risk and increased individual empowerment. Once the genetic and environmental data pertaining to an individual is ascertained, it is possible to identify all the “targets” for which a therapy exists or at least on which it is possible to intervene - for example, in nutritional genomics, prescribing food adapted to each specific genome. Everyone can then be obliged to make the “best choices for life” for their personal profile. Consequently, the bases of a solidarity model of Social Security are likely to be called into question. The rule of the “veil of ignorance” for individual choices of lifestyles and living conditions stated by Rawls (1972) appears to be more and more difficult to respect. Medical humanities visualise how changes in technical infrastructures can stress the social contract on which our health care systems are built.

(4) And of course social sciences and humanities are essential for formulating reflections about ethics. Health professionals are already questioning the assumption of responsibility for dependant people (autonomy, intimacy, sexuality, etc), care organisation and management, medical decisions for expensive treatments, the transformation of doctor/patient relationships with the new tools provided by mobile medicine, the availability of bodies for the donation of organs, etc. The health professionals we train today will inevitably be involved in controversies about artificial intelligence applications to health, interactions between bodies and technologies, manipulations of human beings, etc. They need to be given a thorough training in how to resolve conflicts in values and how to exert their profession in a context of moral pluralism and this to actively contribute to the forthcoming transformations in all aspects of health care. Social sciences and humanities sharpen students’ critical abilities by giving background to these transformations, highlighting the ruptures behind what on the surface appear to be seamless continuations or on the contrary underlining continuities in what is apparently a rupture. The Humanities, far from providing a common belief, augment ethical understanding, enable students to consider other viewpoints, restate problems, formulate them in words and consult other times and other cultures to throw a different light on them.

What Social Sciences and Humanities can do

Medical humanities vector major transformations in training programmes. Here are four examples of what they can do to medical education:

(1) Thanks to their diversity and complementarity Medical Humanities contribute to improving knowledge about private and social experiences and the biographical trajectories of each patient. They throw new light on sharing sensitivities and seek to stem the erosion of empathy commonly observed during medical studies. They deconstruct the prejudices (of doctors and patients) and ensure that patients’ voices are not ignored nor overruled by the medical establishment. They contribute to truly individualised care, not adding incoherence, inconsistency and thoughtless conflicts to the physical, moral and social violence of every disease. Medical humanities contribute to democracy in health, deflate the presuppositions on which aristocratic, technocratic or scientific medicine are predicated and promote partnership with patients in training, research and health care.

(2) Medical humanities provide the tools for understanding the social and cultural constructs of health and disease - the search for sense in universal phenomena like unhappiness, illness and death - what Francoise Héritier (1996) called the “thought stops”. Humans live through symbols which, depending on their social and cultural environments, they arrange and combine in their own ways. It is in this subtle balance between the universal and the specific that social sciences and the humanities can contribute to health care training. It is difficult to imagine medical practice that ignores the sociocultural conditions of people’s existence, of the way they perceive life, their bodies, disease, death, the different cosmogonies in which they evolve and their concepts of health, care and treatment.

(3) Medical humanities contribute to the critical reflexivity and responsibilisation of carers. Over recent decades, standards and recommendations, economic constraints and productivity in health care dominate and eclipse the medical and ethical reasoning essential for responsible decision-making. Medical humanities help to clarify logic systems, values and interests in health care (including patients) and encourage everyone not to rush to conclusions and take an overview. In particular, they provide tools for discussions, shared decisions and the co-construction of medical protocols with patients. They also contribute to improving understanding the organisational, ethical and psychic factors of the suffering now evinced by carers and students. They aim to hit the “soft spots” to obtain global, well-considered diagnoses and imagine solutions together rather than to obtain “glossed-over” agreements.

(4) Medical humanities contribute to reinforcing training in independence and judgement. Today, in university hospitals, interns and externs often use Smartphone applications to find answers concerning diagnoses, molecules and care protocol recommendations. These applications give them quick and effective access to medical information. But the first problem concerns “solutionism” (Morozov 2014) - a solution is suggested before the problem is completely formulated (mirroring
the multiple-choice questionnaires which dominate students’ assessments in French medical schools). The second problem is that these applications are sometimes (always?) financed by companies and may be biased. This is where judgement is essential. But it is so much more tiresome to open these “black boxes” than to use their recommendations. Medical humanities, specially Social Studies of Sciences and Technology provide resources to answer this acute challenge of judgemental training, along with methodology and critical reading training.

**Plea for the development of Humanities in medical schools**

Our Collège pleads for the development of reflexivity and critical thought backed up by well identified, well integrated and sufficiently developed social sciences and humanities courses in medical training programmes (Collège des enseignants de sciences humaines et sociales en médecine et santé, 2011). There is a fast-growing movement in medical humanities research and teaching innovations, testifying to the fact that they are increasingly recognized as essential components in the training of all care professionals, starting with doctors.

Social sciences and humanities help students understand the demographic, epistemic and technological transformations in today’s medicine better. They nourish reflections about carer/patient relationships as well as the medical context, policy issues and social factors in health care. They provide students with tools to think about and perfect the ways in which they work and their interactions with patients, their entourage and with all health professionals and society in general. These tools prepare them to enter their careers with an independent, responsible and patient-centred viewpoint and contribute to giving meaning to their commitment to public health through many different, balanced and responsible choices of practice - an attitude well worth encouraging.

For this reason, we recommend the inclusion of social sciences and humanities in all vocational training courses in health care, to foster a new look in carer/patient relationships and to make students more aware of the new challenges of health care and prevention, reflexivity and critical thought. These concepts must be developed everywhere with help from social sciences and humanities specialists, in dialogue with clinicians and patients.

**Take Home Messages**

- Medical education should be central in public debate about health, ethics and society.
- Future health professionals need to critically reflect on their changing roles, knowledge, social models and ethical equipment.
- Humanities and Social Sciences help to connect with and understand patients and offer necessary critical skills.
- To face present and future challenges for Medicine and Health, Medical schools should develop substantial and integrated programs in Social Sciences and Humanities.

**Notes On Contributors**

All authors of this paper are members of the Executive Board of the College of Medical Humanities - Lecturers in Human and Social sciences in Medical and Health Schools in France (http://colhum.hypotheses.org).

Nicolas Lechopier is assistant professor at the University of Lyon in philosophy, epistemology and ethics at the Faculté de Médecine Lyon Est. He is the president of the College of Medical Humanities. He currently develops research on patients participation, public health ethics and medical education.

Gilles Moutot is assistant professor in philosophy at the Faculty of Medicine of the University of Montpellier. His current research focuses on the tension between normativity and standardization in the field of medical practices and institutions in the spirit of Critical Theory. He wrote two books on Adorno.

Céline Lefève is assistant professor in philosophy at Sorbonne Paris Cité University. She is co-director of the Interdisciplinary Research Program, La Personne en médecine, and director of the Chair, Philosophy at Hospital (Assistance-Publique Hôpitaux de Paris/Ecole Normale Supérieure). She works on care ethics and medical education.

Maria Teixeira is assistant professor in medical anthropology. After spending years analyzing divination and therapeutic rites in West Africa, she works on biomedical medicine in Africa and in France. Currently, she is developing her reflection on the representations of the body and of the pain in people with sickle cell disease.
Roberto Poma is assistant professor in philosophy and history of medicine at the Université Paris-Est Créteil Val de Marne and develops research in historical epistemology and narrative medicine.

Guillaume Grandazzi holds a PhD in sociology and is associate professor at the University of Caen Normandy. He coordinates the “Espace de Reflexion Ethique de Normandie” and teaches ethics to medical students.

Anne Rasmussen is historian, professor of history of science at Strasbourg University and a member of the SAGE research unit (UMR 7363). She is interested in social and cultural history of biomedical sciences and healthcare, 19th-20th centuries. She is editor in chief of Le Mouvement social, a social history journal.

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

Ethics Statement
As a position paper concerning curriculum development in medical humanities, we draw on our professional experiences in many universities. No students nor other human subjects were under specific investigation.

External Funding
This article has not had any External Funding

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Version 1

Reviewer Report 14 September 2018

https://doi.org/10.21956/mep.19665.r29358

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Alexandre Wenger
Université de Genève

This review has been migrated. The reviewer awarded 4 stars out of 5

The article is clear and well organized. It proposes a rich general appraisal of the possible uses of medical humanities for health professionals, i.e. reflective and critical tools, which should enable a better adaptation to the future challenges of health systems. One of the strong points of the article is its discussion of the French situation. The authors of the article are all members of the French Collège des Humanités Médicales board with field experience in France. In the recent bioethical debates that have shaken France, the issue of medical education for future health professionals has been forgotten. The authors argue that the nature of teaching given to future physicians should be broached in public debates. Nevertheless, it is regrettable that the bibliography is almost exclusively French. The topics discussed have already been covered extensively in articles published in the leading English-language medical journals. The integration of an international dimension would also have made it possible to return specifically, at the end of the article, to the state of the debate in France. Given the quality of the whole, it would be interesting if the authors extended the scope of their text with one or two articles on the nature of the tools (what teaching aids, what course formats, etc.) and concrete solutions for the implementation of the humanities in a medical curriculum marked by a chronic lack of time.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 06 September 2018

https://doi.org/10.21956/mep.19665.r29356

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Alexandre Berkesse  
Université de Montréal

This review has been migrated. The reviewer awarded 4 stars out of 5

This article is a pedagogical synthesis of questions that we can no longer avoid with the challenges that come in a short-term perspective for the healthcare ecosystem and its actors (considering that the patients are the main actors of care on a daily basis, that is to say almost all citizens). Social sciences and humanities are mostly denigrated in the biomedical paradigm (based on positivism and focused on a self-referential efficiency rather than on a contextual and relational relevance), that's why the questions raised in this article needs to be brought to the attention of the influential players in medical education. I would advise the authors to specify the contextual details in the first paragraph (too generic, this does not illustrate their fine mastery of the subject or the added value of SSH to understand those issues) and to play the game of the actual epistemological forces in place (ex: patient partnership is one of the most efficient way to train competent physicians or to decrease the dependance of patients to the healthcare system rather than to present it only as a democratic necessity or a moral injunction). A short comment could be added to highlight the flip side of the proposition: in a pedagogical and a clinical context which crushes the complexity and diversity of perspectives, to equip students to open their eyes to the contradictory injunctions to which they are subjected can also lead to increase their anxiety, their feeling of helplessness rather than their emancipation. It is a risk to take but it must be said. Also, the social contract part would gain in strength if the role of the State and the citizens would be integrated in the balance of power that constitutes it and makes it evolve. Finally, the focus on education of the future healthcare professionnals which they sensitize us is not a luxury but a necessity. This article is a necessity.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 05 September 2018

https://doi.org/10.21956/mep.19665.r29357

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Trevor Gibbs  
AMEE

This review has been migrated. The reviewer awarded 4 stars out of 5

A very well written paper, well reference and well structured, giving a sound argument for the inclusion of the social sciences and the humanities withing the undergraduate medical curriculum. I learned a lot from this paper and found it difficult to argue against such sound proposals, backed by solid reasoning. I
like the structure of the paper which encouraged a logical flow to the authors' specific flow. My only addition to how the paper might have been improved would be by the inclusion of some specific examples in the final section - the how to bit of the argument. I think this paper should be read by all involved in curriculum development and perhaps by those medical students about to embark on their studies.

**Competing Interests:** No conflicts of interest were disclosed.