

The Philosophicum-Model Project of *Philosophy of Medicine* in Medical Education and Practice in Germany *Perspective Article*

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Abstract: Medical and philosophical thinking belong together, cannot be separated neither in scientific theory nor in practice, and only the symbiosis of both can face the challenge to reflect the basic phenomenon of both of these disciplines: human life itself. No patient expects to be treated exclusively on the basis of the latest scientific results, but also wants to be perceived by his doctor as an unique individual. It is the doctor's specific task to embed the scientifically developed diagnoses therapeutically into each individual patient's biography. Furthermore such a perspective increases patient safety and it enables a future of trust in the doctor-patient relationship. The „Philosophicum“ is a model project in Germany that brings together philosophers, physicians and students to do research and education in the broad and enriching intersection of medicine and philosophy. Based on many years of experience, we are convinced that a structured philosophical education can substantially improve medical studies and subsequently doctors' work. Medical anthropology and hermeneutics are necessary and also teachable. The preparation should start early in the medical education and should be strengthened by bedside training while interacting with the patient. This requires philosophically interested and trained doctors and students. Exactly for that reason we favor integrating a philosophicum into the medical education and practice.

Keywords: Philosophy and Medicine, Medical Ethics, Medical Education and Training, Theory of Medicine, Philosophy of Medicine as a Humanitarian Practice

1. Introduction

Ever since the times of Hippocrates more than 2,500 years ago, western medical education and training has included instruction in philosophy and for many centuries that remained almost unchanged. In fact, natural philosophy was considered essential for physicians in former times. More than two thousand years later, triggered by the increasing interest in the academic approach, scientific thinking became

more and more important. New subjects such as chemistry, biology and physiology emerged. In 1861, the curriculum of medical studies in Prussia/Germany was changed: The so called “Philosophicum” was replaced by the “Physicum”, which is the medical preliminary examination after the second year of medical school until today. This change represented a complete reorientation with a focus on the scientific side of medicine in Germany, similar to what happened in many other countries at that time, including the

United States [1], where Abraham Flexner proposed to revolutionize higher education and the ancient “art” of healing by a new scientific approach in medical education in his famous essay in 1910 [2].

This caused the elimination of subjects related to the humanities from the curriculum. In 1970, some 100 years later, several new subjects were added to the curriculum of medical studies in Germany: medical psychology, medical sociology, general medicine, ecology, psychosomatics and psychotherapy. Until now, the teaching of philosophy as a mandatory part is absent in German medical curricula.

In recent years, physicians’ daily hospital routine has dramatically changed to the worse: Non-work-related tasks, like the classification of diseases for insurance purposes and other administrative tasks have taken over more and more of the physicians’ time. An enormous economic pressure has developed and has a considerable impact on the medical profession and independence of the medical practitioner, deeply changing the culture of medicine [3]. This again has been proven to have immediate consequences on physicians’ wellness and health. Studies, some of which have recently been published in “The Lancet”, in fact suggest that the quality of life of the physician correlates significantly with the outcome of treatment and is also a factor influencing patient security [4]. This is barely considered in daily practice. Many physicians are disappointed with their profession, as a consequence, burnout as well as symptoms of depression have a much higher prevalence compared to the general population [5]. In fact, this situation today endangers the independence of physicians in hospital and ambulatory service [3]. However, teaching of philosophy and critical reflection of ones doing and the pitfalls of medical profession mentioned above, seem to be protective factors for the doctors and students’ mental health [6].

According to Karl Jaspers, a famous German psychiatrist and philosopher of the 20th century, the work of a physician is based on two pillars: Scientific knowledge, technical expertise being one of them and humanities, ethics and philosophy the other one [7]. The first one is taught at medical school, the other one often neglected. For that reason and in view of the preponderance of technology and digitalization in the daily routine mentioned above, an optional subject, which focuses on philosophical problems of their own profession, should be offered to medical students and physicians: To meet this demand a training in philosophy, called “*Philosophicum*” has been offered by the University Hospital of Wuerzburg ever since 2010 (www.philosophicum.ukw.de) [8]. Based on our experience and previous studies [9], the question is raised in this paper,

whether there is, besides of a sophisticated concept, also a logical explanation that proves the fact that a *Philosophicum* and thus philosophy of medicine as an own subject is necessary, not only for itself but also for the everyday practice of a physician.

Therefore, we want to articulate both the importance of philosophy of medicine as a theory *and* a humanitarian practice and address this through physician’s education and training.

2. Method

2.1. The *Philosophicum*: A Model Project for Teaching Philosophy of Medicine in Germany

Ever since summer semester 2010 a *Philosophicum* was initiated at the Wuerzburg University Medical School, on a students’ initiative [10]: It is not a medical examination as it used to be before 1861, but rather an elective to medical students of all terms, physicians, students of philosophy, philosophers and open to the public. The Wuerzburg *Philosophicum* is a model project in Germany. It aims at providing a wideranging continuing learning experience for students and physicians interested in philosophical questions and topics that are directly related to the work of a physician. Apart from medical ethics, the teaching focuses on the history of philosophy, anthropological, logical and epistemological topics.

2.2. Concept

What is the underlying concept of the *Philosophicum*? It is usually associated at first with “ethics in medicine”. The *Philosophicum* for physicians is based on the assumption that the subject of medicine will generate philosophical questions on its own [table 1]. Of course, the questions can concern medical ethics, but it can further be of scientific-theoretical, methodological, sociological nature etc... as well. It wants to raise both fundamental questions *and* to address issues from medical practice. In its focus lies the “*humanum*” of the patient, the physician himself and his self-conception. To this day, these important topics have not been discussed in human medicine education in Germany, apart from the medical humanities in the United States [11]. A mere scientifically oriented medical curriculum will always remain incomplete because neither medical ethics nor medical psychology can systematically pose the question of the definition of humanity or the human individual. This is a classic question of philosophy and the foundation of philosophy of medicine.

Table 1. Basic questions of philosophy of medicine in medical education and training (selection).

Does a scientific education with emphasis on physical, chemical and molecular genetic laws do justice to the complexity of the human individual (patient and doctor)?
What is the importance of humanity, empathy and trust in the doctor-patient relationship?
Is it nowadays still adequate, that the scientific medical education does not systematically take elementary philosophical issues into respect, such as the basic questions of mankind, the life and constituent features of the doctor-patient relationship (for example, in terms of patient safety)?
In terms of systems theory, how can a modern, holistic approach to medicine at the various organizational levels look like?

2.3. Contents

Of fundamental importance appears the teaching and learning of a philosophical, scientific and theoretical discussion of the medical field - as the basis of the students' knowledge - and the analysis of the axioms on which their own education is based. There is the anthropological fact that a human being not only has a unique biography but is also formed by his own history and culture. Every human being is uniquely formed by his selfrelation as well as his relation to others. For a successful therapy decision the physician therefore has to embed his diagnostically worked out information into each individual's unique life course. As a scientist one learns laws, the medical professional not as strictly as a physicist or chemist, because the scientific focus of medical studies deals with an "object" that is - like any organism - an individual with a unique biography.

This requires a concept of an organism that cannot be

explained in a reductionist sense - by reference to its parts - but only as a whole. The medical consultation of the doctor and the patient must therefore embed the largely scientifically developed diagnosis as a theory (plan) into the patient's individual life course. This happens during the communication with the patient. The underlying hermeneutic method of trying to describe and explain actions based on the understanding of the subjective meaning, that is associated with any person's actions, is widespread in humanities, but a medical student usually does not hear much about it in his studies. This shows that medical ethics also need a systematic philosophical and theoretical foundation. For both topics - science theory and anthropology - it becomes very clear how much medicine needs philosophy. In addition, there is a need to derive further subjects (e.g. ontology, hermeneutics, epistemology, practical philosophy) in philosophy of medicine for the education and training of students and doctors [for more details see table 2].

Table 2. Derivation of necessary areas of medical training from philosophical disciplines (selection).

Philosophical subjects	Relation to medicine (examples)
Philosophy of Science (incl. Ontology)	Theory of science for medicine (What is the Human?/ What makes us human?)
Anthropology	Anthropology of the doctor-patient relationship
Hermeneutics	Hermeneutics in the doctor patient communication
Epistemology	Medical judgment (subsuming and critical) not included in <i>evidence-based medicine</i>
Practical philosophy and general ethics	Medical Ethics & basic medical attitude and humanity

2.4. Theses

Although medical anthropology and humanity are not equally scientifically examinable as the objects and questions of natural science, we assume nevertheless that there can be a philosophy of medicine which is subject to scientific thinking. The following four theses are examples of a systematic search for new philosophical answers in human medical education and practice:

1. *The highly differentiated and specialized medical curricula move away more and more from the most important basic question The definition of the human being as such." Thus, the basis for any medical treatment is no longer in focus of discussion. In this context, it is necessary to reflect one's own medical practice systematically and to provide the needed analytical tools.*
2. *Modern medicine, with its ever-increasing focus on technology and digitalization, generates questions of its own. These cannot be answered by physicians only but have to be analysed interdisciplinary together with philosophers. Philosophical questions are inextricably linked to medicine (and vice versa). One profession alone can no longer solve these problems. Modern philosophy of medicine is needed to provide a strong starting-point for the analysis of possible causes.*
3. *The medical education (in Germany) is unilaterally scientifically structured and does not systematically take into account essential elements of the medical practice, such as humanity, empathy, trust and basic medical attitudes. These are of great importance to*

patients and their safety and cannot be learned by the student intuitively. Through a mere science oriented medical education, these elementary philosophical questions of medicine are not subject of discussion and thus the basic attitude must be developed by every physician individually.

4. *Analytical scientific thinking based on algorithms, clinical pathways and guidelines in the context of evidence-based medicine are the basis of medical decisions today. But only an integrative and reflective thinking, that takes the individual's life into perspective as well as the scientifically developed diagnosis and therapy of a human being, is what makes a good physician.*

2.5. Philosophy of Medicine - The Medical Practice

We live in the time of a modern paradox: humanity as the supreme and classical maxim of medical action is ethically requested and demanded by civil law, but the underlying philosophical concept and the questions around it, are not systematically processed and reflected in the medical training and practice: The "humanitas hominum" is in fact "generated" by the homo, it is already presupposed when humans deal with each other culturally (not only physically or biologically). This can only be done through communicative processes in arbitrary signs. An argumentative, strictly logical analysis of the concept of humanity is therefore philosophically necessary and a prerequisite for further reflection, as we have already shown [8]. Fact is in this context, that a "Physicum" disguises both linguistically and factually a fundamental problem within

medicine, namely the irreducible relationship of the Organic and the Physical, as already demonstrated by Erwin Schrödinger, Nobel Prize laureate for Physics in his famous essay "*What is life?*" [12]. Most medical students are not aware of this at all and yet it is essential in the undergraduate medical studies. This approach is very similar to the basic idea of evidence-based medicine (EBM) by David Sackett [13], one of the founders of the same, who believed in the need of taking into respect the background and individual characteristics of the individual patient for any diagnostic and therapeutic measures. Everything else he declines as merely "cookbook medicine". On the contrary, an uncritical adoption of EBM measures would treat patients inappropriately and could even harm them [14].

2.6. Teaching Philosophy of Medicine

In practice, the philosophical teaching and learning method is based on an integrative model [15], involving co-teaching of philosophers and educators as well as physicians and students themselves. It includes interactive lectures and

discussions. Students act as lecturers in the affiliated Fellowship program "Practical Philosophy and Medical Ethics" and actively participate in the lectures' planning and implementation. Thus, learning and teaching takes place in a dialogue form which is already described and applied in Anglo-American literature in the concept of the teaching of medical humanities [16] as a "cross-disciplinary" and "cross-institutional" [17] way. The importance of a philosophical view in modern medicine is also recognized in many Anglo-American Medical Schools [18]. In contrast to the Medical Humanities, which include humanities (e.g. literature, philosophy, ethics, history and religion), social sciences (e.g. anthropology, psychology and sociology) and arts (literature, film, theatre) in the curriculum of medical students [16] and thus cover several subjects, the Philosophicum focuses on the philosophy of medicine itself. The focused view allows a systematic reflection in the training of medical students and the medical practice. Didactically, the concept of transformative learning is applied accordingly [19].

Table 3. Review of Structure and Content of the Philosophicum (selection).

Structural features	Content details
Teaching method	Seminar, additional regular symposia, small group teaching, working group sessions, case discussions, project work (see below)
Medical philosophical areas in general (selection)	Logic, epistemology, ethics, anthropology, hermeneutics, media theory, aesthetics, scientific theory of medicine, medicine in context to other sciences according to own concept (www.philosophicum.ukw.de)
Special focus topics (selection)	Truth and truthfulness at the bedside, trust, empathy, human dignity, doctor-patient relationship, communication, suffering, dying and death, basic medical attitude, patient well-being, economization of medicine,
Academic status	Elective for medical students, recognized for students of other subjects (e.g. Philosophy) (ECTS); additionally associated fellowship program of Practical Philosophy and Medical Ethics (with the possibility of students to publish articles, to give lectures or to carry out projects)
Teaching and learning didactics	Integrative model (jointly organized by philosophers as well as physicians), interactive event (lecture <i>and</i> discussion form), dialogical transdisciplinary form of learning (teaching and learning form)

3. Discussion

According to the present medical curriculum in Germany certain questions are left behind and are not being asked by medical students because of the nature of their training and the subsequent practical work. Therefore they cannot receive any answer. The result is, that a medical student, who had 6 years of scientific training, finally thinks and acts accordingly: Philosophical thinking is alien to him. For him, the treatment of patients is more or less solely scientifically shaped, which may contain the risks mentioned above in the introduction.

Therefore, as a teaching and learning goal, the scientific-theoretical examination of medical students with their own subject as the basis of their knowledge (*theory of medicine*) and the analysis of the basic assumptions on which their own education is based appear to be of fundamental importance. "Intuitively" many young doctors may act humanely and treat their patients well. However, the notion of humanity must not only be intuitively followed; it should also be subject to a more detailed analysis, consideration and discussion. Humanity and the question of the "*humanum*" is rather a fundamental topic in philosophy as well as in

medicine [20]. A purely scientific education of medical doctors today disregards the elementary and necessary philosophical question of *humanity* in medicine. Medical and philosophical thinking belong together, they cannot be separated from one another according to the underlying scientific theory, and only together form the unique significance of medicine in this respect: Until today, no patient expects to be treated exclusively on the basis of the latest scientific results but rather wants to be perceived by the physician as a unique human being and most of all not as a „client“, as Bernhard Lown explained, too [21]. Humanity is indeed created dynamically by man's actions, even if humanity has always be presupposed for the medical doctor in terms of civil status and culture. Ethics of medicine, as a central part of any medical profession, may be represented in the medical curricula, but is searching for its role in philosophy. We point out that it is very problematic for the human image of any medical doctor to think only scientific, because the medical attitude and your own actions always go far beyond a purely scientific thinking.

Due to the modern development of medicine, the increasing knowledge, the differentiation and specialization in medicine, in order to train medical students comprehensively philosophy needs to be an essential part of

any medical curriculum and has to be developed constantly. Fundamental to the need and practicability of a course such as the “Wuerzburg Philosophicum” is the accurate formulation of possible questions and theses within the framework of a differentiated concept [table 3]. In addition to a suitable didactic methodology the Philosophicum aims to provide a forum for an interdisciplinary discussion with students and lecturing experts-both from the University, as well as from external practicing physicians. This creates a place of open exchange and orientation in a highly differentiated field of science. Furthermore, it is vital to integrate philosophical training into the medical specialist’s training, as well. It is desirable to lay a good foundation of understanding while students are still in university, but it is important to develop and increase this understanding during their specialization. Daily practice raises questions and highlights ethical and philosophical dilemmas physicians have to address. High demand for such training underlines this assumption and we are currently working on such a programme.

4. Conclusion

Medicine continues to differentiate into ever new disciplines and specialized, *applied* natural sciences. On this track the most fundamental phenomenon of individual human life itself gets out of sight and it is thereby missed, that natural science alone cannot explain this phenomenon. However it is the physician’s task to embed the scientifically developed diagnoses therapeutically into each individual patient’s biography. This leads to the fact (ex principiis) of a need for a philosophy in medicine, either as a part of the medical students curriculum or outside of the University. Medical anthropology and hermeneutics are necessary and also teachable. The preparation should start early in the medical education and should be strengthened by bedside training while interacting with the patient. This requires philosophically interested and trained doctors and students. Based on many years of experience, we are convinced that a structured philosophical education can substantially improve medical studies and subsequently doctors work. Exactly for that reason we favor integrating a philosophicum into the medical education and practice. Ultimately this will be of benefit not only to medical students and doctors, but most of all to our patients themselves.

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