The introduction of medical humanities in the undergraduate curriculum of Greek medical schools: challenge and necessity

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Abstract

Background and Aim: Medical humanities is a multidisciplinary field, consisting of humanities (theory of literature and arts, philosophy, ethics, history and theology), social sciences (anthropology, psychology and sociology) and arts (literature, theater, cinema, music and visual arts), integrated in the undergraduate curriculum of Medical schools. The aim of the present study is to discuss medical humanities and support the necessity of introduction of a medical humanities course in the curriculum of Greek medical schools.

Materials, Methods and Results: Through the relevant Pub-Med search as well as taking into account various curricula of medical schools, it is evident that medical education today is characterized by acquisition of knowledge and skills and development of medical values and attitudes. Clinical observation with the recognition of key data and patterns in the collected information, is crucial in the final medical decision, i.e. in the complex process, through which doctors accumulate data, reach conclusions and decide on therapy. All sciences included in medical humanities are important for the high quality education of future doctors. The practice of Medicine is in large an image-related science. The history of anatomy and art are closely related, already from the Renaissance time. Studies have shown that attendance of courses on art critics improves the observational skills of medical students. Literature is the source of information about the nature and source of human emotions and behavior and of narratives of illness, and increases imagination. Philosophy aids in the development of analytical and synthetical thinking. Teaching of history of medicine develops humility and aids in avoiding the repetition of mistakes of the past, and quite often raises research and therapeutic skepticism. The comprehension of medical ethics and professional deontology guides the patient-doctor relationship, as well as the relations between physicians and their colleagues. The Medical Humanities course, which is already integrated in the undergraduate curriculum of many medical schools of Europe, USA and Australia, includes lectures by experts and students’ presentations on the above-mentioned areas and could be offered, for a semester, during the first years.

Conclusion: The aim of Medical Humanities course is the development of imagination and interpretation of data through analytical complex procedures, the development of skills of close observation and careful interpretation of the patient “language” and the enhancement of empathy for the patients, as well as the development of the physician-patient relationship and finally the conceptualization/ construction of personal and professional values. Hippokratia 2010; 14 (4): 241-243

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The purpose of medical education is to prepare competent physicians. In order to achieve this it must transmit knowledge and skills and inculcate medical values and attitudes, in a balanced and integrated way. Today, the undergraduate medical curriculum is overwhelmed by biomedical sciences courses, since the developments of cell and molecular biology enforced the expansion of their teaching within the curriculum time. Traditional and modern methods, such as simulations and virtual reality have been used in Medical schools worldwide ensuring acquisition of theoretical knowledge and skills by the medical students. Thus, students face immense pressure to master the theoretical knowledge and skills of the core medical education, which often leads to burnout syndrome. By nature such knowledge enhances the belief on the order and predictability of diagnosis and treatment. Since medical students spend most of their time in memorizing and processing information, the lack of encouragement and time for reflection endangers the adoption of a dogmatic approach to medical practice.

Today, medical practice is dominated by evidenced-based-medicine (EBM). EBM encompasses three essences: the scientific hypothesis, the constantly growing body of evidence and the ideal professional practice of medicine. It integrates best evidence with clinical expertise and patient values. It applies the analytical approach to data generated by quantitative methods. Medicine is dominated by problem solving, and students may spend
their talent and efforts in finding just one correct answer, failing to reflect on deeper questions regarding their role in as health care providers. Thus, the essential humanitar-
ian instincts of medical students are left without attention and nurture and the danger of loosing humanity in the practice of medicine is real\textsuperscript{13,17}.

However, students should be trained to be interested to
the patient as a whole, rather than to the symptom alone; to be interested in people rather than in diseases. Humani-
ties share with medicine the focus on humans. Medical humanities provide insight into human conditions, illness and suffering, perception of oneself, as well as into profes-

tionalism and responsibilities to self and others; col-
leagues and patients. All sciences included in Medical
Humanities are important for the high quality education of
future doctors. Introduction into the world of arts and
literature induces the development of observational skills, analytical reasoning, empathy and self-reflection\textsuperscript{8}.

Medical Humanities
Clinical judgment is largely visually-based and in art observation is “seeing \textsuperscript{9,10}”. We are used to say that
the doctor “sees” patients, without actually realizing the
meaning of this phrase. Clinical observation is impor-
tant for medical decision-making. It includes collection
of data, identification of the key pieces between them,
recognition of the patterns in the gathered data and inter-
pretation\textsuperscript{11}. All future doctors are encouraged to develop
their clinical acumen through the understanding of the
clinical reasoning process.

The patients provide a wealth of informational im-
ages, already at presentation and on physical examination,
as well as via sophisticated imaging techniques. Imaging
is very important in modern medicine. Interpretation of
images is vital in patient care. In order to become a com-
petent physician it is important that the future doctor is
able to “see” rather than just “look”; therefore, students
should be trained to deep seeing. Medical school teachers
usually assume that students have a generic capability of
visual acuity, perceptual discrimination and judgment in
visual domains, and expect that it will be enriched and
refined through study and experience.

Vision is always an important sense for diagnosis,
particularly in radiology, pathology and dermatology.
EBM has refined the experimental methodology but has
not adequately dealt with the complexities of observa-
tional research\textsuperscript{12}. Traditional medical training is based on
the assumption that close attention is inherently present
in all students, lies on the teaching of specific rules on
recognition of patterns and leaves specific discrimination
to develop through experience. Thus, when looking at an
X-ray or a glass slide the student only thinks of basic rele-
vant knowledge. Only if he/she takes one step further she/
he can appreciate and interpret the images; can interior-
ize knowledge\textsuperscript{13}. Studies have shown that systematic ob-
servation of paintings can enhance medical students’ and
doctors’ observational skills\textsuperscript{14,15}. In addition, the depth of
perceptual capability is enhanced through induction of
imagination and the provision of metaphorical language
that informs perception\textsuperscript{16,17}. Furthermore, humanities add
an aesthetic dimension to clinical work\textsuperscript{7}. Medicine and art
are inter-related, already from the Renaissance time, with
artists working closely with anatomists and surgeons\textsuperscript{18}.

Medical humanities focus on the importance of edu-
cation to the tolerance of ambiguity in the “connoisseur-
ship” of patient-generated images, in parallel with the tra-
ditional technical-rational mode of clinical reasoning\textsuperscript{19}.
Furthermore, it brings to attention the tacit dimension
of knowledge, that is the aspect of human knowledge,
which lies outside rules and presupposes explicit skills,
competencies and reasoning abilities\textsuperscript{13}. This awareness
by the tutors can aid in the education of students in asso-
ciative and holistic pattern recognition and non-analytical
reasoning strategies\textsuperscript{13}.

Literature is the source of information about the na-
ture and source of human emotions and behavior and of
narratives of illness, and increases imagination and em-
pathy\textsuperscript{20,21}. Images of disease and death are common in lit-

erature and can serve as important resources for medical
education, since they increase the awareness of conditions
and experiences one may not have\textsuperscript{22}. Narrative methods
are widely applied in medicine. Patients tell their stories
to their doctors, who tell stories to their colleagues when
presenting cases and face the patient as a text that needs
interpretation\textsuperscript{23,24}. Literary studies can enhance the effec-
tiveness of performance in the narrative aspects of medi-
cine. Furthermore, literature can be used to yield ethical
teaching points\textsuperscript{25}. Besides patients’ narratives of illness,
there are themes of illness and images of physicians in
well-known novels as well as a wealth of literature writ-
ten by physician-writers, such as Francois Rabelais, John
Keats, Sir A Conan Doyle, Anton Chekhov, A.J. Cronin,
Walker Percy\textsuperscript{24}, the recently awarded with the most presti-
gious literary award in Canada, Vincent Lam, and Greece’s
own Andreas Karkavitsas and Takis Sinopoulos, to name
a few. Medical biographies are also important, since they
offer students a glimpse in lives of physicians that can be
inspiring and “role-model” generating. Furthermore, the
recognition of the human nature of the biographed physi-
cians, with their values and deficiencies, is also didactic in
the effort to humanize medical practice\textsuperscript{26}.

The students’ exposure to social sciences helps them
orient their future medical practice within the cultural
and social contexts of the community. This is particularly
important in the current era of molecular science, since
it equips future physicians to meet moral challenges that
are not taught in the offered biomedicine courses

Philosophy aids in the development of analytical and
synthetical reasoning and in the definition of our com-
mon faith and shared humanity.

Teaching of history of medicine develops humility
and the sense that what we now accept as the unmistak-
ably true knowledge may not prove such in the future\textsuperscript{28}.
It aids in the avoidance of mistakes of the past, and quite
often raises research and therapeutic skepticism, imple-
menting the forces that influence the medical system\textsuperscript{27}.
The comprehension of medical ethics and professional deontology guides the patient-doctor relationship, as well as the relations between physicians and their colleagues. In Greece many of the aspects of Medical Humanities are covered by “Medical Ethics” and “Medical History” courses, which are included in the curriculum of many Medical Schools.

**Medical Humanities course**

The proposal is to incorporate humanities-based teaching material into the undergraduate curriculum of Greek medical schools. The Medical Humanities course, is already integrated in the curriculum of many medical schools of Europe, USA and Australia, usually for one semester in the first years and includes presentations and essays by small groups on the above-mentioned entities. The humanities course will encompass the use of literature (written by physicians, patients or narrating illness) and arts (visual, in the form of painting or photographic exhibits, and art critic lectures and performing). Independent humanities research projects, e.g. in sociology, anthropology, history etc can also be included.

The tight medical curriculum is appreciated and the skepticism might be that the addition of this new course might burden further the already overwhelmed medical students. However, the study of humanities is generally pleasurable and gives to the student a break from laboratory and clinical responsibilities. It can serve as a zone of creative relaxation, where medical students can develop imagination, creativity, self-awareness and empathy. In that sense medical humanities can provide the background to future physicians to counteract burnout.

**Conclusions**

The introduction of medical humanities in the undergraduate curriculum, aims to educate medical students rather than simply to train them. This can only be achieved through the offer of the multifaceted view of medical humanities. Future doctors are educated to value for themselves rather than simply to train them.

**References**