REVIEW ARTICLE

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

Batistatou A[1], Doulis E A[1], Tiniakos D[2], Anogiannaki A[3], Charalabopoulos K[1]

[1] Medical School, Ioannina University, Ioannina, Greece
[2] Medical School, Athens University, Greece
[3] Medical School, Aristotles University, Thessaloniki, Greeece

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

Key words: medical humanities, Greece, medical school, review

Corresponding author: Anna Batistatou, Ioannina University, Medical School, Department of Pathology, Ioannina, Greece, e-mail: abatista@cc.uoi.gr

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[1]. 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[2]. Thus, students face immense pressure to master the theoretical knowledge and skills of the core medical education, which often leads to burnout syndrome[3]. By nature such knowledge enhances the belief on the order and predictability of diagnosis and treatment[4]. 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[4].

Today, medical practice is dominated by evidenced-based-medicine (EBM)[5]. EBM encompasses three essences: the scientific hypothesis, the constantly growing body of evidence and the ideal professional practice of medicine[6]. 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 humanitarian instincts of medical students are left without attention and nurture and the danger of loosing humanity in the practice of medicine is real[1,7].

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. Humanities share with medicine the focus on humans. Medical humanities provide insight into human conditions, illness and suffering, perception of oneself, as well as into professionalism and responsibilities to self and others; colleagues 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[8].

Medical Humanities

Clinical judgment is largely visually-based and in art observation is "seeing [9,10]". We are used to say that the doctor "sees" patients, without actually realizing the meaning of this phrase. Clinical observation is important 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 interpretation[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 images, 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 competent 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 observational research[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 relevant knowledge. Only if he/she takes one step further she/he can appreciate and interpret the images; can interiorize knowledge[13]. Studies have shown that systematic observation of paintings can enhance medical students'and doctors' observational skills[14,15]. In addition, the depth of perceptual capability is enhanced through induction of imagination and the provision of metaphorical language that informs perception[16,17]. Furthermore, humanities add an aesthetic dimension to clinical work[9]. Medicine and art are inter-related, already from the Renaissance time, with artists working closely with anatomists and surgeons[18].

Medical humanities focus on the importance of education to the tolerance of ambiguity in the "connoisseurship" of patient-generated images, in parallel with the traditional technical-rational mode of clinical reasoning[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[13]. This awareness by the tutors can aid in the education of students in associative and holistic pattern recognition and non-analytical reasoning strategies[13].

Literature is the source of information about the nature and source of human emotions and behavior and of narratives of illness, and increases imagination and empathy[20,21]. Images of disease and death are common in literature and can serve as important recourses for medical education, since they increase the awareness of conditions and experiences one may not have[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[23,24]. Literary studies can enhance the effectiveness of performance in the narrative aspects of medicine. Furthermore, literature can be used to yield ethical teaching points[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 written by physician-writers, such as Francois Rabelais, John Keats, Sir A Conan Doyle, Anton Chekhov, A.J. Cronin, Walker Percy[24], the recently awarded with the most prestigious 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 biographied physicians, with their values and deficiencies, is also didactic in the effort to humanize medical practice[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 common faith and shared humanity.

Teaching of history of medicine develops humility and the sense that what we now accept as the unmistakably true knowledge may not prove such in the future[26]. It aids in the avoidance of mistakes of the past, and quite often raises research and therapeutic skepticism, implementing the forces that influence the medical system[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[28].

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[29]. This can only be achieved through the offer of the multifaceted view of medical humanities. Future doctors are educated to value reason as well as aesthetics, to focus on meaning and to combine the theoretical lucidity with the ambiguity and uncertainty[30,31]. They develop imagination and abilities for interpretation of data through analytical and synthetical reasoning, skills of close observation and careful interpretation of the patient "language', empathy for the patients and conceptualize and construct personal and professional values. A medical humanities course, could be offered in Greek medical Schools, for a semester, during the first years. This would add richness to medical education and practice and support the development of an exceptional medicine that constantly progresses and satisfies the communities' social, ethical and scientific needs.

References

1. Baum M. Teaching the humanities to medical students. Clinical Med. 2002; 2: 246-249.
2. Cooke M, Irby DM, Sullivan W, et al. American medical education 100 years after the Flexner report. N Engl J Med. 2006; 355: 1339-1344.
3. Jennings ML. Medical student burnout: Interdisciplinary exploration and analysis. J Med Humanit. 2009; 30: 253-269.
4. Gordon J. Medical humanities: to cure sometimes, to relieve often, to comfort always. MJA. 2005; 182: 5-8.
5. Dysart-Gale D. Lost in translation: Bibliotherapy and evidence-based medicine. J Med Humanit. 2008; 29: 33-43.
6. Reilly BM. The essence of EBM. BMJ. 2004; 329: 991-992.
7. Hood K, Jacobson L, Houston H. Medicine and self-image in literature. Lancet. 2002; 359: 981.
8. Aull F. Medical Humanities. http://medhum.med.nyu.edu/
9. Bleakley A, Farrow R, Gould D, Marshall R. Making sense of clinical reasoning: judgement and the evidence of the sences. Med Education. 2003; 37: 544-552.
10. Crawford JM. Evidence-based interpretation of liver biopsies. Lab Invest. 2006; 86: 326-334.
11. Shapiro J, Rucker L, Beck J. Training the clinical eye and mind: using the arts to develop medical students' observational and pattern recognition skills. Med Education. 2006; 40: 263-268.
12. Foucar E, Wick MR. An observational examination of the literature in diagnostic anatomic pathology. Semin Diagn Pathol. 2005; 22: 126-138.
13. Engel PJH. Tacit knowledge and visual expertise in medical diagnostic reasoning: implications for medical education. Med Teacher. 2008; 30: e184-188.
14. Crowley RS, Naus GJ, Stewart J III, Friedman CP. Development of visual diagnostic expertise in Pathology: An information-processing study. J Am Med Inform Assoc. 2003; 10: 39-51.
15. Kirklin D, Duncan J, McBride S, Hunt S, Griffin M. Med Education. 2007; 41: 395-401.
16. Batistatou A, Kamina S, Charalabopoulos K. Analogies in medicine: the rare paradigm of the Maltese (white) Cross. Intern Med J. 2006; 36: 620-621.
17. Batistatou A, Charalabopoulos KA. The art of science: Transitional cell carcinoma of the bladder and Golconda. Med Hypotheses. 2005; 65: 970-971.
18. Boisaubin EV, Winkler MG. Seeing patients and life contexts: the visual arts in medical education. Am J Med Sci. 2000; 319: 292-296.
19. Bleakley A, Farrow R, Gould D, Marshall R. Learning how to see: doctors making judgements in the visual domain. J Workplace. 2003; 15: 301-306.
20. Oyebode F, Pourgourides C. Literature and medicine. Lancet. 1996; 348: 894
21. Batistatou A, Charalabopoulos K. The picture of Oscar X. Nature. 2008; 455: 834.
22. Bolton G. Literature and medicine. Lancet. 2001; 357: 1441-1442.
23. McLellan MF. Literature and medicine: physician-writers. Lancet. 1997; 349: 564-567.
24. McLellan MF, Jones AH. Why literature and medicine? Lancet. 1996; 348: 109-111.
25. Skelton JR, Macleod JAA, Thomas CP. Teaching literature and medicine to medical students, part II: why literature and medicine? Lancet. 2000; 356: 2001-2003.
26. Hooker C. The medical humanities. A brief introduction. Austr Fam Physic. 2008; 37: 369-370.
27. Ahlzen R, Stolt C-M. The humanistic medicine program at the Karolinska Institute, Stockholm, Sweeden. Acad Med. 2003; 78: 1039-1042.
28. Shapiro J, Rucker L. Can poetry make better doctors? Teaching the humanities and arts to medical students and residents at the University of California, Irvine, College of Medicine. Acad Med. 2003; 78: 953-957.
29. Downie R. The role of literature in medical education. A commentary on the poem: Roswell, Hanger 84. J Med Ethics. 1999; 25: 529-531.
30. Bolton G. Medicine, the arts, and the humanities. Lancet. 2003; 362: 93-94
31. Batistatou A. Moments of a neoplasm. Human Pathol. 2008; 39: 981-982.