SAPIENZA
UNIVERSITÀ DI ROMA

E-ISSN 2531-7288
ISSN 0394/9001

MEDICINA NEI SECOLI
Journal of History of Medicine and Medical Humanities
35/2 (2023) 35-44

Received: 29.10.2022
Accepted: 21.04.2023
DOI: 10.13133/2531-7288/2773

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Museum Paths in Medical Education to Improve Patient Care and Outcomes

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ABSTRACT

Museum Paths in Medical Education

Contemporary society strongly demands that attention be paid to patient dignity, that the patient and their relatives be involved in therapeutic decisions, and that patients be cared for with professionalism and sensitivity.
Since the 'sick role' involves a person's most intimate needs, care must also depend on a broader system of values, skills and sensitivity on the part of both the doctor and the patient.
With this in mind, Medical Humanities can offer young students the tools they need for a new and fully patient-centred approach. And, in particular, as the authors evidence in this text, specific pathways set up within scientific museums can be fundamental for future doctors to learn not only to treat diseases but also to take care of patients, once again placing them at the centre of the illness experience.

Keywords: Doctor-patient relationship - Medical Humanities - Health care professionals' training - University science museums

The experience of illness represents a very personal event in a person's life. It is a subjective process because the 'sick role' is related to a person's innermost feelings, their identity, their history, their emotions, and above all their fears.
And this is particularly true in contemporary society. As bioethicist Edmund Pellegrino wrote: Illness is an altered state of existence arising out of an ontological assault on the humanity of the person who is ill. [...] For technological man illness is more insistently painful experience than for his ancestors. It penetrates the freneticism of his work and pleasures to remind him that immortality is still an illusion. For each disease that science extirpate, a new one take its place [...] The experience of illness is far more terrifying, far more disabling – more than an absurdity – to modern man than it ever was for his less technologically capable ancestors[1].
At this early stage of the text, it is already evident how the experience of disease is placed, to a significant degree, beyond the limits of the life sciences.
And it is perhaps the most difficult issue the doctor has to deal with.
Unless the patient is simply identified with their disease, the doctor must learn to relate to and address the patient, complete with their personal culture and experience. They must not only take into account the symptoms and clinical results, albeit fundamental, but also integrate them with the information provided by the patient.
Viewed from this perspective, for some decades now, Evidence-Based Medicine has been the subject of criticism.
Indeed, although it has allowed for ever better and further-reaching diagnostic and therapeutic possibilities thanks to the development of new technologies, it has led to a progressive loss of the ability to listen to the patient and to understand their fears and expectations, foregoing a doctor-patient relationship based on the human and relational component.
The paradox of Evidence-Based Medicine lies in the fact that it is the best way to assess whether an intervention works, but it may be insufficient to truly care for the patient and their state of physical and psychological well-being. Indeed, patient care "is a special moral enterprise because it is grounded in a special personal relationship between one who is ill and another who professes to heal"[2].
In the medicine we experience every day, which is *doctor/disease centered*, the skills of the doctor are in most cases aimed at the treatment of the *disease*, which is very often decontextualised from the suffering patient.
But if we move towards a *patient-centred* form of medicine, "space is made for the experience (*illness*) of the patient, revealing not only personal events, but also [...] the internalised cultural models that guide the experience of illness"[3].
It is therefore necessary to educate young students in their own Medical Education pathways to deepen listening and dialogue with sick patients, putting into practice a form of *compassion* that is an "attitude that takes into account the suffering of the

patient and their loved ones, and considers it a moral imperative to try to alleviate it through a rational and detached analysis of its causes and the treatment possibilities"[4].
To do this, it is necessary to expand the areas of study by integrating them with humanistic disciplines, which provide the necessary know-how to improve listening and relationship skills, and the ability to use appropriate and understandable language and expressions of empathy, which are fundamental to 'caring' for the patient through a methodology based not only on evidence but also on the knowledge of the person, respecting the patient's unique characteristics.
What we consider one of the most pressing needs in medical education today was also perceived as a priority at the beginning of the twentieth century, so much so that Francis Peabody, a professor at Harvard Medical School, in his essay *The Care of the Patient* (1927) wrote: "The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine – or, to put it more bluntly, they are too "scientific" and do not know how to take care of patients"[5].
In this sense, he openly stressed "[...] the vital importance of the interpersonal relationship between doctor and patient in the practice of medicine" and addressed his students with these words: "in all your patients whose symptoms are of functional origin, the entire problem of diagnosis and treatment depends on your understanding of the patient's character and personal life. In any case of organic disease, there are complex interactions between pathological and intellectual processes that you must appreciate and consider if you want to become astute clinicians"[6].
"The practice of medicine is an art, increasingly based on the medical sciences, but it includes much that still remains outside the realm of any science. [...] One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient"[7].
Since then, medicine and treatment options, as well as the figure of the doctor and that of the patient, have undergone many changes. But society continues to strongly and resolutely demand attention be paid to patient dignity, involving the patient and their family in decisions to be made, and that patients be cared for with expertise and sensitivity.
A careful examination of the curriculum of our faculties shows that the patient as a person never, or almost never, appears. We therefore need a real revolution in the approach to the patient and in the way of working with them, which leads the doctor not only *to cure* the disease, but *to take care* of the patient, putting them back at the centre of the illness experience.
To this end, for some years now, the University of Siena has been offering – as part of the History of Medicine course – training courses that aim to help young people achieve these goals. These are training courses that originate from the historical col-

lections of the Medical Equipment Museum of the Siena University[8], dedicated to the basic disciplines of medicine and some of its specialisations.
The research and studies that are carried out by the operators of scientific museums[9,10] to know and value the ancient medical instruments can also help in teaching young people to be good doctors. Not only in fact, students of medicine and health professions can know aspects of the evolution of their profession but they can also understand the importance that in the past the relationship with the patient has had: a relationship that today must be recovered.
The role that scientific museums[11,12] but also artistic museums[13,14,15] can play in the training of medical students is an open and particularly important reflection.
In the Sienese Medical Equipment Museum each pathway provides a specific experience that is achieved through direct contact, visual and tactile, with the ancient medical and scientific instruments collected over almost 30 years by the University Centre for the Protection and Enhancement of the Ancient Scientific Heritage (Centro Universitario per la Tutela e la Valorizzazione dell'antico Patrimonio scientifico, today the Sienese University Museum System) and through a kind of storytelling, proposed directly by the museum operator or through videos that show interviews with professionals and witnesses of a specific branch of medicine.
The pathway best suited to providing a direct introduction to a typical approach of the Medical Humanities is that specifically regarding the general practitioner.
This particular figure, who had scarce diagnostic and therapeutic tools at their disposal, but had a great ability to relate, was, until a few decades ago, the guardian of the health of entire communities and combined education and professional experience with the knowledge of the patient and family acquired over the course of repeated visits.
Today, students are unaware of this figure or the meaning of being a doctor under very different conditions from those that are taken for granted today. And this should not be surprising because our society and our world are based exclusively on the present, without paying attention to history, to which this paper is indebted.
The experience offered by the comparison with the figure of the district doctor, so close to the role for which they are preparing, but also, in some ways, so far from what it means to be a doctor today, is of use to allow young people to understand the relativism of medical knowledge over time and to develop observational skills and acquire narrative competencies.
This specific museum itinerary starts with the observation of the contents of the physician's bag.
Students thus discover that this indispensable item contained a very poor instrumentation, with which the doctor had to deal with emergencies, including external surgery, orthopaedics, dentistry, ophthalmology, gynaecology, obstetrics and paediatrics, and, if necessary, administering the drugs that they carried with them.

These instruments made it possible to have a quantitative measurement of symptoms – 'artificial' and therefore less subjective results – such as thermometers and sphygmomanometers, and from the mid-twentieth century onwards, also kits for the simplest laboratory chemical analysis of biological fluids.
In the Museum of Medical Instruments, the following devices are stored, stemming from donations from various doctors: a Galileo-Hellige haemometer with coloured prisms that measured the level of haemoglobin present in the blood as well as other equally widespread instruments such as the Sahli haemometer, the Thoma blood cell count for manual leukocyte count, and glucose meters for measuring glucose in the urine.
However, beyond the possibility for the district doctor to use this small laboratory that they carried with them during the visits, it is quite evident that their work was fundamentally focused on the patient, on the examination of their bodily symptoms and, through the interview, on the co-construction of the meaning of the illness experience reported by the patient.
In this way a relationship of trust and an exchange of promises was established between the doctor and the patient, whose objective was to promote the healing and above all the well-being of the latter.
This objective is very evident in the words with which Giuseppe Cernelli, in his book *Ultimo medico condotto* (Last general practitioner), describes the health situation of an Italy very different from the one we know today, despite the fact that only a few decades have passed: "The health and often the life of the people was entrusted only to the professional and human capacity of the district doctor, who was forced to operate with a major shortage of therapeutic means, often far from hospitals and pharmacies, where there was often a lack of equipment needed for emergencies, even oxygen"[16].
Through the practice of listening to the patient's account, or that of those speaking on their behalf, the doctor was able to disentangle themself from the multiplicity of components to be understood to determine a diagnosis and treatment method, in order to possibly achieve a restoration of health.
By means of *anámnēsis* – whose importance is unfortunately considerably reduced today – the district doctor obtained important information to carry out their function, simultaneously recalling and restoring a positive doctor-patient relationship and the ancient bond of familiarity between medicine and the human sciences.
The history-taking method is not exclusive to medicine nor does it originate from it, as it is used in many other disciplines. However, since the times of Hippocrates, doctors have made it a crucial point in the treatment process together with semiotics, that is, the observation of subjective symptoms and signs of disease that, in the absence of laboratory tests and specific diagnostic techniques, were long one of the few resources available to medical practice.
If we observe, in the cycle of frescoes of the Pilgrimage of the Hospital of Santa Maria della Scala in Siena, the scene of the *Care and governance of the sick*, painted

by Domenico di Bartolo between 1440 and 1441, we find an extremely realistic testimony of the very limited possibilities of clinical analysis that the doctors of the time had available, which were limited to the examination of the urine in the matula. At the same time, dialogue with the patient could at least partially compensate for this lack. To this we may add special care for the sick, as confirmed by the Statutes of 1305/1318 of the Sienese Hospital, that is, that it was necessary "to kindly receive the sick and the poor and to have doctors to help the sick" and that "each sick person should be welcomed 'graciously' and helped in his infirmity"[17]. Finally, the doctors and staff of the Hospital had to behave as properly as possible towards them, paying close attention to their modesty.

Teachers and students must therefore understand how necessary it is to find the right balance between what North American scholars call *disease* – an alteration in the functioning and structure of the body – and what they describe as *illness* – the subjective experience of the disease perceived by the patient.

By integrating scientific information on the disease with knowledge of the patient's experience, it is possible to get to know the complex articulation of the situation and attempt to find a positive resolution.

"This is why the young person who is preparing to be a doctor must necessarily also acquire different knowledge. He/She must know how to listen to the patient, being ready to understand what the sufferer has to say, bearing in mind that the patient can in some cases emphasize a symptom out of fear or a particular experience. The doctor must know how to communicate with a simple and accessible language, reassuring and explaining to what are the investigations intended to do and illustrate the diagnosis and the relative therapy. In other words, the doctor must deal in a dialectical way with the "person" before him/herself, and without having prejudices that may derive from cultural differences, life choices and values, perhaps not conjoined values. In this way he will be able to develop and implement a course of care in line with the indications that derive from Evidence-Based Medicine and at the same time personalized thanks to the indications received from the patient. This method, which in the Anglo-Saxon world is known as Narrative-Based Medicine, integrates precisely with evidence-based medicine and helps activate the active participation of the patient"[18].

It is, precisely, through this integration that it is possible to enhance the patient's contribution and, more generally, the relationship between the doctor and the latter[19].

On the other hand, explains Rita Charon, who founded the Narrative Medicine course at Columbia University in New York, "patients need doctors who understand their illness, listen to their problems and support them throughout their disease"[20].

The physician's consideration of the *illness experience* helps in understanding the causes of the disease but above all in determining the therapy and the stages after diagnosis, as well as identifying the possibility of the patient's active participation in the treatment.

From this point of view, the Medical Humanities can represent a fundamental point of contact between clinical disciplines and other study pathways, such as the social and behavioural sciences, and philosophy, but also the figurative and performative arts and museology itself, in order to bring the practice of healthcare back to its original function: a form of medicine that heals and simultaneously works for the protection of health and the well-being of individuals as a physical and spiritual whole.

It is therefore necessary to teach our students a method that allows us to 'take care' of the patient – with their individual and cultural characteristics – without absolutely abandoning the precious knowledge of Evidence-Based Medicine, instead integrating it to achieve ever greater objectives.

The Medical Humanities would therefore "be called upon to play an active role in the medical curricula, ensuring that the future doctor receives, in addition to training of a purely technical type, also the necessary tools to achieve an adequate conceptual and existential understanding of the patient's conditions. […] Not an additive juxtaposition, advanced by those who think that medical practice should be 'softened' by professionals who have some exposure to humanistic issues, but an integrative vision, according to which the status, objectives, methods and procedures of clinical medicine should be oriented by a comprehensive conception of the condition of the patient, inspired by ethical/existential as well as conceptual reflections developed within the Medical Humanities"[21].

In this way, through an adequate relational, care and support system, we can try to ensure that the sick person finds within themself the strength to face the suffering and changes that the pathology brings with it, setting up their full potential to react or discover hitherto unexplored parts of themself.

Medical Humanities, if included from the beginning of study programmes of degree courses in Medicine and in Healthcare Professions, serve to convey the message that listening, communication, understanding and relationship skills are also competencies to be acquired to complete their professionalisation and prepare them to better care for people.

"From this perspective, the biomedical sciences and the human and social sciences can inform teaching in a synergistic way to create the basis for building a productive relationship between doctors and their patients"[22].

In this way, we can contribute to the success of a very important goal: what Arno Kumagai, Vice-Chair of Education of the Faculty of Medicine of the University of Toronto, wrote very clearly on the university website: "We are devoted to educating future physicians to pursue distinction, not only in biomedical and clinical sciences but also in the human elements of medicine: to treat everyone with excellence, compassion, and justice"[23].

This, moreover, is what is provided for by Law 833 of 23 December 1978, establishing the National Health Service in Italy, which has as its basis the right to health sanc-

tioned on the basis of specific principles: the universality of the recipients, as citizens, the totality of the services, which provide not only diagnosis and treatment but also prevention and rehabilitation, equal treatment, respect for the dignity and freedom of the individual.

To conclude, let's borrow a line from the film *People Will Talk*, directed by Joseph Leo Mankiewicz in 1951, starring Noah Praetorius, a doctor particularly attentive to the needs of his patients, whose often critical actions with regard to medicine understood as a perfect organisation gives him a human dimension. He follows a precise philosophy in exercising his profession, based on the idea that "there is a big difference between curing a disease and making the sick well"[24].

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24. *People Will Talk* is a 1951 film directed by Joseph L. Mankiewicz, based on the play by Curt Goetz, from which the 1950 German film *Doctor Praetorius* was derived. The story is based on the talent and versatility of a doctor who has few diagnostic and therapeutic tools but is endowed with great humanity. Film has set the stage for this character on several occasions starting with David W, Griffith in *The Country Doctor* (1909), Henry King's *The Country Doctor* (1936), King Vidor's *The Citadel* (1938), and *Not as a Stranger* (1955) by Stanley Kramer.

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