

# Teaching the humanities to medical students

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**ABSTRACT – The decoding of the human genome offers great promise for the understanding and treatment of chronic human diseases at the last frontier. There is a widely recognised hazard that an exaggerated emphasis on molecular reductionism may lead to the loss of the essential humanitarian instincts of young doctors. To counteract this danger it is now accepted by many leading figures of the medical establishment that the undergraduate curriculum must evolve to incorporate a variety of subjects conventionally taught in the faculty of humanities at our great universities. In this article, the case is argued that the study of ‘medical humanities’ will enhance the empathy, communication skills, ethical standing and, paradoxically, the scientific literacy of the next generation of young doctors. As a clinical scientist, I cannot prove these assertions with an evidence base, but offer up arguments as qualitative or hypothesis generation.**

**Key words:** art, CPD, ethics, literature, medical humanities, narrative, philosophy, undergraduate education

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Among the German doctors indicted at Nuremberg in 1946 for crimes against humanity were tenured professors, clinical directors, personal physicians, the head of the German Red Cross and biomedical researchers employed by the pharmaceutical industry<sup>1</sup>. Many of these were considered men of refined culture, and the music of Wagner and Beethoven was often broadcast over the loudspeakers in the concentration camps. Culture alone does not make for a humane physician. The function of teaching arts and humanities to medical undergraduates is not to enable them to enjoy a night at the opera when they qualify, but to ensure that they make better and more humane physicians who would do everything within their power, even to the point of self-sacrifice, to save a life or to succour someone in mortal pain.

The developments of cell and molecular biology which impact on all human disease processes are taking an increasing share of curriculum time, with the ever present danger that molecular reductionism may somehow leave the whole patient behind. Yet, as

a clinician and a scientist, I want to resist falling into the popular trap of post-modern relativism in rejecting the scientific method in favour of some vague metaphysical notion of ‘holistic’ medicine.

There is a real danger of losing the humanity in the practice of medicine if subjects conventionally taught within the faculties of arts and humanities are ignored. I believe that the teaching of arts and humanities, in addition to ensuring that doctors practise in an ethical and humane way, will enhance their understanding of science and improve their communication skills, thus making them into better doctors.

## Can arts and humanities contribute to the science and practice of medicine?

Science and the arts are the twin pillars which support the cultural heritage of the west, yet little progress has been made since CP Snow’s seminal essays in 1959 demonstrated the separation of these two cultures<sup>2</sup>. The polarisation of these two bodies of knowledge is perpetuated by our education system to the impoverishment of all. Even the best educated among our political and academic leaders have lost close on 50% of their cultural inheritance, and the renaissance man has all but disappeared from modern society.

The arts/science dichotomy in the practice of medicine is entirely fallacious as both are integral to the skilled practice of modern medicine.

A revolutionary view of an undergraduate medical curriculum may see the profession of medicine as the natural bond between these two cultures. This would be of value not only for the individual doctor but inevitably also for the patient treated, and ultimately for society as a whole. Yet before we get carried away in our derogation of the scientist, let us remember that the members of the arts faculties are equally challenged in their understanding of science.

The spectacular advances over the last two decades in the development of the technology of molecular research have contributed to the advancement of science, yet have deconstructed the human subject to a molecular level. Unfortunately, we have so far been unable to reconstitute the complex organism of the human being up through the various hierarchical levels to that of a successful and healthy personality

existing comfortably within his own society. It is an exaggeration to argue that this reductionism resulting from molecular biology has led to the brutalisation of medicine, but it has certainly done nothing to contribute to the humanisation of our subject.

When treatments were least effective, the humanitarian instinct of the doctor was virtually all that was on offer. We have only to read the romance of Dr Finlay's case-book or look at the painting 'The doctor' by Fildes in Tate Britain, to appreciate this. However, as treatments become more effective, and the pace of change increases in the new millennium, doctors are in danger of becoming technocrats, arrogantly wishing to medicalise aspects of human behaviour which are strictly none of their business.

### Arts courses for medical students?

This was the question posed by Sir Kenneth Calman, then Chief Medical Officer, and Professor Robin Downie of the Department of Philosophy of the University of Glasgow, in their editorial in the *Lancet* in 1996<sup>3</sup>:

*Unlike Science which is concerned with the general, the repeatable elements in nature, medicine, albeit using science, is concerned with the uniqueness of individual patients. In its concern for the particular and the unique, medicine resembles the Arts. In its concentration on the repeatable patterns and laws of nature, science must of necessity be impersonal.*

### Evidence-based medicine

The gold standard for evidence-based medicine is the results from reproducible randomised controlled trials. However, some of the most important developments in the history of medicine, such as the discovery of penicillin or insulin, have not depended on the conventional modern standards required for evidence-based medicine. There is a need to appreciate the poverty of inductivism and the fertility of deductivism, whilst seeing the history of medicine as a series of paradigm shifts, as described by Thomas Kuhn<sup>4</sup>.

Perhaps the most dramatic intellectual shift in the history of medicine (which ultimately led to the death of Galenic doctrine) was the demonstration of the circulation of the blood by William Harvey. He predicted that there must be invisible channels linking the arterial and venous systems, approximately one hundred years before Antoni van Leeuwenhoek invented the microscope, which in due course was able to demonstrate these structures and spectacularly corroborate Harvey's predictions. Sadly, today there is a growth in the interest of alternative medicine, which in many cases is a return to the teachings of Galen. An intelligent medical student, armed with a knowledge of the history and philosophy of science, should be able to make the demarcation between scientific (rational) medicine and unscientific irrational or alternative medicine. At the same time, it would be a foolish and inhumane student who threw out the baby with the bath water.

### Philosophy and theology and teaching of medical ethics

Medical ethics are not absolute codes of conduct. They demonstrate an uncomfortable plasticity, with subtle variations emerging between different periods in history and different ethnic and cultural groups. Medical ethics may be driven by the law of the land or by medical technology, but very often medical technology runs in advance of the capacity for ethical control. The law is a blunt instrument which may belatedly react to some of the worst medical abuses or as a late reaction to public outcry. All ethical codes of conduct for the practice of medicine have their bedrock in philosophy and theology. For example, the Hippocratic oath, which is seldom recited today, probably emerged as a result of the teaching of respect for human rights and dignity at the time of democracy in Athens in 400 BC.

Theology is the basis of faith, and faith provides spiritual solace for patients at the time of suffering and when confronting the inevitability of death. The practice of religion can contribute to the healing of the spirit, but a clear demarcation has to be made between spiritual healing and healing of the body, although room must be left to speculate on the links that might exist between a spirit at peace with itself and a body best equipped to heal itself<sup>5</sup>. Nevertheless, we must beware of the quackery which finds fertile soil in filling the gaps vacated by faith in an essentially secular society. The 'new age' belief systems have led to a return to animism, idolatry, witchcraft, astrology and the magic bough (mistletoe). It is no exaggeration to say that the magic bough demonstrates a remarkable re-incarnation as Iscador, the most popular 'unproven' remedy for the treatment of advanced cancer.

### Literature and theatre

The study of literature and theatre might have three important roles in the education of doctors:

- rebuilding medical idealism
- deflating medical pomposity
- providing a window into social injustice and personal suffering.

#### Medical idealism

My generation of medical students read Axel Munthe's *The story of San Michele* and AJ Cronin's *The Citadel*. These stories fuelled our idealism, and there was no sense of shame in admitting at the interview for medical school entrance to the desire to become a doctor out of idealism and a wish to serve humanity.

#### Medical pomposity

In contrast, the inhumane, pompous and arrogant doctor who inevitably gets his comeuppance has been beautifully satirised in the works of Voltaire and George Bernard Shaw. Medical students should read the preface to *The doctor's dilemma*, as well

as the play itself. Sir Ralph Bloomfield Bonnington, the character satirised by Shaw, still exists among the higher echelons of the medical establishment, but sadly this attitude is also seen amongst young doctors who know all about molecular biology, on the one hand, or management jargon, on the other, but little about the feelings of the patient in the middle!

### **Social injustice and personal suffering**

*Social injustice.* Perhaps one of the best lessons in medical humility is to study the history of our subject and recognise that most of our added years of life and reduction in infant mortality has nothing to do with medicine but all to do with improvements in public health and the relief of poverty<sup>6</sup>. It was as much a result of the righteous indignation of idealistic politicians after reading the 19th-century novels of Charles Dickens as anything achieved by doctors at the time that contributed to improvements in the welfare of infants and young children<sup>7</sup>. This same sense of righteous indignation should be experienced by medical students reading some of the wonderful contemporary novels emerging from the Indian subcontinent or gained at first-hand by doing their elective in the developing world, getting out into the slums instead of spending time on Pataya beach.

This recognition of the impact of social injustice on health will educate the undergraduate in the true meaning of the ethics of distributive justice, health economics and the inevitability of rationing. It is the politician's right and responsibility to decide on what proportion of the gross national product should be allocated to welfare, housing and medicine. It is then left to the medical establishment to apportion their share of the cake to public health measures, primary healthcare or high technology medicine in the acute sector. The allocation of scarce resources within a just and humane society demands the recognition that our most precious resource is skilled manpower, and that the more of this allocated, say, to organ transplantation, the less will be available for the not so glamorous pursuits such as the care of the elderly, the chronically infirm or the mentally ill.

*Personal suffering.* Literature and the theatre also provide us with a window on personal suffering. We often talk about empathising with our patients, but this is a meaningless cliché without a genuine understanding of their fears and suffering. A prerequisite for sensitive doctoring is good communication skills; these depend on genuine empathy and the gift of listening. We should also exploit our patients' natural gift for story-telling and teach our students patience in listening to the anecdotes of old soldiers and sailors who were provided with free tobacco during the Second World War and have now been admitted to our modern high-tech hospitals with ischaemia of their lower limbs. Students should respect the gift of story-telling, and not be confined to the straitjacket of the conventional history: patient complains of ... , history presenting complaint, past medical history, etc.

Taken to the extreme, an individual's experience of disease and suffering, linked with a lyrical gift of poetry, literature and

the transcendental, can produce the most beautiful and moving prose<sup>8</sup>. For example, Gillian Rose, one of the most promising philosophers of our age, who had her life cut short by cancer, published a book shortly before her diagnosis entitled *Love's work*<sup>9</sup>. With the knowledge of what was awaiting her, it is extremely moving to read the following:

*I would like to pass unnoticed which is why I hope that I am not deprived of old age, I aspire to Miss Marple persona, to be exactly as I am, decrepit nature, yet supernature in one, equally alert on the damp ground and in the turbulent air. Perhaps I don't have to wait for old age for that invisible trespass and pedestrian tread. Insensible of mortality and desperately mortal.*

### **The history and execution of fine art**

Many patients have hidden talents yet, even in the absence of conventional artistic skill, some of the almost childlike and naïve pictures are enormously expressive and deeply moving to the observer. Art therapy is a unique vehicle for allowing patients with cancer to express hidden emotions and thus, to some extent, provide their own psychotherapy.

Good medicine is the practice not only of the science of the subject but also of its humanities. Central to the humanitarian practice of medicine is the development of good communication skills. Central to the development of good communication skills is the development of empathy. Empathy means trying to get inside the patient's head, to feel his or her fears and pain, a task that even the most empathetic of doctors can find extremely difficult.

The traditional link between art and medicine has been in the illustration of anatomy texts, and more recently in the illustrations in textbooks, in particular for the techniques of complex surgical procedures. The most famous textbook of anatomy was published by Vesalius in the 16th century; it was illustrated by Stephen van Calcar, one of Titian's ablest pupils.

Art is also a powerful teaching medium. Wittingly or unwittingly, great artists of the past have been skilled at illustrating the ravages of disease and deformity. This has been a subject of fascination for artists and doctors alike in the last few decades. For example, Masaccio's Cripple, illustrated in one of his frescoes of the Brancacci chapel in Florence, or the goitre of Dante Gabriel Rossetti's favourite model. My favourite is the inadvertent illustration of breast cancer in Rembrandt's moving painting of Bathsheba at her toilet in the Louvre Museum. The dimple in her left breast was drawn to my attention by an Australian surgical registrar, Peter Braithwaite. When this is shown to medical students, the impact is immediate. First, it demonstrates the clinical signs of breast cancer and that breast cancer is not a new disease and, secondly, it illustrates the natural history of breast cancer showing that, even without treatment, patients can live for ten years.

### **Musical performance and appreciation**

Music, like painting, can be therapy for the doctor as well as the patient, in either its performance or its appreciation. Many

physicians are amateur musicians and no doubt enjoy a release from the tensions of being a doctor when performing.

There is a fascinating link between the appreciation of music and of speech, yet there are paradoxical relationships between aphasia and amusia. Oliver Sacks, a physician and an accomplished writer, describes many such examples from his experience, in particular in his delightful book of short anecdotes *The man who mistook his wife for a hat*<sup>10</sup>. Patients with severe mental or neurological disabilities may be capable of appreciating or performing music at the highest levels. As with art, the great composers have suffered diseases that have affected their physical and mental well-being, which inevitably have had an influence on their creativity. This subject is covered in Philip Sandblom's monograph<sup>11</sup> and, more recently, by Anton Neumayr in *Music and medicine*<sup>12</sup>. The impact of Beethoven's deafness and the creativity of his latter years could be discussed in parallel with the effect on artists of disease, such as Monet's cataracts and his perception of the House of Commons at twilight.

### How can we make this all happen?

The political will of the medical establishment at the highest level is needed to introduce the arts and humanities into the undergraduate curriculum, together with adequate funding and space within an overcrowded curriculum. The political will has been unequivocally achieved. The second will need major funding that might be available through the Lottery Commission or the Millennium Fund. Perhaps most difficult will be to find adequate time in a curriculum already considered overcrowded and undergoing an upheaval with the implementation of the new General Medical Council (GMC) recommendations. However, the GMC recommendations on undergraduate medical education, *Tomorrow's doctors*<sup>13</sup>, has given the green light:

*As medical research advances it will inevitably become increasingly dependent on the ideas and techniques of other disciplines. On mathematics and physics in the elucidation of complex biomedical phenomena, on the social sciences and philosophy in confronting the wide range of cultural, environmental and ethical issues that will increasingly impinge on the problems of health. It is hoped that the student of tomorrow may be drawn towards some of these other disciplines and that opportunities to study for example, a language or to undertake a project related to literature or the history of medicine, may be offered.*

Whatever the specialty, any undergraduate teaching firm is the ideal setting for the teaching of narrative and, through narrative, to enhance the communication skills of the students, their capacity to both listen and empathise. An important paper by Tricia Greenhalgh and Brian Hurwitz in the *British Medical Journal* in 1999 described the justification for the study of narrative<sup>14</sup>. I have taken the subject one step forward by actively encouraging my students to collect the patients' narratives and write them up as literature, drawing on all the skills and enthusiasms that antedated their entry into medical school and which,

## Key Points

**An exaggerated emphasis on the molecular aspects of medicine may lead to the dehumanising of doctors**

**The introduction of the teaching of 'medical humanities' in the undergraduate curriculum will compensate for this risk**

**An understanding of the philosophy of science can make our students better scientists**

**An understanding of the philosophy of ethics can make for a more ethical approach to our patients**

**Art, literature, theatre and narrative can enhance empathy and, indirectly, communication skills**

**Doctors with better communication skills and sensitivity will improve patient satisfaction and go a long way to repairing the profession's tarnished image**

like any other talent, atrophy with disuse. To help and encourage them in this endeavour, I insist that they read literature outside their medical textbooks, promising them that this will become a labour of love.

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