



Doctors – paradoxes and possibilities

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REVIEW

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The role of 'doctor' has many possibilities to benefit mankind. Medicine can be a rewarding and fulfilling career. However, although much has been achieved by doctors, there is also the scope for them to do harm. In this review the author explores the five key roles that may be attributed to doctors: to relieve symptoms; to protect against pathogens; to guard against those who may be dangerous; to root out charlatans and to support the social order. The review serves to highlight the good that is done by medical practitioners but it also identifies certain acts of omission or commission by which doctors can harm the very people their profession is sworn to serve. For anyone involved in healthcare this review raises issues that are seldom discussed in print.

Introduction

Human societies have always sought explanations for suffering and pain. Illness has been variously attributed to witchcraft, demons, adverse astral influence, the will of the gods, microbes, poisons and, more recently, faulty genes. What is beyond doubt is that most human beings experience pain and other forms of suffering from an early age and the ability to relieve suffering has earned doctors high social status even when, in many cases, their prescribed treatments relieve symptoms but do not 'cure'.

The role of 'doctor' has been enshrined in social order since around 2650 B.C. when the first recognised 'doctor' Imhotep was physician to the then Egyptian king. Since then the medical profession has attracted many of the brightest minds

and doctors have been accorded an influential position in society. This influence is symbolised by their clothes, including white coats and theatre blues. Doctors work in distinctive buildings and enjoy relative prosperity. They have the right to prescribe dangerous drugs, order invasive tests and wield the iconic instruments of their profession. In return, society dictates that doctors must be truthful, should have high standards of personal hygiene, remain free of addictions or other vices and are able to present themselves as professionals. That means they have specialised knowledge, a "service before income" outlook and a code of professional ethics. In this respect, medicine has long been defined as a profession which includes *"The development of formal qualifications based upon education, apprenticeship, and examinations, the emergence of regulatory bodies with powers to admit and discipline members, and some degree of monopoly rights."*¹

Paradoxes

Doctors are expected to live by an oath which proclaims that the primary duty of a doctor is "First, do no harm."² Implicit is the notion that doctors could do more harm than good. The oath requires them to review every treatment with an eye to the possibility of iatrogenesis. It is therefore notable that the cost of harm that results from the side effects of treatment by doctors is substantial. For example it has been reported that

*"The total average costs for treating 12 [common iatrogenic conditions] is estimated at \$US 636 000 per 10 000 hospital discharges...equivalent to 2-3% of the annual budget for a typical Australian community hospital with 120 beds."*³

In addition, doctors are required to have a legally binding respect for the privacy of information imparted to them by patients. Nonetheless the safeguards to patient information can also inadvertently lead to harm. For example experts have concluded that patients are often confused about basic ethical, legal, and practical limits on medical confidentiality. The word "confidential" may not be understood by all patients, and many seem confused



over which medical information is protected, and how. As a result, patients often either underestimate or overestimate the extent of confidentiality protections, especially concerning preferences or assumptions about third-party payers' access to medical information. In some countries underestimating confidentiality protections leads some people to avoid seeking medical attention for fear that harmful or embarrassing information will be made public.⁴

Similarly, a 'good' doctor must also do everything in her knowledge and power to preserve life and or improve her patients' quality of life. In countries where the criminal code includes the taking of life as a penalty for crime, doctors are not expected by their professional body or required by law to participate in executions. Yet, the most infamous of instruments of execution – the Guillotine – was invented by a doctor.⁵

Despite the rhetoric that the health and well-being of mankind are the result of progress in medical science, the greatest strides in human health may be attributed to advances in sanitation and not to surgery or pharmacology. For example, it is estimated that there are 2.6 billion people without access to sanitation and, as a consequence, a child dies every 15 seconds.⁶ This is three times the death rate from malaria in Africa.⁷ Nonetheless, technical advances in the treatment of disease have altered the course of human history. In tracing the history of medicine, one might conclude that before the 18th century 'medicine', despite the power and influence of doctors, had little to offer. Doctors still did not know what caused disease. Some continued to believe in the 'four humours' of Greco-Roman Medicine, whilst other doctors supported the miasmatic theory which held that disease was caused by odourless gases in the air. It was only when medical technology started to advance that scope for doctors to make a real difference became apparent.

At the beginning of the twentieth century modern medicine came to be based on scientific advances and specialist knowledge. In time there came to be a perceived inequality of power between the doctor as expert and the patient as supplicant.⁸ This inequality, primarily based on the doctor's specialised knowledge, has been eroded over the decades, most notably in the past 10 years with the advent of the internet and the demise of the monopoly on information. A trend that may further reduce the influence of doctors in the coming decade.

The role of medical practitioner cannot be divorced from the social and political context. During the 1910s, medicine was closely influenced by the church in Europe. For example, permission of the clergy was mandatory before surgery could

be performed.⁹ Since then, other masters have come to the fore and in many countries the government or insurance companies dictate which patients must pay for their own treatment.

The role

- To relieve distress.

For their ability to relieve symptoms, doctors are the beloved of their patients. Doctors who are celebrated the most are those who have made it possible to relieve suffering and prolong life. Surgeons are perhaps the most favoured of all medical practitioners. The 18th century surgeon John Hunter (1728-1793) is sometimes called the 'Father of Modern Surgery'. At that time as paintings testify, surgery was, and sometimes still is, a brutal business. However, the reputation of surgery was greatly improved by the discovery of anaesthetics. As early as 1799 Humphrey Davy (1778-1829) realised that inhaling ether relieved pain. Rubber gloves, which allowed for cleaner operations were first used in 1890. In 1900 Karl Landsteiner discovered blood is divided into different groups. Lifesaving blood transfusions to this day depend on Landsteiner's discovery.

Consequently when we have cause to celebrate the achievements of our doctors, none are more newsworthy than the achievement of the gowned, gloved and masked surgeons. Therefore people now in their sixties may well remember where they were on the day that the first heart transplant was reported which was as momentous an occasion as the first lunar landing.¹⁰ More recently, the separation of conjoined twins by a team of surgeons in Melbourne Australia in 2009 was hailed a "Huge Miracle" in global media headlines.¹¹ Equally well publicised was the first full facial transplant performed by a team of 30 doctors led by Dr. Joan Pere Barret in Spain in 2010.¹²

Of equal note to advances in surgery, is the work of Michael Balint. As doctors are involved in supporting people to cope with acute illness or impending death they must be excellent communicators. Balint wrote extensively about the doctor-patient relationship; he was the first to explore this in the context of consultation with general practitioners. In his most famous work '*The Doctor, His Patient and The Illness*', he introduced the notion of the 'doctor as a drug', well known in the lexicon of modern general practice.¹³ Balint suggested that despite relatively modest advances in medical technology, at any point in time the 'doctor', through a powerful relationship with the patient, plays a critical role in



serving distressed and diseased human beings.

- To protect against pathogens.

Infectious disease continues to be a major cause of disease and distress among human beings. There have been notable epidemics recently, including severe acute respiratory syndrome (SARS). One near-pandemic lasted from November 2002 to July 2003, with 8,096 known infected cases and 774 confirmed human deaths (a case-fatality rate of 9.6%).¹⁴ Within a matter of weeks in early 2003, SARS spread from the Guangdong province of China to infect individuals in some 37 countries around the world. Mortality was more than 50% for those over 65.¹⁵ In comparison, the case fatality rate for influenza is usually around 0.6%. By May 2006, thanks to the efforts of medical practitioners, the spread of SARS had been fully contained, with the last infected human case reported in June 2003.

Another infectious disease, the Human Immunodeficiency virus (HIV), causes acquired immunodeficiency syndrome (AIDS)¹⁶ in humans, and is considered pandemic by the World Health Organization (WHO). Infection with the virus occurs by the transfer of bodily fluids. From its discovery in 1981 to 2006, AIDS is believed to have killed more than 25 million people.¹⁷ In 2005 alone, AIDS claimed an estimated 2.4–3.3 million lives. It is estimated that HIV infects about 0.6% of the world's population at present. A third of AIDS-related deaths are occurring in Africa, retarding economic growth and engendering misery.¹⁸ According to current estimates, HIV is set to infect 90 million people in Africa.¹⁹ In response, doctors offer antiretroviral treatment which reduces both the mortality and the morbidity of HIV infection.²⁰

More recently the Influenza A (H1N1) virus, a subtype of influenza, caused worldwide alarm. Some H1N1 strains are endemic in pigs (swine influenza) and birds (avian influenza). In June 2009, the World Health Organization declared a new strain, H1N1 capable of infecting humans, as the cause of a pandemic. This virus caused an estimated 17,000 deaths by the start of 2010. But by August 2010 WHO declared the H1N1 influenza pandemic over.²¹ The public was greatly reassured by the rapid development of a vaccine and measures taken in most countries to slow the spread, diagnose the illness and treat the victims. Doctors played a critical role in allaying anxiety if not stemming the spread of the infection.

- To protect patients and or society from behaviours that arise from mental illness

In most countries doctors are involved in identifying those who should be 'treated' in hospitals from those who should

be punished. Exhibiting behaviour that is strange or atypical is considered frightening, inconvenient or embarrassing and society has looked to doctors to protect it from 'deviant' and 'dangerous' individuals. Primitive cultures turned to witch doctors or shamans to apply magic, herbal mixtures, or folk medicine to rid deranged persons of evil spirits or manage their 'unacceptable' behavior.²² In the early part of the twentieth century, girls who gave birth out of wedlock in the UK and elsewhere were sometimes committed to psychiatric institutions because of what was classified by psychiatrists as deviant behaviour.²³

No longer restricted to the treatment of psychosis, psychiatrists sought to treat clients with a broader range of problems. Between 1917 and 1970 the number of psychiatrists practicing outside psychiatric institutions swelled. The term "stress" took on an increasingly broad biopsychosocial meaning, and was now linked to mental disorders.²⁴ Outpatient treatment was gradually expanded or introduced in some countries. Lobotomies, insulin shock therapy, electro convulsive therapy, and the neuroleptics came in to use by the middle of the last century.

A significant trend in this role is for doctors to be involved in the legal defence of 'normal' individuals exhibiting deviant behaviours by diagnosing temporary mental or physical aberrations. As a result there are documented cases of shop lifting, violence and other 'unacceptable' behaviours which were successfully defended in a court of law as a consequence of premenstrual syndrome.²⁵ Similarly, individuals found guilty of underage sex have escaped punishment when they were deemed to be exhibiting the 'unfortunate' effects of the menopause.²⁶ More commonly people have been certified as unfit for work because of 'stress' and 'anxiety' consequent not only to their work but to other circumstances in the patient's life. In a study of 13,000 medical certificates 'mild' mental disorder, which is arguably not incapacitating, accounted for nearly 40% of cases of people certified as being unable to work. In that study, claimants' age, addiction to substances of abuse, and deprivation were risk factors for relatively longer certified incapacity.²⁷

- To determine those who have the skills to practice medicine without supervision.

Many physicians are involved in assessing the competence of trainees, peers, and other health



professionals. However, it has been reported that they may not be as comfortable using educational assessment tools as they are using more clinically focused diagnostic tests.²⁸ Competence is not an achievement but rather a 'habit of lifelong learning'.²⁹ Assessment plays an integral role in helping physicians to identify and respond to their own learning needs. Ideally, the assessment of competence (what the student or physician is able to do) should offer insight into actual performance (what he or she does habitually when not observed), as well as the capacity to adapt to change, find and generate new knowledge, and improve overall performance.³⁰ It is said that current assessment formats for physicians and trainees reliably test core knowledge and basic skills. However, these assessments may underemphasise some important domains of professional medical practice, including interpersonal skills, lifelong learning, professionalism, and integration of core knowledge into clinical practice.³¹

Given the power and influence of doctors, they have a duty to keep abreast of the latest research. As a consequence, when relying on doctors to maintain their skills, we have to be aware of important gaps in self assessment that may ultimately impact on patient care. This includes doctors' capacity to maintain up to date practice and in some cases the all-important communication skills. There are several domains in which assessment remains problematic. Quality of care and patient safety depend on effective teamwork.³² Teamwork training is emphasised as an essential element of several areas of competence specified by experts, yet there is no validated method of assessing teamwork. Experts do not agree on how to define professionalism— let alone how best to measure it.³³

Medicine is a regulated profession because of the potential for harm to the public if an incompetent physician is licensed to practice. To protect the public from the unprofessional, improper, unlawful, fraudulent, and/or incompetent practice of medicine, each country has a medical practice act that defines the practice of medicine and delegates the authority to enforce the law to a medical board that comprises primarily of doctors. Doctors are expected to police their ranks by continuing to monitor the lists of licensed practitioners and maintaining a current list of licensees who have maintained and in some cases expanded their skills. In most cases this works well, although occasionally examples of rogue physicians who have found a way to circumvent the rules come to light. This has been found to be more likely when doctors move from one jurisdiction to another.³⁴

- To support the social order.

A final and controversial role played by doctors is to support the prevailing belief systems by ensuring that their

management of patients is consistent with social norms, customs and beliefs. Doctors must serve the best interests of their patients, but may feel, or actually be, constrained by the laws of the country in which they practice. In most cases there is not a significant issue however, when these occur they may lead to difficulties for both patients and doctors. For example until very recently it was illegal for doctors to perform an abortion in some catholic countries, and in many Muslim countries it still is. This is the case regardless of the circumstances in which the child was conceived.

In other countries doctors may be involved in the punishment and incarceration of people in ways that may be considered cruel and inhumane. For example in most countries imposing corporal punishment, the law specifies that a doctor must certify that a prisoner is fit to be beaten, and is also required to be present when the punishment is administered. The doctor's support for the judiciary in this way is contrary to the World Medical Association's Declaration of Tokyo and the United Nations' Principles of Medical Ethics.^{35,36}

Similarly doctors have taken a stand against their involvement in capital punishment. However, there are also ways outside of the execution chamber that health care professionals can collaborate in judicial executions in violation of their basic oath. One area where the medical profession and the death penalty collide is in the treatment of psychotic prisoners to render them 'fit' for execution, as illustrated by cases worldwide.³⁷

Conclusion

The role of doctor is replete with paradoxes and possibilities. On the one hand the doctor can relieve symptoms and protect or even save life, on the other hand many treatments do not offer any prospect of cure and in some cases may result in harm. Doctors can help to protect against pathogens, but most experts agree that the most significant improvements in the health of mankind can be attributed to sanitation rather than to the discovery of antibiotics. Doctors have helped to improve the lives of people with psychosis, but at the same time may have defended people guilty of misdemeanours by ascribing their behaviour to mental illness. Medicine is a regulated profession and yet occasionally the public is not protected from rogue practitioners. Finally, doctors may be involved in supporting the social order occasionally by participating in the malevolent actions of a vengeful penal code.



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