A Global Profession

Medical Values in China and the United States

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preface

In the 1960s, when the modern medical ethics movement began, it focused on resolving ethical dilemmas by clarifying, expanding, and codifying the values used by physicians to justify their actions and define their responsibilities. This focus on physician-centered actions and professional values shifted in the 1970s, as medical ethics was joined by bioethics, whose gaze largely was fixed on the extra-professional dimensions of ethics and used mainly to engage institutional, scientific, and social issues. As bioethics became the dominant form of health care ethics, both the scholarly exploration and the number of scholars devoting their work to the professional ethics of medicine declined—a fact brought home to the organizers of this Special Supplement as we sought to identify American participants for it.

This supplement presents the cross-cultural dialogue between Chinese and American scholars, held over four days in Beijing in May 1999 that explored comparatively the significance of professional values in medical practice, teaching, and research. Their reflections make clear that despite vastly different histories, China and the United States share many of the ethical values that define and order the medical life of physicians. We hope this comparative exploration of professional values will encourage renewed attention to research and teaching about them, and forge a determination to undergird the global expansion of health care with a globally accepted set of guiding professional values.

The meeting that generated the following essays and discussions, attended by approximately 200 Chinese and American participants, was sponsored by Beijing Medical University (BMU) under a grant from the China Medical Board of New York. The presidents of these respective institutions, De-bing Wang and M. Roy Schwarz; my fellow co-chair of the organizing committee, Tianmin Xu, director of the School of Humanities and Social Sciences at BMU; Dong Zhe, associate professor of English at BMU who translated the Chinese papers in this volume; and the committee members and discussion leaders from both countries who developed and explored the subjects of the meeting, have through their efforts earned our gratitude.

Stanley J. Reiser

introduction

China has a fine tradition in developing medical morals and medical ethics. We integrate education in ethics all the way through the training of medical students. As a new academic discipline, medical ethics is developing rapidly in the world. The Department of Medical Ethics at Beijing Medical University has taken the lead in China to teach medical ethics via a case report and case discussion approach, supported by a grant from the China Medical Board. Those efforts have gained fruitful outcomes, and Beijing's teaching approach has been recognized by awards in the academic world.

This conference affirms the medical ethics teaching model that we developed with the support of the China Medical Board. It will also promote teaching and research of medical ethics in China. The comparisons that follow of the professional values of Chinese and American doctors underscore the significance of this conference in the contemporary development of medical ethics. They highlight traditions of medical moral values, the effect of ethics teaching on the development of students' moral values, ethical issues in preventive medicine and in research, and the role of government agencies and social organizations.

I would also call your attention to a feature that distinguishes this conference from others: participation by a large number of medical students. Their conduct in future clinical practice will reflect the success or failure of our ethics teaching in medical schools. They are the practitioners of medical ethics, and their experience will be valuable to medical ethics teaching and the development of clinical ethics.

We have an old saying in China: "Bosom friends bring the geographical distance nearer." Our dream of perfecting our practice as professionals and our commitment to the ongoing development of medical ethics brought us together here in Beijing from all parts of the world. It is spring in May in Beijing. Spring brings life, and China has many well-known stories of how medical doctors have brought life back to people—our conference is a spring breeze and a life-giving doctor that brings us hope in medical ethics.

De-bing Wang

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On the cover: *Physician Taking a Woman's Pulse*, by Zhou Pei Qun (19th c.) watercolor. Courtesy Wellcome Institute Library, London.

On the Hippocratic Sources of Western Medical Practice

by ROGER J. BULGER AND ANTHONY L. BARBATO

One of the key figures in Western medicine is the fourth century Greek physician, Hippocrates. The Hippocratic Oath binds new physicians to the ethos and profession of medicine, while the Western tradition of scientific medicine traces its roots to the Hippocratic corpus. We will not attempt an exhaustive historical or philosophical analysis of the thinking of Hippocrates and his followers, but rather describe the most important Hippocratic influences still bearing on contemporary medicine in the West. We will highlight some of the major ideas found in notable quotations contained in the Hippocratic corpus, describing their centrality to and continuing life within the foundations of Western scientific medicine, and speculate briefly on other matters of some current importance.

Hippocrates and His Time

Hippocrates is thought to have lived from 460 to 370 B.C.E., during the great age of Greek cultural dominance. He was a contemporary of Aristotle and Plato, may have been friends with Democritus, and died a decade or so before the birth of Alexander the Great. He taught medicine on the Island of Kos, as had his father and grandfather before him, it is thought. One can postulate that the achievements of his long life were built on foundations laid by a long line of physicians. Indeed, scholars have had much difficulty in identifying with certainty which parts of the large Hippocratic corpus were written by Hippocrates himself and which may have been written by predecessors or by innumerable followers in the centuries after his death.

Roger J. Bulger and Anthony L. Barbato, "On the Hippocratic Sources of Western Medical Practice," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S4-S7

The great anthropologist Margaret Mead points out that prior to the Hippocratic tradition, the physician and the sorcerer tended to be the same person, and she credits the Greeks of the fourth and fifth centuries with forever making clear the distinction between the two.[1] The pre-Hippocratic practitioners of medicine were empiricists who used treatments indiscriminately or mystics who claimed control over nature through magic and ritual. Hippocratic medicine for the first time introduced a new approach based on reason in the natural order of things and a framework of scientific knowledge. As Pedro Lain-Entralgo characterizes it, Hippocratic doctors needed to know the illnesses they were treating, what remedy would cure the illness, and why the remedy worked. Along with this historic transition in the practice of medical skills evolved the concept of medicine as a technical "art," a body of scientific study to be mastered, taught, expanded, and documented.[2]

Hippocrates insisted on careful observation and the keeping of notes. He believed that the interaction of nature, the patient, and the physician determined the outcome of the illness. Contrary to what became central Judeo-Christian belief, Hippocrates did not believe that God placed the earth and nature at humanity's disposal or that humans were lords of the earth. Rather, he felt deeply that humanity worked within the confines of nature and must collaborate with it to achieve the best health and to avoid disease. He had in fact a remarkably broad concept of health and disease that is not now widely appreciated.[3]

The collected writings of the Hippocratic corpus comprise a kind of running textbook of medicine, carefully describing diseases and known treatments. Hippocrates detailed his treatment failures so that others would not repeat them. He followed his patients until the disease had run its course, even if it took months. He treated all comers, whether free or in bondage, and he describes the need to treat each person with dignity and the diseased body as

still sacred. Instead of incantations or prayers, the physician's art, his technique, required careful observation, clear thinking, and useful intervention without doing harm.

In fact it is the prohibition against medical harm that particularly sets the Hippocratic tradition apart. Certain injunctions are specifically spelled out in the oath (abortion, euthanasia, use of poisons). But a general instruction is found in *Epidemics:* "As to diseases, make a habit of two things—to help or at least to do no harm." This dictum is central to the ethos that emerges from the Hippocratic writings and formed the basis of the physician-patient relationship. By virtue of his knowledge and skill the physician was presumed to act as a benevolent authority in both technical and moral matters. He was to decide what was best for his patients and to make those decisions on the basis of competence. This formulation of a moral and technical prescription for doctors was not uniformly held by the body of Greek physicians. It represented a departure that set medicine and medical practice on a new course.

Enduring Values

The influence of Hippocratic proscriptions and examples still shapes the professional values of contemporary western medicine. That influence is perhaps best illuminated by considering examples of the ancient writings themselves. We do not suggest that our comments are unfailingly accurate or exhaustive; they represent our best understanding based upon many years of experience with the education of physicians at all levels of experience within our own cultural milieu. Nonetheless, we believe that the essence of our commentary would be widely supported by most thoughtful modern western physicians.

Consider the following passage:

> The life is short,
>
> The art long,
>
> The right time but an instant,
>
> The trial (of therapy) precarious,
>
> The crisis grievous.
>
> It is necessary for the physician to provide not only the needed treatment, but to provide for the patient himself, and those beside him, and for his outside affairs.
>
> *Aphorisms I*

Believed by many to be Hippocrates' own words, this poetic description of the context of the professional life devoted to medicine has shaped the culture of physicianhood; Dickinson Richards takes the aphorism to encapsulate the core philosophy of Hippocratic medicine.[4] It describes the need for patience, endurance, the toleration of ambiguity and uncertainty, and the ability to recognize sometimes evanescant opportunities to intervene effectively. It also affirms the importance of a commitment to seeing to all aspects of the patient's life (including familial circumstances) during the illness period. Even though the realities of the modern world preclude such a complete involvement of the physician in the lives of patients, Hippocrates' conception of broad physician support of the patient aimed at helping defeat the illness illustrates the need for understanding the whole person even as we seek to cure or ameliorate the effects of disease. The need for stamina, physical and mental, and life-long commitment on the part of the physician seem central implications of this first aphorism, even as it expresses indirectly the importance of the impact of the environment and surroundings on the patient, his or her illness, and the physician's efforts to provide successful therapy.

The relationship of the doctor to his patients extended beyond the technical, although for the early Hippocratic physician such considerations were probably driven as much by a sense of responsibility to a code of behavior as by a sense of moral responsibility to patients or to some broadly held sense of the social responsibility of medicine as a profession. Medicine was not considered a "profession" until several hundred years after the time of Hippocrates. The early Greeks saw the physician's work as a *techné*, a special skill or craft, and the importance of doing things well was a practical matter of protecting one's good reputation. The Hippocratic writings set the stage for the transformation of medicine as a profession in which, as Edmund Pellegrino and David Thomasma have pointed out, the nature of medicine imposes on the physician certain obligations to his patients and to his colleagues.[5]

The Woman of the House of Aristion. A case of fulminating diphtheria as described by Hippocrates:

> The woman suffering from angina (sore throat) who lay sick in the house of Aristion began her complaint with indistinctness of speech. Tongue red, and grew parched.
>
> On the first day, shivered and grew hot.
>
> On the third day, rigor, acute fever; a reddish hard swelling in the neck, extending to the breast on either side; extremities cold and livid, breathing elevated; drink returned through the nostrils, she could not swallow; stools and urine ceased.
>
> On the fourth day, all symptoms worse.
>
> On the fifth day, she died.
>
> *Epidemics III, Case VII*

This description of the clinical course of a patient's illness and trajectory to death exemplifies Hippocrates' belief in careful observation, written docu-

mentation, and steadfast commitment to learning from experience, and recognizes our vast areas of ignorance and uncertainty. The emphasis on a detailed record of the signs of illness and the patient's reaction to the disease represented a clear departure from what had gone on before. Each illness and each intervention by the physician was a lesson to be learned and to be passed on. Together these observations became the body of clinical knowledge.

In other clinical writings within the corpus, pragmatic solutions to clinical problems are carefully explained, with details such as when and how to intervene in certain head injuries and how to position broken bones for healing. This centrality of the role of clinical observation and learning from the examples life presents to the trained eye has become the basis of the concept of medicine as a profession in which every practitioner is potentially an active learner/researcher. In other writings, Hippocrates links practice and learning with the duty to teach and to pass the art on to others willing to take up the challenge, an animating idea within the present-day profession.

The Physician's Oath. One of the best known Hippocratic writings may not, in fact, be the work of Hippocrates himself but of his followers, possibly many years after his death.[6] Thoughtful commentators like Richards speculate that there are aspects of the oath that Hippocrates would not have liked. Many versions of the oath, for example, begin "I swear by Apollo . . ." and sequentially invoke others of the gods, although Hippocrates fought just this sort of religious intonation in matters of health (pp.35-37).[7] Thus many modern usages of the oath omit those initial invocations:

> I will look upon him who shall have taught me this art even as one of my parents. I will share my substance with him, and I will supply his necessities, if he be in need. I will regard his offspring even as my own brethren and I will teach them this art, if they would learn it, without fee or covenant. I will impart this art by precept, by lecture, and by every mode of teaching, not only to my own sons but to sons of him who has taught me, and to disciples bound by covenant and oath, according to the law of medicine.
>
> The regimen I adopt shall be for the benefit of my patients according to my ability and judgment, and not for their hurt or for any wrong. I will give no deadly drug to any, though it be asked of me, nor will I counsel such, and especially will I not aid a woman to procure abortion. Whatsoever house I enter, there will I go for the benefit of the sick, refraining from all wrongdoing or corruption, and especially from any act of seduction of male or female, of bond or free. Whatsoever things I see or hear concerning the life of men, in my attendance upon the sick or even apart therefrom, which ought not to be noised abroad, I will keep silence thereon, counting such things to be as sacred secrets.
>
> *Physician's Oath*

The oath was a code of conduct that transcended the existing culture and tradition for the good of the patient and for the good of the profession. Like all codes of professional ethics, it reflects assumptions about the physician as a moral person not only in specific medical prohibitions but also in setting out a code of personal conduct. Edelstein makes the point that the oath is a transcription of Pythagorean ethics into medicine—asceticism combined with a life of purity and virtue.[7]

For the Hippocratic physician, moral behavior was as much a practical matter of economic success and social standing as it was a moral matter. But within the Hippocratic writings the physician's ethic is transformed from one based on the craftsman's skill to one based on knowledge and competence, and ultimately, on duty and obligation to the patient. This ethos is still the dominant influence on how physicians see themselves as educated, set-apart, skillful clinicians who act in the best interests of patients and are at the same time mindful of their own good reputation and the reputation of the profession.

Taking the Oath

In assessing the impact of Hippocratic values on modern American physicians, one must note the extraordinary degree to which graduating medical students and their families and teachers support the public act of oath-taking. In the United States perhaps three decades ago, students noted the discrepancies between what most of them believed and some of the proscriptions specified in the Hippocratic Oath; thus modern oaths were written, or alternatives such as the Oath of Maimonides, written in the Middle Ages, were utilized at graduation ceremonies for the public "professing" of newly minted physicians. It has become the custom to allow students to choose their oath, and a remarkable trend has been the renewed prominence of the ancient Oath of Hippocrates in preference to the several others, which are every bit as idealistic, often more complete and conceptual, and certainly express particulars more in keeping with the beliefs of most of the community. How to explain this phenomenon?

We believe that today's physicians value the oath as a link to the profession begun 2,500 years ago, and which has prospered progressively since. Despite differences in philosophic detail with their predecessors in early Greek civilization, western physicians at the beginning of the third millennium A.D. find meaning in the concurrence of their ethos and aspirations with those of their earliest professional forebears. In a fast-paced world in which institutions and even

nations come and go with startling rapidity, there is great appeal to things of more abiding nature; and we sense that the tradition of the scientific healing initiated by Hippocrates is one of these abiding things. To many within the profession and within the society at large, this abiding tradition is embodied and best represented in the Oath of Hippocrates. One reads in the newspaper and hears on the television almost daily references made to whether physicians have broken with their oath by doing this or that or whether a policy or societal practice runs counter to the oath; such references are always made to the Hippocratic Oath, even though it is safe to say that most nonprofessionals have little knowledge of what the oath actually says. However, it clearly represents to the society at large a relationship, of the nature of a social contract between physicians and their patients, committing physicians to serve patients to the best of their ability, such that the patient's benefit takes precedence over the physician's self-interests. Reduced to its essence, this is the fundamental and sustaining element of the oath.

As modern professionals, we can utter the ancient words while ignoring the sexism and family-based biases explicit in the oath, reading our own specific terms into the general thrust of the oath, to pass on the art and to honor the teachers and to sustain the sense of commitment within a profession in a society in which such institutional or collective commitment is increasingly difficult to achieve.

The act of taking the oath then is in itself an act of commitment. Explicit within the Hippocratic Oath are three main ideas: competence, caring, and commitment. As a fundamental expression of medical ethics, the oath supports the primary obligation to competence on the part of the professional, a competence based on continued learning. Also apparent within the text of the oath is an attitude of caring for the suffering patient and taking responsibility in seeking always to promote the best interests of the patient. Absolutely foundational to our modern understanding of the nature of the professional relationship with our patients is the explicit recognition in the oath of the responsibilities of the physician to respect the patient's secrets and personal information and to eschew any activity that takes advantage of the patient's dependence and vulnerability.

Clearly also, there is within the text of the oath the requirement to make a special commitment, a commitment that may almost extend beyond the limits of a profession to the establishment of a priesthood. For some modern commentators, collaboration and supportive behavior among the physician group have been transformed into the requirement for collaboration among all health professionals on the modern caregiving team in order to promote the optimal conditions for patient benefit.[8] So understood, the precept for collaboration would stretch the profession of physicians to support and embrace its partner health professions within the context of evolving systems of health care. What might Hippocrates do were he suddenly called back to Kos to host a gathering of his followers under the famous plane tree? Would he limit attendees to those with M.D. degrees or would he examine clinicians from among the several other health professions for possible participation in his group?

We would be less than candid if we did not point out how much almost every one of these ideas and principles is being challenged within our democratic and entrepreneurial society in ways that seem both constructive and destructive. We are confronted by rapid change, and we have the responsibility to assess our fundamental values and to preserve those elements that remain cogent and practicable and right, while being flexible enough to compromise on some elements that may be good for us as individuals but of questionable benefit for our patients or for the society as a whole. And as our society becomes culturally more and more diverse we look forward to learning of other traditions to expand our understanding of what it means to be a part of the healing professions.

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6. See ref. 3, Richards, "Hippocrates and History."

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8. R. J. Bulger, *The Quest for Mercy: The Forgotten Ingredient in Health Care Reform* (Charlottesville, Va: Camden Jennings, 1999), pp. 99-108.

Medicine Is a Humane Art

The Basic Principles of Professional Ethics in Chinese Medicine

by DAQING ZHANG AND ZHIFAN CHENG

The value system of medical ethics in China has a long tradition that can be traced back to ancient times. Those values are reflected in the (Confucian) precept that "medicine is a humane art." That is, medicine is not only a means to save people's lives, but also a moral commitment to love people and free them from suffering through personal caring and medical treatment. Although this precept has been well accepted as the basic principle of professional ethics as a general principle that emphasizes doctors' self-accomplishment and self-restraint, there has never been a universally accepted professional code and binding principles in Chinese medicine comparable to the *Hippocratic Oath* in western medicine.

Medical Ethics in Ancient China

As in ancient Greek medicine, the professional values of ancient Chinese medicine arose with the development of medical professionalism itself. In ancient China, "profession" meant one's duties. During the Zhou Dynasty (from 1065-771 B.C.E.), an independent medical profession and medical system took shape, built around four aspects: dietetic, internal, surgery, and veterinary. Standards for evaluating, and paying, doctors were established. Thus the *Rites of the Zhou Dynasty* records that "at the end of each year, doctors are paid according to their medical performance, the highest payment to those who got 100 percent cure rate, the payment for 90 percent cure rate ranks the second, 80 percent the third, and so on."[1]

During the Spring and Autumn Period (770-476 B.C.E.) and the Warring States (475-221 B.C.E.), medicine began to divorce itself from witchcraft and became an experience-based knowledge and a professional skill. At the same time, professional physicians emerged as a distinct social class, no longer seen as wizards with superman skills but as ordinary technicians, whose relationships with patients and among themselves were being redefined. Codes of ethics and standards concerning medicine arose, and the emergence of schools of medicine laid the foundation for the development of formalized medical ethics.

In ancient China, folk physicians didn't have fixed clinics or hospitals but went from one place to another practicing medicine freely. They hadn't formal training and weren't licensed, but performed their work by their own skills and consciences. As a result, there were deceitful quacks as well as experienced, good-hearted physicians. Physicians also ran tremendous risks while practicing medicine. For instance, in the *Code of Hanmorabe* (1700 B.C.E.), there were severe punishments for physicians' wrongdoings. Wenzhi, a 5th century B.C.E. physician, lost his life for failing to cure Emperor Qi's illness. To preserve their own reputations and distinguish themselves from quacks and to protect themselves, values emerged among physicians and between physicians and their disciples, such as emphasis on prognosis and observation of codes of conduct. These values gradually formed the foundation of early medical ethics.

Unschuld identifies three protective mechanisms for physicians in medical history: sorcery, prognosis, and medical ethics.[2] We agree with Unschuld but we also think that these mechanisms are basically stages in the development of medical ethics. However, the evolution of these three stages isn't simply a substitute of one for another; there are overlaps among them and even coexistence of them. The first mechanism, sorcery, hinges on belief in ghosts and gods and supernatural power to effect treatment; it is the domain of wizards and magicians.

Daquing Zhang and Zhifan Cheng, "Medicine Is a Humane Art: The Basic Principles of Professional Ethics in Chinese Medicine," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S8-S12

The second mechanism, prognosis, rests on the advancement of medical knowledge and therapies and changes in people's conceptions about illness to believe that natural and reasonable factors cause disease. As physicians distinguished themselves from wizards and medicine lost the protective aura of magic, prognosis became the new protective mechanism. Ancient physicians paid great attention to prognosis and accumulated rich experience, codified in ancient medical books such as the *Canon of Medicine* and *Classic on Medical Problems.*[3] By judging whether a patient was curable or incurable, a physician decided whether to accept the case for treatment.

The third mechanism is formal professional codes, which function as guidance for physicians' behaviors and as a standard for distinguishing excellent doctors from quacks. And they enable the public to believe that when the code is adhered to, bad outcomes will be regarded as the work of gods or beyond human being's control.

According to the 1st century *Han Dynasty Records: Crafts,* from the eighth through the third centuries there existed seven schools of medicine as well as many other kinds of health-related practical schools. The various schools of medicine were both academic schools and professional groups, the germ of nongovernmental medical organizations. Some popular doctors, such as Bianque and Canggong, had a number of disciples. Bianque is said to have put forward the following standards for medical practice:

> medicine should not be offered in six circumstances, namely, to (1) people who have unreasonable arrogance and indulgence, (2) people who appreciate riches more than life, (3) people who cannot even keep body and soul together, (4) people who suffer from interlocking Yin and Yang, (5) people who are too weak to take medicines, and (6) people who don't believe in medicine but in sorcery.[4]

Although Bianque's "six taboos" are framed as practical guidance, they implicitly set standards for professional conduct and values and therefore can be regarded as a sort of medical ethics and code of conduct for ancient Chinese doctors. In this respect, Bianque's code had much in common with the ancient western medical codes.

Basic Principles of Medical Ethics in China

As more effective therapies were developed and physicians' professional status was consolidated, the protective function of professional medical ethics gradually weakened and its proscriptive function steadily strengthened. From the Han Dynasty (206 B.C.E.-220 C.E.) forward, Confucianism shaped the core values of Chinese culture. In medicine, the influence of the Confucian school is embodied in the precept that "medicine is a humane art" with its emphasis on caring about patients and on physicians' self-cultivation in virtue.

Confucian Medicine. Benevolence is the core of Confucian ethics. In Confucianism "benevolence" means, "to love the people." Confucianists saw medicine as a means to save people's lives by love. In the "Miraculous Pivot" of the *Canon of Medicine,* it was noted that a man who mastered medicine could keep the ordinary people as well as himself in good health, so that a harmonious society could be formed and maintained.[5] A prestigious physician of the East Han Dynasty, Zhongjing Zhang (150-219) said that only if they grasped medical theories and paid attention to medical treatment could the Confucianists realize their ambition of "loving the people."[6] Throughout the Song, Jin, and Yuan (10th-13th centuries) dynasties, many Confucianists rushed into the field of medicine and "benevolence" became the theoretical foundation of medical ethics.

The Confucian principle of "loving the people" enjoins three fundamental commitments. First, it calls for veneration of human life—the *Canon of Medicine* notes that there is nothing in the world more precious than human beings. Confucianism required doctors to be very cautious and responsible in the course of diagnosis and prescription in order to avoid mistakes that would harm patients. The philosopher Mencius said: "In medicine, benevolence means causing no harm to patients."[7]

Second, the Confucian principle also calls for respect for patients. The *Canon of Medicine* emphasized that doctors should not pose as those who bestowed favor, nor should they take advantage of their profession for benefits such as money or sex. Instead, they should fully respect their patients.

Third, the principle calls for "universal love," that is, to treat every patient equally, regardless of social status, family background, appearances, age, etc. In *The Essential Prescriptions Worth a Thousand Gold* the Tang dynasty physician Simiao Sun instructed, "Whoever comes to seek cure must be treated like your own relatives regardless of their social status, family economic conditions, appearances, ages, races, and mental abilities."[8] And Tingxian Gong, a doctor of the Ming Dynasty (1368-1644), severely denounced those doctors who treated patients unequally according to their family backgrounds.[9]

However, it was not the formulation of strict laws and regulations but individuals' cultivation of virtue that Confucianists valued: saving people by love reflected one's own virtue. In their eyes, conscience was the foundation of medical virtue, doctors should have a sense of pity, of shame, of respect, and of right and wrong. The "sense of pity" requires doctors to cherish life, to relieve patients' pains, and to keep them in good health. The "sense of shame" means that physicians should think of patients' interests first and be ashamed to serve their own interests; to reach a

diagnosis without performing the four physical examination methods (observation, auscultation and olfaction, interrogation, and pulse feeling and palpation), is a shameful means to abuse medicines and to deceive patients.

The "sense of respect" requires physicians to respect patients. The "sense of right and wrong" requires doctors not to do things that will damage patients' interests. Because doctors and patients are not equals, Confucianism also emphasizes that doctors should behave properly even without others' supervision and should not do to others what they wouldn't do to themselves. Tianchen Li of the Ming Dynasty said: "We should treat the patients as our mothers."[10] Boxiong Fei (1800-1879), a doctor famous during the Qing Dynasty, described the virtuous physician: "If I am sick, what kind of doctor do I expect to see? If my parents, my wife, or children are sick, what kind of doctor do I expect to meet? See from the patient's point of view, then the self-serving desires will vanish."[11] This emphasis on doctors' ethical cultivation is the major component of Chinese medical ethics.

Taoism and Buddhism in Relation to Medical Ethics. Taoism and Buddhism also influenced the development of medical ethics in China, themselves vigorously promoting the practice of medicine as a means of doing good. Taoism favors life and resents death. It regards being alive as the happiest thing and pursues immortality. Taoists pursue long life in either of two ways: by taking special medicines made from plants, animals, or minerals and by doing good deeds that benefit others. Five commandments are at the heart of Taoist religious codes. A Taoist is forbidden to kill any living thing, eat any meat or drink any alcohol, behave dishonestly, steal, or be sexually promiscuous. Central values in Taoism include loyalty, filial piety, politeness, trust, and humanity.

Buddhism is also a very important thread in the fabric of traditional Chinese medical ethics. To alleviate suffering and transcend the cycle of fate (*karma*) and rebirth, many Buddhists practiced good deeds by means of practicing medicine. Among China's early physicians were many well-known Buddhist monks, like Jianzhen of the Tang Dynasty who was not only a famous monk but also an outstanding doctor of great attainments.

The commandments of Taoism and Buddhism were introduced to the medical profession, and to some extent promoted the establishment of medical ethics and helped popularize doctors' codes of conduct.

Thus Chinese medical ethics came into existence in the course of conflict and convergence of many cultures. In medical ethics, as a discipline of applied ethics, various ethical theories and principles are fully embodied in medical treatment. Hence the major religions and philosophical systems of ancient China—Confucianism, Taoism, and Buddhism—had great influence on the formation and development of Chinese medical ethics. But its traditionally important position made Confucianism the core of medical ethics. Even so, and despite the fact that many doctors promulgated ethical standards over the history of Chinese medicine, a single, universally accepted code of ethics in medicine did not come into existence.

Traditional Chinese Medical Ethics

Chinese culture pays special attention to moral evaluation. This is fully characterized by showing filial obedience, being amicable to others, respecting ordinary people, and appreciating morality. Confucius taught that everyone had a sense of right and wrong; people could tell what they should do from what they should not do. Confucianism instructed people to tell right from wrong by self-examination rather than by proposing standards or codes of conduct to restrict people's behavior. Under the influence of the Confucian tradition, self-examination, self-criticism, and self-restriction became the core components of doctors' moral self-cultivation. Many believed that only with such right conduct and moral self-cultivation could the physician cure. Just for this reason, in ancient Chinese medical ethics it is hardly possible for us to find unified and legislative ethical standards like those in the Western world.

Traditional Chinese medical ethics also emphasized individual self-cultivation over uniform standards, in part because the traditional system of medicine was composed mainly of private physicians. There was no unified administrative system. Early China was mainly an agricultural society, in which families were the productive units. Although there were trade organizations similar to those of the Western world, they were much less steady and less influential—Shuming Liang, a famous philosopher, thought that ancient China lacked organizations.[14] Thus medical education and practice were characterized by individualism and familism, with medical associations or organizations lagging behind. And because doctors had no close connections or contact with one another, and their economic interests were not seen to be in conflict, competition in the medical profession was not severe. Thus there was no need to formulate universally accepted and binding codes of ethics; doctors' self-discipline sufficed.

Another important characteristic of Chinese traditional medical ethics lies in its medical education. Medical education in China developed very early in the historical period, but its main purpose was to train doctors for royal courts, where they worked as servants to the nobility. Under this condition, the theories and practice of medical ethics could not achieve any normal development. Those who were going to practice medicine for ordinary people were trained mainly by families or through apprenticeship.

These differences meant that the issues which concerned Western and Chinese medicine were also quite different. All in all, where Western medical ethics emphasized the standardization and systemization of medical practice, ancient Chinese medical ethics focused more on personal virtues.

Medical Ethics in Modern China

With the introduction of Western medicine beginning in the nineteenth century, China's medical system has changed tremendously. A new type of medical system has emerged and a new perspective on professional ethics has gained people's attention. For example, the emergence of hospitals has changed the medical system in China from the traditional individualized practice to group practice. This change has also brought new requirements for doctors, who now are responsible not only for their patients, but also for their hospitals and the whole society. And they are expected to cooperate with their colleagues and make new medical technologies known to others.

Medical organizations are a major means for socializing professionals. They play a vital role in promoting academic exchanges, adjusting common interests, and settling internal disputes. The Chinese Medical Association (founded in 1915) aims to consolidate collegiality among doctors, respect medical ethics and rights, promote public access to medicine and hygiene, and liaise with medical professionals at home and abroad. Other contemporary medical organizations include: the Republic of China Medical Association (1915), the Chinese Pharmaceutical Association (founded in 1908 in Tokyo, and later moved back to China), and the Chinese Nursing Association (1909). Each has promulgated its own moral standards or rules. In 1929, the National Doctors' Union was founded in Shanghai. Its goals were to promote medical research, to promote and protect practitioners' rights and interests, and to help the government formulate laws and regulations governing the practice of medicine. The National Doctors' Union also drafted provisional regulations for physicians that defined professionals' qualifications and duties, and established mechanisms to protect doctors and to punish deviant practitioners. The emergence and development of medical organizations has promoted the formalization of professional ethics, especially the establishment of universally binding codes for medicine.

Meanwhile, Western theories of medical ethics and professional standards of medicine were introduced into China. In 1912, Fengbing Yu translated the then latest professional standards of the American Medical Association. At the end of 1930s, Henry Ying, a foreign physician, translated *Moral Regulations on American Medicine,* and a Chinese scholar translated the Hippocratic Oath, giving China a relatively complete view of Hippocratic values for the first time. And in 1944, the famous medical historian Jiming Wang, briefly outlined western medical ethics, contributing further to the development of China's modern medical ethics.

At the beginning of this century, medical practice in China was quite disorganized. The government attended to regional conflicts, not the medical industry. Licensure was not required, and practitioners included doctors of traditional Chinese folk medicine, missionary physicians, foreign-trained physicians, and graduates of Chinese medical schools. There was conflict among various sects of medicine, and the development and practice of medicine were hampered.

This situation compelled doctors to seek new means for professional oversight and self-regulation. Many stressed the inherited precept that medicine is a humane art, warning that the profession should not be misled to pursue fame and benefits. Fengbing Yu proposed four taboos for doctors, namely, (1) not to be snobbish but to treat every patient equally regardless of background, (2) not to be arrogant but to be modest, (3) not to be envious but to respect their colleagues, and (4) not to be deceitful.[12] Guobing Song saw in medical ethics a means to overcome the continuous disputes and conflicts that afflicted medicine. He thought that to be a doctor, he should have the spirit of love and that medicine should love every one. He also drafted many moral standards for the medical profession, including the graduation oath for the Medical College of Fudan University and the creed for the Shanghai Doctors' Union. In 1933 he published China's first monograph on medical ethics, *Professional Ethics of Medicine,* which was warmly welcomed by many medical professionals.[13] That fourteen scholars, including the famous medical educator, Fuqing Yan, wrote the preface for this book, suggests how urgent was the need for a common guiding principle to standardize physicians' conduct.

Contemporary professional ethics are founded on a socialist collective spirit and theory of social responsibility. To heal the wounded and rescue the dying, to practice revolutionary humanitarianism, to serve the people wholeheartedly, and to follow the spirit of "never being selfish but always ready to help others" have become the principal values of medical ethics. Under China's planned economy, medical institutions were financed by the government. For quite a long period of time, China had a stable medical care system, service delivery institutions, medical personnel, medical technologies, and expenditure. Conflicts of interests among various sectors of health professionals were not serious and ethical problems in medicine were not conspicuous.

Since the 1980s, this situation has changed greatly. With the transition of our planned economy into a market one, once-hidden contradictions in our system of medical care have

become increasingly conspicuous, and new problems have arisen. Conflicts of interests between the government and medical institutions, between medical institutions and medical personnel, between physicians and patients are getting more and more serious and complex. With the introduction of a market economy, traditional concepts of value have been challenged by new ones. Meanwhile, the rapid development of medical technology has also brought to China the same problems being faced by Western developed countries: high technologies not only brought us hopes of cure but have also created a heavy economic burden. And the ethical dilemmas of high technology medicine—brain death, organ transplantation, and concerns about quality of life—have become increasingly prominent. These ethical problems can't be solved only by the basic principles of "healing the wounded and rescuing the dying, practicing revolutionary humanitarianism, and serving the people wholeheartedly." A new and more specific code of ethics must be developed to meet the demands of social development and medical service.

Thus the Medical Ethics Council of the China Medical Association, founded in 1988, has promulgated ethical values that must guide health care reform, namely, full consideration of the interests of both doctors and patients while putting the patients' interests first; attention to both quantity and quality in medical service, but emphasizing quality; seeking both social and economic benefits, but giving priority to social benefits; taking into account both obligations and rights, but assuring that credit and reputation are given primary consideration. And it drafted the "Pledge of Professional Ethics for Members of the China Medical Association." Also in 1988 the Chinese Ministry of Health adopted "Ethical Standards for Medical Personnel and Its Implementation," the first standard, universally binding professional code in China.[14] The "Ethical Standards" list concrete requirements for medical personnel. The most important commitments are to heal the wounded and rescue the dying and to practice revolutionary humanitarianism. At the same time, the standards stress respecting patients' dignity and rights. According to the standards, medical personnel are asked to show every sympathy and consideration for the patient, not to take advantage of medicine to serve their own interests, not to reveal the patient's privacy and secrets, and to respect their colleagues. This new code integrates the traditional medical ethics with modern principles and values.

From a cross-cultural perspective, the early medical ethics of the West and China share many similarities. The evolution of medical ethics has passed from prognosis to code of conduct and then to values. With the development of medical professionalism and the establishment of medical systems influenced by different religious and philosophical ideas, the development of Chinese medical ethics also differed in many features from that of Western medicine. Under the domination of Confucianism, "medicine is a humane art" became the basic principle of early medical ethics in China, resting on doctors' individual self-cultivation of doctors. Later, with the introduction of Western medicine and the establishment of modern medical systems, people in the medical field began to attach more importance to the construction of a popular code of medicine that nonetheless preserved inherited medical ethical values. Today, our country is experiencing the transition from a planned economy to a socialist market economy, and it becomes even more important for us to strengthen a universally binding code of medicine. Yet no matter how rapidly medical technologies develop and no matter how greatly health care systems change, the concept of medicine as a humane art will continue to flourish in China. It is possibly the very essence of medicine.

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The Efficacy of Professional Ethics

The AMA Code of Ethics in Historical and Current Perspective

by ROBERT BAKER AND LINDA EMANUEL

The expressions "professional ethics" and "medical ethics" were coined by Thomas Percival (1740-1804), a philosophically trained English physician famous in his own lifetime for writing moral tales for children, for championing the abolition of slavery, for founding one of the first departments of public health, and for publishing a book in the penultimate year of his life, Medical Ethics: A Code of Ethics and Institutes Adopted to the Professions of Physic and Surgery.[1] Medical Ethics was inspired by outrage. In 1792, the fever hospital of the Manchester Infirmary closed its doors to patients in the midst of an epidemic. The reason: a quarrel between staff members. After the incident, the infirmary's trustees appointed Percival to head a committee charged with drafting rules of conduct to insure that disputes would never again shut down the hospital. The committee developed a set of sensible rules, but that did not settle the matter for Percival. He appreciated that a new, collaborative form of medical practice was emerging in hospitals, and he believed that it would require a different conception of medical morality. Accordingly, he spent a decade developing a conception of "professional ethics"[2] that vests medicine's prime moral mandate, the duty of caring for the sick, in the medical profession collectively, rather than in the individual practitioners who had been the traditional focus of medical morality. Percival believed that by acting collectively, medical professionals could challenge hospital administrators who promulgated directives that failed to serve "the health and the lives of those committed to their charge."[3] And he gave voice to a notion of professional advocacy, in the sense of advocating for the interests of patients and public health in discourse either with government or the private sector.

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Like most revolutionary ideas, Percival's required new ways to express them. His codes contain the earliest known use of the expression "physician in attendance," or "attending physician."[4] And they redefine the range of patient. Physicians had hitherto applied the term only to paying clientele in the middle and upper classes, differentiating "patients" from the "sick poor" whom they treated in hospitals. By using patient for all sick people, Percival extended the elaborate code of conduct employed by medical professionals in their dealings with upper and middle class patrons to the nonpaying poor.[5] To encapsulate his radically different concept of professional medical morality Percival coined the neologisms "professional ethics," distinguishing it from the narrower "medical ethics."

The Professional Medical Ethics of the American Medical Association

It is one thing to propose radical changes, and quite another to actually change the world radically. Percival's rules for pacifying hospital disputes were emulated around the world. But his revolutionary reconceptualization of medical morality—"medical ethics" and "professional ethics"—had few followers in Europe.[6] In America, however, physicians and surgeons were drawn to Percival's vision of a self-regulating profession. Commencing in 1808, just five years after the publication of Medical Ethics, the Boston Medical Society appropriated Percival's language to develop rules for self-regulation—a "Medical Police"—copying word for word some of the consensus-generating procedures that Percival had proposed. After decades of experiments by dozens of municipal, county, and state medical societies, the stage was set for the first entirely Percivalean code of professional ethics, the code adopted by the fledging American Medical Association in 1847.[7]

The AMA was designed as the embodiment of the Percivalean ideal of professional self-regulation and one of its

first acts was the adoption of a code of ethics. The AMA code put patients' interests before professional interests—the code opens by asserting the physician's duty to "obey the calls of the sick."[8] It specifies the physician's duties to patients ahead of all others, thereby inverting the tradition, set by the Hippocratic Oath, of treating intraprofessional relations as prior to the physician-patient relationship, and stipulates that "every case committed to the charge of a physician should be treated with attention, steadiness and humanity"(p. 75). The code also states that physicians have a duty to "give counsel to the public in relation to matters especially appertaining to their profession" (p. 86), especially "in regards to measures for the prevention of epidemic and contagious diseases." The code ascribed a duty to treat "even at jeopardy of [physicians'] own lives" (p. 86) and committed the profession to purifying the drug supply by using its influence to discourage the manufacture and sale of "quack or secret medicines" (p. 87).

Since 1847 the AMA has revised its code of ethics substantially—in 1903, 1912, 1957, and 1980. Today the code has four components: concise statements of its "Principles of Medical Ethics"; supplementary "Fundamental Elements of the Patient-Physician Relationship" and "Obligations of Patients"; the opinions of the AMA's Council on Ethical and Judicial Affairs, treating specific facets of medical ethics and the rationales underlying the opinions. Through all the expanded analyses and applications of core precepts, certain themes have been continuously reasserted. Foremost among them is the centrality and "humaneness" of the physician-patient relationship (CEJA, Principle 1). And as in 1847, physicians are still held to have an obligation to advise the public (CEJA, Principle 1).

Percival presumed that professionals in hospitals would form committees to administer his code of ethics. At first, however, the AMA failed to provide any such mechanism for interpreting or enforcing its code. Within three years this omission was remedied by the formation of a committee on ethics. In 1873 this committee received greater powers and was renamed the "Judicial Council," which in turn evolved into the current Council on Ethical and Judicial Affairs. In 1903 CEJA became a council of the AMA's formal representative body, the House of Delegates (from which its members are appointed), and its mandate was broadened to serve as a disciplinary mechanism for members held to have violated ethical standards. In 1936 CEJA was given the additional power of conducting investigations. These structures evolved in an effort to put the processes for setting ethical standards at some appropriate distance—insulated but not isolated—from political and economic forces. To avoid excess political pressure, the House of Delegates cannot make amendments to CEJA's reports and opinions. It can only pass the item or return it to CEJA for reconsideration and possible revision. In assessing the impact of the AMA's code of ethics, it is important to appreciate the role CEJA's independence plays in preserving the credibility and thus the efficacy of the AMA's professional ethics standards.

The issues CEJA addresses in its reports and opinions are chosen in a number of ways: the House of Delegates can vote to require CEJA to report on some issue; a biannual open forum allows any member or other person to raise and discuss topics; members of CEJA can raise a topic; or the support staff, which includes lawyers, physicians, and career ethicists, may suggest issues to CEJA. To become official AMA policy, published in CEJA's code of ethics, however, each report or opinion must be approved in a vote of the House of Delegates.

As the organizational tool that the AMA uses to censure and expel members for unethical conduct, CEJA also provides "due process" for disciplinary actions. Individuals are given a hearing that may result in suspension of membership for a probationary period or permanent revocation of membership. The AMA does not have jurisdiction to remove a physician's license to practice medicine; however, membership denial carries sufficient weight that physicians go to considerable lengths to avoid it. Both because formal mechanisms providing due process are expensive and time consuming and because expulsion exposes organizations to the risk of litigation, organizations generally avoid expulsion as a means of self-regulation. (The AMA tends to confine its cases to those that have already been through an external judicial review, so that pre-existing reliable fact finding can be used.) An organization's willingness to expend substantial resources on the process presupposes a deep commitment to enforcing ethical standards.

Gauging the Effects of Codes of Ethics

Do the principles espoused by the AMA actually shape physicians' professional behavior? As early as 1874, Roberts Bartholow's experiments on the brain of Mary Rafferty, a "feeble-minded" (and hence incapacitated) patient, were condemned at a meeting of the AMA House of Delegates as incompatible with "the spirit of our profession, and . . . our feelings of humanity."[9] Ideals of humanity, human dignity, and human rights were at the conceptual core of the AMA's century-long challenge to the ethic of utility often adduced by researchers to justify their experiments on uninformed, unconsenting, and incapacitated patients.[10] The issue came to a head in 1946 when Andrew Ivy, the official AMA observer at the Nuremberg doctors' trial, reported to the AMA on war crimes committed by physicians.[11] Responding to Ivy's report, the House of Delegates adopted three principles to protect experimental subjects' "human rights," including the requirement of informed consent.[12]

These principles, in turn, were integrated into the Nuremberg Code,[13] thereby influencing all subsequent codes of ethics governing research on human subjects.

This example suggests the influence of the AMA's code, but it nonetheless fails to address the question: do professional medical ethics really make a difference to the public? to patients? or even to the conduct of medical practitioners?

One way of assessing the extent of the AMA's commitment to its own ethical ideals is to review its actions on commissions, rebates, fee-splitting, and other matters involving doctors' financial interests in the persons and products that they recommend and prescribe.

Questions about physicians' referrals, and consequently about commissions and secret fee-splitting, became important in the late nineteenth century with the development of medical specialties. The issue was first raised before the AMA in 1900, when the House of Delegates *rejected* a resolution condemning "commissions or a division of fees under whatever guise it may be made," arguing that "it would be impossible for this Association to get at the truth . . . on all such questions."[14] Within two years, however, the House of Delegates devised a practical way of investigating complaints of fee-splitting—turning the investigations over to county medical societies—and subsequently approved a resolution empowering county medical societies to expel members "guilty of division of fees, either the giving or receiving of part of a fee without the full knowledge of the patient."[15]

Some societies were evidently reluctant to investigate their own members. Consequently, in 1924, CEJA was empowered to investigate and recommend the expulsion of any "county society found to enroll so many fee-splitting, or otherwise unethical, members as to render it impossible for that society to enforce the ethical standards of the medical profession."[16] From the 1920s onward,

Doctors Differ and Their Patients Die, 1794, color etching, Laurie & Whittle, London

the AMA extended the campaign against self-referral to encompass physician-owned diagnostic laboratories, health care appliance outlets, pharmacies, as well as hospitals, and home health agencies in which physicians had a financial interest. It also continued its campaign against the direct physician dispensing of drugs, traditional fee-splitting, and commissions or rebates for "steering" patients to specific commercial organizations and laboratories.

We grant that the AMA was also involved in other activities that seem less noble-minded. However, the organization's century-long struggle with fee-splitting provides an example of the AMA's commitment to taking its code of ethics seriously.

Acting in accord with the Percivalean notion of professional advocacy, in 1848, 1849, and 1854 the AMA petitioned Congress about controlling the importation of adulterated drugs,[17] and in 1891 approved a lobbying effort to convince the U.S. government to undertake "the identification and analysis of drugs."[18] In 1854 an AMA committee was formed to work with the federal government on issues of "vital statistics and the sanitary police of the nation";[19] in 1880 the House of Delegates proposed a National Board of Health[20]—all efforts that bore little initial fruit.

It also formed an official alliance, The National Pure Food and Drug League, with national magazines, such as *Ladies Home Journal*,[21] the Federated Women's Clubs of America, and the Consumer's League. In 1898, the AMA had established a Committee on Legislation to reshape Congress's legislative agenda. The committee had two initial objectives: to protect scientific research by heading off national antivivisection laws, and to establish a National Board or Department of Health.[22] The committee's systematic lobbying quickly suppressed the anti-vivisection bill and in 1903 convinced Congress to set up the U.S. Public Health and Marine Hospitals Service (now the U.S. Public Health Service).[23]

In 1905 the AMA set up a Council on Pharmacy and Chemistry to set drugs standards for its own members and for "ethical" drugs that could be advertised in its own journals and those of affiliated medical societies.[24] And in 1906 the committee enjoyed

its second major triumph with passage of the Pure Food and Drug Law and the founding of the Food and Drug Administration.

Thus in the first decade of the twentieth century, the AMA organized and systemically fostered the development of institutions essential to fulfilling the commitment first made in its 1847 code of ethics, to serve the public health by purifying drugs and fighting epidemics. Critics of the AMA sometimes dismiss these efforts, observing that it was easy for doctors to lobby for food and drug regulation, and for a public health service, because they were neither in the food nor the drug business; nor were they in the business of providing public health services.

Such criticisms miss the deeper point. The AMA had pledged to put the public's interests first, just as it had pledged to put its patients' interests first. In both cases it acted systematically to realize this commitment, even though these actions did not serve the financial interests of its members.

The AMA Today

In the late 1980s and early 1990s the AMA recognized the need for renewed articulation of professionalism and new applications of the principles of humaneness and of serving patient and public health needs. In addition to its Institute for Ethics, founded in 1996, the AMA has formed an interdisciplinary group on accountability in medicine to develop validated measures of professional behavior for health service groups and all others influencing medicine (including the government, employers, labor unions, insurance groups, accreditation groups and others).[25] It has worked with the Robert Wood Johnson Foundation to launch a "train the trainer" program in end of life care to revitalize the lagging commitment in professionalism to care for those who are incurably ill.[26] These and other programs were launched not only for their independent merits, but in recognition that the articulation and continuous reapplication of professional principles is essential if a culture of professionalism is to survive, much less thrive and influence society.

Percival envisioned a medical profession that could and would embrace an ethics subordinating the personal interests of its members to those of its patients and of the public. The American medical profession was the first to embrace Percival's ideas, and through such organizations as the AMA it has attempted to live up to them. As Percival saw so perspicuously, professional ethics could make a difference not only to the conduct of professionals but to the patients and public they serve.

Acknowledgment

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The Role of Medical Associations in Developing Professional Values

by YONGCHANG HUANG AND BENZHENG KE

Thousands of health professionals who share common interests enroll in associations by their own choices. In China medical associations are academic organizations classified by specialty, and membership is voluntary. Medical associations are not trade guilds, nor are they family or religious groups or professional societies. Each has its own constitution. They include the China Medical Association (CME), Chinese Academy of Preventive Medicine, Traditional Chinese Medicine Association, Chinese Nursing Association, Chinese Pharmaceutical Association, and Chinese Association of Combined Chinese Traditional and Western Medicine. Some were founded nearly 100 years ago, such as the China Medical Association, founded in 1915; the Chinese Pharmaceutical Association; and the Chinese Nurses' Association (now the Chinese Nursing Association), founded in 1909. Other early modern organizations were "Benevolent Doctoring," founded in 1897 in Shanghai; the Shanghai Chief Association of Medicine (1906); and the China Medical Research Institution (1904).[1]

Medical associations in China are expected to establish professional standards (both technical and ethical) to guarantee individual or public health, to disseminate knowledge of new medical advances and techniques, and to spread medical ethics. Each association is expected to protect its members' interests as well. Members are expected to contribute their membership responsibilities and enjoy corresponding privileges. They are given opportunities to carry forward medical science by publishing their new findings and exchanging their ideas in the association's academic forum or journals, and receive the latest medical information to promote individual academic ability and moral values as well. Medical associations in China are thus both academic organizations designed to spread medical knowledge and ethical organizations that cultivate medical ethics.

Contemporary medical associations are the product of modern science and technology, but they have ancestors in

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China's long history. The earliest medical association, Yititang Association of Benevolent Doctors, was founded in 1568 during the Ming Dynasty by Xu Chunpu, the emperor's physician.[2] The tenet of the association was to practice medicine as a humane art and to promote medical professional values, its main tasks were to discuss medical skills and promote professional competence. Its members—forty-six physicians from various provinces who were living in Beijing at that time—were expected to adhere to twenty-two precepts: sincerity, good sense, self-restraint, prudence, reason, high morale, self-improvement, teaching, being good at pulse feeling, careful prescription, cautiousness, sympathy, self-respect, abiding the law of nature, devotion, avoidance of avarice, pity for the poor, self-fulfillment, understanding, wisdom, and not participating in abuse. Although it set out an ideal academic attitude, methods, and key points in pursuing and promoting professional values, the Yititang Association of Benevolent Doctors ultimately had little impact on later medical associations.

The main ideas of medical ethics in China are to cherish life and fulfill one's medical duties accordingly. Medical associations are expected to disseminate bioethical values. The 1980s began what might be described as an "ethical Renaissance" in China. Academic exchange in ethics among medical associations at all levels took place frequently. International and national experts were invited to give lectures, and seminars were held to disseminate theories of medical ethics and achievements in bioethics.

Thousands of medical professionals in teaching and research have communicated ideas with each other, published their papers and accomplishments in a variety of journals, such as *Medicine and Philosophy* and launched a new national publication, *Chinese Medical Ethics.*

In 1988 the China Medical Association established the Chinese Association of Medical Ethics, which unites medical science and medical humanism structurally and serves to support and disseminate research in medical ethics and bioethics. CAME has sponsored nine national seminars on medical ethics, and it promulgated the "Oath of Chinese Medical Ethics Association," which sets out norms of behavior for its members. At the 9th Annual National Medical Ethics Conference in 1997, principles of benefit, self-determination, justice, and optimization were established as national ethical principles for clinical practice. CAME also works to inform the public about ethical values and issues in health care.

Nurturing Professional Values

Ethical values are the soul of medical professionalism—only doctors with high moral standards can contribute to the career wholeheartedly. By cultivating ethical values as one of their important tasks, medical associations promote the development of professional character and high quality of service. To attain medicine's goal of well-being for all, a long and painstaking effort in education is crucial. But only when moral standards are interwoven with one's belief (self-policy), is one fully motivated. Therefore ethical cultivation is taking place at all times.

Medicine as a humane art integrates ethical values with technical professional skills. Thus a recent medical seminar on treatment of human papilloma virus infection put forward the following goals: to eliminate over 90 percent of Hp; to minimize side effects of treatment; favorite toleration in patients; to achieve rapid healing of ulceration and disappearance of symptoms; to avoid drug tolerance; to use the simplest procedures and shortest courses of treatment possible; to minimize cost; to maximize long-term positive effects and eliminate or minimize relapse.[3] These are not only scientific but also ethical.

Similarly, one speaker at a recent seminar on CT scanning sponsored by a medical association drew attention to the importance of balancing the diagnostic benefits of the technology against its disadvantages. The association published this caution through public media to remind physicians of the proper use of CT scans. The goal of these and other seminars and lectures sponsored by medical associations is to help professionals understand their responsibilities and to support and give them guidance.

Although health professionals are committed to promoting their patients' well-being and living up to the ethical standards of their profession, biomedical technology poses challenges for knowing what to do and how to do it. Therefore, it is necessary to invite experts who have rich experience in clinical practice to the forums of medical associations to share their experience with others. Issues of how to face a patient, how to deliver proper service, misdiagnosis, and the origin and prevention of iatrogenic diseases are all involved. These issues initiate reflection in physicians who are looking for guidance. In the mid-1980s when AIDS was first diagnosed in China, some health workers contracted the disease and developed a bias against AIDS patients due to the absence of proper knowledge. In response, medical associations held seminars and lectures on AIDS and at the same time informed health workers of AIDS ethics. The goals of the activities were to help them understand AIDS, treat AIDS patients properly, and remind them that all patients are to be treated equally—AIDS patients are the same as patients with other diseases.

In daily medical practice, new issues that are worth discussion keep emerging. Medical associations exert their efforts in a special way; with the development and prevalence of medical ethics and bioethics, they play a new role in the dissemination of medical information through biomedical discourse and clinical cases.

Members of these associations play an important role in identifying the need for, developing, and disseminating practical and professional norms. We are sure that medical associations will serve as hotbeds for cultivating medical ethics and centers for exchanging ethics information. As such, medical associations at all levels around the nation nurture the development of ethical values among health professionals.

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Professional Values in Modern Clinical Practice

by MARK A. SIEGLER

How are professional values defined and applied in the actual practice of modern medicine?

Let me begin to answer that question by reviewing the virtues that a number of scholars regard as central professional values in medicine. James Drane considers beneficience, that is, the good work a doctor does for persons who are ill, to be medicine's "fundamental ethical standard," and benevolence to be the virtue that disposes doctors to provide medical help.[1] He also includes as cardinal virtues for physicians respect and concern for patients, truthfulness, friendliness, and justice.

Pellegrino and Thomasma take medicine to be a human activity with a specific telos or goal: "a right and good healing action for a particular patient."[2] Drawing on the Aristotelian concept of *phronesis,* often defined as practical wisdom or prudence, they take clinical judgment to be "medicine's indispensable virtue."[3] Pellegrino and Thomasma relate phronesis, "the state of character which makes a person good and which makes a person do his or her work well," to the ethical principle of beneficence, a principle that they believe to be "at the heart of the medical relationship" and the physician's "primary obligation to patients" (p. 53). Although they identify other essential virtues—including trustworthiness, respect for persons, compassion, justice, integrity, and self-effacement—they stress that in the clinical context of healing relationships these traits should be subsumed within the pivotal virtue of phronesis or prudence. Pellegrino, moreover, has argued that a principle-based and virtue-based medical ethics should be closely linked to "the universality of the phenomena of illness and healing" and should be "grounded in the reality of the physician-patient relationship."[4]

Mark. A. Siegler, "Professional Values in Modern Clinical Practice," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S19-S22.

Clinical Medical Ethics

How do physicians move between the realms of values and philosophical theories, on the one hand, and the clinical realities of medical practice, on the other? Pellegrino has argued that the discipline of clinical bioethics—"clinical medical ethics" as I prefer to call it[5]—represents one approach for linking professional and ethical values with practice. It is a field that "focuses on the clinical realities of moral choices as they are confronted in day-to-day health and medical care."[6]

Clinical medical ethics is a practical and applied discipline that aims to improve patient care and patient outcomes by focusing on reaching a right and good decision in individual cases. It does so by identifying, analyzing, and contributing to the resolution of ethical problems that arise in the practice of medicine. It focuses on the doctor-patient relationship and takes account of the ethical and

legal issues that patients, doctors, and hospitals must address to reach good decisions for individual patients. Clinical ethics emphasizes that in practicing good clinical medicine, physicians must combine scientific and technical abilities with ethical concerns for the personal values of the patients who seek their help.

The content of clinical ethics includes specific issues such as truth-telling, informed consent, end of life care, palliative care, allocation of clinical resources, and the ethics of medical research. Clinical ethics also includes at its core the study of the doctor-patient relationship, including such issues as honesty, competence, integrity, and respect for persons. Thus clinical ethics includes a focus on the ethos of the professional and on the character and virtues of the physician, whom the public expects to demonstrate these qualities.

Albert Jonsen, William Winslade, and I have suggested that in the analysis of any ethical issues the following factors must be considered: the medical and scientific facts; the preferences, values, and goals of both the physician and the patient; and the external constraints, such as cost, limited resources, and legal duties, that may shape or limit choices.[7]

The domain of medical and scientific fact is definitely the physician's domain. The patient comes to the physician with a complaint. The physician's obligation is to determine, based on training, experience, knowledge, and judgment, what the patient's symptoms represent. Is the patient's cough caused by asthma, pneumonia, lung cancer, tuberculosis, or by a self-limited viral infection? On the basis of his or her analysis of relevant facts, the physician may suggest diagnostic procedures and treatment options as well as a preferred course of therapy.

But medical indicators alone do not determine clinical decisions. Patients' values, individuality, and preferences also play a role, and are represented in American medicine's emphasis on free patient choice and the legal doctrine of informed consent. On the basis of an assessment of the facts, the doctor proposes a clinical approach for an individual patient. And on the basis of his or her personal values and preferences, the patient reaches a decision. In American medicine until recently, medical indications and patient preferences generally determined what decision was reached by the patient and the physician. During the past ten years, however, political and economic factors have increasingly impinged on that decisionmaking process.

The Doctor-Patient Relationship

In 1990, in describing the field of clinical medical ethics, colleagues and I argued that the moral structure of medicine is revealed in "establishing a doctor-patient relationship . . . wherein a joint decision is reached that this patient will place his or her care in the hands of a particular physician and the physician affirms his or her ability to care for this patient."[8]

Despite scientific developments during the last century, neither the role of the medical profession in human societies nor the doctor-patient relationship have changed substantially. Since ancient times, the encounter of the healer and patient has remained the principal means by which medicine achieves its goals. This extraordinary continuity is rooted in the fact that medicine serves a universal and unchanging human need and therefore has an unchanging goal: to help patients. Further, most medical help is delivered in the direct encounter of patient and physician, that is, in the doctor-patient relationship.

Universal Human Need. Medicine deals with the most fundamental aspects of the human condition: birth, life, health, psychological integrity, physical functioning, vulnerability, loss, and death. These are the eternal problems for which patients seek help from doctors in all countries at all times. Regardless of advances in science or changes in politics or economics, these fundamental aspects of the human condition will always be with us.

When people are ill and lose the normal harmony and equilibrium that enables them to enjoy life, they turn for help to the doctor or healer in their society. That clinical encounter between the patient and the healer is *the unchanging event in medicine,* the constant. In this sense, medicine is the most universal and unchanging of professional disciplines. Despite social, economic, scientific, and political transformations over the last 3,000 years that have affected how medicine is organized, at its heart the clinical encounter of the doctor-patient relationship remains virtually unchanged.

An Unchanging Goal. The second paragraph of the Hippocratic Oath makes this crucial point: "I will use treatment to help the sick according to my ability and judgment; I will keep them from harm and injustice." For 2,500 years this has remained the central promise of medicine. Medicine achieves this unchanging goal of helping people in a variety of ways—by talking to people and hearing their fears and concerns; by caring for people with dignity and respect; by relieving physical pain and psychological suffering; by restoring functional ability; and sometimes by curing disease. Most of these functions of medicine are carried out in the context of a doctor-patient relationship.

The Encounter of Patient and Physician. There are many ways to help people through the practice of medicine. In just the past generation, researchers have developed many new pharmaceuticals (including antibiotics, antihypertensives, cancer chemotherapy); new surgical approaches (for example, for cardiac disease and organ transplantation); astounding new diagnostic methods to image previously hidden parts of the body; and new approaches to reproductive technology, genetics, and molecular biology. All of these scien-

tific and technical achievements benefit our patients.

But at some point these new research developments must be applied in a face-to-face encounter between the person asking for help and the doctor who is prepared to respond. This is the central act of clinical medicine, and this is the heart of the doctor-patient relationship. It remains the best and most parsimonious method yet discovered to provide high quality, cost-effective care.

Central Professional Values

Given this understanding of medicine's enduring goals, achieved through the relationship between doctor and patient, let me return to the question of virtues in medicine. I wish to suggest that the two central professional values of physicians practicing in America today are *phronesis,* incorporating clinical judgment and clinical competence, and *respect for persons,* which includes compassion, honesty, and trustworthiness and acknowledges the patient's right to make his or her own medical choices.

Clinical practice has always been a unique blend of technical proficiency and ethical sensitivity, which together constitute the physician's art. The distinction that is too commonly drawn between clinical decisions and ethical decisions is misguided. The physician's relationship to the patient is premised on specific technical training and competence. This specialized knowledge and proficiency is used to assist patients in curing or ameliorating their illness and disease, and to assist them in overcoming the fear, pain, and suffering that are often associated with ill health. Once sought out by the patient, the physician becomes involved in the patient's problem and never again is a mere observer. Physicians are responsible and personally accountable to their patients if they fail to perform their task adequately because of lack of skill or knowledge, or if for any other reason they fail to act in their patient's behalf.

In recent decades, the relationship between patients and physicians has been evolving from one characterized by paternalism, in which physicians made choices for patients according to their professional values, to a more equal relationship of shared decisionmaking in which physicians provide information that allows competent adult patients to make their own choices. In a 1982 paper, I proposed a mediating model called the "doctor-patient accommodation," which was based upon mutual respect and participation and shared decisionmaking.[9] The following year, the President's Commission report *Making Health Care Decisions* repeatedly cited this earlier paper in recommending an informed consent approach based upon shared decisionmaking.[10] This doctrine of informed consent, which is at the heart of contemporary American doctor-patient relationships, is based on the ethical principle of respect for persons and their autonomy and right of self-determination.

Beyond philosophical and legal reasons for respecting patients' wishes, there are several practical reasons physicians should endeavor to involve patients in their own medical care decisions. First, different responses to illness or risk may be equally rational or defensible and may vary based on a patient's individual preferences and values. For example, to avoid the risk of perioperative death, some patients with lung cancer choose radiation, with its lower five-year survival rate, over surgery. Some patients with laryngeal cancer may make a similar choice in order to retain normal voice function. And some patients may choose prophylactic mastectomy over watchful waiting when told they have a genetic susceptibility to breast cancer.

Second, the outcome of care may be improved by efforts to secure informed consent. Empowering patients to participate in decisionmaking has been associated with beneficial outcomes in several chronic diseases. In patients with diabetes, hypertension, and peptic ulcer disease, Greenfield and colleagues have shown that pilot programs aimed at increasing patient participation in medical care result in improved function and health outcomes.[11] Patient participation is improved by informing patients about their options and maintaining open and full communication with them.

Clinical Ethics in Action

An example will help illustrate how these central values of judgment and respect for persons shape professional practice.

An eighty-year-old patient of mine was traveling far from home when she developed left lower abdominal pain, fever, and chills. She was admitted to a local hospital with a presumptive diagnosis of acute diverticulitis, and after treatment with bowel rest and antibiotics she gradually improved clinically. Several investigations, including colonoscopy and a colon x-ray, did not show diverticular disease, but rather indicated ischemic colitis and what appeared to be a narrow stricture of the descending colon. Biopsies were negative for cancer. She was told by the physicians caring for her that she required immediate surgical removel of the narrowed colonic segment. She refused surgery, and asked to be transferred to my hospital a thousand miles away for another opinion.

She arrived with mild, persistent left-sided abdominal pain, but with no fever or chills. After examining the patient and reviewing the studies from the other hospital, I concluded (and consulting surgeons concurred) that the appearance of the colonic stricture might be acute inflammation and edema rather than ischemia of the bowel and that the patient might not actually require surgery, either immediately or in the future. She was told our opinion. With her agreement, we treated her conservatively, her diet was advanced, and she was discharged. Many weeks later she

had regained the weight she lost and was doing well.

On the face of it, this case seems straightforward, almost trivial. Two groups of doctors disagreed in their clinical judgment and recommendations. Of course, a day passed and time often clarifies the diagnosis. It may still be too soon to know which group was correct, but at least for the moment the prudential and conservative clinical judgment of helping patients and not harming them (including inflicting surgical trauma) favors the second team. Similarly, both groups ultimately respected the patient's wishes, but the first group did so reluctantly and only after she disregarded their dire warnings that in leaving the hospital she was putting her life at risk. Both teams of doctors were concerned, compassionate, and competent, but it was clear that the patient had much greater trust and confidence in her regular team of doctors than she did in strangers in a distant city.

I suppose this simple case highlights that different competent professionals may express the values of phronesis (prudential practical judgment) and respect for patients in different ways. It nonetheless underscores that as Drane, Pellegrino, and Thomasma suggest, clinical judgment may be "medicine's indispensable virtue."

The Best Clinical Medicine

Almost 2,500 years ago in a remarkable passage in Book IV of *The Laws,* Plato recognized that good doctor-patient relationships were required to achieve the goals of medicine. Plato described inadequate doctor-patient relationships, what he called "slave medicine," as follows:

> The physician never gives the slave any account of his complaints, nor asks for any; he gives some empiric treatment with an air of knowledge in the brusque fashion of a dictator, and then is off in haste to the next ailing slave . . . [12]

Plato contrasted this inadequate doctor-patient relationship with what he called the physician-patient relationship for free men, in which

> The physician treats their disease by going into things thoroughly from the beginning in a scientific way and takes the patient and his family into confidence. Thus he learns something from the patient. He never gives prescriptions until he has won the patient's support, and when he has done so, he aims to produce complete restoration to health by persuading the patient to comply (pp. 104-105).

The best clinical medicine, Plato tells us, is practiced when the scientific and technical aspects of care are placed in the context of a personal relationship in which the physician must win the patient's support and trust. In this regard, the professional values described by Plato and those described by contemporary physicians are remarkably similar. Both require a medical relationship with the patient in which the physician's core professional values are clinical competence (phronesis) and respect for the patient.

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How Professional Values are Developed and Applied in Medical Practice in China

by RICONG PENG

The accomplishments of Chinese health care in the last fifty years have been recognized internationally. Before 1949, infant mortality in China was roughly 200 per 1,000, while the average life expectancy was about 35 years. According to the fourth national census conducted in 1990, infant mortality in China had declined to thirty-three per 1,000, and average life expectancy had increased to 68.6 years. In the *Oxford Public Health Textbook*, Carl Taylor and colleagues attribute China's success in health care to its (1) consistent policy of prevention first, (2) fully extended primary care services, (3) effective development of technical and human resources, and (4) good coverage of medical care.[1] However, all these tasks have to be accomplished by medical professionals. Thus we believe that the key to China's success is the development of a cohort of medical professionals who are committed to serving the people; who are eager to deliver health care despite a low salary; who are willing to work anywhere—in urban or rural settings, on the coast or in the mountainous inland, in big central hospitals or at small community clinics; and who place patients' interests first. Therefore, we face the immediate challenge of educating our doctors in professional values. I shall address this issue from a historical perspective.

Professional Values in Traditional Chinese Medicine

Traditional Chinese medicine is generally believed to have a history of 2,500 years. The start of the discipline was marked by the publication of *Huang Di Nei Jing* (*Canon of Medicine*) the oldest and most respected medical classic in China.[2] In ancient China, medical books were largely written in the classic Chinese literary style, which was rather abstruse and difficult for people to understand. It was commonly recognized that in order to become a medical doctor, one must read a vast range of books, particularly the *Four Books and Five Classics*.[3] These books addressed many subjects, such as politics, ethics, and history, and the purpose of reading them was to cultivate one's moral attitude. As a result, most medical doctors were intellectuals. In China the word *intellectual* has a special connotation implying loftiness, a sense of social responsibility, a loving heart, honesty, and scrupulous conduct. In Chinese philosophy, medicine was considered a *humane art* that was based on a spirit of loving others. Doctors were expected to be of high moral character as well as competent in medical skills.

Before the introduction of western medicine, medical education in China was based in a master-apprentice relationship. The master, in the role of a mentor, would expel disciples who were found immoral. What's more, if a disciple was found to be motivated by profit in learning to be a doctor, the master had every reason to refuse to teach him and the convicted student would be forbidden to practice medicine. Hence "no ethical credentials, no medical practice" became a doctrine of the medical profession in China.

The Chinese medical world believed that medical skills were closely related to ethical beliefs. Only those who have a loving heart care to know patients' needs and problems and are willing to dedicate themselves to medicine. This devotion is the fundamental drive for doctors to practice to the best of their skills. The special character of medicine was also reflected in patients' attitudes toward doctors: it was common practice in old China for patients to express their appreciation for the doctor's effort by presenting him a "certificate of merit"[4] instead of paying him money. It would be a sinful act to recognize doctors' sacred deeds with money. Doctors were recognized not only for their

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medical skills but also for their ethical deeds. The inscribed words often acclaimed the doctor as a competent premier, or the famous Chinese doctor Huatuo, implying the high status and reputation of the doctor. Doctors used to take a prominent physician in history as their role model and sought skill and moral perfection.

Many classic medical texts also reflected this ideal of integrating medical ethics and clinical skills. For example, the *Canon of Medicine* listed "five faults and four negligences" from which doctors should be free and exhorted doctors to analyze the causes of diseases in terms of both pathological and psychological factors. In his book *Essential Prescriptions Worth a Thousand Gold,*[5] Sun Simiao, a great medical writer of the Tang dynasty, emphasized the need to be academically proficient as well as morally competent in order to become a great physician. In the Ming dynasty, Gong Tingxian proclaimed "ten musts" for doctors to observe in his book the *Restoration of All Illnesses:* "A doctor must first have a benevolent heart . . . a doctor must never be money oriented."[6] Gong's exhortations actually served as a medical code at the time. Perhaps the most notable writing on medical ethics was that of the Ming dynasty classic, the *Orthodox Manual of External Diseases,* written by Chen Shigong, and recognized as one of the earliest written code on medical ethics in the world.[7] As to the ethical cultivation of medical doctors, traditional Chinese medicine tends to follow the Confucian doctrines and emphasizes self-cultivation.

Medical Ethics in China Since 1949

Modern or western medicine was introduced into China about 150 years ago with the coming of Western missionaries. By 1905, 166 hospitals had been set up by the churches. Because the early practice of Western medicine in China was deeply influenced by Christianity, its ethical values were rooted in the virtue of "love." After the founding of the Republic of China in 1912, the Chinese government began to establish public medical schools, but during the period of the Japanese invasion and later the Civil War, medical ethics was, understandably, neglected.

By 1949, there were twenty-two medical schools (including some church-supported schools) in China. Since the founding of the People's Republic of China, the government has spared no effort to promote health work and to set up medical schools, which have trained nearly 1.5 million medical professionals.

Strenuous efforts have also been seen in the development of medical ethics. In 1997 the National Working Conference on Health passed its *Guidelines for the Reform and Development of Health Work.*[8] Article 26 of this document summarized the ethical work of the past fifty years, taking the work of Norman Bethune as a model of professional values for all medical workers to observe: devotion to healing the wounded and rescuing the dying, dedication, enthusiasm, warm-heartedness, love of the profession, constant improvement of skills, and respectful practice of medicine. The *Guidelines* also call for public recognition of the good deeds of model health workers and work units, to promote their spirit and reward their work, and for action to improve professional supervision and regulation, to strengthen public inspection and to correct professional misconduct. For this paper, I would like to focus on three aspects of our efforts to develop professional values in medical practice: fostering dedication, recognizing professional excellence, and maintaining vigilance against professional misconduct.

Fostering Dedication. To Chinese physicians, Canadian-born Bethune is a powerful symbol. Having fought fascism in Europe, in 1938 Bethune came to the front lines of China's guerrilla war against Japanese invaders, saving countless wounded and dying soldiers before he himself succumbed to an infected wound. Bethune is a revered model for Chinese medical professionals: he fought fearlessly for his strongly held convictions (against fascism); he endured hardships with fortitude; he went where he was needed most and struggled to provide the best of care under the most difficult conditions, creatively using what tools he had to hand. And he enthusiastically trained other physicians to serve the people better. He demanded close attention to technical skills and did not permit indifference toward patients. His death was lamented by Mao Tse-tung; hospitals and clinics were named in his honor; and his life and work have come to embody the virtues to which medical professionals aspire.

China is economically backward. Before 1949, the rural areas were poor and haunted by a vicious cycle of widespread infectious and parasitic diseases and malnutrition. Learning from Dr. Bethune, medical professionals in China have volunteered to work in the areas where they are most needed. In the 1950s and 1960s, the majority of medical students participated in a campaign to fight schistosomiasis, kala-azar, and venereal diseases in rural areas. Medical teams were also sent to geographically remote areas to establish programs to prevent and cure diseases and to train health workers—Beijing Medical University, for example, sent medical teams to Yunnan province for ten consecutive years. During this process, we developed a number of professionals who were willing to serve the people with dedication and take an active role in health care in rural areas. To see women dying from postpartum hemorrhage to them seemed a dereliction of duty. This impelled them to improve resources for blood transfusion. Dr. Bethune's spirit also nudged medical workers to come to earthquake-stricken areas as soon as disaster occurred, and when unprecedented floods struck China in 1998 this spirit again revealed its

power. Medical workers' frequent involvement in caring for patients in less developed rural areas promotes their professional values, and today we have made it a rule for doctors to work in the poor rural areas for a period of time. The integration of in-service moral education and in-school medical ethics education has brought about remarkable positive outcomes.

Recognizing Excellence and Teamwork. Since the founding of the People's Republic of China, the health work authorities have developed a system for commending outstanding work teams and individuals, usually in the form of moral rewards such as the title of "National Model of Excellent Workers" or "Woman Pacesetter." Individuals and teams who have distinguished themselves in natural disaster relief are recognized, and special rewards are given to people who have made particular contributions in programs of immunization, health campaigns, and rural health care delivery. We also have a special trophy named in honor of Dr. Bethune for seasoned medical experts in recognition of their years of service. And we apply for international awards. For example, in 1982 Xiuying Wang won the "Nightingale Prize" conferred by the International Red Cross Association, the first Chinese nurse to be so honored. The Chinese nursing society was very proud of her and greatly encouraged. We were very careful in nominating candidates, taking every specialty into consideration for fear that we might exert a negative influence on morale.

The recognition of excellent teams remains a unique feature of Chinese awards. Because medical care is often conducted collaboratively, group efforts should be recognized and rewarded. For example, when a hospital, or an epidemic prevention station is prominent for its outstanding collaborative work, it is more desirable to commend the work unit than the individuals. Commending the team doesn't mean that individuals should not be recognized, but encouraging team spirit helps to create a more favorable working environment and is widely supported by the public. There is usually a wide coverage of the team's accomplishment by the mass media, and meetings are held to introduce the team's deeds to other people. Recently, we organized a lecture tour and television coverage to report the good deeds of Zhongcheng Wang, a brain surgeon. His deeds not only encouraged medical staff but inspired medical students as well.

Maintaining Professional Standards. During the transition toward a market-oriented system in recent years, people have felt at a loss as to what values they should stick to. Health care professionals are not immune. In some hospitals, a profit-seeking ethos emerging from the new market economy has eclipsed medical ethics and undermined standards of professional conduct. Low prices for medical services enforced by the government have led some staff to become indifferent to their customers—their patients. Discontent with their low pay has provoked some to speak harshly to their patients or neglect their duties. Moreover, the government's rigid control over service charges has prompted some doctors to fall back on excessive drug prescription for compensation. A few surgeons have reportedly gone so far as to ask for a tip right before an operation, and drug salesmen have urged doctors to use their medicine by offering a rebate.

This unhealthy trend has been degrading the medical staff ever since it arose. The government has taken a variety of measures to correct the situation, including education, stricter management, and disciplinary actions, which have led to some improvement. Our experience suggests that self-policing is an effective measure for guarding against misconduct. There are very few self-employed practitioners in China. Most health professionals work in public institutions. Here, self-policing in a broad sense refers to supervision or monitoring within institutions based on individual consciousness of professional values. As a common practice, a hospital will make its policies against rebate public. The hospital will also set up a supervisory office that requires each department to report misconduct, with significant consequences for failure to report negligence. The hospital also sends out questionnaires to patients or appoints pseudo-patients to obtain firsthand data about patients' complaints and suggestions.

Many hospitals invite people from various walks of life to act as supervisors in order to learn how people view the services they have provided. The administrations at various levels are expected to report to the People's Congress and Political Consultative Conference when necessary, and the People's Congress and the Political Consultative Conference may hold special hearings on misconduct. We are becoming aware of the need to have an efficient self-policing and supervision system, which is indispensable in the development of ethical practice.

In June 1998 China's legislation passed its first statute for licensed practitioners, The Practitioner Licensing Act. Provision 37 of this act states that serious violations of professional code may result in criminal charges. Provision 33 makes it compulsory to reward those whose practice is exemplary. The passing of this statute will greatly assist the development of professional morals in medicine.

Today we are confronted with a new challenge in medical ethics: how to bring health to the masses while the factors that afflict people keep increasing, an ethical issue involving policymakers and public health officials as well as medical professionals. Chronic illness and infectious diseases such as AIDS have become the major killers in some countries, and addressing unhealthy life styles is becoming an important concern. As progress continues to be made in genetics, the links among pathological

mechanism, environment, individual behavior, and heredity are expected to be further specified, and the responsibility of individuals to keep themselves fit further defined. All this will give rise to new ethical problems between doctors and patients. We are obliged to widen our vision by cooperating with more disciplines in an effort to exert a positive influence on the development of medicine.

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The Development of Professional Character in Medical Students

by DAVID T. STERN

What is a professional? A professional commands a special body of knowledge and skills. A professional also is given specific rights not generally provided to the public, and has specific responsibilities or duties not generally expected of the public. What distinguishes a professional from an expert, then, is the contract negotiated between a specific group of experts and society.[1]

In trade for specific rights—physicians, for example, have the right to ask private and personal questions, to prescribe narcotics, and to perform operations—professionals must accept responsibilities or duties not expected of society in general. These include confidentiality, compassion, integrity, interprofessional respect, public service, responsibility, and self-policing.[2] These are values that society expects its physicians to uphold *as professionals*, and values we intend to teach, promote, or at least not destroy in the course of medical education.[3] But there is good evidence that we in fact inhibit or impair the development of positive professional values in medical education. While the formal curriculum of medical school espouses professional values, the informal curriculum may teach something quite different.

David T. Stern, "The Development of Professional Character in Medical Students," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S26-S29.

How Professional Values Are Taught

The formal curriculum of values is taught in medical school through both texts, including the medical school's statement of goals, and experiences. The goals statement of the medical school at the University of Michigan, for example, reads:

> [The medical school's] goals will be attained when students have acquired . . . [i]nterpersonal skills that facilitate effective and empathetic relationships with patients and effective collaborations with other health care professionals; the professional attributes of compassion, honesty and integrity; and social and professional responsibility in the context of a diverse and changing society . . . [4]

Formal curricular experiences include courses variably titled "Introduction to the Patient," "The Patient-Physician Relationship," or "Doctoring," in which the principles of the doctor's behavior and relationship with patients are explored.[5] Other formal curricular experiences in medical school are similarly designed to instill some of the professional characteristics expected of doctors. The Arnold P. Gold Foundation for example, has supported an exercise in North American medical schools in the last few years in which entering medical students are provided with a white coat and a lapel pin, signifying their preliminary initiation into the profession.[6] During this exercise, students are advised that the wearing of a white coat signifies the acceptance of a code of professional conduct, and that the public has very specific expectations of the wearer's behavior. Although many of these entering students will not have significant patient contact for at least two years, they are explicitly appraised of the standards to which they will be held.

Although some institutions continue a few formal lectures and seminars into the third and fourth medical school years, professional values are heavily influenced by the socialization process that occurs during the clinical portion of medical education. While the values taught in the formal curriculum of the first and second years are highly consistent with the values outlined by the school and the profession, the values learned in the informal curriculum of the clinical years are highly variable.[7] Some values are enhanced, some are ignored, and some are overtly inhibited through demonstration or explanation, through parables, and through the negotiation of values conflicts.

When asked how values are taught in clinical medical education, many individuals respond with "role-modeling." As Melvin Konner noted in his first-hand account of medical school:

> The physician's attitudes, mindset, moral stance, and the hour-by-hour decisions about how to use one's time—all these and many other matters, even including how and what and how much to feel, are observed by the student and imitated assiduously. Even where the explicit message is "Do as I say, not as I do," the implicit message is "Do whatever you think is right, but if you want to survive in this world you'd better be like me."[8]

But it remains unclear precisely how the intention and demonstration of the teacher translate into understanding and assimilation by the student. In my clinical teaching, I always wash my hands prior to touching a patient. I have no idea whether the students understand why this is done. Perhaps I do it to protect myself from infection (self-preservation), perhaps to protect the patient from infection (responsibility), or perhaps to indicate my concern for the patient's health (respect). Some students will learn both to wash their hands prior to seeing patients and the values I intend from this demonstration. Some will only learn to wash their hands.

One way to enhance this experience for students is to allow and encourage discussion of the observed experience and behaviors. Based on the principles of reflective practice,[9] students learn to become expert practitioners through the observation of experts followed by reflection about the rationale behind such demonstrations. For example, I have often initiated a discussion after leaving the patient's room—asking students to explain why they think I might be washing my hands. Their discussions inevitably lead to the values I intend to teach through "role-modeling," but the experience is more explicit, and I can be certain that all students are aware of both what I expect (hand-washing), and what I intend (responsibility and respect for patients).

Stories have long been used as a method of cultural transmission, and the "culture" of medicine is no different from any other.[10] In medical culture, these parables often begin with "There was this great case . . ." or "When I was an intern . . . ." One parable I heard during a research project was provided by an attending who was asked about the complication rate of kidney biopsies. His factual answer was wrapped inside a parable about accountability and responsibility:

> In my whole career, I've been a nephrologist now for 25 years. Uh, I've lost one kidney doing biopsies every year. And there was this schizophrenic patient who we biopsied, I did not allow the fellow to do the biopsy because I knew it was going to be a difficult one. I did it myself because I know I'm fast. And the patient screamed at the moment I was in the kidney, meaning that the kidney moved at the time that I was in there holding the outside and there was a tear in the kidney. We tried to do angiography to stop the bleeding. The kidney was finally removed, this patient lost the kidney. This was one of the most dramatic situations I've ever had, and it's actually quite rare to have a significant complication, to have a nephrectomy, it's one in one thousand.[11]

I once naively expected values to be taught through simple and single expressions of values: "Honesty is the best policy," or "*primum non nocere*—above all do no harm." But in studying the teaching of professional values, I have found that values are more frequently taught as conflicts, as complex dilemmas between two or more sometimes equally worthy values. For example, students and residents often balance the values of service and education, as in this discussion of a previous night's admissions:

> Attending: There was only one new hit last night?
>
> Intern 1: Yea, just one.

Attending: Alright!! [Attending leaves the room]

Intern 2: Hey, that's impressive when the attending says "that's good."

Intern 1: Why?

Intern 2: 'Cause they usually say . . . "Oh, we better get some more!"

Resident [sarcastically, mimicking an attending]: "Oh, what are we going to learn about?"[12]

It is in the negotiation of these conflicts that a student's professional character is developed.

Values Enhanced, Ignored, and Inhibited

In data from the 1950s and 1960s that have recently been reproduced with current students, researchers have found increases not only in humanitarianism, but also in cynicism, dogmatism, and authoritarianism among medical students.[13] During medical school, students have also been found to develop a dislike of cancer patients, disdain for the emotionally ill, hostility toward suicidal patients, the idea that alcoholics are morally weak, and negative attitudes toward geriatric patients.[14] None of this is explicitly in the curriculum, but students seem to be learning these attitudes and values at least as well as they do the Krebs cycle or the muscles of the rotator cuff.[15] They constitute the lessons of medical school's "hidden curriculum," that curriculum of "rules, regulations, and routines, of things teachers and students must learn if they are to make their way with minimum pain in the social institution called the school."[16] In this informal curriculum, some values are enhanced, some are ignored, and some are overtly inhibited.

Values Enhanced: Responsibility. While students do not appear to arrive at medical school with an understanding of the centrality of responsibility in medical practice, it is clearly a cornerstone of professional character, and potentially the framework around which all other professional expectations can be built.[17] Responsibility is taught in many ways during clinical years, mostly through structural elements of the curriculum. Teams of doctors, including an attending, residents, and students, are assigned a patient who has been admitted to the hospital, and as a team are directly responsible for all events surrounding that individual. The team leader (attending or resident) assigns the patient to a specific medical student, and the student is encouraged to behave as that patient's primary link to the medical center. This student is responsible for talking to and examining the patient each day, and for knowing the results of all tests and reporting these back to the team. The student is expected to accept responsibility for all aspects of the patient's care during the course of the hospital stay.

Responsibility is also reinforced as the patient is discharged from the hospital. Patients are not simply given approval to leave, but must always depart with a clear follow-up plan addressed to their primary care physician, a responsibility that is taken very seriously. When other medical staff interfere with this aspect of the doctor-patient relationship, some physicians become quite upset. In the following excerpt, a resident physician has just presented a patient's case to the attending. It turns out that the patient was under the outpatient care of the attending, who had not been notified of the patient's admission four days previously:

Attending: How much guidance are you getting from the consultant team about this?

Resident: I don't know, maybe . . .

Attending: Right, so the people who know him haven't seen him yet. That's the problem that you have . . .

Resident: Okay, I mean, I just, I thought you were aware of it . . .

Attending: You didn't call me and ask me.

Intern: Right.

Attending: No, I hadn't seen him, just so you know.[18]

Values Ignored: Self-Policing. The value of self-policing is part of the profession's societal contract. As Sylvia and Richard Cruess have noted, this contract contains an "obligation . . . to participate in . . . effective and transparent self-regulation . . . . The professions are responsible for the ethical and technical criteria by which their members are evaluated and they have the exclusive right and duty to discipline unprofessional conduct."[19] Yet self-policing receives little or no attention in the (formal) medical school curriculum.

Although most medical schools have codes of behavior and formal honor councils, these are most commonly invoked only in the most egregious cases of misconduct (for example, cheating). Thus students are not held accountable for the majority of their unprofessional acts; they observe and behave with various degrees of misconduct in medical school, little of which ever comes to light.[20] The teaching of the principles of self-policing, while present in medical school goals statements, is not supported in the more informal curriculum of everyday practice.[21]

Values Inhibited: Interprofessional Respect. Developing positive, respectful, and productive interprofessional relationships is a clear goal of the medical profession. The Hippocratic Oath reflects this objective when it delineates between the work of internists and surgeons: "I will not use the knife, not even sufferers from stone, but will withdraw in favor of such men as are engaged in this work."[22] A more contemporary statement is offered in the requirements for residency programs in internal medicine published by the national

Residency Review Committee in charge of program accreditation; these requirements specifically state that physicians should have "an appropriate professional attitude and behavior towards colleagues."[23]

Yet despite strong endorsements, there is ample evidence from the training environment of doctors that professional respect is extremely uncommon in practice. In a recent study of the values taught in clinical internal medicine, of forty-eight examples of professional relationships, forty-four represented negative comments from one physician toward a colleague.[24] Consider, for example, disparaging remarks made by a resident physician upset with the performance of nursing staff:

> You know what I hate? . . . The nurses are slow . . . when [a patient's heart is beating] at a rate of 200, there should be no question that a crash cart needs to be at that person's bedside . . . I mean I just don't understand . . . these nurses are here all the time, they should know better . . . They should have that . . . ready for us.[25]

The Practice of Professionalism

Medical schools are responsible for teaching the knowledge and skills required of tomorrow's physicians as experts, and there is clear and objective evidence that they have been very successful in this regard. But there is also an expectation that medical schools teach a code of *professional* behavior. While I am certain that many students arrive at, and graduate from medical schools with impeccable professional behaviors, many students do not. Without a means to select for these characteristics, to identify and encourage positive professional character during medical school, and to ensure the adoption of professional norms, there can be no guarantee that the profession is living up to its societal obligation to maintain the quality of physicians. While medical ethics defines the formal standards that govern professional conduct, the culture of medical practice and the culture of society provide additional expectations to which physicians are accountable.

Professionalism is the ability to negotiate the complexities of these principles, as they are not always in concert. And what patients and colleagues see are not the overarching moral principles that guide a physician, but the resulting behaviors. What we try to teach in medical training is not only the principles of ethics, but also the practice of professionalism.

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Ethics Teaching in Medical Schools

by BENFU LI

Today's students with knowledge of medicine will be tomorrow's medical practitioners. They will face not cold stones or objects, but patients with flesh and feelings. They must provide not only technical skills and therapy, but also compassion and care. The philosophy that *medicine is a humane art* has roots in Chinese culture: the famous Tang Dynasty physician Simiao Sun (541-682 B.C.), noted that "a respectable physician is expected to be both skilful and honest."[1]

The industrial and technological revolution in Western medicine that began in the fourteenth and fifteenth centuries brought great changes in perspectives on health and disease, leading to the biomedical model and its belief that "chemical and physical languages can eventually explain biological phenomena."[2] The biomedical model has accelerated the development of medical science, but has separated the physical from the natural, psychological, and social dimensions of human illness and well-being. Disease was isolated from the human body as a whole; medical practice became disease-centered, and the patient is neglected as a human being. At the same time, medical training stresses knowledge and skills preparation, while overlooking the orientation of professional values. Such developments led G. L. Engel, of Rochester University School of Medicine, to propose the "bio-psycho-social" model in 1977, which stresses the integration of biological, psychological, and social dimensions of illness. In response, a new model of patient-centered practice is evolving, one that enhances both scientific and ethical values in medicine.

The extensive application of high technology in clinical practice has produced positive results. But if falsely managed, it can also harm the patient's well-being. This too has led to re-examination of the ethical values at stake in high technology care and even of the general goals of medical profession. These focus our attention on the need for continuing the reform in medical education and especially on the importance of comprehensive character development of medical students. Much emphasis is put on the humane and social values of the profession. As a result, much importance is attached to ethics teaching in order to provide the society with medical practitioners both intellectually and behaviorally competent.

Benfu Li, "Ethics Teaching in Medical Schools," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S30-S32.

Objectives of Ethics Teaching

Medical education in China is generally offered in two connected and progressive phases. The first phase emphasizes basic medical knowledge in the classroom, while the second phase focuses on clinical training in teaching hospitals, which covers the last few years before graduation. Ethics teaching goes through the two phases and extends into continued education after graduation. It includes ethics courses taught by teachers of ethics and development of professional character under the supervision of clinical teachers. The objectives of both phases are the same, namely, (1) to develop good morals and professional values for the establishment of good interpersonal relationships, especially between patients and physicians, (2) to develop the ability to judge and analyze ethical problems as the foundation of decisionmaking, and (3) to call attention to the ethical problems evolved by high technology in medical practice and minimize its negative consequences.

Formal Ethical Courses. Formal ethics courses offered to students include: (1) general ethics taught in the preclinic phase, (2) medical ethics taught during clinical training, and (3) seminars on special topics during clinical internship.

Training and development of ethics teachers. Teachers play a guiding role in the teaching of ethics, and develop-

ment of a cohort of competent ethics teachers is essential. In Beijing Medical University both physicians and teachers of philosophy serve as ethics faculty. Our training program for the former emphasizes principles and knowledge and theory of ethics, while the program for the latter focuses on necessary medical knowledge and general understanding of clinical practice. To complement one another's skills—and weaknesses—the two groups of teachers exchange ideas and learn from each other frequently. At the same time, both study health policy and legislation.

Content of ethics teaching. General ethics teaching in the preclinical phase covers: (1) the concept, structure, nature, characteristics, and function of morals; (2) the origin and history of morals; (3) understanding and evaluating the system of moral norms; (4) concept, classification, and theory of ethics; (5) human nature and values; (6) life ideal; and (7) love, marriage, and morals. Students receive a total of twenty credit hours of instruction, including examinations.

Medical ethics teaching in clinical phase covers: (1) the object, content, significance, and method of medical ethics study; (2) the history and Chinese tradition of medical morals; (3) basic principles of medical morals and specific solutions to specific problems; (4) the physician-patient relationship and relationships among professional staff, including moral norms of behavior; and (5) moral standards in clinical practice, medical research, and prevention; (6) development and evaluation of professional character; and (7) specific topics in bioethics. Students receive a total of twenty credit hours of instruction, including examinations.

Discussion of special topics during internship covers: (1) patient autonomy; (2) talking with cancer patients and surgical patients pre-operatively; (3) truth telling; (4) care of the dying and care of intersex patients; (5) iatrogenic disease and medical morals. Students receive a total of twenty credit hours of instruction, including examinations.

Principles for Ethics Teaching. We focus our ethics teaching around four concerns: integrating theory with practice, providing positive guidance, stepwise training, and concrete illustration. We stress the importance of integrating knowledge of ethical theory in clinical practice. To help students understand the practical value of theory and to motivate their study of ethics, two-thirds of the total teaching time is devoted to lectures on knowledge, theory, and skills, and the remaining one-third is set aside for case discussion. Giving students positive guidance in understanding ethical issues is also important, and our teachers also reinforce critical thinking about unfavorable practices and provide positive support for constructive critical reflection. All classroom activities are carried out in a harmonious atmosphere that respects students' dignity and stimulates their participation.

Students also learn in a progressive, stepwise process. Our syllabus is designed with an understanding of cognitive and developmental processes, and follows the inherent logic of ethics theory. Discussion enables students to see through appearance to the essence of ethical issues and prepares them to make abstractions from concrete situations. Thus students have found the materials easy to understand and accept. We also use teaching aids, such as slides and videotapes, to illustrate ethical concepts and theories concretely. Concrete illustrations not only help students grasp the significance of theory, but contribute to active class participation and enhance the learning atmosphere.

Teaching Approaches. We use a variety of complementary teaching methods to support and enhance learning, including lectures, discussion, role-playing, special assignments, and debate. Faculty lectures concentrate on key points and difficult issues and questions, and teachers encourage students to offer their own analyses of questions. Guest lectures by distinguished medical scientists that focus on the visitor's personal experience and understanding of the medical profession complement faculty lectures on ethics theory. Visiting lecturers serve as intellectual and moral role models to encourage students.

Beyond questions in lecture sessions, we offer discussion seminars to give students the opportunity to consolidate the theories they have learned and to practice and refine their problem-solving skills. And both before and after each lecture session, students are required to review the literature and collect cases. They are encouraged to exchange ideas and comments with peers and with instructors to become sensitive to ethical problems and develop their analytic and problem-solving skills. Finally, debates are held frequently on important, timely topics in ethics. Such debates arouse students' interest and offer them further opportunity to apply analytic and problem-solving skills they have learned.

Teaching Evaluation. We evaluate both teaching and learning in our programs. Teaching evaluations are carried out through review by, faculty peers outside consultants evaluation, and students' feedback. Aspects to be reviewed include teaching attitude, content, and delivery, and suggestions for improvement are also solicited. Student evaluation is a comprehensive process including assessment of classroom participation, written examination, and assignments. These evaluations help us to monitor the progress of teaching activities, to identify problems, and to improve the quality of the course.

Clinical Ethics Training

In addition to imparting medical knowledge, clinical instructors take responsibility for developing students character though both verbal instruction and, especially, personal role modeling. Thus we call this part of students education "informal ethics teaching."

Students arrive at medical schools with different motivations, including their parents' wishes, desire for high social and financial status, experience of suffering, and others. To help students have sound motivation and establish professional consciousness, the very first lecture is given by a leading physician on "the physician's role and patients' expectations." In this class, students take the following oath.

> I solemnly swear upon arriving at this sacred medical school:
>
> I'll pledge myself to consecrate my life to the medical profession; I'll give to my teachers the respect and gratitude which is their due; I'll love my people and my country; I'll practice my profession with conscience and dignity; I'll advance medical science continuously and diligently; the health of my patient will be my first consideration; I'll maintain by all means in my power the honor and the noble traditions of the medical profession; with purity and holiness I shall pass my life and practice my art.[3]

Professional teachers are expected not only to impart knowledge, but also to influence students through their own compassion, motivation, and thinking. Integrating social needs with professional goals arouses students' orientation and motivation. We use stories of famous medical practitioners in each respective discipline to arouse student's thirst for knowledge. Observation of other people's practice and personal experience are also effective means for students to develop their sense of responsibility and moral concepts, which will thereafter promote their professional values.

During the first phase of their training students participate in laboratory as well as lecture courses. Whether students are working with human cadavers, tissue specimens, or laboratory animals, teachers are expected to train them not only in technical knowledge and competence, but also to inculcate cooperation and the scientific attitude of respecting the truth. Practice lessons by role models help to develop students' ethical values spontaneously.

In the clinical phase of their training students go from being observers to participants in medical practice. During both clerkship and internship, students are expected to interact with a large number of patients and staff members at all levels (nonteaching faculty members, nurses, and technical personnel). Therefore, in addition to learning technical professional knowledge and skills, students are expected to establish good interpersonal relationships with patients and colleagues. The ethical lessons for students in this period are many: (1) To study and advance medical knowledge through serving patients and not to treat patients merely as study subjects or living specimens. (2) Not to discriminate against patients because of age, sex, profession, race, or religion. (3) To address all professional staff respectfully and to have proper modesty when approaching them to learn knowledge. If conflicts occur, to try to practice collaboratively and respect truth while protecting patients' interests. (4) To be truthful with patients about their status as medical students. And to explain patiently what their role is, and respect the patient's autonomy if he or she continues to refuse to work with the student. (5) Not to perform treatment on one's own. But to have the approval or direct supervision of the physician-in-charge or staff concerned. (6) To give the same account of grave diagnosis or prognosis as that of the physician-in-charge. (7) To respect patients' dignity and autonomy and safeguard patients' confidences and privacy. (8) Not to accept gifts or money from patients and their families in order to defend the honor and noble tradition of the medical profession.[4] Thus students experience directly the lessons taught in formal ethical courses.

Ethics teaching is not confined to the classroom. Only when concerted efforts are made by both teachers of ethics and professional teachers are we able to provide doctors who have the requisite intellectual and technical skills and moral character to meet society's needs.

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A Caring and Teaching Organization

The Ethical Lessons of the Hospital

by JOHN D. STOECKLE

Organizations educate and train professionals, in settings that define and reflect professional values. Our medical schools educate and train students in becoming physicians; our hospitals do the same—in very different learning settings, however. Learning in the classroom or laboratory is largely about medicine's science. Learning in the wards and outpatient clinics of hospitals teaches students to care for patients. That care of the patient on the ward or in the clinic is learning by doing, an old pedagogical example of what is now called problem-based learning.

Having made the claim that organizations define our behaviors, let me describe several ways in which learning-to-care in the hospital, yesterday and today, shapes values in becoming a doctor.

A Building for Medical Relief

Historically, doctors were trained outside the hospital in a decentralized apprentice system. Students assisted community general practitioners or surgeons who attended patients in their homes or in the doctor's office. Invented in the 1600s, the hospital was importantly a community medical facility, but one only for the "sick poor." Hospitals were meant to isolate those with infectious disease and to serve the poor seeking help with medical, not poor, relief. They were funded by the charity of churches, the gifts of citizens, and the taxes of cities. Inside, doctors, not students, did the hospital's work of care.

Despite the fact that in the hospital's early history few had access to it and it had little role in training doctors, the hospital's very physical presence carried an ethical-religious lesson to the community and to students who might think about becoming a doctor. Like a church or temple, hospital buildings spoke a visual message: society and its doctors and nurses are committed to do for others, to provide medical help to those in need, to serve, to sacrifice if needed.[1]

An Open Organization

The development of anesthesia in the 1840s and antisepsis in the 1860s changed the hospital from a largely custodial institution to a preferred site of operations for surgical cures and relief. And in the 1900s, with the development of the x-ray, the EKG, the BMR-Vital Capacity, and all the clinical laboratories (hematology, bacteriology, pathology), the hospital promised patients accurate diagnosis.[2] As a result, the hospital opened to all classes seeking medical help,[3] and became a more broadly democratic institution for care—even though the rich and middle class had better accommodations and "private" rather than "resident" doctors. With a vast array of technologies and an ideology that hospital care is a service for everyone, the hospital today continues to be open to all the community.

With this new democractic mission, the lessons of the hospital shifted to focus on the doctor's duties to patients: respect for every patient; a single high treatment standard for all patients; communication of information about diagnosis, treatment, and prognosis. With the admission of patients of diverse personalities, attitudes, and behaviors, the student doctor was to "treat the least desirable person" with respect; with patient populations from diverse cultures, races, and classes, to provide a uniformly high standard of diagnosis and treatment regardless of the patient's background; and with more complex technical data about the body and treatment, to communicate to all patients about diagnosis, treatment, prognosis, and prevention. Despite improvement in the performance of those duties in practice, data indicate that patients are still treated dif-

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ferently based on race, class, age, and gender.[4] The ethical lessons must continue.

A Teaching Organization

The hospital's medical technologies not only brought more patients for diagnosis and treatment, but more medical residednts and students to learn (in residencies and clerkships), giving rise to the "teaching hospital." The movement of clinical education from office-based apprenticeships to the hospital wards vastly expanded in the early 1900s as the public, philanthropic foundations, and professional societies sought to improve medical education, then widely dispersed in proprietary, for-profit schools.[5] Residencies for graduates and clerkships for students came under the control of university medical shcools through their affiliation with or ownership of the hospital. The medical school appointed departmental chiefs at the hospital, who organized programs to care for patients, to train resident physicians, and to teach medical students.[6] The hospital was now a teaching center for learning-to-care, and the ward its organization for care, teaching, and learning.

Teaching hospitals distinguished themselves from other hospitals in their communities by defining their ethical teaching mission. Thus in 1904 the trustees of the Massachusetts General Hospital defined the institution's mission:

> The spirit of the hospital has always been, first, to do everything it can for its patients; second, to use patients, so far as it is right and consistent with their best care, for educational purposes; third, to have its data so accurately recorded that it furnishes the maximum aid to the advancement of medical and surgical science.[7]

The lesson: do not exploit the patient's care or the patient in the acts of teaching and learning; as Richard Cabot wrote, patients needed to be protected from the pedagogical enthusiasm of the staff.[8] Staff and students were to obtain patients' consent for teaching, not simply "use" them.

Wards for Care and Teaching

On the ward the student is a member of a hierarchically organized team: the senior attending physician, the resident, the assistant resident, two interns, and two or three medical students. Assigned to "work up" a case by the resident, the student takes the history and conducts a physical exam of an acutely ill hospital patient, writes up the patient's case for the hospital record, and (at the bedside later) presents the case to the attending physician and ward team for discussion and instruction. Learning on the ward involves the student in ethically significant relationships with both staff and patients.

Students relate to staff in several ways. Staff may give students direction ("re-examine the patient"; "check the blood counts"), demonstrate procedures ("let me show you an LP"), and supervise student caregiving ("I'll watch you do the thoracentesis"). Staff also give nondirective instruction (giving feedback on case presentations), teach by offering advice, and participate in cotherapy with students (sharing elements of the patient's care with the intern, such as examinations, procedures, information transmittal, and diagnostic or treatment decisionmaking).

In relationships with patients, even as the most junior members of the ward team, students may be viewed by the patient as his or her doctor. Not only does the student carry out the initial work up of the patient, who is so often a stranger to all the staff, but the student also may be responsible for ongoing tasks of care: testing, explaining, examining, advising, and responding to the patient's emotional reactions with communicative acts of reassurance, empathy, listening, explanation. All these acts connect the patient to the student as "my doctor."

In their relationship to their teachers, patients, and each other, students and residents have critical ethical duties and behaviors. With their teachers, students must demonstrate willingness to learn, accept having their clinical performance observed, and seek to improve their skills and knowledge.[9] Resident physicians, like medical students, have similar obligations to attending physicians, but more. Designated to do procedures and operations, they have a basic obligation to report candidly any errors in the performance of their work.[10]

With patients, students must present themselves honestly as *students,* acknowledging that they learn from the patient while helping in his or her care.

Within the team of students, residents, and attendings there are often hidden conflicts over patients' care and students' teaching experiences. Students report dismay and aggrievement over residents' attitudes and behaviors toward students, toward particular patients, and toward other staff doctors and special services.[11] Because such hidden conflicts often communicate disrespect and indifference, openly negotiating these resident-student differences through reflective discussion of attitudes and behaviors teaches another important ethical lesson. Sadly, however, conflicted staff attitudes toward students and patients are rarely addressed forthrightly.

The Case Method of Teaching and Learning

At the same time that the hospital was opened to all classes and developed as a teaching center, the "case method" was introduced for students to learn medicine.[12] The method provided a pedagogical rationale for learning from patients, requiring students to carefully take the medical history that would provide the symptoms of disease; perform the physical

examination that would provide signs of disease; make a tentative diagnosis from the internal consistency of symptoms and signs with previously described cases of disease; and then confirm the diagnosis by laboratory and diagnostic tests.

The clinical steps of the case method met the professional ethic for a high standard of disease diagnosis. Yet the method's emphasis on making an accurate diagnosis gave far less attention to the patient as a person, to the social diagnosis of the origin of the illness, or to the other tasks of care—namely, psychological diagnosis; communication of information about diagnosis, treatment, and prognosis; health promotion and disease prevention; and the personal support of patients of all backgrounds in all stages of illness.[13] Of course, clinicians did not entirely ignore their duties to attend to the psychological and social factors of illness. For example, in the case of indigent patients in the outpatient clinic, social workers attended to psychosocial factors,[14] while in his own private practice the doctor was expected to deal personally with these factors in providing care. Nonetheless, in the hospital's emphasis on case method teaching, the duty to explore psychosocial factors in the personal care of patients has often been ignored, leading many to argue that the method needs to be revised and made patient centered instead of disease focused.[15]

Acute Illness as Teaching Content

Because medical schools carry out so much of their clinical education in the hospital, the educational focus has been on the diagnostic evaluation and therapeutic management of acute diseases. With its focus on acute disease, injuries, and dying patients, the in-patient hospital setting has raised very important ethical issues in the care of patients. It has presented ethical lessons that have become familiar over the last three decades.

One such lesson has centered on patient autonomy. The patient's participation in treatment decisions—or, in effect, more patient power and control in decisionmaking—has come to be instantiated in clinical practice in many ways. For example, it is recognized that the patient's informed consent is essential. Decisions about surgical and medical interventions, cardiopulmonary resuscitation and do not resuscitate orders, withdrawal of treatment, or what is to be done when respiratory cardiac failure is unresponsive to treatment are all seen to involve values in ways that call for input from patients (or their surrogates). Similarly, physicians are obligated to comply with patients' living wills or advance care directives, such as assurance of adequate pain relief for a dying patient.

These duties to patients (and families) in decisionmaking have become common in hospital life today.

Chronic Illness and Disease Prevention

Today, even as the hospital's emphasis on acute illnesses has been the major educational focus for medical students,[16] the new direction of medical education is care outside the hospital ward, and its new content is care for chronic illness and disease prevention.

The decentralization of medical technologies outside the hospital and the group organization of practice in a market economy has moved more care outside the hospital.[17] Collaborative ambulatory care through primary and specialty services in group practices can now deal with the mission of caring for chronic illness, as well as with disease prevention and the education of students.

In contrast to learning on the ward about acute illness, the ambulatory setting, in turn, requires different learning tasks for chronic illness and disease prevention. Two tasks are central: *assessment,* as distinct from diagnosis, and *management.* Assessment requires evaluation of the course of chronic illness, the patient's compliance in treatment and performance of preventive behaviors, and attention to functional status and psychosocial adjustment. Management requires a trusting doctor-patient relationship, knowledge of treatment, patient eduation and elicitation of patient preferences, collaborative work with other health care professionals, and psychosocial care of the patient. In managing chronic illness, patients' trust in the doctor is the foundation of their willingness to cooperate, their readiness to let the doctor make decisions about their care, and their acceptance of potential vulnerability.[18] The doctor, resident, or student meets that trust by informing and involving the patient in decisions about his or her own care and prevention.

These settings and these learning goals require new relationships with patients, relationships that are termed "participatory," "patient-centered," "shared care," or "negotiated exchange." In turn, these relationships require greater communication with patients, not technical interventions alone. Doctors, residents, and students must be willing to educate patients about risks, prevention, and rehabilitation. In the structure of ambulatory practice with its group organization, effective assessment and management requires time for such counseling and communication.

Finally, in today's health care market, the hospital is being redefined and reorganized from a nonprofit service organization to a for-profit business corporation that employs physicians. Under this new corporate organization of the health system, physicians lose control,[19] the goals of care become profits rather than the needs of patients, and medicine risks becoming a trade, no longer a profession.

The Architecture of Values

The hospital organization teaches ethical professional duties and responsibilities. As its direction and

form change, the organization may redefine duties and responsibilities in learning-to-care, redefinitions that may no longer reflect traditional values. Modern medical towers and department store clinics have now replaced the older hospital, its buildings and organization, and its lessons. And inside the hospital corporation, medicine is no longer a calling or a service but a job. For students, the message of the modern medical center is that it is a place to learn and perhaps a future place for a job. For patients, the message is the promise of high-quality body repairs, a commodity for purchase. Yet despite these dissonant messages, the architectural image of the modern hospital may still convey a spirit of unpaid service for the sick. Its staff, in their work in care and teaching, can hold the corporation to its ethical lessons.

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On the Development of Teachers of Medical Ethics in China

by ZHIZHENG DU

Despite a long history in China, medical ethics didn't become a popular course until the 1980s. At present, medical ethics is either a required or an optional course in most medical schools in China, but lack of qualified teachers is a conspicuous problem. As Tao Liu, who teaches medical ethics at Bao Tou Medical College in Inner Mongolia, has noted, "The problem of lack of qualified teachers worries us even more, as most teachers originally majored in philosophy, medicine, psychology, sociology, and law. There are even some teachers who were originally administrators who lacked much-needed knowledge. Of the current teaching faculty, few possess a comprehensive knowledge of medicine, philosophy, psychology, sociology, and law."[1] Ruguang Liu, vice president of Nanjing Health School, also remarked on this difficulty:

> Medical ethics in China, as a newborn frontier science, has no specialized professionals of its own, which results in the shortage of competent teachers in this field. People engaged in medical ethical education and research are those who have transferred from other fields. Quite a few teachers were asked to teach shortly after shifting from other fields, and it is not surprising that they are poorly educated [in terms of] professional knowledge and ethical theories.[2]

The development of medical ethics in China thus must place great emphasis on the training of teachers. In China as in the United States, teachers play a key role in the development and promotion of medical ethics. How competent the ethics teachers actually are reflects the status of the discipline in the whole country. We have every reason to do a better job in teacher training in medical ethics.

The Goals and Objectives of Faculty Development

Let us first define the goals and objectives of faculty development in medical ethics. What are the qualifications for these teachers and what goals should they pursue?

To answer these questions, we should first be aware of the current situation of medical ethics in China and know the challenges the profession is facing. Nowadays, with the progress in biological technology, medicine is troubled by many ethical problems that it has never faced before. Consequently, traditional medical ethics is also facing new challenges. As I have noted elsewhere,

> Although traditional medical ethics holds saving life to be its principle, the problems it encounters differ greatly from the problems of ethics caused by the advance of biology. Bioethics is not only simply a continuation of traditional medical ethics but also a challenge to traditional medical ethics.[3]

Every society faces the question of whether and how much to invest in a high technology but also high cost and often inefficient health care system. These decisions are not only economic but also ethical, and bioethics increasingly focuses on distribution of health resources, the adaptability of advanced medical technology, and decisionmaking at times of conflict between intuition and ethical understanding.[4] Thus medical ethics has entered a new phase.

Medical ethics as a discipline has to carry out four tasks today:

(1) To portray outstanding doctors and to nurture humanitarianism in medical service—the tradition of medical ethics that continues to have its significance today.

(2) To pave the way for reasonable use of new medical technology. In recent decades, we have seen many breakthroughs in biology—the discovery of the double helix structure of DNA in 1953 gave birth to molecular biology, while the revelation of genetic codes and the realization of genetic engineering have made it possible to change the life course, to improve the quality of life, and to prevent many diseases. But the new wonders of biology must be evaluated as to whether they are ethically permissible. Literally speaking, bioethics is a bridge as well as a pioneer leading us to the medicine of the future.

Zhizheng Du, "On the Development of Teachers of Medical Ethics in China," Special Supplement, *Hastings Center Report* 30, no. 4 (2000): S37-S40.

(3) To provide an ethical foundation for health care policy. Medical professionals are no longer governed by medical values alone. As health care has become a large social system, medical values are increasingly shaped by health policy. New policy challenges have arisen, such as how to achieve wider access to care, how to gain fair and effective distribution of health resources, how to weigh health care when budgeting public revenues, and how to deal with the welfare population. What's more, health care in most countries is in a transitional period, and it is all the more important to explore the common core of ethical principles in relation to health care policies. As Daniel Callahan has pointed out, the structure and funding of health care predetermines the doctor-patient relationship.[5] An important task for bioethics is to further investigate these wide-ranging issues and lay the ethical foundation for the entire health care system (p. 546).

(4) To provide broader guidance for health ethics. The goal of "health for all" challenges the medical world to provide its service to whole populations. As Daniel Wikler has argued, the fourth stage of bioethics is coming, which identifies itself as the bioethics of population health. It goes much beyond the traditional physician-patient relationship, crossing the boundaries of biology, sociology, anthropology, and management.[6]

Clearly, it is far from enough for teachers of medical ethics only to cultivate doctors' virtues or think of medical ethics simply as professional values. Unfortunately, for various reasons, in China education and research in medical ethics remain within the domain of professional values and physicians' virtues. Today's teachers of medical ethics have a narrow vision and see only the significance of professional values, which impedes their development and limits medical ethics in fulfilling its new obligations. It is high time for medical ethics professionals in China to redefine their goals and objectives. Without such re-orientation, they can hardly meet the challenges of the new health care environment.

It is argued that when developing our faculty of medical ethics, we must give due consideration to the contemporary Chinese situation, and should not simply borrow a Western model. People who hold this view argue that the transitional period of reform in which China finds itself has brought about serious ethical problems of conduct, and therefore that teachers of medical ethics should concentrate on cultivating students' moral values, a not very difficult task for the existing faculty to fulfill.

It is true China differs greatly from the West in this regard. In the West, individual moral development is often not the focus of the ethical world. However, things are quite different in China, where ideological education has prevailed for decades. For many reasons, the moral behavior of the medical profession has always been a focus of the public in China, and surely medical ethics cannot neglect activation of individual morals. However, our experiences in the past few decades tell us that most of the ethical misconduct of the medical profession is related more to policy changes than to individual moral failures. By making such a general statement I don't mean there is no individual malpractice in medicine; we will continue to fight against any violation of our moral values. Rather what I am trying to emphasize is that it will be hard for us to improve the situation if we continue to focus on individual moral issues and do not direct our efforts at laying the ethical foundation for our medical policies. The rapid increase of medical disputes arising from increasing use of advanced medical technology supports my argument. These kinds of ethical issues are no longer something vague and remote, but part of our everyday life. This is the hard lesson of the past decade. We must re-orient our goals and objectives for medical ethics if we want our science of medical ethics to grow.

What Ethics Teachers Need to Know

To carry out the tasks defined above, teachers of medical ethics must possess adequate knowledge, which many still lack.

Medical ethics is a comprehensive discipline that overlaps with many other subjects of study. It makes use of theories and concepts in philosophy to study moral values in medical behavior and tries to define the moral domains of medical practice, to lay down some guiding principles for medicine to serve the best interests of the public. This arduous task requires that people embarked on medical ethics possess a wide range of knowledge, including medicine, philosophy, ethics, and law. It is hard to imagine that we can make sound moral judgments if we are not familiar with the clinical realities of treating dying patients, the special demands of organ transplantation, the criteria for brain death, or in vitro fertilization. It is the same if we do not understand philosophy or ethics and have not learned the historical lessons of human success and failure. Similarly, ethics and law are closely related, and teachers of medical ethics must have some knowledge of medical law.

And as Daniel Wikler has advised, we must act as the "midwife" for the birth of the fourth stage of bioethics —the public health stage—in order to fulfill the social obligations of bioethics.[7] We must continue our education in new fields, such as public health, international health, cost-effectiveness analysis, quality control, and other newly developed disciplines.

Today, medical ethics is a science full of energy. Constant development of technology continually raises new ethical questions. Suppose we knew nothing about AIDS, human cloning, genetic engineering, and other developments, were numb to the changes taking place in medical ethics, how could we be qualified teachers of ethics?

Moreover, medicine is international and any achievement in medicine must be shared internationally. For this reason, bioethics has become an international phenomenon. At the 4th International Congress of Bioethics it was proposed that a universal bioethics be established. Although many people disagreed, the suggestion itself sends us a signal. A teacher of medical ethics must learn what is useful from other countries, though one must always take into consideration the situation of one's native country and its national and historical tradition. Our efforts to import new analyses in recent years, such as public interest theory, reproductive ethics, and pluralism in ethics, have improved our work greatly.

In thinking about bioethics internationally, it is worthwhile to address the concept of moral pluralism, because it has had great impact on medical ethics. Engelhardt has argued that any society, however simple it used to be, must now admit that the world today has plural moral intuitions and understandings; changes now taking place in every country make once dominant and unquestioned moral values problematic. And it is this moral intimacy that reveals our difference with others. Medicine no longer makes decisions about life and death in a society that is constituted of a single moral value system. We may disagree with Engelhardt on this issue, but his attitude is a revelation to us. It is true that people within one value system cannot readily share their values with strangers who have a different system. Even within the same value system, it is hard to explain all moral issues with a single moral belief. For instance, while we stress our obligations to patients' health, we cannot neglect the material interests of medical professionals. When we emphasize patients' autonomy, we cannot use it as an excuse to free ourselves from our obligations. When we call for the social benefits of medical work, we should not overlook the economy of medical institutions. Otherwise, it is absolutism. We Chinese have had painful experience with absolutism and the way it kills creativity and innovation. We must learn to integrate absolutes with relativity, universality with uniqueness.

Scholars and Reformers

It goes without saying that teachers of medical ethics are scholars, but should they be health care reformers as well? I believe that teachers of medical ethics should perform a double role, should be reformers as well as scholars. As the matter stands in China, many teachers of ethics have failed to play a positive role in medical ethics because they have focused too much on professional moral development while neglecting their role in reforming health care. As I have already noted, many ethical issues in China should be attributed to health care policies. For example, overprescription, unnecessary examinations, and overcharges to patients all derive from the drive for increasing income, without which a hospital may have to be closed. Teachers of medical ethics cannot teach a successful course unless they make vigorous efforts in health care reform to change the conditions that give rise to problematic conduct.

Health care policy is constituted by governmental decisions about how limited budgets and health care resources will be used to improve the public's health. It includes strategies for efficient use of advanced technologies to prevent and treat diseases while minimizing technology's potential negative effects and fair and reasonable allocation of existing health resources, with an eye toward future developments and future generations. A policy may explicitly guide physicians' behavior—for example, by establishing protocols for treating dying patients, or establishing procedures for billing and collecting medical fees. Sound policies also help doctors to make correct ethical choices. Medical professionals will make very different choices if their work is defined as a commercial activity than if it is defined in terms of social welfare. And good policy helps to clarify and mediate potential conflicts of interest.

Although social and economic development has brought policy issues to the fore in China, thinking in medical ethics has not yet caught up. We have seen a marked increase in both public demand for and the costs of health care, while the number of people who can afford health care is continuously decreasing. To meet health needs we should invest more into community medicine and primary health care. But driven by the market economy and the development of high technology, health resources are being concentrated in big medical centers, and in the care of terminally ill patients. New conflicts such as these suggest that teachers of medical ethics should devote themselves to the improvement of health care policy to meet the challenges of extending health care to a larger population, balancing the demand for equality with efficiency, and protecting the rights of patients. Teachers of medical ethics should have much to say about how to use advanced technology without infringing the long-term interests of human beings, how to adjust the relationship between health care and the market, and how to integrate medical ethics into economics.

Friends to Physicians and Patients

Teachers of medical ethics should be friends to both patients and physicians. It has been a healthy tradition for medical ethicists to consider protecting the interests and health of patients and the public to be an ultimate goal of their profession. And they are proud of what they have done. What I would like to point out here is that they should not only care for patients' interests individually but for the immediate and long-term health interests of "the people" as well.

Physicians and hospital administrators who see ethicists primarily as outsiders who make their lives more difficult misunderstand medical ethics. Medical ethicists and physicians are friends because they both advocate humanitarianism and carry forward the spirit of love. Our ethicists' work helps to set up a glorious image in the eyes of the public. The common efforts of ethicists and physicians on the ethical issues in adopting new technology will pave the way for the use of new technology in the best interests of the society, avoiding bad consequences. The cooperation of ethicists, physicians, and administrators will help to solve the issue of increased access to care within the limited resources we have. Both parties have common goals and interests, and they must work together, and trust each other, to face challenges to health work today.

This isn't to say that conflicts don't arise sometimes. Ethics professionals should take the patients' side and defend their interests when health professionals risk sacrificing patients' well-being to benefit themselves. And ethics professionals should stand up for the public and patients' interests when medical staffs try to conceal malpractice. And ethics professionals should assist the victim in disputes between medical staffs and patients, even at the risk of offending the losing party. Ethicists must be patient when working with physicians and dealing with patients' complaints, and not act like judges making themselves superior to others. We should be able to make friends with physicians because, after all, we are in the same boat and share the same goals. Prominent physicians have already set fine examples for us. They are the very people who constituted the principles of medical ethics.

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7. See note 5, Wikler, "Bioethics."

Ethical Values in the Education of Biomedical Researchers

by ELIZABETH HEITMAN

Research is a relatively new activity for physicians—scientific medicine and the culture of research that supports it date from only the beginning of this century. Whereas Western physicians have discussed ethical values in patient care for over 2,000 years, a true discourse on the ethics of biomedical research has developed only in the last few decades. Instruction in the ethics of biomedical research has become a part of the professional development of young doctors even more recently.

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While the history of ethical reflection on biomedical research has been short, scholarly and professional activity in the field has been intense. Unfortunately, contemporary attention to the ethics of research and the integrity of biomedical science has been prompted not by idealism but by public scandals over abuse of human and animal subjects, reports of scientific fraud, and public concern over an apparent lack of general ethical standards among biomedical scientists.[1] Professional discussion of the ethics of biomedical research has resulted largely from the need to identify, punish, and prevent wrongdoing among researchers. In most instances, this discussion has not meant the creation of new ethical norms, but rather the articulation of previ-

ously unwritten ethical standards that became evident only as they were violated.

Integrity and ethical responsibility in biomedical research have received particularly serious attention in U.S. universities and medical institutions since 1989. That year the National Institutes of Health (NIH) issued a formal requirement that "a program in the principles of scientific integrity be an integral part of the proposed research training effort" of any institution that applies for a National Research Service Award training grant, funds that support graduate students and postdoctoral fellows in biomedical research.[2] In the years since, administrators and faculty in medical universities have spent significant time and effort developing educational programs in research ethics for physicians in training and graduate students in the biomedical sciences.

NIH's order was issued amid profound concern among senior medical researchers, science policy experts, and high-ranking members of government that the informal transmission of ethical norms from teacher to student was not enough in today's complex world of biomedical research. The growing emphasis on formal instruction in ethics is intended as a corrective to the past generation's more exclusive concentration on trainees' technical skills and research productivity. By requiring young researchers to study ethics as an essential tool of their work—just as they might study statistics—NIH called for the ethical standards of biomedical science to be formalized, analyzed, and taught deliberately.

In seeking to meet NIH's requirement, many schools have struggled to define essential professional values in research and determine what a core curriculum expressing these values should contain. The ethical issues facing physician researchers are widely recognized: the humane and respectful use of human and animal subjects in research; the proper maintenance of data and records; conflicts of interest; self-deception and fraud; the definition of intellectual property in authorship, publishing, and patenting; and the scientist's relationship with peers, students, teachers, funders, and society at large. However, there is still work to be done in articulating the ground on which to address specific ethical problems in biomedical research as well as in devising effective methods for ethics instruction.

The Source of Ethics in Scientific Research

The first intellectual challenge in designing an educational program in the ethics of biomedical research is to define what is meant by *ethics*. Many courses in medical and research ethics begin with an overview of the fundamental theories and methods of philosophical ethics, which they later apply to the specific problems of the field. While this approach may introduce students to great thinkers and essential ideas, at the same time it may unwittingly convey the impression that ethics is something external to biomedical science, imposed by outsiders with no medical or scientific training. In contrast, by examining the professional values revealed in the history of medicine and biomedical science, it is possible to demonstrate how ethics is intrinsic to the practice of biomedical research. This is the approach of that we have used for the past fifteen years in the research ethics course at the University of Texas-Houston Health Science Center,[3] and in creating the textbook that we developed from the course.[4]

From a sociocultural perspective, ethics can be understood as a group's deepest sense of identity and purpose, especially as reflected in the group's regular activities and collective rituals. An examination of the everyday work of scientific research reveals much about the hopes, fears, and practical necessities that shape researchers' ethical values. In their professional customs and standard practice, biomedical researchers demonstrate a number of interrelated and mutually sustaining values:

- Honesty and truthfulness;
- Objectivity, disinterestedness, and skepticism;
- Openness and trust; and
- Intellectual freedom and tolerance.

Honesty and Truthfulness

Many biomedical researchers describe their work as the search for "Truth." Their scientific quest to understand the mysteries of the human body and processes of disease and healing demands a personal commitment that makes a life of biomedical research a moral calling. Commitment to the search for Truth requires at a minimum that the individual researcher and the biomedical research community at large profess a commitment to honesty.

The everyday practice of what Thomas Kuhn has described as "normal science" involves solving little problems that are like pieces of a giant puzzle.[5] At every step in this process, every researcher is dependent on the work of others. Researchers are indebted to their predecessors for the specific data that past research has generated, as well as for the theoretical frameworks within which they work. Although one standard for good science is its ability to be replicated, researchers would waste valuable time and resources validating others' methods and verifying others' findings before incorporating them into their own work. Moreover, as biomedical science grows more diversified and health care becomes more interdisciplinary, no one can master every field that may be relevant to his or her own research, and everyone must be able to trust that others' published work is true.

Hence the devastating impact of dishonesty and fraud in biomedical science. Fraudulent research can have a tremendous ripple effect: The revelation that published data are not legitimate may affect countless related projects. Important theories may be threatened if their supporting data are not valid. Fraud wastes time and money, both in the initial research and in any work that must be verified, restructured, or abandoned when the fraud is revealed. And most damaging of all, fraudulent biomedical research not only poses a risk of harm to patients, it erodes the public's trust in medicine, biomedical science, and physicians generally.

Objectivity, Disinterestedness, and Skepticism

The scientific method developed as a means of ensuring that researchers could recognize the legitimacy of others' findings. Researchers speak of the scientific method as an "invisible boot" that regulates science by kicking out poor results and badly designed research. Essential to the scientific method is its objectivity.

Scientific objectivity demands skepticism about everything. With the scientific method researchers work to *disprove* hypotheses that they believe may be true. In biomedical research, double blinding is an important part of the scientific method as a standardized means of preventing *expectancy bias,* the anticipation of a particular result that the hypothesis suggests. Similarly, the use of control groups and the randomization of subjects prevent *selection bias.* Particularly in clinical research, where many variables may confound the outcome, the randomized controlled trial is the "gold standard" of the scientific method.

Objectivity has long been prized among scientists as a point of professional honor. In the ideal, medical researchers are motivated by the joy of discovery, the intrinsic value of new knowledge, and the potential that new findings may be of benefit to others. Professional dedication to the scientific method, however, is prompted by the recognition that *all* researchers may be subject to personal and professional biases that may affect the collection of data and interpretation of results.[6] Because the threats of self-deception and human error exist with even the most careful methods, scientists engage in peer review, which encourages researchers to critique and test each other's work, techniques, and results. Peer review may mean re-evaluation of past conclusions based on new information, as well as testing new information against what is "known."

Before the 1900s, much of research was conducted by individuals whose personal wealth allowed them to pursue basic science without significant concern for outside influences. Although the lure of reputation tempted some to abandon rational methods in the pursuit of great discoveries, early independent scientists were largely unaffected by societal and institutional concerns. The governmental funding of academic biomedical research after 1950 introduced institutional politics and pressures. Since the 1960s, government and commercial sponsorship targeted at specific problems has challenged biomedical researchers to make discoveries with immediate practical application.[7] As biomedical research has led to effective treatments, the rewards for results have also increased. The threat of expectancy bias and other conflicts of interest has increased as researchers seek projects that can yield valuable results.

There is a great deal of attention paid today to the threat to biomedical researchers' objectivity posed by the need to obtain funding. Much of the discussion focuses on funding from the pharmaceutical, biotechnology, and medical device industries, which value research that develops patentable or marketable products with the potential for profit. If external funding from industry rewards specific results rather than good method, the promise of personal benefit may influence researchers' interpretation of their findings in favor of the desired outcome. Many U.S. universities have "conflict of interest" policies that require faculty to disclose any financial arrangements with industry, such as paid consulting or the ownership of stock, that might bias their research.[8] Such institutional policies and individual disclosure are a prerequisite to receiving federal research funding.

Nonetheless, the threat of bias due to anticipated personal benefit may also result from governmental funding, even for basic biomedical science. Competition for government research funds favors "successful" investigators with proven track records and "useful" data. Even government-funded researchers may be tempted to interpret their findings in an unduly positive light in order to gain renewed funding. Competition may also create professional jealousies that can compromise the value of peer review as a safeguard against bias.

Openness and Communication

Publication is central to biomedical research as the means by which researchers communicate their ideas and findings to colleagues, as well as seek validation, critique, and expansion of their work. Getting research published in a peer-reviewed journal is the test of quality for a physician researcher. The practical and ethical ideal in publication is that researchers disclose their hypotheses, methods, and data fully so that their work can be judged fairly and further developed by others.[9] Many journals have stringent requirements for how the essentials of a research project must be presented.[10] However, both space constraints and concern for competition may tempt authors to omit details needed to assess their work and conclusions in depth. Incomplete presentation of a study's methods and findings allows researchers to gloss over the limitations of their work, as well as conceal information that gives them a competitive advantage.

The importance of publication reflects the belief that biomedical science is a communal enterprise in which other physicians, scientists, patients, and society depend on the new knowledge gained by individual researchers. The presumption of interdependence and mutual benefit is one rationale for the publication of preliminary data and hypothesis-generating studies. However, competition and the desire for tangible results have begun to limit such publication. In for-profit biomedical science, the results of research are increasingly seen as proprietary, and there are strong financial disincentives against revealing important new data before a process or product has been patented.

Research physicians are often uneasy when industry funding requires that they keep their work secret or restricts the publication of research data, especially when their findings may affect patient care.[11] However, even in more traditional biomedical science, competition among researchers to be the first to get published in a certain area may also result in secrecy before publication and the initial publication of incomplete data. Typically, a researcher who publishes first receives more acclaim than later researchers who publish complete data and in-depth analysis. Colleagues who see each other as competitors may avoid open communication about their mutual interests, lest they give the other some advantage.

Where there is openness among biomedical researchers, the public's access to professional scientific communications poses another challenge. Researchers typically interpret professional journals as a forum for the discussion of new ideas; the public often sees scientific publications as reflecting the state of the art in biomedical advances.[12] In the United States, medical news receives a lot of attention and popular journalists are eager to report on "medical breakthroughs." Unfortunately, when journalists interpret biomedical research as news for a lay audience, their stories may create unreasonable expectations on the part of patients and frustration on the part of physicians who are unable to provide the breakthrough in clinical practice. To avoid creating false hopes and unnecessary disappointment among the public, medical experts must report their research to colleagues in ways that reflect the limits of their findings, as well as work with popular medicine and science reporters to promote responsible interpretation of new findings.

Intellectual Freedom and Trust

Intellectual freedom is one of the most cherished values of biomedical science. Ideally, researchers are trusted by their colleagues and society to use their professional judgment, reason, and instinct in choosing what to investigate and how to investigate it. Many researchers believe that the scientific method itself identifies important areas for additional work and that basic research in particular fosters creativity: in normal research new questions are generated by the very process of answering old questions.[13]

The intellectual freedom of biomedical researchers is possible only insofar as their work inspires public trust. Physicians and biomedical scientists have a special place in society: lay people want to trust them. Lay people often do not understand medicine or the science behind it, and they must trust biomedical researchers because they cannot always judge the validity of medical research. Lay people are also intrigued by the search for scientific Truth, even if they do not understand it. And most concretely, the public appreciates the health benefits that biomedical science provides, and is eager to trust physicians to continue providing these benefits.

The image of the physician-researcher as a benevolent miracle worker is widespread in the West, particularly in the United States. Nonetheless, in popular culture this image exists in tension with the darker image of the mad scientist, the evil genius who abuses public trust by greedily using his knowledge to gain power over others, and even over life itself. From Faust to Frankenstein to Jurassic Park, popular literature illustrates the inherent dangers in unlimited intellectual freedom and the breakdown of professional ethical standards.

The call for formal ethics education for trainees in biomedical research has come predominantly from within academic medicine and science. It has been accompanied, however, by politicians' angry demands for legislative oversight and strict government regulation of biomedical research.[14] Many academic researchers fear that significant government intervention would jeopardize intellectual freedom and stifle scientific creativity. To date, little government oversight has been imposed on biomedical science, as even vocal critics seem willing to give biomedical researchers another chance to regulate themselves. Thus the NIH's requirement for ethics education not only provides a valuable opportunity for biomedical researchers to instill ethical standards in young researchers, it can also help to restore the public's trust in biomedical research by articulating and enforcing its ethical standards publicly.

Unintended Lessons from Professional Education

Across the United States, formal courses in the ethics of biomedical research support integrity in biomedical science and instruct trainees in the prevention and resolution of ethical problems in their work. The actual effects of such courses have not been well evaluated to date, and it will be some time before anyone can say whether they in fact reduce the incidence of misconduct. What is clear, however, is that the broader educational system in which biomedical researchers are trained contributes to the problems that ethics courses are meant to address.[15]

For over a decade, individual reports of fraudulent research and formal studies on misconduct have suggested that trainees' desire to be "successful" often translates into a competitive drive to be "the best." In what has been called "the pre-med syndrome," relatively young students may develop the habit of cheating in order to satisfy the perceived demands of the competitive educational system in which they prepare to become physicians.[16] For students, success is measured in terms of test scores graded on a curve, grade point averages, and admission into prestigious training programs; for trainees and junior faculty, success its measured in numbers of published pa-

pers, amount of external funding, and speed of academic promotion. As competition increases at higher levels, the need to cheat may too. Ironically, those most at risk of engaging in misconduct appear to be the best and the brightest by standard measures of productivity: students and professionals with reputations for outstanding accomplishment.

Excellence in research is more than competitive advantage, and the costs to society and individual researchers from current forms of competition are evident in almost every ethical problem in biomedical science. Without concern, at all levels of academic biomedicine, for the origins and nature of competition in the research community, formal education in research ethics may do little to change the current environment. As the required teaching of ethics in biomedical research enters its second decade, academic institutions must examine their definitions of success more closely, and reconsider their implications for the communal values of science.

International Consideration of Values in Biomedical Research

Biomedical research today is unquestionably an international enterprise, which demands that the discussion of research ethics appreciate the diversity of values that shape its practice. Too often cultural differences in ethical values go unrecognized precisely because many people presume that moral truth is self-evident: when divergent values conflict in practice, the result is often shock, anger, and a sense of betrayal among colleagues, communities, and even nations. Little work has been done on international differences in professional training in ethics, despite the increasingly international character of many research communities.

The course in biomedical research ethics at the University of Texas-Houston Health Science Center was started five years before the NIH's mandate for such courses, in part to address the different ethical expectations of our increasingly international body of students. One specific purpose of the course is to give research trainees in clinical medicine, bench science, and public health a common ethical framework from which to conduct their research endeavors. Since its inception, our course has involved students and fellows from over thirty countries outside the United States. For most foreign students the course is part of their immersion into a new country and a new culture, an experience that often leaves them in culture shock. We find great consistency, however, in our students' dedication to "good research" and interest in talking about their educational goals. Despite occasional difficulties expressing abstract ethical concepts in English, our students talk with each other about their research as colleagues with a common heritage.

International discourse about ethics often appears to be about conflict and difference, with a focus on the gaps between systems. Beginning with discussion of professional goals and ethics in practice, however, may build a strong foundation of commonality from which a more comprehensive framework may develop. It has been rewarding for the faculty of our course to learn about the culture of biomedical research in other nations, to see our system through others' eyes, and to find important similarities across national boundaries. It is likewise valuable to address ethical issues explicitly with peers at international professional meetings. How we continue our conversation in the spirit of collegiality will shape the ethical foundations from which we teach the next generation.

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Through the plenary sessions and workshops over the past four days we have considered together the differences, and fundamental similarities, between medicine in China and the United States. Our conversations have highlighted distinguishing features of the conference itself, consensus about points of enlightenment as well as difficulties we share in thinking about medical ethics and medical practice, and a sense of our common future as professionals.

Three features have distinguished this conference. First is the fact that it is the first such comparative conference on medical ethics in China and the United States. And we have been privileged to work with outstanding leaders in medicine from both countries. Second, from beginning to end the conference has been marked by great enthusiasm—participants have expressed great interest in the topics addressed, and seats were always full. Third, we share the sense that our time has been too brief. We welcome opportunities to exchange ideas more fully and look forward to meeting again in a future conference and to the possibility of exchanging visiting scholars.

We have also shared "three enlightenments." Although China and the United States have different histories and cultures, we share common principles in medical ethics, such as confidentiality, truth telling, informed consent, respect, concern for justice, and commitment to preventive medicine. And we have similar understandings of the need to include law and management in medical education: law will deter those who contemplate acting badly; good management will prevent poor conduct (and reasonable salaries will make it less likely that professionals will seek their own gain at the expense of patients); and moral codes will inspire professionals to do good.

And we agree that ethical education must be part of continuing medical education throughout a professional's career.

We also recognized that some issues will still be difficult to resolve: the contradiction between the ideals taught by theory and the constraints of practice in the real world; the relative lack of social and governmental support despite the stress on ethics in the classroom; and how best to evaluate the results of training in and practice of medical ethics.

And we reflected together on the challenges medical ethics will face in the twenty-first century. We should provide comprehensive education for our students, increasing our classroom teaching in many subjects, including education in medical ethics. As physicians, Chinese and American professionals share commitments to ethics as a sacred cause in medicine. Our American colleagues especially have shared their enthusiasm for teaching.

We have not drafted a "Beijing Declaration" at this conference, but we have shared a common spirit and belief: that responsibility for medical education and human life are basic principles of medical ethics in both China and the United States.

Peicheng Hu

■

On my first full day in Beijing I visited Tiantan Park, which contains, among other wonders, the astonishingly beautiful Temple of Heaven. It was a holiday and the park was crowded with visitors, mostly Chinese families. Surrounded by both natural and human-crafted beauty, what struck me most during my visit to Tiantan were the families. Quite a few of the families spanned three generations. The expressions of love and sheer joy I saw on the faces of parents and grandparents were wholly familiar to me.

Various speakers offered their candidates for core values that underlie the profession of medicine in China, the United States, and the world. Some phrased them as virtues, such as competence, caring and commitment. Others identified general principles for medical ethics: confidentiality, truth telling, informed consent, beneficence/do no harm, respect, justice, and prevention. I want to consider the question from another direction though—from the perspectives of patients and their families.

For all of our differences in history, culture, and politics, the citizens of China, the United States, and all other nations of the world also have much in common. Medicine and the other healing and caring professions are themselves grounded in the universal human experience of illness, and the equally universal human desire to care for those who suffer.

By calling these experiences and desires universal, I certainly do not mean that every individual in every culture must experience them in precisely the same way. But every culture knows illness; and every culture makes provision for caring for people who are ill. Disease and early death disrupt the lives of individuals and families, cause physical suffering as well as great emotional pain and loss. Disease makes medicine necessary.

The specific values served by medicine and the virtues cultivated in doctors flow from our shared experiences of illness, love, compassion, and caring for those in need. Given our shared humanity, our common experiences of illness, the immense value we place on enduring human relationships, it is no surprise that we come to similar conclusions about values in medicine and virtues in physicians.

One important insight offered repeatedly at the conference by both Chinese and American scholars was that social factors, including institutional and economic factors, work to shape physicians' behaviors and patients' expecta-

tions. There was no dispute over the proposition that those social factors must be arranged to support—not to punish—ethical behavior by physicians. Yes, doctors should act ethically despite pressures or temptations to behave otherwise. The integrity of the individual physician is a necessary bulwark against the moral degradation of medicine. But we should work hard on both fronts. We must teach medical ethics by both precept and example. And we must work, whenever necessary, to reform those social factors that promote or provoke unethical practices.

Two sets of challenges face medicine—and medical ethics—in both China and the United States. I will call them external and internal challenges. The external challenge we both face is to respond to the influence of market forces on medicine. The issue of medicine and the market has taken many different forms historically, and both the United States and China have had to face the issue many times. For both nations, though, the challenge seems especially urgent today. The face of health care in the United States has changed radically, and probably irreversibly, under the hegemony of managed care. Most jarring for Americans has been the rise of for-profit, investor-owned managed care firms where success is measured as much by a low "loss ratio"—that is, the percentage of income spent on caring for patients—as by health outcomes and patient satisfaction. At a time when access to health insurance is becoming increasingly expensive and limited for American workers and their families, and physicians' actions are increasingly constrained by managers who may have little or no experience providing health care, deciding the appropriate role of the market in medicine has become an inescapably pressing task.

China has its own problems in this realm. Under market socialism, Chinese society is being transformed, as the fervent and omnipresent entrepreneurs on Beijing's streets and in its shops attest. Medicine is a profession high in status but low in income. We heard many complaints from Chinese participants—and not only from physicians—that the abysmally low pay of physicians made them susceptible to *hong bao*—literally "right package," in reality the practice in which patients give money to physicians so that the physician will be attentive to their care. Chinese participants were unanimous in their condemnation of the practice, but equally unanimous in their concern for physicians' financial plight in modern China.

Medicine in China and the United States also faces internal challenges. Physicians and medical ethicists from both countries embraced the importance of respect for persons as a central pillar of medical ethics. Yet it was not always clear whether the concept meant the same thing to the two cultures. American culture, with its enthusiasm for individual rights and liberty, holds to a very strong concept of respect for individuals that frequently trumps other ethical considerations. We did not have an opportunity for sustained dialogue with our Chinese counterparts about what happens when respect for the individual comes into conflict with other important moral considerations. Nevertheless, the emphasis on community and family suggested that the balance might sometimes be struck quite differently by Chinese and American physicians.

Speaking of family, it might be said that Chinese medical ethics is much more comfortable with the concept of family, and the role of families in the lives and decisions of patients, than American medical ethics. Americans' heavy emphasis on individuals makes it more difficult to find insightful ways to think about the families of those individuals. Yet those families commonly play an enormously important role in patients' decisions, and, equally important, the illness of a person can have a tremendous impact on the life of a family.

The Beijing conference on medical ethics was a profoundly important opening dialogue, a dialogue that we now have a duty to pursue with great energy and mutual respect. Chinese and American medical ethicists and physicians have much to learn about each other. We also have much to learn about ourselves from just such a spirited and respectful conversation.

Thomas H. Murray

■

The China Medical Board decided to sponsor this conference primarily because civilization must find new rules, guidelines, and understandings of how we will live in the global community made possible by communication technology, computers, and travel.

Will there be a single, global profession of physicians built on a single set of universal core values, or will medicine continue to be multiple "professions" adhering to a more tribal orientation that lacks symmetry in its values?

The goal of this conference was to determine whether it is realistic to continue to think and dream of a global profession of medicine, founded on a set of core values to which all physicians would aspire and that would define what the profession of medicine is and who is a physician. Both the United States and China represent melting pots of culture, religion, and belief. If physicians in these two countries—so different in culture and history—share core values, such values are almost certain to be common around the globe.

And indeed, the exchanges over these four days convince me that physicians in China and the United States *do* share deep values. Physicians in both countries take as central to their professional lives

- the obligation to help all people in need and to help all patients equally;

- the obligation to put the patient's welfare first and to do no harm;

- the obligation to conduct their relationships with patients in an honest fashion and to carry out their professional activities with humility and self-discipline;

- the obligation to assume responsibility for patient care;

- the obligation to protect each patient's confidentiality, to serve as the patient's advocate, and to protect informed consent on the part of patients; and

- the obligation to participate in continued learning which in turn maintains one's competence and to respect one's teachers.

Our Chinese colleagues have made explicit two further values that are implicit in our Western professional tradition, but usually are not specifically stated:

- humanitarianism, which derives from a love of humankind, and

- a commitment to the continuous search for truth.

In their magisterial *History of Civilization,* covering 5,000 years of human history, Will and Ariel Durant asked, "Has progress been real?" They answered in the following way. If by "real" one means that there has been advancement of knowledge, increased food supply, decreased disease, increased life expectancy, and broadened education, then progress has been real. But if by "real" one means that human beings have evolved to a higher plane of ethical thinking and behavior, there is no evidence of improvement in this sphere. In short, the need for values has not changed and is unlikely to change in the near future.

What, then, is needed at this moment in time for this global profession of medicine? Some suggestions:

- A universal code of ethics that describes who the profession is, what physicians aspire to be, and what should control the formation of their public image.

- A longitudinal core curriculum, covering the continuum of medical education, that begins the day one starts to think of becoming a physician and continues until one retires from active involvement in the profession. Case studies relevant to the learner's position and stage of development should be used to reinforce the core values at all points along the continuum of a professional's life.

- Role models who aspire to live by these values and who serve as an inspiration to us all. In short, people who would teach us not only what the values are but how they should be manifested in one's day-to-day conduct.

- Understanding of what threatens the core values, because threats to core values are threats to the physician-patient relationship and as a consequence, threats to professionalism. An example of such a threat is what some in the United States have called "the flight from reason." The philosophy behind this movement is based on the conclusion that there are no absolutes. All things are relative to an individual's experience and since no two individuals have ever had identical experiences, there can be no absolutes, even for two people. There can be no math, no sciences, no archeology, no history, and there certainly can be no core values, including core values of the medical profession.

- International training programs to prepare ethicists for the future.

- A clear understanding of who should have the responsibility for protecting, preserving, and advancing the core values, remembering that we are a part of a global community.

- A place or repository where core values are safeguarded. This repository must be global in nature and must seek to nurture, protect, and encourage the use of these core values.

In short, we need a renaissance in the ethical education and behavior of physicians. I believe this has already begun, but it needs to widen and deepen and the momentum for this revolution needs to markedly increase.

Why is this renaissance imperative? There are three reasons. First, there has been a significant drift in the ethical behavior of physicians away from core values in both the United States and China. Second, science and technology are forcing ethical dilemmas on physicians. Physicians can handle these in an ethical way only if they know who they are professionally and what their core values are. Third, the monetary aspects of medicine have become so pervasive that they threaten the cornerstone of professionalism, the doctor-patient relationship, and the core values of the profession.

As best I recall his wording, Frank Outlaw once said, "Watch your thoughts, they become your actions; watch your actions, they become your reputation; watch your reputation, it becomes your destiny." If physicians watch their thoughts and repeatedly reinforce the definition of core values, they will define a noble future physician.

Our time together here has demonstrated that a global profession of physicians is a real possibility. If physicians think of themselves as part of a global profession based on a common set of core values, then they will become such a profession.

M. Roy Schwarz

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China Medical Board

China Medical Board of New York, Inc. is a private grant-making foundation primarily engaged in providing assistance to established medical, nursing, and public health schools in China and other East and Southeast Asian countries, and, to a less degree, similar institutions in the United States. Founded in 1914 as a division of The Rockefeller Foundation, it became independent in 1924 and became incorporated in 1928.

Through its education, research, health service, and endowment grants, the China Medical Board seeks to bring the best available expertise to bear on the problems or needs addressed by recipient institutions. It is dedicated to seeing that "bridges of friendship, understanding, and cooperation" are built among health care professionals and educators, and encourages institutions to share their resources, expertise, and creativity, especially with those at an earlier stage of evolution and development. The Board is particularly interested in grants to advance recipients' pursuit of excellence and for the enhancement of the academic and professional infrastructure of recipient institutions.