SCIENCE, COMMUNICATION, AND COMPASSION IN MEDICAL PRACTICE*

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Introduction

For the past 18years, I have been working with colleagues in Ghana in various health service and administrative institutions and settings. I have attended many lectures and have given several to many different audiences. Through four large international conferences, my colleagues and I have brought hundreds of foreign and local health scientists together to share knowledge and practices in my area of greatest scientific interest, sickle cell disease and other disorders of haemoglobin. I have also followed as closely as possible, events in Ghana that affect the health of our people. However, none of these experiences brought me closer to our health care delivery system than my involvement in the terminal illnesses and passing of two cousins, my closest cousin and friend and his senior brother, both events happening 5 months apart this year. This has not been a good year as, for the first time, our beloved country has experienced the passing of a sitting head of state. This week, as we try to share new medical information among ourselves, our nation is draped in a sorrowful mood the likes of which I have never experienced. Honestly, it has been difficult for Ghanaians to focus on anything else, and the outpouring of love and sympathy for our departed President has been overwhelming. So even as we mourn, as health workers, our work never takes a break, and we must go on.

My observations, comments, and suggestions today reflect positions of a medical scientist, a medical doctor of children, a father of a child with a health problem, and above all, a patient advocate.

My interest in becoming a doctor was born in the scary offices of the doctor who took care of me when I was a child. Dr. Adu, whose office was located in New Tafo in the Eastern Region, two miles from my hometown Kukurantumi, was a man of whom I was afraid but whom I loved at the same time. At home, I always thought and talked fondly about him but my fear always took over whenever we approached his offices and the haunting aroma of medications from his dispensary drenched the air. His offices were always immaculately clean and orderly, but the welcoming smiles and patting of his smiling nurse and assistants,

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Conflict of interest: None declared

*Keynote Address at Medical Knowledge Fiesta 2012

dressed in their spotless white uniforms, always made me feel like a cow being led to the slaughter house. The nervous friendly feeling that started each encounter with Dr. Adu would quickly degenerate into a fullscale panic by the time the tray with those disassembled and sterilized, polished steel syringes and needles was carried in by the nurse. As the parts of the syringes were being assembled, I would be overcome by the instinct of self-preservation, wrestle my skinny body from the clutches of my mother, and dart out of the offices and onto the street, sprinting up the hill, pursued by the white-uniformed angels of pain. Those races may have turned me into a sprinter later in life but I never won any of them and I was never spared the needle because, a visit to Dr. Adu without an injection. was like a day without sunshine. So another round of the emotional boxing match between my fear and love of my doctor would be over and I would leave his office with a smile on my face.

So why would Dr. Adu inspire me to want to become a doctor? Deep within me, even as a tempestuous little boy, I believed in the goodness and benevolence of Dr. Adu. He was kind and gentle, and he made my mother and I feel special. So, I wanted to be a doctor who takes care of children, just like Dr. Adu.

Many of us have similar role models who may have inspired us to this noble profession but, unfortunately, the inspiration may not have been delivered in the same kind and compassionate way that came from Dr. Adu. As doctors, we carry many responsibilities along with the simple privilege of being health caretaker. If life is precious and good health is the greatest gift, then the guardians of health must be the most privileged servants of humanity. I can think of no other occupation that carries as much responsibility and privilege as our noble profession.

In my career in academic medicine, I have had the opportunity to counsel many young people about career options in biomedical science. The student aspiring to enter medical school is often driven by a desire to help people, often inspired by a Dr. Adu, illness of a loved one, or by pure fascination with biological science.

Over the ensuing years after admission to medical school, filled with rigorous study and little sleep and relaxation, the idealistic medical student is transformed into a person who carries knowledge and practical experience that can actually make a difference in the health and lives of fellow human beings. Along the way, the initial idealism of the medical student will be challenged frequently by demands of studies, sometimes by discouraging and insulting teachers and senior colleagues, physical fatigue, and above all, unending stream of humanity that needs care, pain relief, and that may succumb to their illness despite the doctor's best efforts.

However, along the same way, the initial idealism of the medical student will be nurtured by the pleasures of new knowledge, inspiring teachers and senior colleagues who demonstrate compassion and dedication, and above all by the unending stream of humanity whose illness is treated, pain is relieved, and that go on to live active long lives or get a brief extension of their lives to commiserate with loved ones before the inevitable.

What kind of doctor the medical student turns out to be in the end would depend upon the depth of her or his initial idealism and what motivated her or him during the years of study, training, and mentorship. We may end up in the same profession but we do not arrive at that privileged station with the same inspiration and motivation.

So one day, you wake up, and you are qualified to be a doctor, and there you are swearing the oath of the profession, the Hippocratic Oath, more likely a modern version of the oath that is incorrectly credited to Hippocrates, the man historically referred to as the Father of Medicine.

I want to examine three concepts framed in the context of the Hippocratic Oath. The three concepts are Science, Communication, and Compassion.

The Science of Medicine

The first item in the modern oath says:

I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.

The basis of modern medicine is science. As defined by Wikipedia (accessed 28th July 2012), "Science (from Latin scientia, meaning "knowledge") Is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe." Science is an endless search for answers to questions posed by previous knowledge and assumptions. Knowledge is limitless and medical practice continues to benefit from a large amount of new information. The oath demands that we learn from those who have been before us and teach those who follow us. Scientists learn from their teachers while questioning inadequate answers by searching for better explanations. A great teacher is not one who demands rote learning from his/her students but one who infuses knowledge and improved practices to his/her patients and others.

We are gathered here for the Medical Knowledge Fiesta 2012 with the theme, "Cutting Edge Updates for Medical Practice in Ghana." This is a scientific event, recognition that in Ghana and elsewhere, medical practice cannot advance unless the scientific base is continually strengthened.

You will be given updates on various medical topics. Much of the information may not have been generated here in Ghana or in Africa but science knows no national boundaries and what applies to one human being at one corner of this spinning ball most often applies to those at other locations. While culture may influence application of science and technology, it is dangerous to use the web of culture to distort scientific findings and to ascribe untested and unproven conclusion to observation we make as if the Ghanaian or the African is fundamentally different from any others. The laws of Physics apply to us all whether we know and understand them or not. Any model of a mobile phone works the same way in the hands of anyone be he/she an electrical engineer or a "Kenkey" seller. Our people in Africa should benefit from new medical knowledge as much as any humans in the world, whether they know and understand it or not.

Scientific knowledge in medicine is often translated into practice by introduction of new technology, training of staff, new drugs, and changes in practice methods. It is easy to explain inability to take advantage of new knowledge by lack of financial and material resources or infrastructure to support new technology. However, in many instances, the reluctance or failure to apply new knowledge to the benefit of our patients is due to the intransigence of an authoritative teacher trapped in personal and outmoded practices no longer supported by new information. Our traditional respect for and worship of age often suppresses curiosity of the intellectually nimble, young medical scientists preventing them from constantly searching for new information. Research is the driver of innovation and change is the reward of research. So my colleague medical scientists, let us not dismiss new ideas and approaches that have succeeded elsewhere but think of how we too can adapt the new information to change our practices in order to serve better the people who have placed the care of their health in our hands.

In my narrow field of haematology, there are many examples where new knowledge that has enhanced the care of patients elsewhere has been ignored for decades. So an electronic haematology analyser gives you a full blood count including red cell indices. The doctor seeing all those additional numbers gets upset with the lab tech, telling him, "All I want is the Hb", why are you giving me all these numbers? By not learning how to use those additional parameters, assessment of anaemia is incomplete and therapies applied may be inappropriate or even harmful.

The Hippocratic Oath says:

I will prevent disease whenever I can, for prevention is preferable to cure.

Infections remain a major cause of morbidity and mortality in our part of the world. In our setting, a patient with fever has malaria until proven otherwise. If fever does not resolve after treatment for malaria, the cause of fever must be "typhoid." Often antimicrobial therapy is applied with no attempt to establish cause of fever. Blood culture, in even our major hospitals, may be unavailable and must be sent out to a private laboratory. The results often take up to 5 days or more to obtain. Continuous monitoring blood culture systems have been available for years and are affordable, comparing their costs with those of some of the vehicles we supply ourselves. Delayed and imprecise diagnosis of bacterial infection leads to unregulated, overuse of antibiotics, and practices that lead to increased occurrence of drug resistance.

Nosocomial infections have been recognised as a major threat to hospitalized patients. Why then do we ignore the campaign to reduce such infections? Hand washing and use of hand sanitizers have been shown to reduce hospital-acquired infections. On many of our wards, there are no sinks for hand washing and doctors and nurses move from patient to patient with no opportunity for washing their hands or using sanitizing gels. These simple techniques can make a major difference in morbidity and mortality of hospitalized patients.

Even if our patients cannot see the microorganisms we pass from one to the other, the science of infection and its control in health care institutions applies equally in our setting.

Communication

One of the sub-themes of this Medical Fiesta is entitled: "Patients telling lies to Physicians." That brings us to the topic of Communication: between doctor and patient/family, between doctor and nurse, and between doctors. As a young child, I used to be afraid of Dr. Adu, but he and I had good open communication; when he or his white-coated terrorists caused me any discomfort, I let them know. I would scream, threaten to bite, or escape. No lies, just plain truth. But thinking that I had "corn dough" for a brain, his nurse and assistants would continue to lie and tell me that this time, the needle would not hurt. When did a sharp steel needle decide to show mercy to flesh and not unleash pain? That was an example of lying to the patient.

But honestly, doctors, why do we have difficult time just telling the truth to patients? Imagine taking your car to a fitter because there is smoke coming from the engine compartment. The mechanic does not ask you any questions and says, "Come back in two hours." You return to pick up your repaired car and you ask the mechanic what was wrong with the car? He ignores your question and says, "oh it was nothing much" as he hands you an unlabelled can of some brown liquid. "Just pour this in your engine next time you see that smoke again!" you gather all you courage and you ask, "What is that in the can?" He stares at you with a stern look and barks, "Why all these questions, are you a mechanic?" Afraid to get him angry, after all you may need to come see him again when your brake is not working and who wants to annoy his brake mechanic, you get into your car ready to drive away. He walks up to your car, taps on your window, opens his greasy palm and says, "120 Ghana." You nervously pay him and drive away confused.

Now substitute a patient for you the driver, and make the "fitter" (auto mechanic) his doctor. Why would you tell a patient he has nothing and give him a prescription? Why would you write a prescription before he tells you what is wrong with him? Why would you tell your patient to put some medicine into his body without telling him what it is, what it is supposed to do, its side effects and toxicities if any, and what to do if it does not work? And how would you expect to be paid for such poor communication. Is an intimidated patient who is afraid to ask you a question a good patient? Is the patient annoying you with her questions or are you hiding your ignorance and insecurity behind that firewall of intimidation?

If you would not put that brown liquid into the engine of your car, how can you expect your patient to take the unknown, unexplained medicine you prescribed? Even if your patient were illiterate, would it not serve her better it you wrote down the name and dosage clearly on a piece of paper and tell her to give it to a literate relative or friend to keep for her in case she had to tell another doctor or nurse what medicines she was taking?

I have had a few doctors, nurses, and medical students come over on short-term attachments at the hospital where I have worked for the past 26 years, Children's Hospital of Philadelphia. The most common impression gained by these health workers on completion of their visits is the open communication between doctors and nurses and with patients and their families. Now, I know that even in generally relaxed and open US, the medical practice environment was not always that open. Barely 50 years ago, doctors were worshipped by patients, served by nurses, and acted like they sat on the right hand side of God. A doctor would act like he knows everything and would act as if asking a nurse or another doctor for advice is a weakness as best or bad business practice at worst.

Our Hippocratic Oath says:

I will not be ashamed to say "I know not," nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.

There is much medical information being produced every day that even the brightest doctors cannot keep up with much of it. Information that used to be memorized is now stored online or on smart phones and tablets, accurately and available uniformly to all. Much of the information is now available openly so that laypersons and even those who cannot read can have access to the information: they can hear it on radio or television. The "Kwaku Ananse" approach to knowledge bank is long past. You know the story about how "Kwaku Ananse" gathered up all the wisdom on earth, put it in a pot and tried to climb up a tree to hoard wisdom for himself alone. It is no different from the herbalist who will not point out what plant he uses for his potion or a doctor who will not write clearly enough for the patient to read the prescription. Well, "Kwaku Ananse's" pot fell, broke up, and wisdom spread all over the world.

Since no doctor knows everything about everything, and since the lives and health of our patients are precious, we should always try to learn as much as we can but admit when we do not know and ask someone else who may know better about that particular condition. We should not be ashamed to say simply, "I do not know but I will find out the answer for you." That is the humility of a scientist and a caring doctor. It is not good when Physicians lie to patients. When doctors do not discuss their patient's illness with otherdoctors, the patients often lose.

Compassion

I noted earlier that even in my fear of his medical surroundings, I still loved Dr. Adu because he was a kind man and he made me feel special. I also remarked on the special privilege we doctors and nurses have as guardians of health and life or our fellow humans.

Our Oath says:

I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.

Further, it says:

I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.

Compassion is the medium through which we demonstrate our humanity to our fellow human beings, be they rich or poor, sound of mind or slow, friend or foe, for the privilege of being their doctors and nurses.

As mentioned before, most students I have interviewed for medical school admission have expressed a desire to help people as their main reason for wishing to become a doctor. You know, in addition to my early mentor Dr. Adu, my professional role model and best teacher in medical school was Professor Howard Pearson of Yale University School of Medicine, one of the pioneers of the specialty of Paediatric Haematology Oncology. Dr. Pearson is also the most compassionate doctor I have ever worked with. From these two doctors, I learned that one can be a doctor and be kind and one can be world-renowned professor and be courteous, selfless, respectful and compassionate to ALL who come to you for help.

The art of medicine requires us to be warm, sympathetic and understanding to our patients. These qualities may outweigh the science we know and the skills we have as Surgeons.

Why would anyone choose the field of medicine if s/he does not have a strong sense of compassion toward the sick? Why spend so much time and effort to gain the privilege to serve as a guardian of the health of human beings and treat your patients with disrespect, abuse their request for help and victimize them for problems they did not cause. Do we not have special obligations to all our fellow human beings? Why would any sick person wish to come and seek help from nurses and doctors who scream at them, not listen to them, not take their problems seriously and who do not seem to care whether they lived or died. At which point in our careers as doctors and nurses do we become so insensitive to the needs of our patients that we can no longer show them compassion, respect and kindness.

Conclusion

On a final note, I would like to express my personal discomfort with the current direction in which the image of members of our profession is sliding in this country. In 18 years of working alongside many of you here at home, I do fully appreciate and recognize the difficult working conditions many of you endure on a regular basis. I also admit that the financial compensation for your work, like that of almost all public workers in most countries will never appear sufficient. However, money seems to have become the leading cause of protest by doctors working in the public health system. Several times in the past decade, doctors at different levels followed by other health workers have gone on strike and have done so with such stringency that some acutely or serious ill patients have been harmed, some fatally.

If our action or inaction led to harm or death of our patients that would be the most serious violations of the "special obligation to all human beings" embedded in the Hippocratic Oath. If we have an economic matter to settle with our government, why do we victimize the very people we have sworn an oath to serve? Our patients are not responsible for our government salaries? The frequent threats and use of strikes or withdrawal of services against our patients in order to apply pressure our government or public hospitals is turning the image of our noble profession into nothing more than that of a bunch of insatiable Shylocks always seeking another pound of flesh. Solving our economic and labour problems on the backs and lives of our hapless patients is no triumph. In many ways, these actions turn the very people whose support made it possible for us to fulfil our dreams to become doctors against us. I fear that they will never forgive us the pain, the loss of loved ones and apparent lack of compassion.

I would appeal to the compassionate and kind Dr. Adus among you to rise and let your humane voices be heard. Your courage to resist the trend and even change the course of action of your colleagues will restore dignity to your profession and set a new tone of respect, kindness and compassion that will attract another tempestuous little boy or girl to grow up and be just like you.