Thoughts for new medical students at a new medical school

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Notes
It's good to talk

will one day help others. Some have even visited us in Southampton and spent time in our clinical research centre. We are grateful to all of them, and do our best to keep them and their general practitioners informed of our findings.

The results of the research have more than justified all the activity. As a group, people who are small at birth or during infancy remain biologically different throughout their lives. They have higher blood pressures and are more likely to develop type 2 diabetes. They have different patterns of blood lipids, reduced bone density, altered stress responses, thicker left ventricular walls, less elastic arteries, and different hormonal profiles, and they are ageing more rapidly. Out of these observations has arisen the fetal origins hypothesis, which proposes that cardiovascular disease originates through the responses of a fetus or infant to undernutrition that permanently change the structure and function of the body.

Future research

Through the happy chance of my sister's birth we got access to the Hertfordshire records, and thereafter discovered the others. At that time we had no difficulty in getting permission to trace, interview, and examine large numbers of people. It is unlikely that such permission would be so readily obtained today. Had current data protection laws been in force 15 years ago, they might have prevented thousands of willing Hertfordshire people from taking part in medical research—and the fetal origins hypothesis would not exist.

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Giving advice to medical students makes doctors think about what is important in what they do

Earlier this year I had the privilege of speaking to new medical students at a new medical school—the Hull York Medical School. What should I say? I felt almost overawed. It seemed a major responsibility, although I knew that most of what I said would—thankfully—be forgotten or ignored as the ramblings of yet another “old fart.” Needing help and a method, I started by asking members of our editorial board, doctors from all over the world, what I should say. They responded with enthusiasm, giving me the thought that it might be a good idea to broaden the debate. That’s the main reason for this article: it’s a preliminary statement in what I hope might be a rich debate. In thinking what we want to say to new entrants to the profession we have to think of what is important about what we do.

What follows is a mixture of my own ideas and those I selected from the responses of the members of the editorial board. Box 1 summarises responses from the BMJ’s editorial board, and box 2 gives the full advice of Dave Sackett, the “father of evidence based medicine” (and a member of the board). I also spent some time exploring advice from literature to young people, not specifically medical students (see boxes 3, 4, 5, 7).

“To thine own self be true”

Perhaps the most famous advice to young people in the English language is the speech of Polonius—a tiresome old windbag—to his departing son Laertes in Shakespeare’s Hamlet (box 3). The speech contains much excellent advice, but perhaps the quintessence is, “To thine own self be true.” Everybody—but perhaps especially medical students—experiences pressure to be somebody else. In the competitive world of medicine there is strong tendency to try to be “the best.” But the simplest mathematics shows that everybody cannot be the best: there is only one best.

I asked the students when I spoke to them, “What was the greatest invention of the 20th century?” Was it quantum mechanics, aircraft, penicillin, the atomic bomb, the double helix, the randomised controlled trial? I suggested (slightly tongue in cheek) that it was D W Winnicott’s “the good enough mother.” (Actually, it was jazz.) The attempt to be the best mother in the world, the best neurosurgeon, or the best medical editor will end in tears. Being a good enough mother is to be a good mother, whereas the attempt to be the best will guarantee that you won’t be (indeed, you may be a highly damaging mother). Similarly, you should aim to be a good enough medical student and doctor.

One of the curses of doctors is that they have such strong stereotypes. Doctors are upstanding, trustworthy, clever, straitlaced, conservative, authoritarian,
they are inclined to keep this to themselves—partly for  

ments, and their own profound fallibility. Nevertheless,  
of the limitations and complexities of modern  
social disorder. Doctors, in contrast, are painfully aware  
fix their problems, even those rooted in family and  
have a misplaced confidence in the ability of doctors to  
examination, and perhaps a blood test. Patients also  
what's wrong with them after a few questions, a cursory  
ated idea of the power of modern medicine. Even  

noble (if misplaced) reasons like wanting to maintain  
grammes like  

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T omorrow's W orld  

Il Papa  

—infallibility. The public —forced fed pro-

Aim at knowing how to learn, how to get useful  
medical information, and how to critically assess  
information  
The first 10 times you do anything—present a  
patient, put in an intravenous catheter, sew up a  
laceration—will be difficult, so get through the first 10  
times as quickly as possible  
Although you should not be afraid to say "I don't  
know" when appropriate, also do not be afraid to be  
wrong  
Cherish every rotation during your training, even if  
you do not intend to pursue that specialty, because you  
are getting to do things and share experiences that are  
special  
When you have a bad day because you are tired,  
stressed, overworked, and underappreciated, never  
forget that things are much worse for the person on  
the cold end of the stethoscope. Your day may be  
losy, but you don't have pancreatic cancer  

Thou canst not then be false to any man.  
This above all: to thine own self be true,  
For loan oft loses both itself and friend,  
Neither a borrower nor a lender be;  
Are of a most select and generous chief in that.  
And they in France of the best rank and station  
For the apparel oft proclaims the man,  
But not express'd in fancy; rich, not gaudy;  
Costly thy habit as thy purse can buy,  
Take each man's censure, but reserve thy judgement.  
Give every man thy ear, but few thy voice;  

In particular, avoid the trap of thinking you need to  
know everything. Even if you knew everything at  
6 o’clock this morning (which of course you never  
could), you won’t by midday—because a thousand new  
studies will have been published. “Medicine,” says John  
Fox, head of the Advanced Computing Laboratory, “is  
an inhuman activity.” We need the help of machines.  
Ask travel agents the time of planes from Shanghai to  
Hong Kong, and they will not quote from their heads.  
They will use information tools. Doctors must learn to  
do the same.  

The three most important words  
David Pencheon, a public health doctor, plays a game  
with new medical students. He asks them questions of  
increasing difficulty. Eventually—and it may take a  
while—a student will say; “I don’t know.” Pencheon then  
gives the student a box of Smarties and tells the  
students that these are the three most important words  
in medical education.  
T S Eliot thought the same, saying that in order to  
arrive at what you do not know, you must go by a way  
which is the “way of ignorance.” Ignorance may not be  
bliss, but it is the beginning of all learning. Those who  
want to be even good enough doctors must commit to  
a lifetime of learning—which means displaying, not  
hiding, our ignorance.
The old way of learning, says Pencheon, was knowing what you should know. Now the way of learning is knowing what you don’t know, not feeling bad about it, and knowing how to find out. Uncertainty was discouraged and ignorance avoided. Now, uncertainty is legitimised and questioning encouraged. Medical education was learning by humiliation, with naming, shaming, and blaming. Now, students are encouraged to question received wisdom.

I spent a year at the Stanford Business School, and the most useful thing I learnt for the BMA’s £30 000 (€25 000) was that “there is no question too stupid to ask.” Somebody else in the room will be glad that you’ve asked it.

I learnt as well about “the impostor syndrome,” which is common among medical students and all normal people. You think: “There’s been a dreadful mistake. I should never have been admitted. They are going to find me out.” I have it regularly, and I also learnt from my friend Muir Gray, another public health doctor, that “If you don’t doubt what you are doing once a week you’re probably doing the wrong thing.”

And shouldn’t doctors also share their ignorance with patients? As somebody who now is more an informed patient than a proper doctor, I believe they should. It may seem wrong and conceited to share uncertainty with patients, but the alternative is not knowledge but false certainty. And another word for false certainty may be “lie.”

Sometime back the Lancet asked me some questions for a short article and one was about my greatest moment of learning. I thought back on being a casualty officer in New Zealand and being regularly perplexed about problems like whether patients had twisted or fractured their ankles. The moment of learning came when Phil Gaskell, a fellow casualty officer, said: “You don’t have to pretend you know everything.” This was like the word of God, a shattering revelation. “Of course,” I thought, “but how did I ever get into the absurd state of pretending that I did? What stunning foolishness.”

The world will change but some things must not change

Lord Turnberg, a former president of the Royal College of Physicians, predicted some years back: “Medicine will change more in the next 20 years than it has in the past 2000.” This seems likely. We are changing from the industrial age to the information age, and I believe that we are closer to the beginning of that change than to the end of it. We can see some glimmerings of the future world, but it’s the nature of what the philosopher of science Thomas Kuhn called a “paradigm shift” that those stuck in the old paradigm cannot envisage the new.

Furthermore, predictions are almost always wrong, which is one reason why futurologists developed “scenario planning,” a process of imagining not one future but several distinct yet plausible futures. I was chair of a government working party on information and health in 2020, and we imagined three futures. In the titanium world everybody would have access to unlimited sources of information through the internet and its successors. Nobody would trust institutions like the NHS, and “experts” would be suspect. In this postmodern world there would be many versions of the truth. In contrast, in the iron world people would feel overwhelmed by information and look to a reliable and trusted source—like NHS Direct, perhaps. The community would be as important as individuals, and evidence based medicine would flourish. People in the wood world would turn away from technology (as people in Britain have rejected genetically modified foods) and adopt older community values. Concerns about privacy
and technology would stop the use of electronic patient records.

The point is that medical students are likely to find themselves practising in worlds very different from now, but it’s hard to see what that world will look like. Students must thus be willing to adapt, but some things—like a clear set of values and an enthusiasm for learning—must be kept if medicine is to mean anything (box 6).

Put patients first, listen to them, and work with them as partners

All doctors and health systems purport to put patients first, but ample evidence shows that it often doesn’t feel that way to patients. They regularly feel like cases rather than people, and what is important to patients is often different from what is important to doctors. Mary Baker, the patient editor of the BMJ and former chief executive of the Parkinson’s Disease Association, puts it like this: “For doctors Parkinson’s disease is mostly above the neck, something to do with the substantia nigra. For patients it’s mostly below the waist: Can I get my knickers on? Will I be continent?” This difference of view is to be expected, but the best doctors are those who can begin to see the world as the patient sees it.

Such a state is achieved mostly by active listening. It’s one of the maxims of medicine that “listen to the patient and he or she will tell you the diagnosis.” But the maxim is often ignored. Similarly the fashion is to take decisions with the patient, not for the patient, but again this is not the reality of everyday practice in most countries. Evidence shows that genuine partnership with patients produces better outcomes and greater satisfaction for both patient and doctor, but this may be hard to achieve in the middle of an exhausting night with a sick patient who doesn’t speak your language and doesn’t even seem “grateful.”

Recognise that integrity is a destination not a state

Until I was 51 (the age I am now) I thought that integrity was something you had and continued to have unless you took a dishonest step. Now I recognise that every day we are presented with choices where it may be easiest to take an action that diminishes our integrity. (I’m not sure why it took me 51 years to realise what may seem obvious to many. Stupidity probably.) We often take those choices not only because they make life easier but also because we haven’t time to think through the choices or—worse—because we simply don’t recognise that the choice we are making erodes our integrity.

Box 6: As the world changes, what should persist?
- Clear ethical values
- Being clear about the purpose of your organisation
- Putting patients first
- Constantly trying to improve
- Basing what we do on evidence
- Leadership
- Education and learning

Box 7: Advice on the importance of learning from T H White in The Once and Future King

The best thing for being sad is to learn something. That is the only thing that never fails. You may grow old and trembling in your anatomies, you may lie awake at night listening to the disorder of your veins, you may miss your only love, you may see the world about you devastated by evil lunatics, or know your honour trampled in the sewers of baser minds. There is only one thing for it then—to learn. Learn why the world wags and what wags it. This is the only thing which the mind can never exhaust, never alienate, never be tortured by, never fear or distrust, and never dream of regretting.

Simple examples are hearing an older doctor be less than honest to a patient, or hearing a colleague make a discriminatory comment. Many examples are much subtler and may arise because you are the member of a group that has made a poor choice: the important and comfortable value of companionship is pitched against honesty.

My message is less that integrity must always come first (although perhaps it should) and more that we should recognise our need to struggle constantly to be honest.

Final thoughts: a prayer and a word on the importance of learning

If I had been writing this article a century ago then most of my advice would have been religious. Now it isn’t, but I am very taken by the wisdom of what I think is a Texan prayer: “In one pocket keep a message that says: ‘You are just dust and ashes.’ In the other pocket keep a message that says: ‘The world was created just for you.” Both messages are, I suggest, equally true.

My final advice is never to forget the value of learning not only for chasing after wisdom but also because it may be the ultimate balm. The author T H White expresses it beautifully in box 7, and I make no apologies for repeating his words: learning “is the only thing which the mind can never exhaust, never alienate, never be tortured by, never fear or distrust, and never dream of regretting.”

The Powerpoint presentation of this talk is available at www.bmj.com/talks.

Competing interests: RS is the editor of the BMJ and accountable for all it contains. He had his expenses paid to travel to York to deliver the talk but was not paid a fee.


A gout lifestyle?

Many patients believe that gout is the just deserts of men with ruddy faces and rotund figures who spend their weekends chasing venison around the countryside. Few of them believe their doctors’ attempts to convince them that dietary purines contribute only a small amount to raised serum urate concentrations. Take “Gout: a Christmas quiz” (on www.bmjlearning.com). As well as outlining the role of lifestyle advice in the management of gout, this module shows you how to treat a patient with acute gout and how to prevent further attacks.
Conseiller les étudiants en médecine sur ce qui est important dans ce qu'ils font.*

L'éditorial intitulé "Conseils à une nouvelle promotion d'étudiants dans une nouvelle faculté de médecine" commence ainsi : "Au début de l'année, j'ai eu le privilège de parler à une nouvelle promotion d'étudiants en médecine dans une nouvelle faculté. Qu'allais-je bien pouvoir leur dire? J'étais intimidé. Je me sentais investi d'une grande responsabilité bien que je sache que la majorité de ce que j'allais dire allait être, dieu merci, oublié ou ignoré. Cherchant de l'aide, j'ai interrogé les membres de notre comité éditorial, tous médecins originaires du monde entier, sur ce que je pourrais dire. Ils m'ont répondu avec enthousiasme et m'ont suggéré d'élargir le débat. C'est la principale raison de cet article. Ce sont les bases d'une discussion que j'espère riche. En pensant à ce que nous devrions dire aux nouveaux arrivants dans la profession, nous avons réfléchi à ce qui est important dans ce que nous faisons."

Conseils des membres du comité éditorial du British medical journal (BMJ) aux jeunes médecins :

Considérez vos connaissances avec humilité
N'ayez pas peur de reconnaître votre ignorance
Apprenez à gérer l'incertitude
De même que vous ne devez pas avoir peur de dire "je ne sais pas", n'ayez pas peur de risquer d'avoir tort
N'hésitez pas à discuter l'enseignement que vous recevez, surtout s'il vous semble incohérent ou contradictoire
Ne croyez pas ce que vous lisez dans les revues médicales et les journaux
Cherchez comment apprendre à apprendre, comment avoir accès à des informations utilisables et comment critiquer une information

Restez vous même quelles que soient les circonstances
En dehors de la famille, il n'existe pas de lien plus étroit qu'entre médecins et patients
Soignez les patients avec le respect et les traitements dont vous useriez pour vos amis et votre famille.
Essaye de pratiquer la médecine avec l'éthique et les principes que vous aviez quand vous avez commencé vos études de médecine

Les 10 premières fois que vous ferez quoi que ce soit à un patient, poser un cathéter ou recoudre une plaie seront difficiles, alors faites les au plus vite
Soyez content de chaque changement de stage, même s'il n'est pas dans vos intentions de choisir cette spécialité, car vous vivrez et partagerez des expériences passionnantes
La médecine n'est pas seulement clinique. Elle est aussi relation, travail en équipe, utilisation d'outils de communication, recherche, publication et esprit critique
Guérir n'est pas forcément ce que les patients attendent de vous : les patients et leur famille recherchent peut-être un soutien, une main secourable, une âme bienveillante

Quand vous êtes dans un mauvais jour parce que vous êtes fatigué, stressé, débordé et dévalorisé, n'oubliez jamais que la situation est bien pire pour la personne qui est du "coté froid du stéthoscope".
La journée peut être horrible, mais vous ne souffrez pas d'un cancer du pancréas.
Soyez content de ce que vous faites

Conseils de David Sackett, père de Evidence Based Medicine (EBM).
Le moyen thérapeutique le plus efficace dont vous disposez, c'est vous
La moitié de ce que vous avez appris durant vos études sera soit fausse soit dépassée dans les 5 ans suivant votre diplôme. Le problème c'est que personne ne peut vous dire qu'elle moitié sera concernée. De ce fait, la plus importante des choses à savoir est d'apprendre comment apprendre par vous même.
Souvenez vous que vos enseignants racontent autant de bêtises que vos parents
Vous y êtes pour bien plus de plaisir que ce que vous imaginez.

*Smith R. Thoughts for new medical students at a new medical school. BMJ 2003;327:1430-3
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