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Rethinking medical education: Addressing training challenges

EDITORIAL

Moyez Jiwa

Editor in Chief, The Journal of Health Design

SUMMARY

An increasing number of medical graduates are opting not to practice medicine after training, a trend that has been rising for decades. This raises concerns about the effectiveness of medical education in preparing and motivating students for lifelong careers. Key issues include the selection of candidates who may lack a genuine desire to help patients, an overemphasis on technical competence at the expense of care and confidence, and a culture that prioritises extrinsic rewards over holistic approaches. To address these challenges, medical education must reform to produce competent, caring doctors who are committed to their vocation.

Key Words: Medical training; medicine; education; curriculum; science

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Corresponding Author: Moyez Jiwa (moyezjiwa@gmail.com), Editor-in-Chief, The Journal of Health Design, GPO Box 555, Albert Park, Melbourne, Victoria, Australia 3206

INTRODUCTION

An unprecedented proportion of medical graduates don't want to work as doctors at the end of their training.[1] In fact, the proportion of graduates wishing to stop practicing medicine has been increasing in recent decades.[2] How do we fail to prepare academically gifted people in their vocation? This editorial will focus on why so many medical graduates are not motivated for a lifelong career as doctors.

Medical training aims to hone or nurture three essential qualities in every graduate: care, competence, and confidence (Figure 1).

Figure 1: Three characteristics of good doctors

Note: The red triangle is the sweet spot for the ideal.

Of these qualities the one that cannot be "taught" is *care*. Care, as a verb, is defined as *"*feel concern or interest; attach importance to something."[3]

As a doctor you either have that concern or interest in the patient's wellbeing or you don't. That quality is necessary but not sufficient. Do medical schools select for training people who care? According to a systematic review of factors that lead students to accept a spot in medical school, the main motivators in upper-middle income countries are job security, social status, and parental wish. The desire to help those who are suffering is secondary.[4]

A key outcome of training is *competence*, which entails the assimilation of knowledge and the acquisition of skills. The idea that a new graduate has the necessary basic competence is not reflected in all the published research on this topic. According to a study by Matheson and Matheson (2009), overall foundation year 1 doctors (F1) were not well prepared either to perform the tasks that await them nor did they possess the specific background knowledge and skills necessary for the successful execution of those tasks.[5]

The third element is *confidence*, which is the extent to which graduates are able to demonstrate that they can be trusted by patients to navigate healthcare challenges even when their doctor's skills or knowledge may be deficient or out of date. Research suggests that the public is losing trust in the profession and that has been acknowledged by medical students.[6]

The sweet spot in medical training is the intersection of these three qualities (denoted by the red triangle in Figure 1).

Competence is the quality receiving the most attention in medical schools worldwide. Cognitive ability and technical skills are key in medical school. The ability to intubate, catheterise, suture, memorise, or regurgitate flow charts or guidelines can be assessed objectively. Other skills and attitudes are much less open to testing and are best modelled by example. Senior doctors are lauded for their ability to achieve and maintain high status—rather than for their holistic approach to patients.[7] This may reflect the focus on extrinsic rewards. One researcher noted:

> *He observed the students learning an aversion to investigating patients' social and psychological problems. Their personal idealism waned as they became distanced from their family and non-medical friends and adopted the idealism of the profession. . . . These observations suggest a divergence between the qualities that students and young doctors say they seek in their role models and the qualities that they actually emulate. The most sought after careers are not necessarily those most associated with a holistic, patient-centred approach.*[8]

Here are the fault lines in medical training:

1. Are the "best-suited" people selected for medical school?
2. Are graduates work-ready?
3. Is external validation the primary motivation in medical careers?
4. How do graduates navigate uncertainty while nurturing trust in the patient?

Realignment for better outcomes requires reform that will yield competent and confident doctors who care and want to continue their vocation. What do students spend their time learning? For example, is there value for every doctor regurgitating the details of metabolic pathways such as the Krebs cycle or the course of the median cutaneous nerve of the thigh?[9] It is possible that medical educators may be contributing to the exodus by failing to deliver work-ready graduates who do the best with patients. A medical curriculum that always delivers excellent clinicians remains the holy grail.[10,11]

We need to ensure the doctors we are training are comfortable with the fact that the knowledge that was the bedrock of their education erodes as rapidly as the pace of scientific advances. Such rapid progress renders obsolete much of what we understand about pathology and therapeutics. Given the proliferation of information online, patients living with many relatively common chronic conditions may be far more expert on every aspect of their condition than their doctors.[12]

Can we engender the circumstances in which doctors will remain active in a sector that is increasingly bureaucratic and under-resourced? In such an environment, doctors will need to co-pilot with patients but also convey confidence and humility. The locus of control needs to shift from defining "success" by titles and awards to caring with a mastery of competence in which they safely manage emergencies while they respectfully engage patients as partners in their own long-term care. I present a litmus test for all elements of medical know-how (Figure 2).

Figure 2: Litmus test case

Context: A 28-year-old patient from overseas presents to your clinic. This is her first visit to an Australian general practitioner. You have no prior notes for the patient and are reliant on her and her companion to provide the context of her visit. English is a second language for both. The patient is booked for a 15-minute appointment late on a Friday afternoon. She has no health insurance.

Symptoms: She is concerned about palpitations that she first noticed three days ago. She describes "fevers" in the evening, although she has never taken her temperature. She is otherwise well. She denies stress or anxiety but seems tearful. She says she has lost weight in the past month but is vague about the amount. She is not on any medication although several years earlier she was diagnosed with a cardiac arrhythmia when she was in her own country. She explores the history on her mobile phone to find the name of the condition and finally settles on "WPW" syndrome. She was never treated with medications of any kind. She further describes herself as breathless and feels her voice has "changed".

Action: You have less than 7 minutes remaining to make a decision about management. At this time you only have access to an electrocardiogram (ECG) and will need to wait for 30 minutes until the technician is ready to help you. There are also three patients waiting in the queue to see you, and your appointments are running late.

Note: Case details have been altered to preserve confidentiality.

The case described tests all three elements of expertise. She is potentially living with a life-limiting illness. Her doctor is unlikely to have diagnosed a case like it in the past, although they may have read about it in a textbook or medical journal. The language barrier and the circumstances of the presentation where resources are constrained are more typical. General practitioners in Australia do not have usually have laboratory and radiological facilities nearby. The doctor in the test case is reliant entirely on their interest in the patient's wellbeing, their clinical skills, and their ability to convey confidence and humility especially when a diagnosis is not immediately apparent. It is possible that what the patient

describes is a self-limiting illness, however, an examination of the patient may suggest a possible sinister cause. The patient in the test case had a pulse of 135, blood pressure 94/65mmHg, Oxygen saturation 100 per cent, no pyrexia, no heart failure or chest signs, no abdominal signs, no hyper-reflexia, eye signs, or tremor. She was thin but not gaunt and her symptoms were otherwise unremarkable. An ECG documented a mild tachycardia, 110 bpm, sinus rhythm with delta waves.

What must be done in those circumstances? How does the patient respond to that advice? It turns out that the patient needed urgent care as someone at risk of a life-limiting cardiac arrhythmia in the context of hyperthyroidism. However, on a Friday afternoon, in a primary care office there were several options available, including focusing on her symptoms, rather than investigating the cause. That may have prolonged the time to diagnosis and led to a poor outcome. In the actual case a timely diagnosis was established and an life-threatening emergency averted.

Medical training must reduce risk to the patient but also maintain the doctor's commitment to practice medicine as well as their ability to cope with uncertainty and to manage risk. The next iteration of medical training should focus on the sweet spot in Figure 1. The selection of medical students based wholly on their academic ability, their extracurricular achievements, and their ability to fund their training, is not necessarily identifying those who are the most caring doctors. Secondly, medical curricula that focus on cramming for exams and regurgitating facts leaves medical graduates unable to acquire essential communication and team management skills—the result is often burnout and frustration.[13] One consequence may be that the experience of working in a system that undermines their wellbeing destroys the vocation of medical graduates.

Art has much to contribute to the ability of practitioners to be effective doctors. Tomorrow's doctors should expect to work in artful partnership with patients. Doctors need to navigate uncertainty if they are to also help patients live with that uncertainty. Medical education should be nuanced and offer more than tutorials on managing cardiac arrhythmias, interpreting electrocardiograms, or diagnosing anxiety. If doctors are to remain in the workforce we need them to be caring and confident—not just competent. When we invite caring people with the necessary potential to train as medical practitioners their working conditions must not erode their ability to express the caring that patients require. When we select medical students we are not selecting people who need fixing, we are selecting people who already have all the necessary qualities. The best will only remain in service when they have the requisite tools and are working in organisations where those gifted and rare individuals can thrive. What's wrong with medical training is that a reductionist model is failing to take account of a key player in the business of healing—the doctors themselves.

REFERENCES

1. Pathmanathan A, Snelling I. Exploring reasons behind UK doctors leaving the medical profession: a series of qualitative interviews with former UK doctors *BMJ Open*. 2023;13:e068202. doi: 10.1136/bmjopen-2022-068202
2. Surman G, Goldacre MJ, Lambert TW. UK-trained Junior doctors' intentions to work in UK medicine: questionnaire surveys, three years after graduation. *J R Soc Med*. 2017;110:493–500. doi: 10.1177/0141076817738500
3. Oxford English Dictionary [Internet]. [Accessed 2024 OCT 29]. Available from: https://languages.oup.com/google-dictionary-en/
4. Goel S, Angeli F, Dhirar N, . et al. What motivates medical students to select medical studies: a systematic literature review. *BMC Med Educ* 2018:18(16). doi: 10.1186/s12909-018-1123-4

5. Matheson C, Matheson D. How well prepared are medical students for their first year as doctors? The views of consultants and specialist registrars in two teaching hospitals. *Postgraduate Medical Journal*. 2009 November:85(1009):582–9. doi: 10.1136/pgmj.2008.071639
6. Gupta N, Thiele CM, Daum JI, et al. Building Patient–Physician Trust: A Medical Student Perspective. *Academic Medicine* 2020July;95(7):980–3. doi: 10.1097/ACM.0000000000003201
7. Paice E, Heard S, Moss F. How important are role models in making good doctors? *BMJ.* 2002;325:707. doi: 10.1136/bmj.325.7366.707
8. Whitehouse A. The way I see it: National competition ratios should be available for all HST applicants. *BMJ.* 2002Sep28;325(7366):707–10. doi: 10.1136/bmj.325.7366.707
9. Merli C M. Effective Training For Adult Learners. Paper presented at the ASSE Professional Development Conference and Exhibition, San Antonio, Texas, June 2009.
10. Clack GB. Medical graduates evaluate the effectiveness of their education. *Medical Education*. 1994;28:418–31. doi: 10.1111/j.1365-2923.1994.tb02553.x
11. Bleakley A. The curriculum is dead! Long live the curriculum! Designing an undergraduate medicine and surgery curriculum for the future. *Medical Teacher.* 2012;34(7):543–7. doi: 10.3109/0142159X.2012.678424
12. Snow R, Humphrey C, Sandall J. What happens when patients know more than their doctors? Experiences of health interactions after diabetes patient education: a qualitative patient-led study *BMJ Open.* 2013;3:e003583. doi: 10.1136/bmjopen-2013-003583
13. Messerotti A, Banchelli F, Ferrari S, et al. Investigating the association between physicians self-efficacy regarding communication skills and risk of "burnout". *Health Qual Life Outcomes* 2020;18:271. doi: 10.1186/s12955-020-01504-y

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