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MIND – THE GAP
WHAT'S MISSING FROM MEDICAL TRAINING?

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When choosing the title for this lecture, I chose my punctuation marks with care. So the title isn't 'Mind the gap' as in 'be aware of the gap'. Instead it's 'Mind - the gap' - implying that it is the mind that **is** the gap. This is the issue that we are going to be exploring in the next hour. And as well as a consideration of relevant research, I will also be drawing on my own experience as a psychologist specialising in helping doctors who are unhappy at work. Typically these doctors consult me because they want help deciding whether they should take some time out, go part-time, change specialty or even leave medicine entirely.

So these are the sorts of emails that land in my inbox every day. (They are genuine emails – with identifying details removed).

> *I'm in my third year of obstetrics and gynaecology training. I'm currently off work due to stress and considering changing specialty and/or taking a break from medicine altogether.*
> *****

> *I am a doctor with late-diagnosed depression. I am currently unemployed having 'crashed out' of clinical and academic medicine a while back (due to a combination of cumulative life stressors, workplace bullying, and previous inadequate mental health support). I would appreciate advice and guidance on a career change*

I have received hundreds of emails like this. Of course, I realise I don't see a random sample of doctors, as those who are enjoying their work aren't going to come banging on my door. But neither do I see outliers – the volume of emails that come my way puts paid to that suggestion. As does the findings of studies like the 2016 survey of nearly 500 junior doctors conducted by the Royal College of Physicians which reported that:

- 80% of doctors felt that their work sometimes or often caused them excessive stress
- 18% had to carry out clinical tasks for which they had not been adequately trained
- 25% felt that their work had a serious impact on their mental health
- And nearly half felt that poor morale had a serious or extremely serious impact on patient safety.

This last point reminds us that ultimately this isn't only a problem that affects doctors – it's a problem that affects each and every one of us in this room. Because depressed or burnt out doctors not only have less satisfied patients - they also make more mistakes.

So in this lecture, I'm going to try to explain why the medical workforce is in this sort of crisis.

Undoubtedly the pressures that the services are under are a big part of the problem. As an example, that same Royal College of Physicians survey found that 70% of doctors worked on a rota that was permanently understaffed. And the King's Fund – a healthcare think tank noted in a recent quarterly report:

- Sustained increases in patient demand – particularly from elderly patients with complex healthcare needs
- Rising delays in transferring patients out of hospital into social care

- Severe financial pressures leading to cuts in staffing.

I doubt whether this is news to anybody. We've seen headline newspaper articles and TV reports on the crisis in the NHS – particularly during the winter months – for a number of years.

But I don't think workforce pressures, significant as they are, are the whole story.

Why?

The first reason is that accounts of depression, anxiety and elevated suicide rates amongst doctors have been reported in the medical literature for over 50 years. Yet during this time span the NHS has gone through periods when it is better or worse funded. The second reason is that similar problems have been reported across the world including in the USA, Canada, and Australia – but these countries have different healthcare systems and are not all under the same financial pressures currently facing the NHS.

So my hunch is that **in addition** to workforce pressures – acute and relevant as they may be currently in the UK - something else is going on as well. And that 'something else' is what we are going to be exploring in this lecture.

I'd like to begin with a story.

The setting was the senior common room of an Oxbridge college. In front of me were 10 or 12 hospital consultants, all of whom held senior positions in the university medical school. Over a two-day period, I was tasked with training these doctors how best to help the medical students in their medical school choose the right specialty. During the last section of the course, I invited the participants to bring case studies of medical students – current and past – about whom they had concerns. Perhaps these concerns related to students whom they thought were aiming for the wrong specialty. Or perhaps they even had students whom they thought should never have chosen medicine in the first place.

> "Can I tell you about something that happened recently?" asked one of the participants, Olivia.
> "Go ahead, I said" and waited for Olivia to start.
> "Well. We've got this final year medical student who is academically gifted – that's never been an issue. But right from the start people have felt uneasy about him. He passes all his written exams with flying colours, but practicals have been a different story.
> "Anyway. A few weeks ago he was on the last day of his Accident and Emergency rotation and he had to get his attendance form signed off by the consultant. He went looking for the consultant but found that he was busy. Very busy in fact – supervising the resuscitation of a patient who had just had a cardiac arrest. Undeterred, the student went into the A and E bay where the resuscitation was taking place - waved the form under the consultant's nose, and asked him to sign it.
> "Should I be concerned?" – asked Olivia.

I was flabbergasted. Because what is there **not** to be concerned about in this student's response? Essentially, the student had to choose between 2 possible courses of action:

A. Interrupting the consultant to get the form signed

B. Leaving the consultant to get on with the resuscitation without interruption

And without a shadow of a doubt, he made the incorrect choice.

After a pause I regained my composure and said:

"Yes, I think you should be worried."

This episode took place over 13 years ago but it has stuck in my mind because it's a crystal clear example of the way in which medical training overlooks the psychological elements of what it takes to be a doctor. (Someone who priorities so poorly when faced with a relatively simple choice as a student, may well be flawed by the never-ending stream of tricky choices that he will face once he starts working as a junior hospital doctor in a busy, under-staffed ward).

I'm by no means the only person who has highlighted the lack of psychological mindedness in medical training. As an example, the late Simon Sinclair, a psychiatrist and anthropologist, had this to say in *Making Doctors*, his classic account of medical school culture:

> *"Medicine, unlike the military, is not scientifically interested in its recruits' psychological experiences, either their individual morale or the esprit de corps of their groups."*

My work as a psychologist, training and supporting doctors concurs with Sinclair's conclusions. And as examples, I'm going to show how this lack of interest in psychological matters impacts on two aspects of medical training: medical school selection and support across the never ending stream of transitions that junior doctors face.

Turning first to the question of selection into medical school, in 2014 the Medical Schools Council published a statement on the '*Core Values and Attributes Needed to Study Medicine*'. Included in the list were a number of psychological attributes: motivation to study medicine; dealing with uncertainty; empathy, resilience. So it's not the case that relevant psychological attributes were absent from the list. Rather, my concern lies with how some of these attributes were assessed as part of the formal selection process.

In the past, all of these personal qualities would have been assessed through a combination of personal statements, references and panel interviews. But there's compelling evidence that these selection methods don't work. For example, here's a consensus statement following an international conference that looked specifically at medical school selection:

> *"There is not much evidence of the credibility of interviews, personal statements and letters of reference".*

That's why most (but not all) medical schools have changed track. In place of the old style interview panel, the overwhelming majority of medical schools observe applicants rotating through a number of different stations/tasks – each of which assesses a different relevant competency. This is the so-called 'multiple mini interview' (MMI) method of selection.

Undoubtedly the MMI approach can get a better handle on qualities such as empathy. For example, rather than asking an applicant about times when they have shown empathy, an applicant may be given a scenario in which they are told they have just run-over somebody's cat – and they are then observed talking to the cat's owner, role-played by a professional actor. (This is a real example – not one that I have made up).

But the attribute that I want to hone in on is resilience because I don't think it is assessed adequately using the MMI format.

Of course, it's not that there aren't other methods that could be used to assess personal resilience. To which profession would we turn to for suggestions? To the military – and in particular to selection for soldiers in especially demanding roles such as the United Kingdom Special Forces. This is how a military blog describes selection into the UKSF.

> *"The emphasis is on endurance and long dark hours undertaking solitary, arduous and often seemingly impossible, even pointless tasks. The instructor provides no encouragement or motivation (positive or negative) to aspirants. Officers also undergo a special week of individual tasks of determination and planning ability mixed with sleep deprivation and diversionary tasks"*

I'd like to be able to say that there are no parallels here with the reality of working as a junior hospital doctor. But having listened to hundreds of junior doctors describe their working lives, I couldn't say that. Putting medical school applicants through a week which simulated the life of a first-year doctor would probably be a pretty

effective way of weeding out those lacking in personal resilience. But of course this is never going to happen. Logistics apart –what is expected culturally within the military (that you need to push applicants to the limit) would be completely unacceptable within the 'caring' profession of medicine.

Instead what happens is this. Interviews, references and even MMIs don't get a robust handle on the issue of personal resilience – because they probably can't. Within the acceptable and feasible methods available to a selection panel at medical school, it's probably not possible to select out *all* those who are going to struggle psychologically with the difficult tasks inherent in medical work.

Of course there's occupational health, which could probably do a better job in this respect. I've encountered junior doctors whose serious psychological difficulties started way before they entered medical school – difficulties which later prevented them from coping with work as a junior hospital doctor. But I don't blame occupational health because rightly they have to work within a specific legal framework (not discriminating against those with mental health conditions). I don't think that occupational health is the answer – well certainly not a complete answer. Instead, what is needed is a culture change. So what might this look like?

On Day 1, the Dean of the medical school should say to the incoming class that whilst the majority of those present, would be able to carve out a rich and deeply satisfying career as medical professionals – there would be a minority for whom this was not the case. My fantasy Dean would then go on to say that if the students had doubts at any point, they would be able to discuss them – without prejudice – with their personal tutors. If the doubts remained, students would be given appropriate support to identify an alternative career pathway. And the Dean would continue the theme by highlighting that if faculty had doubts about them, they would be discussed and reviewed with the students, and again, where necessary the students would be helped to switch career.

None of this happens. When junior doctors have doubts, (which they often do) they are reluctant to go and discuss them with their personal tutors, out of fear that they will be judged as not committed to the profession. When they do pluck up courage to go, their tutors are much more likely to rush to reassure ('third years often feel this way – it's nothing to worry about') than allow the student to express and explore their career anxieties. When the unhappy student perseveres and says they *really* want to think of career alternatives – the necessary careers support available at their medical school is often absent.

That's what happens when the student tries to leave. What happens if the faculty think a student is un-suited to the profession? Again, my fantasy Dean's statement about faculty flagging up to students that they need to consider leaving medicine is way off the mark. Instead, medicine is beset by a culture of 'failure to fail'.

This is what Professor Jen Cleland – a psychologist at University of Aberdeen medical school has to say on the matter:

> *"The ethics of supporting students to progress to the next stage of training only to continue to perform poorly are, at best, questionable. It is also debatable whether scarce faculty resources should be used to support progression without improvement, which may take weak students further towards registration as potentially weak doctors, when the evidence suggests that faculty members find it harder to fail senior students".*

This is quite dry stuff. But it's not at all dry (in fact tears often flow) – when the products of the 'failure to fail' culture come banging on my door. I've seen:

Doctors who have spent 10-12 years completing a 5 or 6 year medical degree – only to find themselves unable to complete their first year as a practising doctor– even after trying for 3-4 more years. At which point, after as much as 16 years, their medical career hits a brick wall. Can this be right?

Doctors who limp through medical school, and limp through the 2 year foundation programme – often taking an extra year or two to complete foundation, but who then can't manage the extra responsibility inherent in specialty training or can't pass their postgraduate exams. At which point their medical career isn't dead – but they have very few options open to them.

And it's not just the individual students or junior doctors who are affected. It also impacts on faculty involved in picking up the pieces – particularly if the problem has been pushed from pillar to post over a long period of time. This is what a clinical colleague who holds a senior position within her own specialty wrote to me in a private email:

> "*Had a really difficult day of annual reviews today. There just seem to be so many trainees with problems and I saw someone who is utterly failing….Four years after leaving medical school her supervisors said that she is barely functioning at medical student level. Anyway – I asked her about her undergraduate education. It won't surprise you to hear that she spent 12 years as a medical student because of repeated episodes of depression and anxiety…..I find that utterly unbelievable".*

Yes these are rare cases. But they happen all over the country. In my work running training courses for senior faculty supporting trainees – I hear these stories repeatedly. Stories which cause unhappiness all round.

To really change this – we don't only need to tackle the culture of medicine to shift towards that of my fantasy dean (allowing students to have a full and frank discussion with appropriately trained staff, as to whether medicine is right for them, and also counter-acting failure to fail). We also need to shift towards a much more preventative ethos within medical training.

It's ironic really. If you sit in your GP's waiting room you'll be surrounded by posters exhorting you to take preventative action: stop smoking; drink less alcohol, take more exercise, etc. Why? Because prevention makes sense. It has the potential to improve the health of the population, thus reducing human misery - whilst costing less. Win win. But a preventative ethos hasn't yet had much of an impact on medical training.

This was brought home to me earlier this year, when I was researching differences between the support structures in American and UK medical schools. One contact led to another, and I ended up talking to the Dean for Student Affairs at a new medical school attached to Washington State University in the USA. The Dean had previously worked in other universities – but not in a medical school – and in our phone conversation he said this:

> "Medical culture seems to wait for students to fail. Only then does it attempt to pick students up. It doesn't seem to do much in terms of preventing failure."

Luckily for his students, he was the Dean in a brand new university so he had the flexibility to device a new system of support that had a preventative ethos at its core. Crucially – all this preventative activity takes place after students have been offered and accepted a place. Equally important is the fact that it is student support faculty rather than academic faculty, who meet with the students. And the meetings are confidential. All of these things minimise the tendency for students to gloss over any problems they have – for fear of being negatively judged by the clinicians who teach them.

In the UK, those who have been accepted into medical school with a declared disability (which in medical school is most likely to be a diagnosis of dyslexia), can be offered support right from the outset of the course. However, I haven't heard of a system in which each and every student sits down for an hour's confidential 1:1 conversation with a student support advisor, working out how best to help them with their studies. Both the culture of medical school and the stretched student support services, make this little more than a pipe dream.

This preventative approach would provide better support for medical students in what is a long, and demanding course. But this preventative approach is also important for another reason. Within the current system where proactive support is often lacking, when students fail, they can, with all justification, turn round and say that they haven't been provided with the support that they needed. Protracted disputes then occur, sometimes lasting for years. There are complex appeals processes within each medical school as well as a national body – The Office of the Independent Adjudicator to whom they can turn to, to overturn a medial school's decision. Often the disputes centre on whether medical school has provided them with sufficient support. A proactive culture in which the schools didn't wait for the students to fail but offered support up front – could possibly nip some of these interminable disputes in the bud.

Enough on individual resilience – and whether the medical schools are selecting the right people to become doctors. I'd like to move now to my second area of medical training where there is a glaring omission of psychological considerations. This is the question of how we help doctors manage transitions. In fact medical training could be characterised as a 10-20 year process of continual transitions.

How can it possibly take so long? Let's look at the maths.

5 or 6 years in medical school (depending upon whether students add in an extra year in which they study for a bachelor's degree). About 30% of students opt for the extra year.

At the end of the 5-6 years they go through a competitive selection process to gain entry to the foundation programme. That lasts 2 years – during which they may end up in a part of the country where they know absolutely nobody.

So they've spent 7-8 years, by this point.

Then there's another competitive selection process for entry into their chosen specialty. Except it isn't quite as straightforward as that. With some specialties you apply to go straight from foundation into the specialty itself. Paediatrics, Obstetrics and gynaecology, ophthalmology are like this. And these specialty programmes take at least 6 years – and often more – particularly if you go on to sub-specialise or if you do a Ph.D. This can easily add up to 8 or 9 years of specialty training.

Put it all together – and you arrive at figures like 15-17 years, of full-time training. (We'll come on to the issue of women and part-time training in a bit).

Then there are other specialties which aren't run-through, instead they are said to have 'uncoupled'.

What this uncoupling means is that doctors have to apply for so called 'core' training, which can last 2-3 years depending upon the specialty. After completing core training and getting their postgraduate exams, they then apply again for a 6 year higher specialty training post in their chosen specialty.

What makes this even more difficult is that in the case of some specialties, there is a hideous bottleneck. So, for example, because hospitals need lots of junior level surgeons, there are many more places on core surgery training programmes than there are on higher surgery ones. The implication of this is that some doctors who get through core surgery, pass all their specialty exams, will have to change track – possibly leaving surgery entirely – if they can't get a place on a higher training programme.

But we need to delve deeper than adding up the years it takes – and deeper even than thinking about those who don't succeed. We need to look at how many times we are expecting doctors to change jobs and move around the country during their training.

During the 2 year foundation programme, doctors change their jobs 6 times. During core training – which could be in a completely different part of the country – they change their jobs 4 times. And during higher specialty training – which again can be in a different part of the country – we ask them to change at least 5 or 6 times. The sheer number of transitions is extraordinary. And from the perspective of a psychologist looking at medical training, I would argue that the system is unaware of the psychological disruption that this chopping and changing causes.

That change in one's life can have an effect on one's physical and psychological wellbeing has been known for a long time. For example, in 1967, psychiatrists Thomas Holmes and Richard Rahe examined the medical records of over 5,000 medical patients as a way of determining whether stressful events might be related to illnesses. Patients were asked to tally a list of 43 life events and a positive correlation was found between these life events and the illnesses that they experienced. These results have been repeated in different countries and with different patient groups. But there is consistency in the basic finding – challenging life events have an impact on our physical and mental health.

The fact that 'death of a spouse' is the most significant life event, in terms of its potential impact on wellbeing – should surprise nobody. And whilst I have tragically seen a few doctors who have lost their partners – given that most junior doctors are in their 20s and 30s, it is thankfully a relatively rare event. But other 'events' in Holmes and Rahe's list are ones that might occur each and every time a doctor changes job – which as we've seen – is all too often.

These include:

Change to a different line of work

Change in responsibility at work

Change in working hours

Change in residence

Change in social activities

Change in sleeping habits

Change in number of family reunions

Change in eating habits

All of these life events have been shown to have the potential to increase the risk of becoming unwell. And all of these changes - are part and parcel of training to be a doctor. But they happen with a frequency, and over an extended period of time that is unrecognised by the public and not properly understood by the profession.

Our psychological lens, however, can reveal even more. Working as a junior doctor doesn't only involve an inordinate number of changes – with all the potential for physical and psychological disruption that these changes can cause. The nature of the work itself – inevitably – yes inevitably – places huge demands on the psyche of each and every doctor.

Let me give you two examples that doctors have talked about with me recently:

Sewing up a woman after an emergency caesarean in which the baby died. The doctor described feeling the upper part of the patient's body convulsed with sobs, as she attempted to complete the surgery.

Hearing a woman in the next door ward howl like a dog, when she is told that her bone marrow transport has failed, and there is nothing more than can be done to treat her leukaemia. The patient has 2 young children, and she is screaming that they can't be left without a mother.

Of course these are two pretty harrowing examples – and the doctors who recounted them to me also had other experiences at work that were very different. Babies saved and bone marrow transplants that were successful. These were the outcomes that kept the doctors going. But even with good outcomes – the psychological pressures on doctors remain intense.

They constantly have to make decisions, which can have hideous consequences if they get them wrong. They live in fear of making a mistake, or being complained about. They have to witness patient suffering – as well as the suffering of family members. They are often exhausted, and haven't had time to go for a break (or even go to the loo). They may feel isolated – knowing nobody on the clinical team in which they are working. They may be far away from family and friends.

Medical work is hard work. But the systems of selection and training over-privilege one form of hardness (the volume and complexity of medical science) at the expense of another (the emotional demands of being a doctor).

When it comes to infection control, by and large, doctors in the developed world are protected from acquiring infections from their patients. But the attention given to preventing the transmission of harm from infective agents

isn't matched by a similar level of concern about protecting doctors from the transmission of psychological distress from patient (or their relatives) to doctor.

Caring for somebody in distress is not an emotionally neutral task. In order to care, we draw upon our own personal experience of being cared for in the past, or more technically, our own 'attachments' to those who cared for us in infancy. Gwen Adshead, a former Gresham Professor of Physic has given a beautiful description of how this works:

> "Early attachment experience becomes represented cognitively in the brain as an 'internal working model,' a complex schema of images, beliefs, and attitudes towards attachment relationships… the 'caregiver icon' which is engaged psychologically when the individual is either in need of care or **has to provide it."**

In other words, how we were cared for when we were dependent infants influences our capacity to care for others when they too are vulnerable. Whilst there isn't a huge research literature that has looked at the attachment style of doctors, and how this influences their capacity to care for their patients, there is evidence from other health care professionals that following a critical incident, those with secure attachment styles, experienced less distress, and also recovered more quickly. In large part this was because those with secure attachment styles were more likely to access support from those around them.

But of course – the support has to be there. There have to be people whom you trust, and respect, whom you can turn to, when you need help and who will respond with kindness and care.

Without falling into the trap of looking at what happened 40 or so years ago, with rose-tinted spectacles, I do think we have to recognise some of the things which have eroded the connections that junior doctors used to have with their peers and more senior colleagues.

I'll list a few:

Medical schools are getting larger – so even if you end up in foundation with somebody from your medical school, you may never have met them before

After medical school, doctors move all over the country rather than remaining in a hospital close to their medical school

In their first year of clinical practice, doctors no longer live on site in the doctors' mess

In order for rotas to comply with working hours restrictions (which is a good thing) - there is a move away from the old 'firm' system to a shift system. That means you may be working with different clinical colleagues on different shifts.

These are things that apply to every doctor. But certain groups – women – and international medical graduates – may find themselves even more isolated. There are now more women than men admitted to medical school. Once these women start having children, however, they can find the task of combining postgraduate training with family responsibilities increasingly difficult. Unlike the US, in the UK women with childcare responsibilities can opt to train part-time. But if full-time training can take 15 years or more – what does that mean for women who take time out on maternity leave, and then return part-time?

It means lots of things – but it certainly means that building up close networks of support at work are extremely difficult. It also needs to be said that women in the surgical specialties still report negative treatment from some of their male colleagues, when they take maternity leave, and when they return part-time. This also increases the chance that they will find themselves isolated and alone.

And international medical graduates? Our healthcare system is completely dependent on these doctors. Latest figures from the GMC show that 39% of doctors on the medical register are International Medical Graduates –

about 90% of these are from BME backgrounds. But there are so many reasons why these doctors can find themselves particularly isolated:

Often they move around the country taking short-term jobs that other doctors don't want. And they may be in places with few people from their own ethnic communities.

Family and friends may be in other countries

Cultural or language issues can make it harder for them to build up social networks locally

They are more likely to receive patient complaints

They may be on the receiving end of overt, or more subtle racism

Sadly, many of these factors also apply to UK medical graduates from BME backgrounds. A consistent finding is that even if you control for social class and academic grades on entering medical school – these doctors do less well than their white peers. The so-called issue of differential attainment.

So where do we go from here?

The present levels of distress are clearly unsustainable. And as I argued at the beginning of the lecture, whilst putting the NHS on a sustainable financial footing would undoubtedly improve things significantly, I don't think it's a complete answer. Instead – I think we need to start putting considerations about the doctor's psyche exactly where they belong -at the heart of medical training.

Undoubtedly this is an enormous task. But there are a few signs that this shift is slowly and quietly starting to take place.

Mike Farquhar, a sleep medicine specialist at the Evelina Hospital here in London has spearheaded a campaign for doctors (and other healthcare professionals) to get the rest they need when they are working night shifts. It started in London but is now spreading out across the country. His whole campaign is predicated on the basic notion that doctors – like their patients – are also human – and therefore need sleep if they are to cope with the cognitive and emotional demands of their work.

Another example is The Point of Care Foundation, an organization rolling out so-called 'Schwartz Center rounds' in the UK. These are hour-long meetings for staff across the hospital – both clinical and non-clinical – to get together to discuss the difficult emotional and ethical issues that arise in their day to day work.

Then there's the development of 2 new UK wide specialist mental health services for doctors – The Practitioner Health Programme and Dochealth. Previously mental health provision for doctors outside of London or the South East was at best extremely patchy, but now doctors all over the UK can access support.

Perhaps, just perhaps, things are starting to change.