

Inspiring Doctors. Episode 6: Guddi Singh

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Welcome to Inspiring Doctors, a podcast series brought to you by the British Medical Association. I'm Martin McKee, a professor of public health and the president of the BMA.

In this series, I'm joined by people who I see as role models. They've successfully taken their medical knowledge to a wider audience in creative ways. So what inspired their work? What lessons have they learned? And what advice do they have for young doctors who may want to follow in their footsteps?

There is something magical about the confluence of medicine and communication. My interviewees are only some of the role models who do this work. But they are all people who have inspired me. I hope that our conversations will in turn inspire you.

My guest today is Guddi Singh. Guddi trained in medicine at the University of Cambridge before obtaining a master's in public health from Harvard University. She is a paediatrician who has specialised in neurodevelopmental and social paediatrics.

Guddi co-hosted with television presenter Kate Garraway the series *Your Body Uncovered*, and has also appeared on *Trust Me, I'm a Doctor* and on *Babies: Their Wonderful World*. Guddi is an advocate for creative health and sits on the board of the National Centre for Creative Health. In particular, she is a big proponent of the health benefits of dance, and has spoken about how a Bollywood dance class helped her cope with the challenges of a career in hospital medicine. She subsequently introduced dance classes into her paediatric practice.

Guddi is passionate about health justice, and she helps run the Centre for Health and the Public Interest. And she's also the founder and director of the WHAM project – that's the Wellbeing and Health Action Movement. This is a social incubator to inform, empower and unite conscious clinicians in addressing health inequalities. Her motto is 'justice, joy and jokes' – in that order.

Welcome, Guddi.

Guddi Singh

Hello, Martin. How are you?

Martin

Good! Thank you for joining us. There are so many different things that you've done, so it's really difficult to know where to start. But maybe we could begin with dance. Now, you've spoken about how you were introduced to dance when you were growing up in Hartlepool, but it was something of a false start. What happened then?

Guddi

You know, you're right. Today I am one of the most vocal proponents for this thing called creative health. But if you had caught me fresh from the hard-nosed, very scientific education

I'd had at Cambridge medical school, and if you so much as mentioned things like poetry, painting or prancing around, I would have laughed in your face.

But the truth is that I'd actually fallen out of love with art, I suppose, many, many years before that. And you mentioned Hartlepool, which is where I grew up. I don't know if you've ever actually been to Hartlepool, Martin?

Martin

Well, I haven't actually. It's been a large omission in my otherwise rather extensive travel history.

Guddi

Well let me give you the rundown. So it's a working class town in the northeast of England, and is famous now, sadly, for this collapsed steel industry and fish and chip shops.

And it's this inconspicuous town that you have to situate me in, right? So I'm the daughter of immigrants. I'm of Indian origin. And I was one of only two brown faces in the school. The other brown face probably being my brother. And, you know, fitting in was literally a matter of life and death. So this idea of like, arts or culture, was really beyond my reach.

The problem was that I was actually a very fat kid. And I use that word because that's the word that's used on playgrounds, right? And it's the origins of where body shame and size come from. I remember the paediatrician at the time, who would put the tape measure around my swollen little belly and place me on the scales. And that feeling of heart sink, of being the overweight child, of being the fat kid.

And my poor mother wondering, like, why was this happening? You know, all she ever wanted was obviously a healthy kid. And what any resourceful Indian woman living in the northeast of England in the 1990s would have done is sign me up for ballet and tap lessons, little realising that of course, Billy Elliot is not who I am.

So I remember... actually I remember very little of the tap, but I remember things like 'shuffle ball change' or something. But I will tell you what I will never forget, and what I will never forget is what it was like to see the other slim, beautiful white swans who would pirouette past me while I was just thudding in their wake. And, you know, I was dressed in an electric blue leotard, bigger and fatter than all the rest of the girls. And I was supposed to be fit again, but that was definitely not what I was doing.

It's a shame that that's my first experience, really, of what dance was like, because it taught me at that time that what matters is what you look like or how you come across. And really, if I wasn't fixating on that and instead fixating on just dance itself and the spirit of dance, I think it would have been a completely different journey for me.

Martin

Then you returned to dance later in your life, when you were facing severe pressures as a junior doctor. Now, you've spoken frankly elsewhere about how you felt at the time, but do you think that we recognise the pressures that junior doctors are under enough?

Guddi

Well, the short answer is I don't think we do. I think there's actually two intersecting issues that are being neglected here, and it's where they collide that I think most of the problems lie.

So the first problem is that health systems the world over, you know, are under great strain right now. And I don't need to tell you this, Martin, but we know that health problems are increasingly chronic. They're complex. They're really connected. And we have strong evidence that so much of these problems comes from the social conditions in which people live and work and play.

But the way that health systems are configured, of course – it's not reflected in that, right? They're the product of biomedical models and of capitalist modes of production. And it means that they don't actually fit the task.

So, look, we can look at the NHS as this example of a publicly funded health system that is suffering as a result of that. A focus on specialisation, on biological disease, rather than holism and health – combined with this neoliberal impetus of course, you know, things like cuts and commodification. All of those things together mean that we have a society that is sick. And nowhere else for people to go, other than the NHS.

So health workers are being asked to do more with less, because our resources are being cut all of the time. So in this rising tide, of course, it feels like we're drowning. And that explains why up to almost half of all NHS staff will now tell you that they have either experienced in the past or are currently experiencing burnout. And I'm one of them.

And the second problem that we have is the culture of medicine, right, which means that we're not allowed to talk about it. I mean, things are changing, but when I was training, the culture was very much one where you weren't allowed to be weak. Even now, when I think back and imagine the idea of actually admitting that I was struggling to my colleagues – or, god forbid, my boss – I was so worried about how other people would view me, whether they'd even think I was cut out to be a doctor. That kind of 'tough guy' mentality really pervades medicine still, I think, to this day.

And the problem is stigma in mental health, for doctors and for nurses and any health worker, has huge consequences. You know, there are studies that show that 35% of doctors don't seek regular healthcare for themselves, and that's any kind of healthcare, let alone mental healthcare. And there's another study that I came across that said 50% of female doctors – so, like me – don't seek treatment, despite meeting the criteria for mental disorders.

So the truth is, it's a bit of an epidemic of mental health issues amongst doctors right now. It feels like it's something we're not really dealing with or addressing. And of course, in the last decade or so, we've had the effects of austerity policies, which means things have just gotten worse. They're getting harder and harder. You just need to talk to my colleagues and you will hear them all saying that it's just so tough right now. The reports of things like self-harm have gone up by 62% and people with suicidal thoughts have gone up by a whopping 30%.

And it's all of this that I think that we don't talk about enough, but is really, really having a huge impact.

Martin

And of course, with your upbringing in Hartlepool, you will have seen that deprivation. And I think one of the things that we haven't perhaps communicated enough is the extent to which the NHS is picking up the pieces of failures in so many other government policies. In a way, we're trying to sort of mop up the water, but we're failing to deal with the dam that has ruptured upstream.

And at the same time in hospitals – and I have to be very careful when I get to my age not to say, well, it was different when I was training – but the reality of it was, I think, as I talk to my junior colleagues, we had much more support structures. We had the idea of the firm, you were working with the same people. There was that interaction.

You know, we have five-year reunions at medical school. Most of my colleagues have now retired, I think almost all, in fact. But we still have that sense of cohesion and solidarity that I sense juniors are now losing, which is a real tragedy.

Guddi

Yeah, and you've put that so well about this idea of this, like, upstream thing that we're not damming. Austerity, we know, has been killing our patients. But the fact is it's also killing health workers. And I think you're right that we need to be thinking about this much more systemically.

I think we also just need to talk about it. And, you know, that's something that we can do, but only when we can trust our colleagues. And as you said, we don't have that connection anymore. The way that we've fragmented as teams is – which is part of the neoliberal project – means that we don't have a cohesive team mentality in medicine anymore. And you're right, like, who would I turn to if I really needed to reach out?

Martin

And at that time, when you were facing all those pressures, you started attending a dance class. Maybe you could tell us what happened then and give us your ideas on the extent to which we should see dance as a form of therapy.

Guddi

Yeah, so I guess I was one of those thousands of clinicians that make up the statistics that we just talked about before, and I was facing burnout. You know, as a paediatrician, life is hard, right? It's a difficult job. And at the time I was a registrar and I was dealing with a string of really, really traumatic deaths, child deaths, actually.

And I blamed myself – you know, as the registrar, I was in charge. I felt like... well, I had a total crisis in confidence, and I was totally burnt out. I was exhausted. I felt like I wasn't cut out for a career in medicine. You know, I can't actually stress enough, Martin, how lonely and dark a place this was. It was really, really, really bad. I almost gave up on my career, but even almost life entirely.

And had it not been for stumbling upon this Bollywood dance class, which I talk about now with such glee, I might not be here to tell you the story today actually. You know, one thing you should know about me is I don't actually really like exercise either. I haven't been to a gym in more than a decade, and it took me years to get my head around the idea that even running might be fun. And this dance class was something that I just did at the time because I was trying to keep fit.

But I'll tell you that within minutes of entering that room, I realised that it was something completely different, entirely different. There was something about, I think, the mix of the music and the dance itself, and also that thing you mentioned – solidarity with the other dancers in that room, that meant I felt like I could just shed the weight of my life at the door. And that lightness and joy, you know, I literally felt like I could be someone else in that room.

What was funny is that that someone else actually turned out to be myself. And I wasn't being myself at work. And that was the problem. For me, the Bollywood dance classes were energising, they were reviving – literally. They were very restorative, and I have to tell you, they were better than any amount of therapy. I regained huge amounts of confidence in myself, and I don't say this next thing lightly, but I started loving myself again.

And so for me, when you say, oh, is this a form of therapy? To me, it's better. Better than therapy.

Martin

I was struck – obviously, in researching this podcast, I've been watching a lot of videos and reading and so on – and you do convey very clearly how you benefited from the interactions with other people.

I do some of my research on social capital, on trust, and interestingly we've shown how having social networks helps with blood pressure control, for example. In countries with weakened health systems, the impact of having connections on cardiovascular disease, and so on. In one cluster randomised controlled trial we found that having a peer supporter or a friend to help you, along with other interventions, actually really made a difference.

So I think what you're saying is having that network... particularly when we have such an epidemic of loneliness in this country, with families having moved away, our housing market, and so on. There's a whole range of issues there.

But let's stick with the dance, because you didn't just leave it in the Bollywood classes. You brought it into your work, because you became a paediatrician and you suggested dancing on the wards. So what were you hoping to achieve with this, and how did your colleagues respond? And what do you think was the impact of the initiative, both on the children and on the organisational culture of the ward in which it introduced this rather novel form of – we can call it therapy, activity, whatever?

Guddi

Well, at the time, Martin, the youth mental health epidemic was just starting to accelerate. So actually it was not uncommon for me to be faced with a ward full of young people who had either self-harmed or were feeling suicidal.

We've talked about current health systems not really being well equipped for the current range of social and psychological problems that are actually facing our patients today. And our response to children who are in anguish is to put them in a hospital bed. So they would lie there languishing, often refusing to speak to any doctors on the ward round. And then, of course, they'd be ignored for the rest of the day. And I just kind of thought, well, this is not really helping them or treating them.

And I knew, obviously from my own personal experience, that arts and dance could be life saving. And I remember... It was actually a moment when I was in the dance class. So, you know, in dance studios they have these mirrored walls so you can actually watch yourself. I remember in one of those classes looking at myself, seeing how happy I was, but then also looking at the faces of everyone around me, all glowing with delight. And I just thought, if I can feel so good dancing, why can't my patient?

It was that thought that led me to this literally crazy idea. When I think back to it now, it was a bit of a conversion experience for me, a bit of a conversion story that led me to introduce dance to the paediatric ward. Because if I had not been so convinced, I wouldn't have been able to... I guess, persist, against all of the resistance that's inherent in bureaucratic organisations like the NHS. As I'm sure you know, and as any of my colleagues who are listening know, making any change in the NHS is really, really hard.

So what I ended up doing was this idea of, let's have weekly dance sessions that are associated with the end of the ward round, which means that the doctors have to attend, and which means that everyone's invited. So parents, cleaners, admin staff. And I very consciously wanted one of the nurses to be the one who was teaching the doctors how to dance. And so this very talented nurse called Carole Evans was the person who did it on our ward.

Now at first, obviously, my bosses and my senior colleagues literally were just like, 'What? What are you doing, Guddi, what is this?' You know, either they thought it was silly, like literally just 'this is beneath me', or they would come up with these interesting logistical problems for why we couldn't do it. All sorts of health and safety issues about the dangers of dance! And I was just very intrigued by where all of this came from.

Ultimately, I had the backing of a wonderful consultant paediatrician called Dr Su Laurent, who was my champion and who actually allowed, I suppose, or made it possible for this to happen. We tried it. And this is a lesson to anyone who's listening: just try it once and just watch. Watch the effect, because people loved it. People were suddenly converted themselves. It's hard not to be, right? It's really difficult to, like, withstand the rhythm of a really great song.

And there was something about seeing all of those sedentary children I was talking about on the ward, jumping out of bed and joining us, and actually talking for the first time, actually having conversations with us.

What was really interesting was that it wasn't just the kids that benefited. I wanted to actually make sure that this was of benefit, so we did some impact analysis on this. Parents loved it – they started reporting higher quality care on the ward. Staff themselves, their morale totally turned around. This was a ward that used to have a real problem with staff retention. Nurses now didn't want to leave their job.

And most importantly for me, I think, is it flipped hierarchies. This nurse was teaching the doctors how to dance. And now we had nurses and doctors knowing each other by their first names. And patients were viewing health workers as humans because they could see us being, you know, fallible, silly, enjoying ourselves.

I just feel that there was something very simple about this intervention, because it was free – there's nothing in it that costs any money at all – and yet it had impacts right across the system. You know, look, I'm not going to pretend that this is going to fix the NHS, but in a way it was, I suppose, my way of trying to help my local hospital to take matters back into its own hands, and to try and resist some of those forces that we talked about that are eviscerating our health services right now.

And I do genuinely believe that wellbeing should be for all of us. Health workers are under huge amounts of stress right now. And the sad part is that when we are under stress, we don't feel like we can do justice to our patients, which is what we want to do in our jobs. So, you know, cuts or no cuts, there's something about this kind of creative health intervention that means that that spirit that we famously associate with the NHS kind of rises again. It comes back to life again. And I think that, for me, is why creative health is so important.

Martin

And what I really liked was the way in which you were able to flatten the hierarchy. Again, some of the work I do is with nursing colleagues at the University of Pennsylvania and the concept of the magnet hospital – magnet hospitals are hospitals that attract and retain staff. We're currently doing a big randomised controlled trial across Europe, looking at their impact on patient outcomes. But we do know that in the US, anyway, you get better patient outcomes where you have those closer relationships.

So I think that's really important. But also you talk about the all the logistical reasons why you might not do anything. And other guests have talked about how things that seemed impossible became possible during the pandemic, out of the force of necessity. So you can overcome them.

I think that then maybe takes us into the other work that you have done. You're a person who's managed to do almost the impossible – introduce dance classes into a busy general hospital. Maybe you can do magic, but I just wanted to see how that experience influenced your approach to quality improvement more generally.

Guddi

Oh, well, that's so kind of you – I wish I was a magician, you know, it is very flattering! That's coming from the president of the BMA, and an academic who literally writes, I'm sure, papers in his sleep.

But you've probably heard, and I'm sure many of our listeners will know, about Carol Dweck, who is the professor of psychology who introduced this concept of the growth mindset. And sadly, it's rarer than we would like in institutions like the NHS. And so, you know, when you do come across health leaders who can embody this kind of can-do attitude and that positivity and willingness to learn, that's something very special.

Now I mentioned that consultant, Dr Su Laurent, at the hospital where I was working at the time, and she embodies the growth mindset because she was willing to learn and to try something new and encourage me, as this younger colleague, to do that myself. And it's that, I guess, that growth mindset and that willingness to experiment, which I think is the key to change. You know, is the key to making anything – as you said, the impossible – possible.

That wasn't the only thing that I've been doing; since then I've been involved with a number of change projects, and this this thing called quality improvement or QI in the NHS. And I guess through all of those different projects – which have not always been on dance, let me just say – I guess the overriding lesson is that actually improvement never happens alone. You can never do it by yourself, right? Just as we know that medicine is very much a team project, don't think for a minute that just because you've appeared with your fantastic idea that people are going to listen to you.

I'll give you an example of where I actually failed miserably. So this is one of my very first jobs as a doctor in London. I was on the neonatal ward, and I tried to change the policy on hand washing, and naively thought that if I just presented the evidence at the journal club, deal done, everyone's going to change what they're doing.

Of course, change is not just about data – it's about culture, too, right? And, you know, as the new kid, not having spent any time building any relationships, obviously no one was going to listen to me. And so I started realising, well, actually the importance here of relationships to change cannot be underestimated, because without trust, without that connection, without patience, you know, change is just a dream, isn't it? It's just something that you can put on paper.

And I think for me, a lot of my work is now around this idea that actually, I believe anybody can make change. I think QI is bandied around a lot in the NHS as if it is a special thing, as if only a specialist can do it, or you have to have a special kind of role – you know, you have all these QI fellows or QI officers or whatever. But every single human being is born with all of the ingredients that are required for change, because all you need is to be creative, a bit curious, and just committed that you want to make things better.

And I think sadly that in the NHS, and in medicine more broadly, we tend to replicate social hierarchies and power dynamics, when we say things like 'well, QI is just for the specialists' or for the experts. And I would like to see QI being taught inter-professionally. Every member of the team – no matter how junior, or whatever your discipline or your background – should be encouraged to take on this project of making where you work better.

But that requires all sorts of things like democratisation in our workplaces and restructuring of jobs. And, you know, as we've talked about, NHS workers are really overstretched already. And what we need, if we want QI to really work, is the space to be able to do that kind of thinking and creativity. Because we have a diverse and brilliant workforce, and that's being wasted at the moment.

Martin

I was really pleased to hear you talk about curiosity there. I've written a bit about leadership in public health, and that's one of the key issues – just because we have always done things this way, it doesn't mean that you have to continue to do that. You know, I think back to my time as a registrar in nephrology, whenever we had a clinic which went on forever, and with a little bit of reorganisation you could actually fix that, even though that was well before I knew anything about queuing theory or operational research. So it is possible.

But now you find yourself as a consultant in neurodevelopmental and social paediatrics. You've got these insights into introducing change from your work with introducing dance into the hospital. But I wonder how that work with dance and children has influenced your engagement with the children themselves.

Guddi

Yeah, I think actually, now, driving me more than anything else is this idea that actually for me it's children. But I guess for any physician, the patient should be at the centre of everything. And really we should be putting people first. We should be thinking about the people that we're serving.

Take adolescent health, which is the thing that I think about a lot. Young people with chronic conditions are often overlooked, because doctors cite them as being difficult to connect with. And as a result, adolescents have a really high 'do not attend' rate, the DNA rate – it's like 15%. And when you dig down, you start realising that the ones who are not attending are exactly the ones that need care the most, because they come from the poorest backgrounds or have the highest needs.

And so effectively, our inability to talk to teenagers, for instance, means that we're compounding health inequalities, and we're just making disengagement in young people worse, right? And obviously – I'm sure I don't need to tell you this, Martin – but from a public health perspective, that does not make sense.

But it goes further than that. So as you said, I'm a specialist in neurodevelopmental and social paediatrics. And so my interest clinically is also in the fact that we shouldn't be just aiming for health in a very narrow sense, but actually a more holistic sense – mind-body health. You know, for too long in medicine, we've operated under this kind of Cartesian duality, right? Body versus mind. Ask any kid, and they'll tell you that's not how it works.

I think there's something about the way that the medical case study is configured. This thing about, you know, we try and take all subjectivity out of it. Patients become initials, and we take away all connections, and we kind of treat the medical patient as if they were a cell that you could extract from an organ. And that we can think about them without... you know, as if we

were just plucking people from their homes and then thinking about them without any of their context. As if it all arises in vitro, almost, like in isolation.

And, you know, we're really into the data and the statistics and the numbers, but we forget that people have families. And that all of that stuff matters. If you just focus on the numbers, you'll never really understand things like what happened in COVID, where we had black men who were three times as likely to die from COVID-19 than white men. Or the fact that we know that women, although they have longer life expectancies than men, spend more of their lives in poorer health than men.

Or even, you know, the most shocking fact of all, which we are still contending with today, which is why the richest people in this country enjoy nearly 20 years of better health compared to the poorest. Right? And you will not understand that if you just look at the data.

Martin

Of course, often we talk about the need to put flesh on the bones of epidemiology. I'm speaking as an epidemiologist, because we look at all the numbers but forget that every one of those numbers, when we're looking at mortality data, is an individual who was born, lived and died. I often reflect, you know, my work with the collapse of communism in the 1990s... I remind my colleagues and my students that some of those individuals were people I knew who experienced that. You need to be able to put a face to the data. And I think we lose that at our peril.

Now, we've talked a lot about dance, but I want to talk about your broadcasting career, because you've had a really extensive and fascinating career there. You started off in the BBC with the series *Babies*, and then *Trust Me, I'm a Doctor*. But how did you get into television? How does anyone get into television, coming from what you'd been doing, going through the training programme?

Guddi

Completely by accident is the answer, Martin! It's a bit like Bilbo Baggins in *The Hobbit*! I completely walked into it unaware, I think.

I had been doing some advocacy work at the time. So, around child poverty, partly with the Royal College of Paediatrics and Child Health. I had been interviewed for various news outlets. The Royal College of Paediatrics and Child Health was then approached separately by the BBC, BBC Two, because they were doing this new series on child development and they wondered if they knew of anyone who might be a good new presenter.

I was asked, and I have to be honest with you Martin, my impulse was to say no, because just like Bilbo Baggins I actually like being left alone, and I just want to be boring and stay at home. But this was... I can see now, in retrospect, that it was an opportunity to use my expertise and interest and potential for advocacy in a way that actually is really hard to turn down. And, you know, of course I'm really privileged to have been in a position to be involved, and work like this, because you reach so many more people when you're in the media than of course you can in your clinic.

Martin

Now there are a few clips from that series on the internet and I hope that our listeners will take the opportunity to have a look at them. But what came across very clearly to me was that you've got a remarkable gift for explaining very complex issues in ways that viewers can understand. Did that come naturally?

Guddi

Aw, it's really lovely of you to say that Martin, honestly, and definitely I could be better at it – this podcast is probably an example of how I could be better at it! But I think, you know, the more that you do it, the more you realise that there is to learn, but also you get better. Practice definitely makes perfect.

I think what helps is me being a paediatrician, and also being the daughter of immigrants. So as a paediatrician, I have to take on multiple personas in my work. I have to speak to parents, I have to speak to kids, I have to speak to professionals. Sometimes I'm really formal and, you know, speaking in jargon, and other times I'm being reassuring. And my favourite, of course, is when I'm speaking to the kids themselves, when you have to speak plainly. That, I think, has taught me that sometimes you have to just cut the gibberish and get to what really matters.

And being the daughter of immigrants, I guess in some ways I've always been an interpreter of sorts. My parents can speak English, but, you know, navigating English customs, body language or turns of phrase, that kind of thing – that all needs translating too. And I think that maybe it's given me the empathy that's required to kind of put myself in the shoes of someone who isn't in the know, and isn't an insider, and being able to help them understand.

Martin

And that's a theme that's come through very clearly in this series. All of you who've been selected for this are people who I see as inspirational, but I think part of why I find you so inspirational is that so many of you have that ability to see things from a different perspective, to almost look inside from the outside, or whatever, and that's come through again and again.

Now, you worked with Kate Garraway on the series *Your Body Uncovered*, and that was a bit like a travel programme because you took us on a tour of the brain, the kidneys and other organs using augmented reality. For those of our listeners who haven't seen that, can you tell us a little bit about the programme and what you were doing?

Guddi

Yeah, so this was an interesting show. It was a bit of a departure from my usual, but essentially the premise was that we used augmented reality headsets to reconstruct a real-life version of patients' inner organs.

So it's based on their actual medical imaging and scans, and it shows their bodies as they would appear, 3D, in front of them. The technology is super clever – far too clever for me to understand – but I guess what you and I need to know is that it took the information that's in MRI images or CT scans, and it put together those 2D slices and made them into 3D blocks. So instead of just having your Dairy Lea slices, you had a whole block of cheese, that's how I like to think of it.

And the important bit, or the reason why this is interesting to me, is that it just helps the patient to understand what's going on, right? So both the doctor and the patient is able to look at the same image at the same time, and move through space and around it. Literally, if you watch the programme you can see us walking around, crawling under a uterus, or sticking our hands into a brain. And say, for example, if I was the doctor who might be operating on it, I could literally pull parts off to explain to a patient what would be happening inside them at the time.

You know, it's that kind of thing that you can see would enable us to have better conversations with our patients, which I'm all about.

Martin

It was a fascinating piece of television, but I have to say I've got some questions, practical questions, just for my own curiosity, because we're watching you walking around, for example, a brain in the middle of a room. I'm assuming there wasn't actually a physical big plastic brain there; it was virtual as well. So how did you avoid bumping into the walls and your fellow presenters? How did you know where to move your hands? What was it actually like? Because, you know, I used to do a bit of sub-aqua diving, and sometimes you're in the dark, you're trying to find your way around... but I'm sure it was much better than that.

Guddi

That would have been a really funny alternative show, wouldn't it? Like human bumper cars or something. But you're right, you make a really good point. So the way that the technology works – just to clarify for people who are listening – is that, yes, you can see this 3D image of the person's insides, but you can still see the people around you, and you can still see where you're situated.

So it would be quite difficult to bump into people. Although, you know, it is a very strange experience. And unless you've done it – until you're done it, actually – you don't really understand how disorienting it can feel.

Now, I want to stress that as impressive as the technology is... Which it is – it's cutting edge, this stuff. And this is actually the first time this has been shown on television as well, you know, this show was kind of ahead of its time in that regard. But the reason I'm interested in it is, like I said, I think it will help us to have better conversations with our patients. Because right now, when you go in to see a doctor, 40-80% of the medical information that you are given by your doctor is forgotten immediately.

And we know that part of what helps us to remember is when we feel an emotional response. Also, as humans, we're incredibly visual, right? We know that being able to see something helps us to believe it, to literally believe it. So there's something about what this technology does in terms of tapping into our neuroscience, which I think could really be helpful for helping patients to a) understand what's going on, b) remember what they need to do, but also get on board with things like treatment plans and turning up for appointments, and that kind of thing.

I also think that it should encourage us as doctors to be better at communicating. I really don't think, actually, it lets us off the hook. Just because you can see the heart better, doesn't mean that you can dispense with the communication skills, because now patients are going to ask you better questions. They're going to be much more curious.

And what I found on this television show, actually, was that people start asking the questions that really matter. So the questions that are about emotions, that are about life and death and about how their relatives are going to cope. That's the kind of stuff that sometimes gets lost or doesn't happen when the patient does not understand what's happening.

So there's something about having better conversations through this technology that I think actually then circumvents the technology, and it actually means that you can have a better connection between the doctor and the patient.

Martin

Because often we underestimate how much people actually don't know about their conditions, even though they may have had them for some time, or they may have views which are at odds with the scientific evidence. And we make assumptions; we just keep going on and on and on, but we don't actually get back to the idea that we have a shared language, a shared vision of what the problems actually are.

Now, you also worked on a series of three programmes entitled *Babies: Their Wonderful World*, and this obviously was very close to your own clinical work. Given my research interests, I'm familiar with life course epidemiology and the role of early life events. But even so, I was really struck by the enormous influence of conditions in those early years on language and identity and temperament and much else. Could you maybe share with us a few of the examples that our listeners might be unaware of?

Guddi

So this is actually also another series that was the first of its kind, which is what the BBC is very good at, and what this series helped to showcase – again with real-life experiments – was the science of the very earliest developments in the human brain. So right from day one through to the first two years of life, which we know now and we call the first thousand days. The science of this is expanding all the time, But we know now, it is the most important time in terms of human child development, brain development, everything.

And, you know, there are so many lessons that come out of the series for me. Of course, if you want to learn more about it, please go back to the series. But for me, I guess the take-home messages are that by better understanding how our brains develop through all of the things, you know, wonderful things that babies get up to, we are learning about brains, actually. We're not learning about babies. We're learning about brains.

And what we're learning is that they are malleable, that they're plastic, and that they can be shaped by experience throughout your lives. And that is very important because I think there is sometimes this notion that things are fixed; that, you know, it's all lost. If you've got a certain condition or if you have a certain life situation, it's all lost. But this for me is a very hopeful message, because it means that there's always a chance to change things. There's always an

impetus, then, for us to intervene. We should never give up. And you can always make things better.

Some of the things that actually came out of the series in terms of interesting findings was things about gender expectations, and how norms around diversity are changing. We did a couple of experiments literally around gender and race in that show. We also found out that brains are attracted to fairness, and naturally we are drawn to good people.

Again, this all flies in the face of what we're sometimes told in the media, or the way that society is presented to us. And yet the science is telling us something different. We are co-operative, we're naturally empathetic, we're caring – almost from day one. You know, part of the reason, Martin, that I work with children is that I find them so inspiring. They are our literal hope for the next generation. And yet there's also something wonderful about knowing that we're almost inbuilt... it's inbuilt in us to be good.

I think if you're going to ask me for one key message, the key message is that you cannot underestimate babies. They are not just these sleeping, eating machines, which we sometimes think of. They are complex, busy, busy brains that are taking in everything around them, which means that we have a huge responsibility as a society, because I know from my own practice that being a parent in today's society is really, really tough. And in order to give babies – every baby – the best conditions in which to grow and develop, then society has to change, because it's really hard right now.

Martin

Well I want to come on to that in a minute, but I think what you're telling us about this, sort of challenging the idea that everybody is individualistic, they're ruthlessly competitive, and so on – this image that is often promoted in the media – but then we have not just your insights from paediatrics, but also insights from game theory, from anthropology. The evolutionary advantage of cooperation – the evidence is very clear. But somehow or other we keep casting that aside, and rather focusing on this much more individualistic approach.

But what you found in that series really has pretty profound implications for policy, it seemed to me, particularly given that we're living in a country where there are so many children that are growing up in poverty, in families whose lives are precarious. They don't know whether they will have food or shelter or income from one week to the next. So what would be your message from those observations, from your work, for politicians?

Guddi

I think a lot of people in our society are not interested in babies and children, largely maybe because they don't have kids themselves. But the reason I do paediatrics, the reason I'm a neurodevelopmental specialist, is because brains are fascinating, and we all have one. And so we should all be invested in this question of what happens to our brains, and how can we make sure that we are all laying down the building blocks for good brains in the next generation?

So whether you have children or not is irrelevant, because this applies to all of us. And in terms of what this means, one of the things I learned through doing this series, but also through my

work with the Royal Foundation, who have a Centre for Early Childhood, is that public knowledge on how important these early years are is very, very low. Even amongst parents of children in that age range, between 0 to 5, nearly two thirds were unaware of how uniquely rapid the development is in that time. And 28% did not appreciate the importance of that kind of nexus of genetic and environmental influences on their child.

And in the population as a whole, 17% of adults did not realise that you need to start thinking about all of this stuff from the start of pregnancy. So it's not just from when the child is born, but right from the in utero period, and that all of that will shape us as human beings.

This is partly why I did any of this public engagement work, in a way – the BBC, Royal Foundation, or whatever. Because I want to bring these messages to large audiences. Help with educating parents, yes, but communities, you know, and also professional communities, because we need to be doing a better job of communicating this stuff, translating it, explaining it.

And we also need to do a better job of working together. Because if we've got this evidence, if we know that this stuff is important – and we've known about it, Martin, for a long time – then why are we not configuring our societies to do better for our children?

Part of that, I think, is a change of culture. We need to normalise parenting in this country. We need to normalise children and families. They should be front and centre, not in a... you know, in a sickly infantilising way, but rather just because they're the crux of, again, everybody in society. We are all children at some point. And if we centred society more around children, what could it look like?

Martin

And yet here we are in a country that has been in the vanguard of work on life course epidemiology, David Barker's work and others, and yet consistently in UNICEF studies and elsewhere we find that our children are in many ways the most disadvantaged, engaging in the range of different types of hazardous behaviour, right across the spectrum. Much more so than in the rest of Europe, although we do share some characteristics with some other parts of the Anglophone world – the United States in particular. But there's that gap between the research which has been done in this country and the policy. We still haven't really got it across.

But I want to talk about the National Centre for Creative Health, because you're a trustee of the centre, and this is an organisation that encourages active engagement with the arts and culture and argues that this creativity is beneficial for the health and wellbeing of us all. Can you tell us a little bit more about the organisation and what it does?

Guddi

So it kind of comes back to my own personal experience. You've heard from me about how health can be benefited from the arts, and you also know that there is a whole plethora now of evidence to show that creative elements – whether it's dance, painting, poetry, whatever – can also benefit health. And yet it doesn't exist in real life for most patients in this country yet.

And this is despite the NHS being genuinely a world leader in so many respects when it comes to novel approaches to health. You know, I am not ashamed at all about the NHS when it comes to this; we are really in some senses world-beating when it comes to this. But for some reason it is not yet normal business as usual, let's say, for creative health yet.

So the National Centre for Creative Health, of which I am a trustee, as you said, it exists in order to actually now promote that practice and that research and to help inform policy and help collaboration where it needs to exist – so between community partners and those who exist within academia or in the clinical spaces.

Right now, actually, what the NCCH is doing with the All-Party Parliamentary Group on Arts, Health and Wellbeing is something that's called the Creative Health Review. This is something I would recommend you look up if you're interested in it, because it's taking to government this issue that there's huge potential here for creative health to tackle really pressing issues in health, including our widening health inequalities, and all of the challenges that we face post-COVID-19. So this is our moment, for us to step in and come together and use creative health as a way to get round at those big issues.

We've drawn together a panel of commissioners that includes the likes of people like Professor Sir Michael Marmot, but also people from all spheres of life. And we're hoping that this will translate those academic findings into recommendations that policy makers can then actually literally take and use. And for us, it's about cross-governmental strategy, because this is far too pressing a problem for us to think about, you know... small, small politics here.

Martin

Well, we can but hope. But I think it sounds a remarkable initiative, and that really fascinated me, looking at your website and reading about it.

But I want to turn to yet another item in this really very impressive portfolio. And I've been struck very much by your commitment to social justice. You're part of a group that has created the Wellbeing and Health Action Movement, or WHAM. I'm not sure if that was intended as a tribute to George Michael and Andrew Ridgeley – I suspect you have danced to their music at some point – but you describe WHAM as a movement to inform and empower and unite clinicians who fight child poverty and health inequality. And you've said it's a social incubator for conscious clinicians. So, what motivated you to set it up?

Guddi

I think we've just found our theme tune, haven't we, for the group! But yeah, so WHAM... you know what? I think like so much that's happened in my life, WHAM came out of another – yet another – situation when I felt like a failure.

And in this situation actually... we talked about, you know, the NHS – huge burdens right now, dealing with what are effectively social problems but in health settings. And again, you can imagine, as a registrar, I'm having to deal with things like refugees. Syrian refugees who are arriving in the UK – they're 16, they're unaccompanied, they're feeling suicidal. They're arriving at A&E at 3 o'clock in the morning. What am I supposed to do about this? How can I genuinely help these people?

Or you can have another situation: say, a four-year-old girl who comes in with a chest infection, but I'm realising that actually she has the bowed legs of rickets, and she's got the skin diseases of, like, pellagra. Things that are Dickensian, Victorian diseases, and I should not be seeing in the 21st century, in Britain. Absolutely not, right?

So it was, again, encountering patient after patient like that, and knowing that I wasn't really fixing their problem and sending them home... I mean, it led me to feeling hopeless. It led me to feeling again, like, what am I doing? What is my job really about?

And I'll tell you why. Because, you know, most clinicians understand that this stuff is important, right? We all know that the food that you eat, and the house that you live in, and the money that you don't have to pay those heating bills, is what's important. But the system doesn't seem to understand that. Over and over and over again, I would be told, you know, 'that's someone else's job, sweetheart'. But I kept thinking, but whose? Because no one's taking care of it. No one's doing it in our society right now. Maybe they're supposed to, and maybe we're meant to have this idea of, like, social welfare and all that kind of stuff, but it's not working.

And so I felt like it was so nonsensical for me just to be making these prescriptions and sending kids home. You know, I would spend hours – hours! – doing things like writing housing applications for my patients. And it just didn't feel like that's what I should be doing as a doctor. Not in a bad way – it was just like, there must be better ways for us all to be doing this.

I just felt like something has to change. And that's actually where I turned to philosophy and where my never-ending PhD now lies, but also where WHAM came from. Because I realised that there are lots of clinicians who feel like this and want to help, and they want to be in a position where they don't feel powerless anymore.

Martin

That resonates so much with me because back in the mid-1980s I was doing a research job looking at rather obscure small peptides that I was seeing in my clinic; I remember one particular woman with beriberi and another man with scurvy, and that was the reason I moved into public health. So, really fascinating parallels there.

Now, I've long been an advocate for doctors becoming advocates for the public, highlighting policy failures of the sort that you've been describing, to tackle the causes of the causes of illness. But when you do that, you often get pushback from politicians and from media commentators who tell you to stop being political – just stick to treating patients. How would you respond to people who say that sort of thing? You know, saying, 'Well that's alright, you go off, you've got your WHAM and all the rest of it, but you should be in the wards treating patients and making them better, and not getting into the big issues that the politicians are sorting out.'

Guddi

Well, Martin, it's partly in response to that kind of question that I am doing this PhD right now, which is about what medical professionals should do about the social determinants of health. And, you know, even WHAM comes under a lot of criticism. Partly this is because there's this

dangerous myth in science that what we do is somehow value neutral, right? As if it has no human subjectivity that we talked about before, as if it's completely impartial, and that we shouldn't be taking sides. You know, as you said, we shouldn't be political.

And yet, if our job is to make sure that our patients do not come to harm, and yet social and economic systems are literally causing harm to our patients, then I think it's our responsibility to diagnose that problem, and treat it too. Now, I'm not saying that we can treat this on our own, but I do think we have a job of helping to identify the problem. We see it in our clinics every single day. How can we go to sleep at night knowing that this is happening?

I think sometimes we forget that medicine is a highly moral activity. It has values built into it, by its very nature. I mean, the very fact that you believe that health is a good thing means that you do have some values already built into your job. It doesn't take much, then, to make that next step and think, 'Well, it's my ethical responsibility to protect my patient.'

And in that case, being ethical means being political, because to me, health is about justice. And I think we need to reflect that in our language. You know, it's actually about much more than the social determinants of health. Don Berwick in the US has referred to this as the moral determinants of health. And I think there is a big moral incumbency there on us to step up, and not to be afraid to speak out on this stuff, because it matters to our patients.

Martin

And in the course I teach, we have sections on the commercial determinants of health, which we recently had a *Lancet* series on, and the political determinants of health. The challenge, of course, is that other people will often define things as political to try to exclude you, to try to push you out. And yet, you know, if we're talking about mosquitoes as vectors of malaria, why are we not talking about the tobacco industry or the gambling industry as vectors of ill health as well? We should be perhaps focusing on them.

Now, I'm almost at the end, but I've got two personal questions that I've been asking to all of our guests. The first one is that we're talking about doctors as role models, and you're here because I see you as a role model, but who are the people who have inspired you or who are still inspiring you? And why?

Guddi

That's a great question. And I hope you don't think this is cheeky, because my role model is actually a nurse and not a doctor.

Martin

That's fine!

Guddi

And a brown nurse at that, as well! So my role model is Mary Seacole. Mary Seacole was a superstar, and like all nurses, my mother included, she is an unsung hero in the health system.

Now, Mary Seacole, for anyone who doesn't know – her story is fascinating – she is a Jamaican nurse, but she actually worked for the British Army. Also as a businesswoman. But she not only

was, you know, compassionate, had all of these skills and bravery during the Crimean War, which is when she was around, but she also set up this thing called the British Hotel. This is effectively a hospital to care for British soldiers behind the front lines.

The Crimean War, so the 1800s, right? Now, today, she would be considered... well, she probably would have become a doctor. Obviously in those days, women couldn't go to medical school, let alone a woman of colour. And she would probably also be a social entrepreneur and giving talks on TED or something.

But the fact is that despite all the barriers that I'm sure she must have come across, she just kept going. She kept doing what she was good at, and she was really good at a lot of things. And I have to say that, again, as a woman of colour who has come from the northeast of England, sadly, discrimination – whether it's along race, class or gender lines – is still alive and well in our health system. Mary Seacole is my inspiration because she never took 'no' for an answer.

Part of why WHAM exists as a social incubator for conscious clinicians is because we're trying to dismantle health inequalities – or inequalities, as you say, not just for our patients, but within the profession as well. We've got to start *within* as well as to think about without. And so there's something about us all thinking about intersectionality much more deeply, and that's partly what WHAM is about.

So Mary Seacole is my inspiration.

Martin

And my very final question. What advice would you give to someone who was just graduating in medicine, listens to this podcast, is inspired by you, and would like to follow in your footsteps?

Guddi

Haha, well, given how circuitous the route has been, I don't know if it is a good idea to follow in my footsteps, but... what I will say is that, having navigated lots of different fields – so I've been really lucky to do obviously clinical practice, broadcasting, but also public health and policy and advocacy – I think what we need to do are three things, and this is the thing I always teach students, which is that we need to feel, we need to connect and we need to power up.

Now, by 'feel' what I mean is that, yes, we need to be compassionate – but I'm saying, go one step further. So we talked, Martin, about the injustice in our system. We need to be outraged, and we need to act, and we need to express solidarity.

The second is connecting, and this comes back to what we talked about as well, which is that health is so complex and messy, and we need to allow the fact that doctors – or medicine – is just one small part of it. And if that's the case, we need to start partnering up with other people who can actually make this world better, and make sure that our children or adults are healthy too.

The last thing is this idea of powering up, which is what I've had to do. So I've had to teach myself a lot of stuff to be able to understand how health is actually configured in the world today. And I think we're not given that on a plate. Medical schools don't teach it to us easily; we have to go out and seek it. And what I'm encouraging people to do, if you're listening to this, is to do that – to go out and seek it.

WHAM is trying to help, but it's by no means all of the answer. It's just like a small gateway, I suppose, into thinking differently. But there are loads of inspiring people out there – like Martin McKee! – who you can follow and you can learn from, who can teach you that actually there are different ways to practise medicine or to think about health.

And the thing I really want to say is that if you're just graduating now, it doesn't matter what stage of training you are at, we all have power. And the fact is we have to recognise it – and especially as doctors, we have a lot of social power. And what's really sad is if we don't use it.

So whatever shape it takes, whether it's a dance project or whether it's taking action politically, whatever it is – or just hanging out with the BBC – use your power, because it can change the conversation and change our culture for the better.

Martin

Guddi Singh, it's been a real pleasure. Thank you very much indeed.

Guddi

Thank you, Martin.

This podcast is hosted by Martin McKee, produced and edited by Alex Cauvi. For more information visit bma.org.uk/inspiringdoctors