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David: The goal for these discussions is not to solve anything, but hopefully to have conversations that will help us frame questions in a way that leads to more detailed discussion. Because I love hearing from all of you, it helped me think about some of these questions too; you know we have a new medical school having its 10 year anniversary and we are in many ways, in medical education, and especially with our school of medicine, at an inflection point where we are not trying to be just the same old medical school as every other one in the UC system.

We come from slightly different medical perspectives: Dr. Fortuna came very recently from UCSF and Dr. Osei trained in Ghana, and I went to school on the East Coast. So we have all of these perspectives that are going to be relevant. In my case, having started the Center for Health Disparities Research, we thought that our unique relationship to our community was an opportunity to discuss questions of health disparities, research, our relationship to the community that we both serve and also do research on working research with. And now we have Dr. Osei, who has launched the PRIME program, which is another way of connecting our educational program to our community. All of these things I think are timely, so we can have the discussion relating to the specific question of what we're doing here, but also how, what is the larger national or even international context.

Today's topic, which you have seen, is: Is medicine just a job?

Medical education has been steadily reducing the emphasis on basic sciences in favor of things like clinical skills, population health, and so on. Yet medical advances continue to explode, including new highly technical treatments for things like sickle cell disease and so on. The question is whether or not the shift away from basic sciences is the right direction or should we consider changing the definition of physician and the role in society. A school like this is a place where we can have this kind of discussion.

Some background: 100 years ago, the Flexner report reviewed the status of medical education. At that time it was largely based in 2 year for-profit organizations and generally not affiliated with institutions of higher education or research. The report of the time noted with alarm the poor preparation of medical students and practicing physicians. The report made really important recommendations that have shaped what we now consider modern medical education. The main impact was higher requirements for students to have an emphasis on basic science as the pre-med requirements, and extending medical training from 2 to 4 years. Medical schools all were absorbed into universities or affiliated with research institutions, and clinical professors became full-time appointments. The consequences were that quality dramatically improved with the emphasis on basic sciences and the grounding in scientific method, including a focus on areas such as physiology and biochemistry. This meant that physicians could approach diagnosis and treatment of patients in the context of being able to see biologically based answers to diagnosis and treatment. Thus, medicine as a profession was grounded in basic sciences.

Things have changed since then, so now we're facing for example, an upcoming accreditation site visit to review among other things, our first 2 years of preclinical training, which are now called foundational training and basic sciences. The students' progression to clerkship is now based on passing Step one of the board exam, so the focus has been less on a broad-based education in basic sciences and more on just passing Step one. As a result, that requirement has changed a lot in the attitudes of the students as well as what they're requesting from us as educators.

At the same time, there's recognition that there's an important role for studies in health systems, studies in population health, health disparities, public health, and so on. As a result, there have been significant cuts in the amount of time allocated for basic sciences. The question then for the students is more like, "How do I just get all the information and those critical lists just so I can pass a board exam?"

That has really changed the nature of their training and what their priorities have been. While we've been happy with introducing students to outpatient clinical skills and so on from the first week of medical school, the question is what price are we paying? Because of the complexity of medical research and practice, with more sophisticated tools for diagnosis and treatment, the question is whether or not all that can fit into their brains, while still being responsible in terms of medical practice.

We all now have a smartphones, so are we more reliant on things outside of our own skill sets and knowledge base? Studies have suggested that with tools like artificial intelligence and machine learning, these may actually be better at clinical practice than human beings. So that's another issue that we have to address. We are at this inflection point, where students are less interested in the foundational basic sciences because they think it's less relevant to clinical practice. And at the same time technology advances have become so incredibly big and complex that we have to ask: Can we do both? Can we improve the physician's bedside manner as well as give them all the competencies that they need to be effective?

So the question then for today is how do we think about this? How do we want to approach the question of medical education as well as the larger question of the position of the physician in society. Does the definition of physician need to be reviewed and reassessed?

Any initial reactions to these opening questions?

Adwoa: Yeah, It's a lot. Everything you have on there is what we've been struggling with. In you and me, when we show up and we have to teach, these are the things that we are going through. Why am I even here? Because they can pretty much find everything, so what is my point being here in this classroom? And you know, when I first read this, when you sent it to the email, I had to think for a while, but for me the fundamental question is: Who is the patient now?

Right? Because 100 years ago, that patient was very different from the patient we have now. And so for me, that is always the grounding thing. That's where I keep going back to: Who is the patient?

The whole Flexner report was gleaned from the way Germans, practiced medicine way back when, right? He went and was like, oh my gosh. He brought it back here. And so now, the Germans have gone back and they've asked themselves who is the modern patient, because they're beginning to say, "Wait. This system that we had going on, these patients are different." And so they have a whole new thing.

They have a whole write-up, who the patient is. So maybe that's something. It can you give some hints as to what the matter, what they've described now is concerned about law and ethics structural factors, funding.

Collaboration and self-discrimination. Okay.

Tanya: So it's not that they're presenting different physical illnesses. Okay, it's the patient, what they're seeking.

Adwoa: Yes. Because 100 years ago a physician had a different institution compared to now. Because they had access to whatever we have access to back then. You know, it's not the secret society, not anymore. Yeah.

Jeanette: The system is so different from the system here and you mentioned Ghana where it's probably different as well. But I think that they catch them earlier; our daughter has many friends from childhood still in Germany who are trying to become a doctor or finish now. And it's very different. It's a six-year training with two-year foundational sciences and then three years of clinical skills plus one year of rotations in a hospital.

David: But without the four-year undergraduate college.

Jeanette: Right, so you apply to medical school right after high school, which is means you catch them young, after 12-13 years of school, depending on the state. Most take a year off, then they are usually 19 or 20 when they start med school. Future doctors are caught earlier. And I think you can do more with them. I was part of an initiative here in the medical humanities together with Juliet McMullin years ago and I taught in your medical school and my experience there was that the groups that were in the electives in August were very very smart young individuals. But I also had the feeling we're catching them very late and it feels like they are checking a box when they do this. It's not really a vital part of their medical training and they don't see it as such. So it's always going to be the extra.

David: So is Ghana's training based on the colonialist powers.

Adwoa: It's exactly what you described. It's 2 years of basic sciences and then 4 years and you do all the specialties. Exactly including pathology spent a whole month in the work. Then you practice for 2 years up to that before you decide on your specialty. So by the time you make that decision, you know why you are going to this specialty.

It's not based on nothing. "It's what I really want to do." So it's very time intensive.

Jeanette: Is it paid? Do the students have to pay?

Adwoa: So when I trained it was free. 2 years was how you gave back. Because then when you were done, you were sent wherever to practice medicine, right? That's how you gave back.

David: I'd been on the admissions committee for several years, and one of the things we actually look for is maturity. Catching students from high school is not necessarily our model, so the student who wanders after college trying to decide what they want to do for a living is not exactly our ideal admissions candidate.

Tanya: It's not different from your other disciplines, right? It's very similar. Even in some of the European -- and I'm not an expert on medical schools in Europe, but -- college systems, it is very different there. Where you start... much of your professional training is part of the undergrad years. That isn't so true here.

I'm sure undergrads do think they're training for their professions. I don't think it's quite the same. And so I think it could be partly the expectation. That is very different, if you're choosing medical school; the notion is you're choosing your career. It's not, "I'm dabbling." I think the US system is that you dabble as an undergrad.

David: That's the core of the question here, is that is it just a job

Lisa: I might be, ancient in my sort of thinking here is that it isn't just job, but let me give a sort of thinking I still have about learning all the intricacies of the body from the cellular. When I went into medicine I went into it definitely for the practice of it, thinking about what I could do in terms of serving underserved populations. And I thought about that since high school, right? What I romanticized being that physician who has the skills and the talents and the knowledge to actually serve the community in a helpful and effective way and in a healing way. But what really sort of also psyches me out was learning the science, right? Like understanding the science of how does this all work? To me that was just joyful to be able to learn all of that. And maybe I have some romanticism about, knowing these things that a lot of people don't know, right? And sort of how it transforms. How I saw the world, right, and how things worked. And I think that's important.

Around science I think one of the things that we get caught up on is when we, and it happens even in high school, is when we're teaching to a test, right? And so when students talk about, I just want to get through this USMLE and I just want to figure out how to pass this test. I know that there are some movements of making it pass fail so you're not like freaking out, but then they're like, "Oh my god, I have to pass it, but then how do I differentiate myself and the next level?" You know, so it's worse.

David: The thing is I hear all the time from our lecturers, that frustration that the students don't really want to understand. They just want the answers. So they now spend a considerable amount of time each week on what's called "High Yield" studies. I didn't understand what that meant. It turns out "high yield" means that you study those subjects that you are likely to be seeing on an exam question. And you ignore the rest.

Lisa: That's how you pass exams, right? You always have those rare enzymatic like disorders that are always on the test. You may or may not ever see in your whole life clinically, but you know they're going to put that one because it's an exciting, enzyme deficiency or whatever. That was present even when I was back in medical school, right? Like what's going to be on the test? I feel like it's become even more amplified now, right? Where it's just like, "I just want to know that high yield." But I don't know what to do about that because I think it's really coming all the way from way back.

We're really teaching to the test, right? And I think of the technology when you're bringing up the technology piece. You know, we are sort of more of a culture of like, what is the answer, how do I find the answer? The technology - just give me the answer, right? You know, for better or worse, I think even in the US system of undergraduate liberal arts education, and in science education, right?

I went to sort of a high end university like Yale, not just because, you know, it's good to go to Yale, but I but it's also because, I was going to learn how to think and I was going to have a broad education that I could use my mind, to inquire or think creatively or think scientifically, and create knowledge, right? Which is very different from how do I just sort of grab, or how do I use things like a dictionary? I should know how to use a dictionary, but I should know how to think about things.

David: So I did the extreme. I went to an Ivy League MD-PhD program. You know, so of course, there's that approach. But to be non-judgmental about it; is all that necessary to be effective in practicing medicine? We talk

about things like the technology. Transparency, health systems. With all of those things, is the nature of practice changing so that maybe you just spin off or peel off this group who are really more interested in understanding and research and knowledge.

And then because we have a shortage of physicians, we need more of the regular vanilla practicing physicians. That's the question to ask here.

Tanya: Yeah, I'm a social scientist, trained medical sociologist, daughter of a physician. I really trained, right? So I know what it's like to enjoy the "ideas and stuff" and I agree. I just don't think that's everybody. Not everybody is going to be like that. I don't think everybody needs it. So in this debate, I definitely come down on the side of thinking about physicians as practitioners and needing to be trained for regular practice and while I was thinking about this and also thinking about it from the standpoint of social sciences which look at structural determinants of health. There is so only so much that can go into the curriculum.

We need to incorporate what we now know, which is health care in the ideal world. We're not there yet. But an ideal world would be much less about focusing on disease process and much more about fundamental basic health care, right? Health maintenance, eating well, using one's body in a safe and healthy way and so on and so forth and taking time out for psychological care when needed. But the training system is still very much about disease process and disease. If you've got disease, you've lost the battle, right?

Because we're not winning, right? I mean the breakthroughs are no longer that big and yes, so I just heard about two recent breakthroughs. One is the sickle cell situation and then the other was about how AI does a better job at diagnosing aggressive cancer than humans do, something like 50% more accurate. So I think the training system is out of date.

One, thing that I was thinking about is statistics. As a social scientist, I employ statistics. And I have found myself having similar debates like, do I teach you the statistical formulas which you will never calculate by hand ever in your life. And even though I learned to calculate them by hand, I don't remember all that. I have to look up the formulas first to remind myself. It's not quite the same as AI, but you know, in practice what you need to know is what are you trying to do? I only need to answer this empirical question. I don't care about the formula underlying that, right, because the statistical program knows the formula and will calculate the result for me? So your average practitioner only needs to know how to run the program, not the underlying thing.

However, somebody still needs to know the underlying theory, right? But your average practitioner is not the one making new the sickle cell innovation or the AI innovation. Those that are researchers and collaborators who are not all trained in medicine. That's the AI or computer science people or engineers. So I definitely think, we need to do a little more decoupling. But it's not just a function of decreasing basic science. Some people really need that and we need to make sure that whoever's getting the basic science is getting it very well. So you talked about siphoning off. I think we need to do a little bit of siphoning off.

Jeanette: Could you think about a two-tier system? I don't know how much flexibility is in the US medical school system where you siphon them off at an early point and have two different tracks.

David: I think a question was whether or not physician assistants were going to serve that purpose.

Tanya: Physician assistants or practitioners. We need medical practitioners and medical scientists.

David: When I was training, my classmates in the MD-PD program were different from my classmates in the rest of medical school. I was taught in the regular part of the medical school is that every patient needs to find a pigeon hole. You need to quickly get your differential diagnosis; you figure out what disease it is and then you know exactly how to treat them. But as a researcher, every patient was a new problem to solve. So, to me that raises the question, if we think of being a physician as a profession. What do we believe that requires you to have as a skill set, knowledge base and things like that? So if we're talking about siphoning off. A less thoughtful approach to the individual patient. Does that take the professionalism away?

Adwoa: Are you a healer? So I think to answer that question, you need to redefine what being a physician is. Can you just cope with two different things? Healing is everything. The whole person, everything. It's that healing can happen in the presence of disease and doesn't have to go away, but you can still heal. "Curing" though is we're going to get rid of. Again, I go back to the report. When it was written, it was more about curing people because nobody lived long enough, right? Now, everybody's living longer.

Now we have all these chronic illnesses. So the method of practicing to cure people is not holding anymore. People are asking for healing. And that's why they go to everywhere else rather than their physician because the physician doesn't know how to heal anything.

Jeanette: You know, it's so much more about the quality of life.

Tanya: They can't solve your childhood abuse.

David: Actually it gets back to what you're saying that the nature of the patients change. The diseases happen. It's recognizing the prominence of chronic disease. As a whole problem, which is being recognized more in modern medical practice. I'm maybe coming out of left field, but, I love science fiction and one of the new emerging areas in science fiction is Afro-futurism and in this genre, societies described in Afro-futurism, healers play a prominent role in society that doesn't exist in other science fiction. I think it frames that question in a very different way because the healer is indeed a different person.

Adwoa: It's a whole person. Because then when you're telling students, you only need to pass your test, it is so much bigger than that because we're training you to be healers.

Lisa: Well, that's the thing. I mean, you said you're using words, healing and I heard you in between talking about Perry and even his spiritual thing? I think that's where I was trying to get you, talking about healing and even the spiritual thing, right? And I think that's where I was trying to get you too, so there's a couple of things that concerns me and maybe I have to get over it.

But, but how do we siphon off who is meant to learn the sciences in a certain way and who's just the practitioners who are going to be able to use technology and all these other things to diagnose and to cure and to treat? I think what's going to happen potentially is you have different tiers or groups of physicians who are practicing with different paradigms in mind, right? For me, the idea of looking as someone who is a psychiatrist who thinks about the psychological who also thinks about the physical physiological and spiritual.

You know, I'm also an ordained minister, right? And I came into medicine. Thinking about how my grandmother healed people with herbs and traditions and things that were passed down to her, right? She didn't become a healer through medical school or passing tests, right? But there is an art and there's also a science because she did come from a framework of understanding how these things work, you know, herbally. It's not just who's going to pick this plant, but there's actually an oral tradition at least about why those things go together. Why would you put together these herbs and how do they work in the body? That I think, if we approach learning the sciences as integral into sort of understanding in such a comprehensive and inclusive way about what does it mean to be human?

What does it mean to be in a body? You know, how do our bodies work? You know, how do we think about that when we're in front of someone and we're thinking about healing, right? And what are sort of the levels of what that means? From the cellular to the spiritual, you know, and that maybe, and maybe that's a very large charge to sort of encompass all of that.

David: I like that you describe it as a paradigm because originally I was worried that this would go into separating primary care versus specialty care because that we that's not where we want to be. I like the idea that if we define this as a paradigm in terms of the healer, especially addressing things like not just chronic disease, but community based care as well. Not the question of whether or not do you flip a coin and you're one of these or those. But I guess, they still self-select. But we can name it and validate those choices. That's maybe the important part.

Jeanette: Yeah. So when we started with the medical and health humanities and we had a retreat up at Arrowhead together with Paul Lyons, Michael, the people at the med school who were there before you guys came. One of the ideas was to introduce, medical and health humanities to introduce soft skills. And to get medical students to think about their feelings, their reactions, the patterns that are ingrained in their interactions with other people and with their patients. I don't know if you still have Goldberry's writing program as part of it.

Adwoa: Not anymore. But we've moved from saying soft skills, to foundational skills. So we go, telling students, not to be a physician without these skills. And I think though in Flexner's report everybody talked about the science part, he talked about humanities in medicine. I think he said if you practice medicine without the science that's superstition and if you practice medicine and skills, that's just technology. But you kind of need both to really practice medicine. We see, it's foundational. Because being able to make a diagnosis, that's basic.

Jeanette: But is that you add extra points for that?

Adwoa: Yeah. And, that's the extra.

Jeanette: But how do students react?

Adwoa: I think a lot of them, that because they know that things are systems right now, it's not working for anyone. So I haven't heard any. It's maybe a different thing when I'm not in the room. You have to give feedback, right? But even then, it's that that it's becoming a smaller percentage. There are a lot more students being vocal and advocating that and not just students. You also have graduate medical education.

I mean, there are articles everywhere calling for this. We cannot have the medical understanding without understanding the human condition. You cannot treat a person without being personal. It doesn't work that way.

Tanya: I'm guessing that part of that willingness and calling for it is also because of diversity. Increasing diversity in medicine. Because it was, back when it was a bunch of affluent white men, who not only thought they knew everything, but also had sort of a narrow way of interacting.

Adwoa: I think it's because people are living longer with disease now and they realize how vulnerable it is to just lose control.

Tanya: And we're seeing where we're limited. So people don't look at doctors as we did in the golden age of medicine. For example, I just fired my primary care physician in the last couple of months just because she was just so bad bedside manner-wise. I think the generations following me don't have a sense of "The doctors will always have the answers" because they so often don't, no matter how well they're trained, right?

David: Who decides what counts as medical humanities? Because talking about the white patriarchal approach. For example, now this question comes up where we're trying to do clinical studies where you want to use inland Southern California because it's a more diverse community. But why? Because race is no longer a genetically determined phenomenon. It's really social determinants, racism. But not biology, right? So then in terms of diversity and identifying those factors. We can't leave it to the more traditional white patriarchal perspective of what we call medical humanity.

Adwoa: I don't think I've thought about it that way. Who decides what is considered humanities? I don't think that's an answer.

Jeanette: If I want to synthesize what I've heard so far, then the idea of having a two tier system might work with both tiers having this foundational component in it where you teach those deeply human questions, or philosophical one and such from neurological or religious viewpoints. Isn't that a way of rethinking the medical system in the US?

David: I think the worry is that if you do say, well, you know, we're going to pay attention to these. You don't want people who recognize this to be siloed. From mainstream education or practice. So we say, yes, we recognize diversity. We have to address these kind of issues. You know, racism, society, disparities and things like that. But not like, "Oh, well, you go do that." It's got to be more pervasive in every part of the education, practice, and things like that's what I that's what I was worried about.

Tanya: Let's say look at the people doing the medical scholarship, like AI stuff. Those are not all MDs, right? Which means those people haven't gotten a medical education. Yet they are helping to create technological innovation that is making a difference. The point is that some progress is occurring, right?

David: I was just at this meeting with the Gates Foundation meeting in Senegal. At this meeting their focus was mostly on Africa. One of the themes of the meeting was equitable AI. The big problem with AIs is that all of these were trained in the white patriarchy. And the question is how do you equitably train your AI to really get the right context.

Tanya: They don't have basics like being trained as MDs and have those two years of foundational clinical science, right? But they can make medical advances. But that's probably because they're partnering; we can still have partnerships that include MDs. You know this alternative track. That is what I'm calling the medical scientist. The medical scientist can be partnering with the medical practitioner and others like engineers.

Your medical scientist doesn't need to be trained in bedside manner, but they do need to know issues about equity and population health and structural forces. But that's a little bit different than some of the stuff that I think medical humanities reckons with, which is, lived experience of disease and those kinds of things.

David: So there are two parts to it. One is if you're an oncologist and you're developing a cancer drug, you may not need to be able to relate to patients. But if you are lousy with bedside skills and you don't hear your patient describing their symptoms, you're going to miss.

Tanya: So let me ask you a question. This is truly a question because I don't really know the answer. How many oncologists are developing cancer drugs versus how many oncologists are just practicing oncology? You see what I'm saying? Isn't there a division there? How many are in each?

Adwoa: Oncologists are typically involved in a lot of research. They tend to be a bit more hands on that. Developing a medication right, even if you are siloed. Even if you're not going to have any humanities, if you do not understand the human condition. But you can invent all you want. It's going to get out there, but nobody's going to use it.

David: It's one of the things we emphasize with the health disparities research is, "What's the point of developing a drug if it doesn't meet the need of that community?"

Adwoa: Exactly. A drug or any intervention or any.

Lisa: That's sort of supportive health or if you want to prevent disease.

Tanya: So I think I'm agreeing with you all, but I still think this is a possible model. It's just where did the questions generate from? So the question is in part just like when I do research in the community. The ideal model is that the research questions generate from the community. But the community doesn't execute the research alone. They don't have the research expertise. That's where I, a scholar, come in. So in medicine, it's the same kind of thing. You can have practitioners and their patient population generates the questions. And then the medical scientist just can execute the studies. Right now we still have so many medical scientists generating research questions.

Lisa: Well, there's a couple of things in this; there's a lot. There's a lot to unpack so I can see how we can go into one train. There's a couple of ideas that come to my mind in this. One is, this idea of let me go with the technology piece, this AI thing. You know, I really think that that's actually another science that we have to start teaching in medical school. What is this technology digital science thing and how is this impacting on the very question that we're having right now. How does that impact on the physician in the world? And it needs to include the issue around disparities and where is the sort of the development of this AI and the data that's going into the AI and the potential that it has for improving our success and practice and also how it is primed for re-instituting more issues of disparities, right?

Because it's, junk in: junk out, right? So one of the things that came to my mind, we were going to come to this question is again, Are we going to drive that AI with our knowledge? Are we going to let AI drive us; who's in behind the wheel. And if we don't have sort of that sensibility, the foundations of the humanities and whole person understanding of what it means to care for someone to heal someone, to work with someone. If that's not somehow infused into the AI, because the AI is only a more efficient way of pulling all that data and making it very, you know, clearly present in that. But we're kind of like in the brain of AI. Do you know what I'm saying? And so how do we make sure that we're part of that? And what it's becoming, you know?

David: So one of the stories about AI is that it basically emphasizes the worst in what it's fed, and in science fiction, again back to my thing, is that AIs don't come to ethical and moral decisions on their own. It's not an emergent property of the way it's constructed. And so how do you train an ethical and equitable AI?

We don't have the answers to that. I agree that training our medical students and what this is all about means that they can actually then provide the right kind of input for the right kind of training of the AI

Tanya: I would back up and I would just say you don't adopt AI until it's better. Right now we have an over incorporation of AI.

Lisa: It's high

Tanya: We need to step it back about 10 years. Go try it out on poor people and people with no or little voice in society -- any historically marginalized group. Does it help them? Does it help them as much as it helps people who already have a lot of privilege? Come back to me in 10 years and then I will let you know whether or not I will adopt it. That should be better. I just made up the number 10 years but the problem is we are adopting AI when it already has known flaws and we are not asking whether its benefits are equitably distributed. We continue to adopt it and all because I believe the biomedical model -- which does not include equity - is running things.

We say that life at all costs; save lives at all cost. We need to let people die. And they've got diseases.

Adwoa: Respect that choice: "I'm done and I wanna exit." That is a holy thing. And yet I wasn't trained that way.

I was reading a novel and this lady had alcoholism and had liver failure and she was talking about her doctor who was just assuming that she wanted to live. So "I don't want to live and it is just struggling." Oh my gosh, not every patient that I see wants to live. Yeah, how do I talk into that? How?

Jeanette: We do have a series called the "Big Questions" here at the Center for Ideas and Society, and it largely has been shaped through collaborations between doctors and philosophers. And one of the next questions is "Is there a good death?" Which does not only address the hospital environment, but also the questions that you might let people die if they want to die and how do we do this? How do we frame this? How do we help? So there are efforts to think about what Tanya mentioned as "life at all costs". Let me, if I can, just go real quick one step behind AI because what you said makes sense.

The robotics, for example, in surgery: I got a tour of the Reagan, UCLA medical center a couple of years ago they have those extremely elaborate tools of simulating surgery and, you know, doing surgery without anyone putting your hand inside your body. We have the disparities between a facility working there and a facility like UC Riverside's Medical School; they must be huge, I was thinking. And how does that play into the issues that you mentioned?

David: The disparities; that is a really big issue and we don't even have our own medical center let alone robotic surgery. But let me, I want to use this last discussion as an excuse to get back to the one point.

For patients, again, the type of patient you're talking about, in order for them to make informed decisions, things like end of life decisions and things like that. This does relate to this question of the relationship between the physician and the patient. Because in the old days in the black and white movies, they wouldn't tell the patient the diagnosis of cancer because you're just trying to protect them. And they still do that in places like say Japan and whatever. That is an important part because if transparency and internet access to all this medical information changes that issue of transparency.

And also what patients are expected to know, it also changes what they demand of the physician. Which I think is excellent. But also I am talking about content moderation, like the stuff in my daughter does. How do you make sure the information you get online is correct?

Adwoa: So that is where you come in, right? That is where the physician comes in. And so when I go into class and I'm teaching. I tell them, I know that you can go online and get all of this in 30 minutes and know what you need to know for the shelf exam. But I'm not here for that. I'm here to connect the dots for you. You connect the dots, right? So this is why. We all need an element of basic science. And this is where we all need to study the human condition. This is where we need to understand bioscience when they come to you with that information. You will connect; you are helping connect the dots.

David: Now, does the physician lose a little bit of that authority? As the professional or expert or scientist physician, in that in that situation?

Adwoa: And I go back to how we define physicians and that healing space. No. We're part of that circle. And I think that's my struggle with the way America practices medicine. It's all that ego and that capitalist mindset, and it just sucks everything up through.

Lisa: And talk about sucking out everything in the room. I mean, I think it's that what you're talking about is at the crux of the health disparities that we've been talking about, right? So for decades, people have talked about how

communities of color, minoritized populations don't seek mental health care. Talking from the mental health, psychiatry perspective, they don't seek it because there's the stigma and there's taboo and all that.

Yes, there are some complexities around how people conceptualize mental health. But I think over the decades that I have practiced psychiatry, it's really, it's not just the stigma thing. It's because they are not liking what we're providing, you know what I mean? If they show up with their understanding of what psychiatry is, what mental health is and we just deliver like, "Here is my framed conceptualization of what treatment is. And I know the answer."

And what you're saying is just based on stigma, superstition, weird, misinformed understanding and I'm going to teach you what is right rather than actually having a conversation with that patient and actually incorporating what they know from their own bodies and their own soul and spirit, what is going to be able to heal them.

But I'm going to partner, right? So when the position is a well-aligned partner, in seeing what we can do together. From my knowledge and from your knowledge, right? And so if you're getting some knowledge from AI and it's weird and it's not working, you know, we can talk about it. What is that AI knowledge out there? Which we need to be part of as well. It's a whole other conversation about knowledge out here, knowledge within you, knowledge with meaning, right?

How do we reconcile those things and come together with a plan?

Adwoa: Absolutely.

Lisa: And then when you're talking about research, what we're saying, who does the research, right? We'll get information from... The most transformative research I've done is when I have actually not just collected data from people in the community, but the projects that we're doing where they are actually of the researchers, you know, so I'm working with some out of sight essential workers, immigrants, many of them undocumented and they learned about research methods and you know and how to do that in the community and they and now we're coming up with our questions together.

What are their questions? And then we funded them to go out there and do your research and they're coming back with fabulous sort of outcomes and findings and that's a whole other level of knowledge generation, right? So I think it really integral into this is, who holds the knowledge and where is it, technologically or in the community. And then how do we as physicians engage with that? So in what we practice.

Adwoa: And what you just said about communities not wanting to talk about mental health, that interaction happens and you know, that physician patient space. What I heard was, you know, "I'm gonna cure you, right?" And the patient is, "No, I don't want to be cured". Two different things. It's not how we were trained; I need your ICD, blah blah blah, if we don't do this we're not going to pay. That's the missing piece. We talk about all these things, but at the end, who controls everything? Insurance companies, the payers, the USMLE, the NBME. They decide what's important.

Tanya: It's designed again to prevent death and to not to promote well-being or life enjoyment. It's disease-focused. You know, we'd be halfway there if we just focus on poverty, right? Because from this so many illnesses emerge. The illnesses or health care conditions come from conditions related to poverty. And so yeah, we have to stop trying to control people's choices and providing information that comes from our own expertise. We also have to acknowledge that people will make their own choices and include other expertise, whether it comes from their own self or their communities or AI or whatever.

David: But are we training our students that way? We can train them all we want. Guess what? You still have to take the Step one exam.

Adwoa: So I can yap all I want, but by the end of the year is the next step exam. And they decide what's important. How do I get those people on board with what we are doing?

Tanya: The health care system is designed to address disease. It's still not necessarily designed to address people. And although it is changing and there are glimmers of hope. For example, in some places, doctors can prescribe housing for their patients.

David: If you meet a lot of these undergraduate pre-med groups, they are not thinking along those lines at all.

Adwoa: you know why – because they have to take the MCAT.

David: So it's not what we are teaching; it is how we select our candidates.

Adwoa: Things have not changed because we are still stuck 100 years ago. We're still using that framework to decide what's important to how we sell it. Who qualifies to become a physician.

David: So are we doing that in this medical school? Reflecting different priorities?

Adwoa: We are. However, it's an empty chamber because at the end of the day, it's still USMLE. It's still residency application. We can do so much. When I run the HESJAR sessions with students, a whole thing there is transformative agency. That's what that's, basically being informed and then you go through your information through med school. I expect that by the time you leave this place. You are going to be changing. You are not going to be basic. We expect you to be extra. It's why we tell the students, "I'm expecting to be better than me."

As a physician, I expect you to go above and beyond. We see the whole human. If you tell me that this is the diagnosis and this is the treatment, I'm not interested. How did you connect to the human being? That's the expectation. But when they take the Step two exam, when they're going there, nobody cares.

So we are sitting with a hope that, I hope they hold on to this and take it with them to their practice. But I have no way of concretely saying, this is actually what is happening. The GQ, the graduate questionnaire tries to capture some of that, but.

David: You probably have a more receptive audience in our cohort than the larger group.

Jeanette: I mean you have a way of determining how many people are receptive to this message. When I gave LACE lectures, you get the evaluations in afterwards. I was shocked because there was a focus on great performance. "Oh, that was fun. But why do they put that on our plate? Do I really have to do this?" So practically every one of them, even if they liked the performance, they didn't like that they had to do something outside of the box and that was.

Lisa: That wasn't on the test.

Adwoa: Yeah, exactly. So it has to be on that test. So we are in a hard way putting it on the test now. It's just going to be on the final test. Because it's foundational; you cannot be a physician without these skills. But if this is all internal once they get out, nobody cares, I feel like from these conversations we have with them. But until the powers that be decide that's important too.

David: Well, I mean, I can still push back in the sense that. Well, to use Tanya's, example, I mean, Excel is this program that you can plug in nonsense. It will do the calculations. No matter how much nonsense you feed it. So there is still a need to understand a lot of foundational basic science and physiology and things like that. But we're still left with the question of, no matter how much we appreciate all these other aspects, we are still a science-based profession. So it gets back to how much do we count on our physicians to know. From that side.

Tanya: Okay, so I just want to push back a little bit on the pride you feel in calling your profession a science based profession. Certainly I understand what you mean. But there's plenty of social science research that shows that that science is definitely undermined because humans are at work. For example, I was thinking about this when Lisa mentioned that her mom was working with a paradigm. It triggered this thought.

Research shows that how doctors practice is largely a function of who their mentors were in their training. Whether or not you order an x-ray, at visit number one versus visit number two is a function of how you were trained. In California, they called for the x-ray on visit number one. If you were trained in New York, they're going to wait till the second visit to call for the x-ray. So all sorts of treatments and interventions are a function, not of science, but of idiosyncrasies, they're a function of the social environment. Much medical care and many medical outcomes that are not exclusively a function of basic biological science.

David: The clinical studies that lead to therapeutic strategies. That's still scientific. The drugs, the clinical studies that lead to the therapeutic strategies. That's still scientifically based.

Tanya: Who's in those studies? Who's reflected in those things? Now we do require more diversity in our samples, right? But also who's conducting those studies? There's still disproportionate lack of diversity among

the scientists. And it's not all community based research, right? So the scientists are bringing their perspectives, which have their inherent biases. So even in the science there's still not pure science, right?

Jeanette: So David, do you have the feeling that the science part - if we want to separate the more practical and more scientific parts - increasingly gets the short end of the stick and that there are less students interested in that part? Is that an issue?

David: Well, this is an interesting question because we are all looking at it from the perspective of Western science and Western medicines. There are many alternatives. There are different societies and approaches to what counts as healthy and illness and treatment. You know we discussed the notion of healers and things like that. So we're already trapped by saying we can only see things through the lens of Western biomedical science. You know, I still drink my Chinese tea when I feel a cold. So it's not because it's got vitamin C or anything medical, it's just because I feel better. And my parents did it? Yeah. So, we don't give enough recognition of all these different approaches to wellness and healing.

Tanya: I would argue there is a science that says that you are benefiting from that Chinese tea. It's just not, medical science, right? It's other disciplines or humanities type stuff, which is also a kind of science, you know, if you do it as valid inquiry, right? And I'm broadly defining it, because science, the definition of what is scientific and what is not, itself has its own biases and inherent histories that, you know, reflect power anyway. So there's a reason why you feel better and it's not magic.

David: No, but if I chose to study a placebo effect

Tanya: You're saying, but that means you're focused on this sort of biomedical effect. There may be other effects - some sort of other psychological or spiritual alternative way of explaining. It doesn't always have to be a physiological or a process or a biology. It's multi-layered.

David: Exactly. Reality is multi-layered. Things can coexist and I'm still at heart a researcher. So I still do work in the lab and we still do experiments based on what we consider the fundamentals of scientific method and evidence still counts as evidence: verifiable observations. Alright.

Adwoa: Well, there is sort of this problem of what is funded, what is research.

Lisa: I mean, I think that's a fundamental issue. But I still think I still an advocate for physicians to learn all the things we've been talking about in terms of the humanities and at least learning the scientific method. And from where is it that we get even theories of science, right? So psychiatry: I mean, SSRIs, we always say, it's just those Monoamines; is this serotonin that goes up and down and we know that it's so incomplete. How we understand how these SSRIs work or not working as well as we thought they were working, but I think as physicians, you know, the people coming up need to be able to have those critical questions around even critically analyzing what is science. From where is it that we're getting this knowledge?

Or when new things come up, how do I incorporate that into sort of my knowledge base, right? Like if this new treatment for sickle cell, right? Like, how do I understand that? What might be happening biologically, physiologically there and what are still the limitations there? Because I feel like that should be part of the knowledge base. That I'm bringing into those other encounters that we're talking about with the patient's expertise and knowledge.

David: So this is an interesting point because reading about Flexner, and things like that. Scientific method came to medicine, not the other way around because where I trained in Philadelphia, a hundred years ago the dominant medical practice was homeopathic. What we have here is what's called an allopathic medical school. Simply because we don't do what homeopathic medicine does because that's not recognized as scientifically based.

Adwoa: Who decides that? Who decides that?

Jeanette: That's how. It's a culture that's so much about quantifying.

David: We can argue from evidence in these cases that you know, homeopathic medicine does not actually do anything. And allopathic is kind of a meaningless term because it should have instead said, evidence-based medicine, not that it only means what it just wasn't homeopathic. "Okay, just like we were not one of those."

Adwoa: So I mean. I can see how having that framework, basically, you don't know anything, right? Really, that's what it comes down to. You have had all these years of training. You have written all these exams, but in that moment, with your patient, you are ground zero. You really do not know anything. Because you're in that healing space and letting go of that power and that authority is such a scary experience with a lot of physicians.

They're like, oh no, no, no. I'm going to tell you what to do because this is what I know and this is how it is done. And then that's it.

David: I'm glad you're putting in that way because that again back to the original question we have is, do we have to redefine what that role of the physician is in relation to the patient? Are we responsible for that? What do we do about it?

Jeanette: Yeah, this is perhaps for another discussion; I know we're running late, but as you mentioned money, you know, medicine in the US is medicine in a hyper-capitalist society. American physicians make so much more money than they make practically everywhere else on this planet. That sets the way physicians think about themselves, and I think it is inherently different than in other cultures and it's very much based on that money based prestige. I don't want to insinuate anything.

David: There's a book, by somebody at Yale, who described the professionalizing of medicine. During that period since Flexner, the reason doctors make so much money is because it became defined as this profession where the expertise and power came through the doctors and that's why the money flowed there.

Adwoa: I came from Ghana. I trained in medicine because that's what I wanted to do. And then I come here and I'm like, wait, what is going on here? Because people choose specialties based on how much money they are going to earn because they have so much student debt, right? And then there's this artificial competitiveness that has been created for some specialties. It made no sense to me at all. I came from, "Everybody, send this to your pediatrician if you have them."

You have your role and it's okay. But over here there are these hierarchies.

David: It's an American peculiarity about the way it became separated from community-based healing. You know, public health emphasis and things like that. And it's stuck because that's where the money went.

Lisa: Well, I hope for another conversation where we can talk about why is psychiatry rising up that hierarchy all of a sudden; there's something happening. Is that a good thing? I think it's a good thing that more people want to do psychiatry. But there is something happening at so many levels. It's becoming more popular.

David: So, we were meant to be done at one. I thought this did a nice looping of topics. I really enjoyed this. So obviously this was just the first of a series and we'll have others to contribute perspectives as we go through this series.

Thanks again.