Introduction and Dr. Subramanianu2019s Background

Hello, everyone, and welcome to the Parkinson's Solutions Summit 2.0. I'm your co-host, De. Barbara Pickut. Today we'll be speaking with Dr. Indu Subramanian on her work with people living with Parkinson's.

Dr. Subramanian received her medical degree from the University of Toronto in Canada, where she completed her neurology residency and neurology Board certification.

She also completed a Movement Disorders Fellowship at UCLA. Subsequently, Dr. Subramanian has stayed on at UCLA and is a clinical professor of neurology.

She's also the director of the Parkinson's Disease Research, Education, and Clinical Care Center of Excellence in Parkinson's Disease. She developed a strong interest in integrative medicine, in which she is board certified.

She has a special interest in yoga and, mindfulness and completed a 200 hour yoga teacher training and studied mindfulness at the VA through insider LA.

Dr. Subramanian is also passionate about palliative care in Parkinson's disease. She did a contemplative fellowship for health care providers through the New York Zen Center, and is an eight AA and the Petaluma Fellow, and completed the AA and Transforming Leaders Program.

She's also the co-chair of the Wellness Task Force at the International Movement Disorder Society, and the chair of the Movement Disorders Society Section at the San.

Dr. Subramanian main research interest is on the effects of loneliness on people living with Parkinson's. She's a passionate advocate for social connection, especially in stigmatized populations.

Welcome, doctor Submarine, and I'm so glad to have you here with us today. I think our viewers may be curious about your views on loneliness and people living with Parkinson's.

Can you tell us something about that? Sure. So, I mean, I think we've all been, you know, in the medical space. I think you and I have been practicing medicine for so many years.

And I think, you know, I knew that social support and connection was important. I had been starting to go to meetings in the integrative medicine space and had learned about the effects of loneliness.

even before the pandemic. And I think the statistics are pretty striking. I mean, I think in general populations, there's a sense that loneliness can impact health outcomes in many ways.

it's worse than smoking a half a pack of cigarets a day, worse than being obese in general populations to be lonely. and I think that, you know, loneliness can be a risk factor for getting dementia.

for, even now we have, you know, sort of studies looking at, population effects of getting loneliness on various types of neurodegenerative disease, including Parkinson's.

Is it puts you at an increased risk for getting the diseases that we treat every day in our clinic. And so I think we really in the pandemic saw the effects in our own lives of being disconnected from our patients, from each other.

And I think it's profoundly impactful. there are studies looking at, actually, students that were deprived of any social connection. We have even, information from folks that have been put in solitary confinement in, you know, jail cells and things like that.

Loneliness, Stigma, and Parkinsonu2019s

And it is profoundly impactful when you cannot interact with others. You end up having certain brain changes that happen and it can impact your stress levels.

various stress hormones go up, our circadian rhythm gets impacted, so our sleep cycles get disrupted. there's studies looking at what people focus on when they're lonely and people end up focusing on more, sort of inflammatory, triggering things, negative things, when they get lonely.

And so it's a perfect storm in a disease state like Parkinson's, for example, when people are isolated and they're in their own homes. I'm thinking about negative thoughts and then focusing on these negative thoughts that then can impact them in, ways around, you know, even mental health.

Yes. And then, biologically speaking, do we have any indicators there? How, loneliness may impact women, people of color? how how are we seeing that? Do we have any idea about the different populations, subpopulations of people with Parkinson's?

Yes. I mean, I think we have, a sense that, you know, in, in populations in general, when you're already sort of minoritized, when you're already feeling othered from the general population.

So that could be anyone. Even as we age, there's ageism in society. So people, you know, our society is largely built on, the commercialization of youthfulness.

Right. So when people get older, when, you start to lose sometimes our, mental faculties, our physical ability to keep up our cosmetics, sort of, people can feel like they're not belonging to the mainstream of society.

So there's ageism, when we think about populations in general, in Parkinson's disease, for example, women, are a very other population. When you think about the image of Parkinson's disease, it's largely not of older Caucasian men.

Right. And so, if you're a young woman that looks like me and there are many women around the world that look like me that are getting diagnosed with Parkinson's, you can really feel like you don't belong in that sort of category of what?

The mental images of Parkinson's. And that can actually be quite damaging to, the psyche when you don't fit into sort of, a group. when we think about other folks that are minoritized, people of color, you know, again, that that sort of Caucasian image, we don't think about many other populations around the world, globally that are, you know, suffering with this disease.

Parkinson's does not discriminate. And so we really are seeing this in every country across various, sort of, strata also of society. people who don't have even access in some places in the world to leave a dopa throughout Africa.

There are many countries, for example, that don't have access. And, there's a huge sort of sense of stigma, around this disease. So when you get sick, that's another category of, of sort of feeling other you feel, you know, that the mainstream image of society is that of health and youth.

and largely, you know, male based, Caucasian based sort of, thoughts of who's, who's sort of the mainstream. And so, again, anyone who's outside of that, if you get sick that there's something that you did to get the disease, perhaps there's something that, you know, you're othered from the mainstream of population.

And so the concept of stigma, is huge and it seems like Parkinson's is. And that in and of itself, in addition to the sort of intersection of being a minoritized, population can be tremendously, impactful on, psychology.

of, of, you know, how you're going to do, do you belong, do you, get care even? Because a lot of patients who are not looking like that sort of image, their diagnosis is actually delayed, believe it or not.

And so we have stories of some of our patients, women veterans, for example, people of color who had actually classic presentations stiffness, slowness, tremor that were told that there was nothing wrong with them, that there was something in their head, you know, it was all in their head.

There's, you know, maybe they were just stressed out and went from doctor to doctor trying to get the accurate diagnosis. Finally got diagnosed. And really the sense was, you know, five years of trying to find out what was wrong with them.

They felt like there was something wrong and really couldn't pin down what it was. And I think that when we have, you know, already a system where many people don't trust the system, feel like they don't fit in the the sort of folks that get care that, sort of delay in diagnosis and this image of Parkinson's that is very, sort of, in a box, ends up really leading to, many people not feeling like they are part of, you know, the core group that gets care.

And so that gets isolating people then sort of isolate. They don't even seek health care. they don't feel, that the system is there to serve them. And so that can lead to further consequences down the road, including loneliness.

Okay. Thank you. That's very, very important. in this day and age where we have all these connections. But, yet there are sectors of, of our humanity that are not reached.

And we who are, on these platforms, very important that we keep in mind that, we need to broaden our, broaden our offerings to, to people not like me.

there's this idea that's been increasing, in interest, and it's called social prescribing. Can you tell us something about that? Yeah. So, I mean, I think backing up, even when we talk about loneliness, what does that mean? Right.

so the sense that, you know, there's loneliness is really this, subjective feeling. There's a sense that there are the relationships that I have and then the relationships that I desire and that gap between the two.

It's really this felt sense of loneliness. And so when we think about some of that sort of description, many people may have loneliness even within, you know, a home full of people or a nursing home full of people or, you know, a street full of people because they don't have relationships that are of quality, that mean something to them.

So I think it's really important to think about that. Another thing that I've really learned in this research and, my path and some of this has been inspired actually by the work of, our surgeon general, Vik Murthy.

He wrote a book called together, which I would, you know, recommend to all of you to read. And he really talks, actually about these spheres of connection that are important.

So there's a sphere of connection called the intimate sphere, where that can be satisfied by your partner or your intimate, you know, person who lives in your home.

We we need that sphere, but we also need to other spheres to be fulfilled in order to not feel lonely. So there's a sphere of relational, sort of connection where you need a friend circle outside of your home, a few friends to be able to talk about your problems to.

And that needs to be cultivated for each of us. And then there's a sphere of societal connection where we need, something in the community, in society, of a connection to a group that we share a sense of purpose and meaning with.

So for some of my veterans, it might be, you know, a VA organization. For some of us, it might be, you know, saving the planet or, you know, a gardening group, but really something that gives us sort of purpose and meaning.

And we actually have to intentionally cultivate these three relations ships. And I think that, you know, during the pandemic, I had a sense that if I saw, you know, one of my patients, Mr.

Smith, on a zoom video, appointment and Mrs. Smith was sitting there answering all the questions that they were. Okay, you know, that there was no chance that there was there was loneliness there.

But in fact, a couple can be lonely together. And even our caregivers, can actually be profoundly lonely in the home, sort of just taking care of, you know, their loved one.

And so it's really important to think about cultivating for each of us, including us health care providers, you know, connections in these three spheres.

And so when we think about the concept of social prescribing, I think, you know, I as doctor, historically, I think in our Western sense of medicine and training, there's a sense that we really are, you know, there to give pills.

There's we're there to prescribe a surgery or referrals to somebody else who can do those things. And I think that for me, in my medical journey, throughout my life, I'm going to have a background in living in a home where my mom knew a lot about everybody, that she was a family medicine doctor.

But we grew up, you know, in a home, eating certain types of foods and practicing certain types of, you know, contemplative practices in the home that were part of our life.

And then throughout my health care training, you know, some of what we learned was really in the Western framework. And I really felt like there were pieces missing.

So for me, at this point in my career, having been a Parkinson's doc for over 20 years, I mean, I think the parts of medicine that are really, you know, missing in terms of lifestyle choices and ways to sort of live your life in the framework of, you know, eating right, you know, exercising, moving your body.

Social Prescribing and Screening for Loneliness

the mind body approaches have been tremendously impactful for me. You know, sleep is huge, but I think the peace with social connection is something that I've really not ever thought about as medicine.

And I think we realize as we take care of patients who have someone in their life who supports them, that's part of the secret sauce of success. I mean, it's really the people who come in.

They never bring anyone. They're very isolated. those are the people that don't do as well. And so I think being intentional about helping people who are lonely to find meaningful relationships is really some part of the medicine.

And so it's exciting to me, this concept of social prescribing, where I, as a physician, can screen, you know, my patients and we can talk about how to do that.

and then, you know, use, perhaps someone in the community. And this concept was started in the UK at least, written about in the UK, formally, with the National Health Service.

and they had link workers in the communities and a doctor would actually refer to a link worker, perhaps in the US, and might be a social worker or a support group leader, and that person can take that sort of lonely individual and try to, you know, screen for what they like to do and choose things, activities in their community, be it a gardening group, a yoga class, a, you know, religious, sort of organization that they may, you know, like from a spiritual angle, you know, what are the things that they, you know, are meaningful to them to really get those connections that we talked about.

And so it's not just about, you know, filling a room full of people, to be around. It's really about that sort of, you know, do I have a connection? And are these people going to, you know, help support my wellness in that sort of social sphere?

And so, there are some, you know, programs that have been described, even with outreaches, with phone calls, to

people who might be matched with, like, interests.

there are other ways to reach people who may be even more isolated. You know, we have a lot of rural patients out there in the US, that barely even have internet connections. Right.

And, and, bandwidth for internet or anywhere locally is really poor. How are we going to reach those folks? Right. So we really have to think about what's in their community.

How can we engage the people in their own communities? so that we're not talking about doing programs in very, you know, congested metropolitan centers that require people to drive three hours a day to come in.

But really, you know, taking the care into the community and really engaging, you know, the multidisciplinary teams that we all have in medicine. So thinking about who's there touching the patient.

And and I've really expanded my horizons when it comes to who that could be. I mean, formally, there's, you know, a referral to a physical therapist or a social worker, mental health, psychologist or something.

But we talked about, you know, who else could be those people? It's a yoga teacher. Is it a rabbi? Is it, you know, a spiritual teacher of some sort of mindfulness, teacher that happens to be teaching, you know, in a retreat center nearby?

So are we able to really engage the people in the community? I'm using some forms of outreach to kind of get to where meet the people, truly where they are.

Yes. Yeah. A very, very important point. You know, there are a number of neurologists that are still practicing solo and don't have those resources. And, you know, the constraint of time that we have in clinic these days.

So in order not to skip over this, how would you, how would you screen for socialization beside this things you said, you know, a person comes in alone, you know, maybe isn't outgoing.

What do you do? How do you how do you gauge that in a clinical situation? Yeah. So, I mean, I think we've looked at, you know, some questionnaires and actually I, there's a questionnaire that was designed called the UCLA Loneliness Scale, and that was quite a long scale.

It was like 16 questions originally. I think, has been pared down to 9 to 12. but there's actually a three question version and that's actually been validated by us in our group.

and we've it includes things like I often or sometimes feel, isolated. I often or sometimes feel left out, you know, these sorts of questions where you're able to, you know, sort of think about that and you know, how, how often or sometimes.

Or is it rare that I feel that way? But these are the sorts of questions are pretty simple. It takes less than one minute to screen. And I think we should really be in health care screening everyone because, people aren't going to tell you that they're lonely.

And sometimes the most connected person that you can possibly find. We have, you know, very affluent people. who have all the people that they can hire and all the people that, you know, all the classes that they can go to with the driver that drives them around.

And if they don't have a meaningful relationship with somebody that they really feel, you know, connects with them, then they're still technically lonely.

Right? So, it's it's quite, subjective feeling. And so can we, really identify a person and then help to connect them to something that is meaningful is really, you know, part of the medicine.

And I think is when we as health care providers can identify this as a social determinants of health, then we can kind of use that platform to start educating people and then intentionally, you know, I've started asking people in my my patient visits, you know, how's it going?

Who do you connect with? Do you have people that you can talk to, you know, trying to understand what their true social support is? and if they don't have it, you know, trying to identify someone and literally then at the end of the visit writing, you know, call, you know, Mr., Smith, you know, once a week I'll ask, you know, and, maybe talk about these topics.

You know what? Who are the people? And, you know, unfortunately, as people age, they feel like some of their friends have passed away or moved away. But, you know, I think there's always sort of, you know, these folks that, you know, make you happy every time you talk to them.

And sometimes just using the sense that that person who's receiving the phone call may also be lonely and you may actually be helping that person. The sense of volunteerism is actually also very positive for, our psychology.

and so I think, you know, helping others, speaking to your neighbors, you know, finding connection wherever it may be, you know, talking to the person is pouring your coffee, you know, every day at the local coffee shop, you know, trying to, you know, connect with people to really identify, other folks, is actually really, pretty pretty.

It takes it takes intentionality. Yes. Yeah. To find that the meaning, the meaningful relationships. Indeed. You can be lonely in a crowd. I think it's very important that you point that out.

so people, what would you then advise? So now, knowing and having heard you with this very important information to the listeners, how would you envision a person with Parkinson's bringing this up to their provider?

I mean, I think many of us it's I mean, to be lonely is stigmatizing, actually. And, Doctor Murthy writes in his book about being the only person at the lunchroom table eating by himself and how lonely that felt.

Right. So you feel like you're a loser. There's something wrong with you if you don't have friends. That's what society makes you feel like. And, you know, we have all these ways in social media to have a thousand friends on Facebook and 50,000 likes on Facebook, but that doesn't mean that you have real connection, right?

It just because people are are sort of somehow in your web, it's really about getting to know them, telling them what you're going through, hearing what they're going through, and seeing that sort of, shared human connection.

they're right telling stories. That's really what makes us actually feel better. Feel or and when we get sick, I think people end up feeling alone. They feel bad, they get demoralized and they get isolated, and they think that they're the only person going through all of that.

Right? The reaction to getting news that you're sick or feeling not so well, feeling depressed, feeling anxious. and I think that, you know, this is part of the human condition, right?

Barbara? Like, we we are in, you know, in the contemplative science sort of spaces, we realize that suffering is human. Right to be suffering is just part of the human sort of condition of existence.

And so I think when we can normalize that, realize that this is what we all are going through. And if somebody hasn't gone through it, it's just a matter of time before they do.

And then helping to sort of help each other. I know for me, my friends have been, you know, the people that have kept me going through everything, you know, and I think having that sort of group to, to sort of, be able to lean on is so impactful.

So I think, you know, for a person out there who may be feeling lonely, realize that you're not alone, realize this is part of, you know, often the disease you have a, you know, sort of set of symptoms that can make you feel not so

great sometimes.

So apathy is part of the disease. People feel lack of motivation. people feel sometimes depression, sometimes anxiety, sometimes stigma and demoralization, usually.

and I think people can feel sort of not in control of their future, so they feel uncomfortable. And that's, you know, very unsettling to many people. So I think to be able to say I'm lonely, you know, maybe, you know, sort of think about who you have in your, circle in these sort of pockets.

Right. Do you have someone in your intimate sphere, a relational sphere, a connection to something greater, you know, in your community? And if it's hard for you to even think about what that is, you know, perhaps talking with your physician about, you know, when I was 20, I loved to play basketball.

You know, I can't play anymore. But maybe I could go to the games and be part of this, you know, basketball leagues, you know, fan club or whatever it takes.

For or be it was working for us. Yes. You know, or I used to play golf and I love the social interaction at the golf club, but I can't do these things anymore.

But can I hang out with my friends after and have, you know, the sort of social sort of connection of, of that group or bowling club or, you know, whatever it might be, a lot of our patients are starting to play pickleball and, you know, different things.

There's even, you know, dance with, Parkinson's communities that can be done entirely from a chair in your own home. So I think, you know, the world is sort of your oyster.

You just have to open your mind to what? What it is that brings you joy and meaning and what it is that you can, you know, cultivate. So I think the physician, or a care provider, depending on who you're seeing, hopefully can help connect you, to resources.

there are many also Foundation and Parkinson's Foundation, the, legacy Fox Foundation, Davis Phinney, you know, there's various types of organizations throughout the country, throughout the world.

So, you know, I think it's important to get that it resources as well. you know, and, and I think, you know, thinking about organizations, for example, the World Parkinson's Congress, runs, meeting every three years in which, patients come and they decide what the agenda is, and they bring other patients.

And it's a beautiful meeting where, you know, we as the doc, sort of sit back and are just told what to present on and run roundtables, sometimes to listen what patients need to teach us about, you know, the disease.

So I think it is, you know, hopefully there are many patient voices. I think one thing taking care of, you know, when we talk about minoritized, individuals, for women, for example, you wrote a paper on, gaps for care for women living with Parkinson's.

I think women often feel very different in terms of their needs and their psychosocial sort of, issues than men. And I think it's often very good to have another woman be your cheerleader or your caregiver.

Yours, be it your sister, your daughter or your neighbor, who's a woman or your best friend from high school. So think about who that woman is and bring them in early.

Research on Loneliness and Parkinsonu2019s Outcomes

I think what happens is we wait until some crisis to include our family members, and then, they're playing catch up. And often, you know, there's a big elephant in the room in interactions because they don't know how to help you.

They don't know anything about your disease. And so I think sharing that, opening up that sort of thought to like having people in your life be able to help you and to be able to support you, to be able to come in and advocate in this busy sort of time frame where doctors are running around.

We have 15 minutes sometimes to get to the core of what we need to, you know, so having somebody take notes and, you know, bring in and, you know, say, you know, this is the top thing that she wants to talk about today.

It's actually really helpful. And I think, you know, understanding, you know, who may support you the best. So if some people of color feel much more comfortable in a support group that is, you know, with other people of color or, women with women or there's LGBTQ support groups or, you know, various types of, you know, some support groups.

And so I think looking for those finding your people and understanding then how to get that support in a room where you feel supported, you mean, you know, sort of have have other ways.

And it's always fun to hear when you get women together, for example, they start cheerleading for the other woman. They won't sometimes give themselves love or kindness, but they're like, of course you should be able to get an hour of, you know, a week to go get your nails done and be able to do these things.

So, you know, women, it's really fun to watch women supporting other women. And I think there's there's a lot of that even virtually happening right now.

so I think, you know, thinking about and some of the organizations actually have ways to prepare people. Now there's somebody sort of, pairing things or mentorship where you have a woman who might be farther along, paired with a newly diagnosed woman living with Parkinson's, there are some unique sorts of ways to cultivate support, even with, these support groups and things.

Yeah, they're very important. Thank you so much for shedding light on that. So people can see within their clinic if there is a patient support group within that, the clinic that they're that they're seeing their health care provider in, but also foundations, and those can all be found on the internet how to connect and with local in person and online groups to form those connections, form those meaningful connections amongst people.

So that's wonderful. Thank you so much for your time. I'm sure our viewers are very interested in and hearing what you've had to say today. Thank you so much.

Thank you Barbara, good to see you. Good to see you. So please, add this on. so could you please tell us I know, you've spoken to me about some research that you've done on loneliness, loneliness and its effects on specifically on people with Parkinson's and their health.

Can you tell us about that? Sure, sure. So I think, you know, we were looking at a data set of about, 2000 people living with Parkinson's. one of my collaborators is Laurie McNally.

doctor, initially up in, last year university, and we were looking at that data set to see are there things that we can modify in our daily lives, living with Parkinson's and lifestyle measures, you know, are there things from a diet or exercise perspective of mind body approaches that may be impactful for how people do?

And we ended up looking at the pro PD, which is, an outcome measure of disease severity, as well as, some data looking at quality of life measures. and we were pretty blown away.

and this was actually pre-pandemic data on the effects of loneliness in this cohort. So, we found that, the, the negative effects of being lonely were as bad for you as the positive effects of exercising seven days a week for 30 minutes a day was good for you in Parkinson's disease.

And I think many of us who are, taking care of Parkinson's patients, we feel that exercise is the one medicine that can really make people feel better.

So this is pretty profound. You know, the negative effects of being lonely were as bad for you, you know, as these, positive effects of exercising robustly were good for you.

And, you know, we went into the pandemic, we published this paper and I think we were seeing, you know, a lot of people not being able to exercise, group exercise was, you know, kind of cut out.

And then social connection was obviously a huge problem during the pandemic. And so really this sort of, sort of this double whammy of being, derailed from social connection and exercise was really something that we were really worried about.

And we did see, you know, a number of things happen to many populations in the pandemic, including ours with Parkinson's disease. And when we started to see these patients back in clinic, I think some people had lost some milestones from, for example, in a cognitive perspective when we were testing, thinking, and, testing motor function, people seem to have been so back.

I think the good news is, is that we can always try to drizzle this stuff in and see if we can catch up again. And so I think we've been trying to be even more intentional with thinking about a lifestyle prescription for people living with Parkinson's.

Integrative Medicine in Parkinsonu2019s Care

And what are the things that we can tell people who may be even at risk now for getting the disease? We have a sense of like, we can predict, you know, maybe some genetic, some toxin exposure or some various types of prodromal symptoms like, sense of smell changes, sleep changes and things like that.

This is a population that might be at risk. We have a newly diagnosed population, and then people who are farther along are there things that we should be telling people, just like if somebody had a heart attack or might be a risk for having a heart attack, you know, you tell them, you know, go exercise, go do this, go do that.

I think we are sort of late to the game of some of that in the Parkinson space. And I think I really love to see, you know, in the next few years, us being able to offer something proactive for our patients to be able to do.

And when we think about, you know, these effects of loneliness, and we looked at various sort of symptoms that loneliness seem to affect in Parkinson's patients, it was really in the non-motor realm.

So many people with Parkinson's already have anxiety, depression, apathy, sometimes cognitive changes can happen over the years, sleep dysfunction, things like that.

And so it was really in this non-motor realm that we saw the most impact for, quality of life and, changes in symptoms. And those are often the issues that actually plague our people living with Parkinson's the most.

When you ask people, you know, what symptoms affect your quality of life, it's really these sort of mental health and non-motor issues. And so if we can move the needle by drizzling in social connection and, and support, you know, early on from diagnosis even before diagnosis, emphasizing the need to stay socially connected, to keep people engaged in their communities.

I think this is sort of part of some part of, being proactive and hopefully preventative. And in terms of who might get Parkinson's in the first place, who may end up, you know, getting, you know, more rapid progression of disease versus, you know, sort of helping to slow down the progression of disease and affect outcomes that affect the quality of life of our patients.

Thank you so much. We have to, as providers also keep that on our radar. So it's very important to emphasize thank you so much for sharing that. Hello everyone and welcome to the Parkinson's Solution Summit 2.0.

I'm your co-host, Doctor Barbara Pickett. Today we have the honor and pleasure of speaking with Doctor

Subramanian on her work with people with Parkinson's.

I'm going to go back. Sorry. Strike that. Hello, everyone, and welcome to the Parkinson's Solution Summit 2.0. I'm your co-host, Doctor Barbara Pickett.

Today, I have the honor and pleasure, speaking with Doctor Subramanian and her work with people living with Parkinson's. Welcome, doctor Subramanian. Thank you so much for having me.

That said. Okay. Yeah. So we were, interested in how we can integrate, these, therapies that are not typically given in a clinical setting. Can you help the viewers understand the importance of, integrative medicine in, treating people with Parkinson's?

Sure. So, I mean, I think, you know, I've always had an interest outside of just the standard things that I learned in Western medical school. I went to the University of Toronto a number of years ago.

And, you know, I have always had a sense that health is not just, you know, pills and surgeries, that there's sort of a bigger, sort of aspect. And I think that there is healing that comes from within each of us as well.

There's sort of a sense that I've always had that I have the power within me to make myself feel better in some ways, or sort of, something that each of us has a gift to do that and that there's sometimes things that get off alignment, but there's sort of something that can help us to rebalance and recenter.

And this is often the core of other sorts of medicines, outside of traditional Western medicine, you know, traditional Chinese medicine aggravate the many schools of, of practice that are thousands and thousands of years old, have this sort of sense that the body can heal from within.

And there's sort of a sense of, you know, balance that needs to be brought back. so I think these have always been exciting to me. The concept of integrative medicine is sort of comes from the previous sort of, you know, moniker for this was, sort of complementary and alternative medicine.

And I think we don't want to sort of focus on alternative medicine. My sense is, is that really it's important to understand in Western medicine what we have good science for, what we have good, you know, real, you know, hard core, you know, trial based science that is, you know, in the standard sort of, armamentarium of obligations and things like that, where the evidence but then also what we don't have good evidence for.

And so there's sort of in Parkinson's, for example, I would say, you know, in the standard motor, symptoms of stiffness, slowness, tremor, there are excellent therapies.

I think we've the Dopa is an amazing game changer. We're so lucky to have it. And many people in the world don't have access to this basic medicine that is actually transformational.

and with that pill, we've actually been able to change, the sort of, ability to live a long life, in the cinema era, in this, you know, 60s, we had people who went from owning your stage one, which was, you know, unilateral stiffness and slowness or tremor to, being bedbound and wheelchair bound within five years because we didn't have a way to replace dopamine and people would die from complications of being bedbound and wheelchair bound.

things like, you know, wounds and, deep vein thrombosis, clots in the legs that would go to the heart, her lungs, and, falls and breaking hips and bones, very quickly, because of a lack of dopamine in the brain.

And so with dopamine replacement, and we've been able to refine these replacements and use different sort of formulations formulated with carpet, formulated and different things were really changed, you know, sort of the, the sort of years lived from diagnosis to almost near normal lifespans.

But a lot of the quality of life issues are really in this non-motor realm. So non-motor symptoms of Parkinson's can hide behind, you know, the person living with it.

It's not as obvious, it's not as visible, but are tremendously impactful in terms of quality of life. So people are living with things like depression, 40% of our patients have depression, 40% of our patients have anxiety.

That can be disabling. Apathy, hugely impactful. People don't have, you know, motivation to get up and do things every day. cognitive changes, things like sleep dysfunction that can be tremendously impactful.

So in these sort of areas, constipation is another one, you know, autonomic nervous system, things like blood pressure dysregulation, all of these fit in that non-motor category, but especially in the mental health sort of areas where I think we have huge, quality of life impact and not a lot of therapies.

I think we have room to add, you know, sort of these sort of other sort of, medical medicines, you know, whether it be from, you know, the world of, lifestyle medicine, thinking about, you know, mindfulness and yoga, which I think can be hugely impactful for sleep or, mood, sometimes for motivation, exercise can be hugely impactful for a number of these things.

we have ways to, you know, through dietary modification, you know, getting a good night's sleep. People can feel so much better from a lot of these sort of ways of, you know, mind body person.

I think social connection is one of the things which is, you know, available to all of us, but really requires us as doctors to say this is part of the medicine.

Right? So I think integrating, Western medicines and this amazing surgeries that we've been able to refine and the amazing sorts of refinements that we've been able to do for our Parkinson's patients to help them live, better.

there is sort of a way to integrate these sort of other things that we're talking about here. and to sort of work with our health care teams. So tell your doctor, I mean, we we realize that, you know, we don't have all the answers, I think, in medicine.

And so, being able to include the doctor as part of that chat. And so, you know, we we have done studies where 60 to 70% of our patients live with Parkinson's are seeking, these other sort of integrative therapies.

And so can we work together, as, you know, sort of more standard Western, folks in academia, to kind of integrate things, that the patient may bring to us as things that they may want to try.

it's important to realize that there are sometimes health, you know, sort of negative health impacts by using supplements that may not be regulated or introducing certain types of things, even, you know, medicinal sort of things like, you know, cannabis, for example.

And the wrong patient may have outcomes that are not good. if we're changing medicines in the Western realm, you know, in your, in your neurologist office, and you're also changing things with your other practitioners that can sometimes be confusing.

What's helping? What's not helping. So I think getting on the same page so that we can understand really, you know, what your interests are, help you to get that resource is, find people to work with in the community that we can trust over time and see kind of, you know, how this interaction can work, I think can be very helpful for us so that we're not left in the dark, I think, as neurologists, you'd be surprised.

Many of us are quite open minded as just means, you know, having a dialog, maybe setting up an appointment just to talk about this and saying, you know, I've been interested in checking out this acupuncturist or I've been interested in going to this meditation class.

What do you think, doc? You know, and and sort of leaving it up to that. Yeah. Fascinate times that we have. Right. We are at the point where we're integrating, actually integrating these things and educating the people with Parkinson's to, to have that discussion.

Right, to know that it's okay to ask these questions and to take their place, that the locus of control of the disease take that back and, and have the discussion with the health care provider.

Very important. Thank you so much for your time today. Thank you.