Treating Autoimmunity And Depression Through Nutritional Therapies And Improving Gut Health Transcript

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Introduction and Dr. Abbottu2019s background

– Hello everyone and welcome to the microbes and mental health summit and Dr. Miles, your host and today together here with Dr. Rob Abbott, Dr. Abbott has been a pioneer of sorts in a way that a lot of functional integrated practitioners don't make their way into actually doing the research and getting published. And and Dr. Abbott has done just that, so I really appreciate that. And I really enjoy having people on who not only have seen clinical results, but have tested those results in a clinical trial setting and have seen those results actually pan out in that more rigorous trial setting.

It's a lot of work and you can take a toll on a person to do that work. So give me a sense for a little bit of if you'd like to share your backstory and how you got into doing both clinical practice and research together.

– Yeah, well, first of all, thank you for organizing this summit and getting a number of wonderful speakers and inviting me to take part. I was joking and busted out this old podcast mike from my podcasting days and I feel like putting it to good use.

But yeah, and in short, you know, like a lot of focus in functional medicine. My journey into this was because of my own health issues and actually started really in in in college, but, you know, came to a very dramatic climax and about six months into medical school.

So I started medical school, just a joke as a overachieving student with no real direction for what I wanted to do, surely no awareness of functional medicine or an ancestral approach to caring for patients and yeah, I had this sort of, you know, very dramatic health decline and in the early pursuit of recovering my health became aware of, of podcasts a little ipod nano somehow made it to, this was 2013, so 10 years ago made it that far without really awareness of podcasts and I think the first one was chris Kresser, which he was doing some really wonderful work and has continued to do some wonderful work, did some of his training and stayed close, his colleagues and but it was kind of this mind blow event where you listen to one podcast and then they have someone on and they also have a podcast and you just go go crazy with listening and it was wild to me that some of these things, even, you know, yes, six months into Mexico, you're not getting into everything, but just completely changed my perspective for how I could care for myself and I started living that out, but also how could I implement that and in practice and I almost didn't come back to med school, so, you know, I took a year off medical leave and there's so much conflict like wow, the way that I'm learning on my own and how I'm caring for myself is so different than what begun in school and what I know is going to be present, like is that divide too much and ultimately actually decided to go back more because of the community. So in that year off I got tied more into the community or the nursing school and had developed a the church community and some close friends and started a club around mindfulness. So I sort of decided to look, I yes, there's going to be dissidents here, I'm going to get things that I don't agree with, probably a lot of things I don't agree with, but I have this vision for wanting to eventually get into private practice, doing the type of work I'm doing now and I can make my own education with both they provide. And also, I mean, this is at the University of Virginia, which is a pretty, pretty wonderful institution and realizing I'm gonna see people.

So I decided to go back and so from day one of reentering med school came in with the functional mindset, which was very different than my peers and I was not 100% quiet, but also knew like I couldn't just show up and scream from the top of my lungs, the things that we should be doing, and I also had to show up with that core knowledge, you know, you get, it's easy to laugh off the individual who doesn't have the core foundational knowledge of certain attending doctors were expecting and bring in the mindfulness in the, in the gut health, but I tried to bring that and plus I was doing my own education on the side and listening to podcasts. It's kind of informal education and um somewhere towards the end I decided I wanted to kind of explore research and it was actually in med school, I didn't develop my own little program around mindfulness and incorporate some principles from han and some of the training from the gemba um and just kind of melted a couple different some of the NBS our curriculum that folks

are probably familiar with and kind of blended that and implemented over eight weeks for health science students and designed intervention and learned very quickly that trying to get something approved to do research and academic setting is even something with zero risk and you know, we were just doing qualitative assessments. I think it took like six months and I'm like, okay, this is not, it was a great learning experience, but it's not the way to get research done for many, probably in any kind of academic setting, they probably acknowledged that. So, but I dipped my toe in the research waters and thought this would be meaningful. And it wasn't until residency when I had a much easier route to explore research in some ways. I'm very busy, but easier to get to get approval to non academic institution that I really launched into doing some research. But Yeah, it all sort of started like a lot of us with health issues whether it's personal or or a family might just happen to coincide with the early start of my career, which is kind of unfortunate.

Most of us in this space are still quite young. It takes years to sort of even start on a trajectory. It's like get disillusioned after 20 years and then come back and like 20 years not lost. But you know, I started from the beginning with that perspective and feel very lucky for it.

– Yeah, I do too because I had my chronic health issues and chronic fatigue started really when I was in in school and so I got to I had to figure it out in order to get through school and then that really informed my perspective as going I was going through school.

So that's amazing that you had that perspective as you were going through school because you look at things differently. I did you know when I was going through school I looked at the things that were being taught from an angle that I felt like my peers were missing out on because they hadn't had the self study and learning in functional medicine, looking at gut health, looking at auto immunity, looking at thyroid and that that's some of what we're going to get into today. Is is you've done some research that some that's focused on auto immunity and thyroid, some actually focused on mental health issues like like major depressive disorder. And so I want to definitely go into both of those and how we can what your findings were and what your perspective is irrespective of those findings, even if it's different than what you found.

I'm curious both. What were the findings in research?

Hashimotou2019s study: diet, coaching, and quality of life

What's your perspective on the so we can start with, you had the study about hashimoto's thyroid itis which is an auto immunity, it's an autoimmune process where the immune system attacks thyroid tissue and often people will struggle with low or sometimes high, mostly low thyroid hormone levels and that can contribute to multitude of different symptoms. So what did you find for people struggling with diagnosed Hashimoto's in terms of their symptom pictures?

– Yeah, I'll give folks a little bit of a background about the study which itself is kind of a fascinating adventure. So at this time I was finishing my first year of family medicine residency or internship here and had begun to work with a group called autoimmune wellness who was writing a lot of education around nutrient dense diets ways of eating to help those with with auto immunity, which I was obviously 100% for.

And it's seen a lot of benefit. They had actually done research already with some of this way of eating for those with inflammatory bowel disease that worked with a woman out of san Diego traditional medical doctor and seen pretty amazing results and endoscopic changes and that was just like wow, this is for real and by that time I didn't have much clinical experience and also certainly didn't have much autonomy to sort of observe folks he changes but we knew and they knew many women in that group and the old did a bunch of coaching and she's like, you know, these folks, people are getting better and let's try to to study it to sort of get more legitimacy. Which both, you know, is the, it's sad that you know, the medical community oftentimes goes two hours not data and it's not data on this. And um as if anecdotal research is not valid.

And so I was like, well let's try to change that and do it on our own. Having kind of learned about the the I. R. B. Process. I decided, look, let's try to, let's try to put a study together and actually crowdfunded $12,000 to cover the cost of some lab work that we were able to offer patients in the study. And that itself was just amazing.

The community got behind us. I was like yeah we want to want to see this happen. And it was just mind blowing to me that people were interested and wanted to invest and we actually enrolled folks across the country, which is also really cool. So we end up having 17.

We weren't just going for women but that by nature. I mean Hashimoto's is a condition like a lot of autoimmune conditions that affect predominantly women. And so by nature of the audience in the condition. We ended up with 17 women.

And so it was a we call a single arm study or kind of a pilot intervention. So everyone got the same treatment which was a end up being a 10 week total program which is based off of Angela Angie ALTs coaching program where they basically do a phased elimination of certain foods and many individuals are familiar with the paleo or an ancestral type diet. The one we implemented goes kind of a step further goes with the name of an autoimmune protocol diet or some people call it autoimmune paleo acronym is is A. I. P. And it just takes another level of things that would be sort of more typical and ancestral diet and removes those in this case in a phase fashion rather than like day one cold turkey you're you're there, it's let's remove in some cases the potentially more most problematic foods in the beginning and by the end of that fifth or sixth week they've removed things like certain nuts and seeds which are very nutrient dense but for some people can be you know negatively provoking to the immune system.

And um everyone got baseline testing and we even were graciously given we parted with Genova diagnosis lab company and they gave us stool testing, inorganic acid and heavy metal testing to do a baseline.

So let me talk about some of those results in a second because they tie very much into kind of what we're talking about with gut health and mental health.

But honestly, you know, I didn't know what to really expect. I figured think people would get better, but I wasn't sure how much and we mainly focus on quality of life. We use some quality of life assessments.

There's one major one called the FS 36. Also used a symptom questionnaire that the functional medicine institute for functional medicine uses, which I love it. It's kind of a, you know, much better review of symptoms in a way. And then had some objective measures.

We have looked at thyroid function and thyroid antibodies, but also some measures of the immune system and inflammation along with those stool tests and organic acid and so everyone completed those assessments beginning went through the program and they were getting education and coaching and also community. So that's why, you know, the primary component was a diet. We recognized there's many other facets.

Century you've had people on talking about the role of community and being in a therapeutic relationship as just being really critical and essential. Not that it obviously doesn't matter. Movement practices or mindfulness practices don't matter. But that community site setting and having someone coaching and supporting you really brought people together and by the end of the 10 weeks we saw, I mean some of these symptom questionnaires plummet.

I mean it was for some folks pretty radical and you know blew me away different domains and a lot of the quality of life domains on that Fs 36 our mental health and sort of social functioning. And people reporting better functioning in Their workplace, better social relationships. Yes.

Some of the physical components and improve energy. But a number of the components, all the components of SF 36 were statistically and clinically significant. But a number of those are actually around mental health and social well being. And that was just something that isn't always obvious that improves and we don't really in practice and clinical practice really quantify that readily. I don't know.

It's hard to really quantify because things can fluctuate, bad things happen. But that was just really cool to to see. And then we looked at the results over that timeline with the group that we had. Because it was a smaller group, we didn't technically see statistical changes in any of the thyroid function of thyroid antibody numbers. But what was fascinating is nearly half of the women had to decrease their medication by the end.

So it's easy to say, well, the numbers didn't statistically change in the group, but that's that's a whopping amount of people using less medication. And some of that was probably related to some weight loss.

So some folks losing weight, they need less. I think the primary mechanism and a number of individuals that was born out from the stool testing was positive modulation of the gut microbiome and improved absorption of thyroid medication.

So kind of two different mechanisms in one way you're seeing improved composition of the microbiome which that inflammatory bowel disease within a couple of derivative studies, they actually looked at changes in the microbiome and M.

RNA pathways for certain things and saw those, so assuming similar things are probably happening. So you're seeing modulation of the microbiome and modulation of the immune system downstream of that.

Um and also probably for some individuals better absorption of their medication. And we saw things like the people familiar with measures of that just to function fecal last case and signs of fat absorption improve and a number of cases.

So that's what was also fascinating is I mean i in clinical practice now do a ton of gut directed work and this was really just no supplements were allowed.

And the only medications that change where if someone had to actually decrease their their thorough medication, this was all a nutrition lifestyle community treatment.

And seeing these really cool changes happening at the level of the government of bio and then downstream of that with quality of life specifically in mental health and social functioning. – Yeah. Yeah. And that's that's amazing.

It's it's diet, it's lifestyle to community and support its coaching. One thing that that I find quite interesting in clinical practice and I'm curious if you do too, which is that a lot of people come in, they've especially in my practice, they've they've been doing different dietary approaches?

Not like they came from standard American diet into the practice sort of, they've been like working on themselves by the time they end up at my office and they've been doing different diets. They've been doing, they've been trying they've been doing lifestyle stuff, trying to manage stress, trying to sleep better, trying to eat better.

And they've been, you know, maybe on three or four different dietary approaches. And um and a lot of these people are fairly self motivated and some of them tell me, well I've already tried a bunch of diets. I don't know that I need a lot of nutritional changes and I'm pretty self motivated. So I don't think I need a coach.

And it's an interesting frame to me because when we look at another arena, like we look at professional athletics for example, you see the highest of the high the olympic athletes like which olympic athlete do you think doesn't have a coach and which olympic athlete do you think is not self motivated? Right.

It's this weird thing in health people think I I can do it on my own where in other arenas people seek more support more accountability and that's really interesting to me. So I'm curious do you with these women, 17 women, 10 weeks and going through this coaching diet and lifestyle change program, Do you know how many of them had been trying different diets before and they've been working on their their diet and not just starting from for example, like standard American diet. – Great question we, well I don't have a public health epidemiologic level.

Really endorsed food frequency questionnaires for research, which that's a whole funny other topic. We did take food frequency questionnaires and diet journals for folks at the beginning and the end.

We didn't have any way to like quantify. So this wasn't any, any kind of quantitative work up with the study, but in the appendices of this paper actually, I wrote out little short case studies. So it's a whole key series.

So you can actually read each individuals and in there we included kind of where they started from nutrition wise and some of the thing that we gave them as little layers of personalization and yes, if I were to aggregate the starting place, it was not a starting place of standard American diet, Some books were already doing paleo. Um and so it was just another level of elimination or some version of that. Yes, there were some people who kind of get frustrated and they're like whatever, but even that whatever for this average person still not standard americans, which is fascinating that you're taking them from something that's like at least somewhat reasonable to even completely reasonable, maybe just not ideal for them in that moment and implementing something and seeing changes and so that's uh and the self efficacy with these things is just amazing. So I think I'm always conscious and kind of bringing this over to clinical practicing how this and others.

So they will get to these treatments are very active treatments versus passive treatments. And I tell people all the time, even if you can get the same quantitative benefit from a passive treatment as a certain active treatment, active treatment is always going to have the added benefit of sort of this self efficacy. Um you know, just enhancement of one's ability to feel engaged.

And so this study had all sorts of active treatments and because there was no passive supplementation, I mean there's a time and place for supplementation, but those types of treatments can be so empowering for folks who can come in pretty defeated having tried different things like reasonably well, not just like for a day and it didn't work and that was sort of honestly the average individual for for our study. And what I see, I think you see bear out in clinical practice as well.

– Yeah, I I do. And and and I wanna I'd like this to give people some hope if you've been trying diets, if you've been trying things that you've been working on your lifestyle, don't rule that out. Is it it there's nothing more to do there.

I mean there is a point of diminishing returns at some point when you get really far down the road and you need to look at other areas and diversify and and and sometimes I see mindset and meditation being that weak link that's missing entirely.

But don't also think that there isn't room to do a structured process like this progressive elimination and see potentially significant benefits. I've seen it too in my clinical practice uh Dr. Rob.

I have seen it in his research. So I want to also make sure this is in the context of mental health. So when we're talking about these quality of life assessments, Hashimoto's thyroiditis. There's a few things.

One is the thyroid actually, psychiatrists will give thyroid hormone at very high levels sometimes depression, these super physiologic levels that are that are really high sometimes.

And it's not a common treatment, but it is it's a treatment and it is effective in many cases. We know there's a link between mood and thyroid function.

It's not just thyroid is related to fatigue and is related to gut like constipation and dry skin and and cold temperatures in the case of low thyroid, these are the common ones. People talk about but there's cognitive function and mood at playing a role. And if you think thyroid and the greater metabolic function in the body than I think this is really critical to look at interventions that are effective for thyroid but then what's driving that thyroid issue.

Well, in this case we know auto immunity because this study specifically was looking at Hashimoto's thyroid itis and in fact most thyroid issues, most hypothyroidism, most hyperthyroidism is autoimmune in nature.

So then we have to look at, okay, well the immune system dis regulation and how much does that relate to mental health issues? Well, we know that chronic inflammation resultant from immune dis regulation is a big cause of depression.

In fact, there's a whole theory of the cytokine theory for depression that looks at depressive tendencies associated with inflammatory marker elevations.

And so in I'd like to give you an opportunity if you want to share any more about this study or context or we can transition into the major depression study and talk a little about that too. Um I know we have a lot to cover in a short time here, but where would you like to go with that context?

– We can talk about the sort of first study go off of what you shared. It will be a good thing segue to the, to the other study. And it is fascinating the a lot of folks have become actually more aware of major depression.

I think it was going to 2023 but last year when that very fascinating paper, which is not really news to any of us in functional medicine that was basically saying, you know, depression has no connections to serum levels of serotonin this measurement in this measurement and there's possibly of data, you know, systematic review level meta analysis that srs have really any impact from Malcolm depression And so.. – For the for the audience that the antidepressants that are most commonly used are called SSRI, which is selective serotonin re uptake inhibitors.

So it's taking that serotonin in the brain and it's letting it recycle more. And so this for many conventional practitioners was a very shocking finding that weight depression isn't connected with these levels of serotonin in the blood because that's the main medication we're using is to impact serotonin.

– Yeah, no, thank you for adding that. It's easy to go into acronym mode and um but also I did see it kind of shook things up a little bit and the functional medicine world as well because we see a lot which is a, you know, is a well known fact that much of serotonin production is happening in the level of the gut. And so some are saying this is saying, you know, serotonin and these measurements don't matter.

And it's like that doesn't actually negate the role of the gut and the many mechanisms by which mood and well being are regulated. So serotonin yes matters.

And serotonin signaling matters. What they were trying to basically say is, you know, all this sort of data was basically a somewhat cynical way taken by former pharmaceutical industry to sort of justify the use of these medications, even with the clinical outcome outcome data being pretty pretty poor and a lot of those medications are pretty severe side effects. And so folks are really looking for other ways to improve their mental well being And hormonal factors are are huge.

You talk about thyroid is a testosterone replacement for for men and in some ways for women and other forms of hormone replacement can be um critical therapies to help for depression. And we do see generally speaking, there can be changes in, I'll say move more broadly around menopause.

Again, it's not just the four months driving it, but there's, there's major folks happening and the effect downstream. So there's a huge role for these hormonal factors.

There's thyroid of some of the sex hormones for affecting the one's mental state. And it's um, the group that we saw it was just again fascinating to see that these multiple components because we couldn't ferret out. Was it the diet was in the community, you know, was it the coaching, but seeing getting some signal.

And you were talking a lot about information, We did have a couple of measures of inflammation. One of them was a market called high sensitivity c reactive protein, which is a pretty non specific inflammatory marker.

So you can't say, you know, this is coming from this area, but that had a statistically and clinically meaningful decrease in this group. So I am sure that part of some of the effects, not just physically but psycho emotionally where immune mediated. One of the well known medications to induce depression is a medication called interferon or interferon gamma.

And these medications basically without fail, can induce depressive state. And so that is a great mechanistic basis for recognizing this roll of kind of chronic inflammation or neuro inflammation behind, you know, depressive illness.

The other big theory that I see tied in as a metabolic theory behind depression and mood disorders. And I think one of the things that was happening in this study was, you know, improvement of metabolic health.

Someone could have certainly gone through and change their diet. And the autoimmune protocol is what they call macro nutrient agnostic. It could be high carb, it could technically be ketogenic, it could be low carb.

We didn't give you no guidance to anyone on exactly what to do. Um, but if you're moving from anything standard, it generally will moderate carbs and at the very least this whole food. So even if it's a whole food card from most people that improves their metabolic health. So I think we probably saw a combination of improving metabolic health, decreasing inflammatory signaling coming from initially from the from the gut for some improved hormone status or functioning, right? This is all happening at the cellular level.

The amount of thyroid hormone is not the end all be all for the end result. Um, and we saw other markers on the organic acid testing for less oxidative stress.

I sometimes call that cell stress or or sell exhaust and even some people were having less heavy metals being present. and there's a we had some focus on talking about the role of other environmental exposures for their impact on the doll.

So when I think about like what are some of the mechanisms behind again, not just some of the physical improvements, some of the psycho emotional improvements, you know improving nutritional status, improving metabolic health modulating positively the gut microbiome to then affect the immune system and down regulate some of these inflammatory responses not just within the gut but more systemically decreasing cell stress and even helping to eliminate some environmental exposures and toxins that are playing a negative role for some part of their their mental health.

So those are those a lot in total but I always like to you know look at clinical outcome and take the mechanism not be beholden to either one. I think clinical outcome definitely is very important from a research standpoint.

And functional medicine can sometimes get a little too lost in the mechanism and and treat mechanism and not the person but it's really cool to sort of have the outcome and then start to postulate hypothesize what are some of the mechanisms probably behind the changes we were seeing. – Yeah, I really like that and and to have that you know it's community, it's coaching and its nutrition changes those are seems simple but but together in the right and only 10 weeks time.

Right? It's not a lot of time. It's only 17 people. It's not like a huge community.

Depression study: lifestyle intervention and outcomes

And so it's really interesting that small community, a short period of time, some coaching and dietary changes, no supplementation can impact quality of life and also can lower objectively inflammatory markers and about half going down on medications is incredible. And so I think that is a testament to the potential for things that people think they've already addressed to be revisited in a structured and systematic approach. And that's a big part of what I the clinic is.

People have tried a bunch of things before and I say, look, we're going to do a lot of things you've done before. We're just gonna do it systematically and progressively in a way that you might like actually get some benefits from in a different way than you did before because it is about what's done in what order and and having a system around it and a structure around it and, and tracking is so important because if you do pre imposed, a lot of people, maybe they didn't, maybe they didn't realize how much they changed because I have a philosophy. – So often if you don't send him that question there and they're like, wow, my original score was 80 something and now it's at 12, you know, they get latched onto our negativity bias is so big latch onto the symptoms that are still present. – My theory is we have this as humans, this adaptive and beneficial mechanism for, um, for, for amnesia for our past problems. Like I think there's this like this sense of like you don't, it was a past problem. So don't think about it anymore.

It's probably a good thing. It helps us not hold on to so much. I mean, we all hold on to trauma and things, but it helps us hold on to less to focus on the problems of today and not the problems of yesterday.

What that means. I had a patient, she came in after a little bit of it was a few months of work and, and she said, my guts, like I'm just, I don't feel like I'm getting better.

And I said, well, how how are the migraines? And she said, what migraines? And I said, well, that's, that's the number one reason you came in was your migraines.

And she's like, oh, I haven't had those couple of months. So sort of, you know, we we forget our past problems. So these, these questionnaires, the assessments are very important.

So I appreciate that that's a part of the study. Anything else on this study before we transition to the next on depression? – Yeah, I think one of the final conclusions that I've, including the paper and, and, and, and give give for folks is again, it's easy to in both ways to see that this was a very multifaceted approach and like, wow, I have to do all of the things that were in that study to get that result and it's just not, you know, it's not true. I seek to practice and it sounds like you as well, very iterative care and trying to be deliberate and intentional but recognizing that in the beginning we may even be aware of things that are potentially problematic, but you can only do so much and let's start as upstream and as accessible as possible. So I think that's one of the things that I actually kind of flip it rather than looking at it is I had to do all these compose, it's not just the dye injected into these other components in this study to see the benefits like no, you could actually probably pick one of them and, and and do that and talk about the other study which was actually, you know, different structure actually realizing there's multiple, you know, inroads and trying to focus, you know, as upstream as possible.

I see where people probably spin their wheels is borrow this expression from one of my friends majoring in the minors getting really good at doing something that yes matters.

But it's such a kind of downstream, more minute detail that let's let's back up and see what's your sleep hygiene like or you're surrounded with community or what are some of the bigger potentially needs and is accessible. Can we get into that and that's where the more I get into this work, the coaching becomes, you know, as important if not more important than the actual awareness of perhaps the medical conditions at play and really serves patients tremendously. And it's just not really a part of medical training and a lot of capacities, but it's really what people need to to make sustainable change. – Yeah, I mean, the data is clear that you give a plan without coaching and support, it's not as effective and they're a review to study recently was looking at um coaching, improving outcomes for goals that people had and just just simply having a coach and and and stating to them your goals and then having to check in about those actually already increases outcomes is amazing how that little amount really already goes towards. It doesn't even require any special kind of coaching necessarily. I mean, then you get into targeted coaching, but I know people would be curious about long term, did these changes last as their follow up?

Is this longitudinal, is there any anything in that in the works for that? – Yeah, that would have been, we talked about it after the fact that this would have been fantastic if we had carried things out for six months.

Sure, guarantee we probably would have seen some changes in some of the thyroid function workers. So nothing was formally done. You know, informally a few of the individuals continued to actually work with me in private practice. So I got to sort of see that longitudinal trajectory for a handful of individuals. One of the individuals actually was our only dropout had to drop out because she got pregnant in the in the study, which was kind of uh something she had been having challenges with.

So no formal longitudinal analysis, although that would have been fascinating. But a couple individuals did continue working with me, so I was able to kind of see their trajectory. One of them did see actually um some autoimmune markers eventually get to undetectable levels and you get really into a wonderful clinical state. So, nothing formally but and uh it would be those kind of things that I dream about. You know, I'm at the stage to where I'm like, I need to get some help to facilitate things like that, because it would be awesome to see. – Yeah, we need we need a team.

I'm glad you were able to crowdfund it and get even as far as you got, that's really incredible. And and uh you know, someone who's passionate and has burning it in their heart can take the torch from here and keep keep doing this kind of thing. And so, you know, so then how about this major depression study? What?

Tell us a little bit about that and and what that was and how the treatment was a little different. The intervention was a little different. – So this was and really my truly crazier days of residency as soon as I was about to she left residency earlier to start my own practice and complete this study.

But I started it as the other one was wrapping up. And and it was just sort of interested in exploring having this first intervention seeing was aware of another program by a a psychiatrist, holistic psychiatrist, Dr. Kelly Brogan, which some folks may be familiar with.

And she had for some time been implementing and using a program multi component to help individuals specifically with different conditions of mental health.

And I very much agree with her to a lot of the classical diagnoses are, it's not that they're entirely irrelevant, but certainly can get people stuck in boxes and make it easier to sort of seem to legitimize the medication.

And so I was trying to apply a lifestyle nutrient community approach for individuals and a lot of times when those are some of the primary symptoms, it can be very challenging for two reasons. One, it gets oftentimes a judicial medicine looked at as like completely unconnected to organic pathologies, such as, you know, at the extreme like brain tumors or hypothyroidism, or like the four things that a psychiatrist from a medical standpoint may actually look for.

So it oftentimes gets very compartmentalized or at the same time it was so debilitating that even some of the physical symptoms that go along with it are not at the forefront.

And so the connections between the two or the insight that some of those mental health symptoms could be downstream of things that are accessible from a physiological standpoint.

Um and people if they're really debilitated the activation energy from enzyme energetic standpoint to get started with anything can be really really challenging or to sustain anything. And so whether it's an Adonis or apathy some of these symptoms that can really inhibit someone from getting started can make it really hard for folks to implement some of those active therapies we talked about.

That's why some of the passive treatments, medications and supplements are so alluring because if someone has such a degree of apathy or depression it's hard to to be able to do things like change her diet. But basically developed a multi component intervention that she also implemented in a community setting.

The big difference from the other intervention was the general dietary program was roughly the same and more ancestral way of eating. So not the strict A.

I. P. But in the bulk of a nutrient dense diet that would be an elimination diet for some but it was all self paced. So rather than having a coach and a coaching team these individuals were engaged in community could engage with one another so they're going through the program self paced but you know at the same sequence and there were some moderators but no not the level of coaching and engagement as the other programs. So they're getting education in a self paced manner but don't have. And so um she was very confident that this would, he was saying, you know, benefits and I'm like also believing it in and why I wanted to research, but also like these folks are doing it on their own.

It's easy for this to work for a week in the crash and burn and for them to say or something bad happened to be the worst place. So what we actually did, which is quite ambitious, is like implemented a randomized control study design.

So people are probably familiar with that in the traditional drug sense, what they'll do, you get a medication or a placebo pill and the patient won't know, and traditionally, also the provider won't know, they look after the fact and see which group got better who got worse. And so we did this same design with the group and our what placebo was a waitlist. So there was no, we called blinding people were, you know, there's no way to blind intervention like this.

– Or not. – Yeah, it's no way to do that. But it was a great way to actually, unlike the first study, which just had one arm, we could do comparative analysis between and so we had pre post and the people who were in the waitlist, they knew they were gonna get to do it after the fact.

So there was still some motivation. It wasn't like, hey, sorry, you don't get to do this. Um, we also didn't regulate what they could do. So many individuals, you know, would have gone on to both, not implement things or go do things on their own.

We didn't regulate what they could do, what they could do. And so we took different measures that SF 36 was one of them. We also in the symptom questionnaire and specifically looked at the depressive symptoms and saw some pretty amazing changes. And this was a randomized controlled trial.

It was amazing that the wait list group really didn't change at all and they stayed if some are familiar with measures, measures, measures such as the P.

Q. P. H. P. H. Q nine, um forgetting the acronym, but basically a multi component question for depressive symptoms stayed in sort of the moderate, moderate severe category. The individuals who went through the program, they had a similar average starting out was maybe a little bit lower, but still in that kind of moderate. And some people went into what we considered clinical remission or sort of borderline like symptoms that are impacting them in any way.

And this occurred over the program was designed, there's a 44 day intervention. There's a little bit of running period and out. So also not a super long intervention.

Um and so all these really amazing changes. And I was blown away because again, like in my mind, I'm thinking, you know, uh these folks are gonna try this, they're not going to have the full support, they're gonna have one another.

Maybe it's not, you know, not going to work or certain things are not going to improve, but things, uh, you know, really did. And having the strength of statistically to see the weightless group comparatively, that just brought a whole level other level of legitimacy to the intervention. – And over the numbers of people in the control group or the intervention. – Yes. So I should have brought this up the point.

It was a bigger, it was a big intervention than I think in the level of, like 25 to 30 individuals in each group, if I memory served me well. So, a bigger study. So, you know, not a huge study, but not not, not a small group. So it was a reasonably sized group, there was a decent amount of attrition. So, in both groups, even the weightless group, there's a little bit less.

We lost about 25 30% of people to go through. And we ended up doing rather than a called an intention to treat analysis. We looked at those who actually completed the intervention. So that's arguably one weakness well, to those people, you know, they drop out because they were worse.

I wouldn't make the assumption that, you know, everyone who dropped out was was worse. And if so, it probably was equally weighted because both groups, even the placebo group had dropouts, um, which that's just a normal fact of if you're dealing with a mental health any, you know, whether it's active or history of depression, that's just a fact of any kind of treatment. So I see that it's just like to be expected and the fact that there was only that mother with an active treatment was very active, not just take this pill that was actually pretty, pretty amazing.

– Yeah, and I want to give a little context because of stigma around mental health issues and there it can be, this is challenging, right? Because we have data supporting that there are these physiologic things that can contribute to mental emotional dis regulation. It is very clear that post certain kinds of infections, we see behavior changes in Children and adults.

And it's also apparent that there can be a connection with inflammation and then that inflammation can have a cause there's a link between certain toxins in the environment and mental emotional and behavior changes.

And it gets hard though because when I, first of all, people don't want to blame themselves for having created a situation with poor diet and lifestyle choices of creating their own mental emotional dysfunction.

That's that gets really hard and really charged in some cases. And so so on one hand, it can it can lead to more self blame. But on another hand, it can lead to more uh less self criticism when people realize that that some of these physiologic and environmental variables that come in are actually having a physiologic impact, that's leading to this mental emotion, it's not just all in their head. I think that's one thing that that people get, maybe maybe you're just if we looked at your blood, it looks normal, maybe you're just depressed. It this kind of weird disconnection that like you're doing it to yourself, go see a counselor and try and get your brain on straight.

It's, I mean, honestly, it's an egotistical attitude that that happens. Like if we can't figure out what's physically wrong with you, then it must be you who's not thinking right and it's like really, like maybe it's you who hasn't figured out the physiologic side that's going on here.

So I think we really need this and I think it's it's something to hold in a contest that that look if you've been through lack of education through not understanding the appropriate diet lifestyle things, there's a lot of confusing, overwhelming information out there, like it's not your fault if you've sort of been grown up in a time where where things were just not understood in the same way and and and once you do understand there's also a lot of patterns and there's a lot of energy and there's a lot of history and there's a lot of internal things to overcome in order to implement these active solutions, like you mentioned when you're dealing with depression, you're dealing with severe brain fog and motivation issues and lack of drive how do you motivate to make the active changes that could impact the physiologic functions that are at the root cause for these mental emotional mechanisms and that's part of the challenge too.

So I I love this study because it's it's touching on a number of interesting variables, some stigma, some some misconceptions in the field. And it's trying to very gently say, hey look, if you do, if you do join, like even if it's at your own pace, even if you take it gently, you know, if you, if you do the work, you can actually see some results.

And I love that. – There's several things in there that I think are touching on that. I think this study highlighted to, to me the first and something you were sharing earlier is I think it's really important for again with this stigma and the over medicalization sort of pathologize ng of certain emotional states or certain psycho emotional states by traditional medicine. Um it's it's really easy to get to get stuck there. And I think starting out if it is normal to experience negative and and positive emotions. And so when someone's coming in expressing certain symptoms that may be categorically depressive or categorically more anxious or may have other symptoms. I start by like taking a life inventory, right? What's, you know, what's what's going on practically speaking and I think I follow Jordan Peterson quite a bit.

I mean he's one of the thought leaders of our time and in clinical psychology and he goes through kind of a checklist of, you know, this is depending on the ages a person in a relationship. Do they have a job to a level of education?

What's their their living situation like going through all these things that are sort of like, oh yeah, those those matter but gets so overlooked even I think in functional medicine, Uh as contributing factors and sort of taking a life inventory and seeing, you know, and basically showing if there has 10 factors if there's instability and and the majority of those, it's incredibly unlikely that that individual is going to be functioning without any degree of psycho emotional distress. And that can be a some of them can be more actionable. Others are impacted by interpersonal dynamics and relationships. But let's start there or major life events happen and you know, a loved one passes away or there's a traumatic, unexpected accident and or flooded with negative emotions and it can be easy to quickly want to medicate that. And it's like wait a minute, that's entirely appropriate. Um an anxiety signal, I often tell people anxieties something is telling you this matters to you.

Um in some situations that maybe we need to take our cognitive behavioral therapy and say, okay, actually this thing, it's telling, I'm telling myself it matters, but it's actually a thing that really shouldn't matter, but it's a signal of this, this matters to you and I'm just reframe that it's like wow, anxiety is not a signal of destruction, it's a signal trying to tell me what or what environment maybe, you know, stimulating, let's stop over pathologize ng some of

these effectual states that in certain situations are incredibly appropriate, the next level is okay assessing those and then trying to take inventory of is quality of life getting impaired, our our functions getting impaired or others noticing and being mindful of that. But still not even in that setting, immediately saying, well this is gonna be needs to be fixed by medication because even a supplement, like if the driving factor behind someone's mental distress is a recent breakup as a thorough I or five HTP or probiotic. I mean there's a place for, again the physiological roles but I'm not gonna I'm not gonna pretend that that's going to change the relational dynamic that just broke apart and really being honest with one another and I still really remember one of these patients and and residency was a very traumatic exchange where someone really just had lost their loved one and basically couldn't say especially but wanted, you know, like a benzodiazepine, a very strong medication and I was, you know, our clinic didn't prescribe those so that wasn't even decision I had to make but even independent of that, I wouldn't have been prescribing that in a situation like this is everything you're telling me is actually as distressing as it is is appropriate and that's where our community bonds are, Family becomes so critical and I think I mean the whole discussion of like I think one of the big issues in our country as a whole is someone of the erosion of these close family networks whether it's a church community, rather religious community and our family leaning into those relationships and um which require investment on both sides. The relationship is a two way relationship.

Um when things get distressing and so that's something I just have a better appreciation of of all of these things matter like life inventory, these physiological factors.

Yes there are some genetic predispositions driving some of these elements you were talking about intentional focus. I think there's some research about um.

Dopamine ergic and methylation signaling on our ability to sort of stay focused on a task or ability to potentially let go of something. And some people are more strongly wired.

I'm can be very focused and like be doing something and my wife's calling to me from across the room and I don't hear because I'm like you know but it's completely auditory li like I can hear it but I'm I'm super focused for other people who may be labeled with A.

D. H. D. There, you know and sort of the opposite. They're actually they're filter is not engage the same way so they're taking in all this information and trying to synthesize it. So trying to recognize, you know, there's so many factors here and if we can try to pause and take inventory and invest in working with someone, whether that's a coach, most people, nutritionist coach, honestly we'll get you um if it's a good therapeutic relationship, a lot of the way I argue that, you know, when these studies to prove, you know, the second one in particular, there's no medical intervention in the first one to I wasn't really myself doing anything, I was overseeing things and that's that's both empowering, that's, I mean to me that's so empowering and it's easy to kind of the self blame, get in there, like I made my own bed here, this is sort of, but the flip side of that is, well then I can, you know, this isn't some exogenous person who's keeping me down from being able to feel some vibrancy, but more often than not and the sound of bias, but investing in an individual to a joke, you know, you'll never feel like that was regret making that investment in almost all cases and more often not a doctor telling you this diaper version, you may need to invest in may not actually be me work maybe in a multidisciplinary clinic and I might be there, but it may be the work with somebody else making that investment.

Almost everyone feels feels good about that and we do, even if someone's very internally motivated, you're going to do more with that, an external support. I came from the gym earlier work out harder at the gym that I work out at home and I'm a very, you know, internally motivated individual, but I work, you know, work out harder at the gym than I do at home. And so like leaning into some of those things and having someone to not only be a source of accountability but supporting and educating and empathizing with your successes and your struggles.

– Yeah, I love that you brought up the over pathologize ng piece because it's important that we look at over pathology ization of making this thing into making wrong certain emotional experiences as if they're bad as if we need to push them away as if we need to change them.

Acceptance, coaching, and practical takeaways

It's also important to, to empower people that you can change internally, but it's also a fine line and the paradoxical holding that I find that the people who are most successful at making that change into empowerment are the ones who best accept and embrace what is as it is throughout the process and there's a fine line between anxiety and excitement to find line between depression and sleepiness and sometimes there's this sense of of that when people lean in a little bit and don't have so much mental emotional energy that's pushing away that emotional experience that takes the emotional experience and says, what what do you have for me, what do you have to offer me feel it fully experience it without resistance can sometimes interestingly allow for new information, a new perspective for lessons and learnings to come in for some people, it doesn't change, but it's a teacher and for other people it changes without trying to change it because just embracing and leaning into it and then you add some active things in like dietary changes, community and coaching, and then you take it to the next level. And I really I find that there's this ability for people who, there's this thought that oh if I accept what is as it is, then I'm passively resigning to it and I'm not going to make those active changes, but you know, I'd love to see research on this, but my clinical observation is that the people who best accept and embrace what is free up so much of the energy that was used to resist it, that they have more energy to put into the active things that can help them get to their goals and the changes that they're looking for. And that's really interesting because it's almost counterintuitive in a way that you find the same.

– Find the same. And I think my and this could be my understanding of the literature could be a little bit off, but my understanding and a lot of the mindfulness literature and I actually I did a little bit of yoga teacher training back in the day as well and attended some of the conferences on yoga therapy research with yoga, um, not just for mental health conditions, but interventions of mindfulness and chronic pain.

They seemingly showed that it didn't make the pain go away. It changed the relationship. And a lot of that started with sort of a acceptance, not a resigning to, it's always going to be like this, but changing that relationship. What was there in the present?

And there's so much to offer right in that present experience. It may not ultimately, you know, change anything what you do and maybe you have a light bulb event and you decide to do something as simple as go get something to eat, but you know, sitting there and not running away.

And so both as an individual trying to get curious. So, you know, being curious or at worst confused about what is this rather than layering in for their judgment. And as practitioners also on all sides trying to avoid just wanting to cover up a seemingly distressing symptom that could be providing some insight into someone's current situation. It's um, yeah, it's uh, I just loved getting to do some of this research and have the opportunity to most of my practice is actually in person have some virtual folks.

But it was amazing to see in both these studies all, you know, every demographic you could you could think of in terms of in different states and the other one actually had a couple individuals in the different countries.

and it's really cool to be able to see that this nothing is under person General Izabal. These principles we're talking about today really can be generalized and implemented on a wide scale. – Yeah, I I agree.

And so in order to summarize and and and and bring this into something palatable and and maybe actionable for people. I'll add 11 of the pieces that I want to get your summary and reflection here. Uh these studies really they're showing that that there's a lot possible through simple solutions even when you've been seemingly doing some of those simple solutions by focusing and doing them in a structured way with community and coaching. There may be a much more significant impact from very simple interventions like nutrition and lifestyle changes for physiologic things like Hashimoto's thyroid itis, quality of life, inflammatory marker reduction and for mental emotional symptoms including major depression. And that when we get into this sense of acceptance for what is like leaning into the experience of the physical chronic illness or the mental emotional dysfunction that doesn't necessarily disempower the desire to change it actually desensitize is and releases the energy needed in order to implement that change in a way we could say.

And that's a little stretch from the research, but it's something that that I think it's a potentially reasonable conclusion to draw and certainly aligns with my clinical experience and I think Dr. Abbot's as well. And the one

piece I'll add is that that bringing it back to the heart too, in the sense that it's important.

I love this frame of open curiosity around what is rather or confusion rather than a label that's so fixed to loosen the structure a little bit, I think opens an opportunity to also open the heart a little bit and opening the heart in a way. I what I mean by that is, I mean, self love, I mean, love for others around you. I mean, a sense for being able to hold challenge and struggle emotional experience. I believe that that even the emotions of fear and panic and anxiety and depression can be held by love from a place of love and that by getting into the heart by opening to love unconditional, not wrote, not because things are going well or because you have a person you're attracted to.

But some kind of a dimension of an unbroken part of yourself that's that's never been affected by any of the traumas. Some part of you that's wholesome part of you, that's content, no matter what to find that part into tune into.

And to do your best to see, can you relate to your depression, relate to your mental symptoms, relate to your physical symptoms from that place. That's hold it doesn't need anything other than what is that, then that can translate into an enormous amount of one relief right away of feeling less pressured by the situation, and then to read energy to be able to take actionable steps. So that's my point to add.

And I'd love to hear your summary review wrap up here. – All that was wonderful. It's gonna be hard to follow what you what you said. So I think I'll probably end with just a few of these always end up being some cases the things that I want to hear the most of the visits visits but some of the practical takeaways from from my perspective or again is you can start with start where you are and you can literally start with any of these.

But if you're to start with something, try and I guess sometimes use this term. Please play a trophy or play a tropic therapies like a genetic term but tried therapies that have the ability to affect you in multiple domains and again they seem obvious but we sometimes get stuck in the very minute details. These are the things like dietary interventions like that. Like I studied movement practices finding some time in nature, trying to invest in relationships that's new relationships or repairing relationships, spending any kind of time in a parasympathetic activating state whether it's a mindfulness practice or I mean oftentimes being out in nature can help to engage multiple things in the parasympathetic system but find some of these actionable accessible domains that have the potential for multi component or sort of multi system improvement and invest resources there.

Um and do not be afraid to invest in another individual to invest in your yourself and I always try to remind myself that we, no matter the title behind anyone's name, you know, we're all humans first and that just opens up this to me deep well of compassion empathizing that it doesn't detract from a professional relationship.

It actually adds to the ability to connect with with one another as humans. You know, we are truly humans person. We're going to do the best that we can collectively to help one another and knowing that I have things to learn just like I may have things to share. Most of my continuing education at this stage is being with patients and seeing, you know, what would positively impacted them or the things that negatively impacted them. But we are humans first and really lean into that therapeutic relationship, there is a lot to be gained.

It's easy to consider that placebo, but there's so much power in in that. Um and if you do things in a systematic way and don't see the results that you would like, you still learned a ton, you did something and said, okay, maybe that's not quite yet or not quite the right thing.

Where to find Dr. Abbott and closing remarks

It's the people that, you know, I've done this throughout my life as well, you do something halfway or partially and you're always questioning like if I did that in a little different way when I had a different result, so investing in that process, even if it's just one thing knowing that if you get to the end of that with the, you know, focusing on the process and the investment, you'll have learned something, whether it helped you in some way or didn't help, but people always feel better when they do that rather than drag things out or are unable to invest.

Um, and then the last thing I would say no. And this is never stop staying curious from an education standpoint. I

mean I love these, these summits. That's where I got started even though I was in medical school, spending all these hours and listening to the podcasts and listen for just new ideas and you don't have to, please don't accept anything as gospel that anyone, anyone shares, you know, rest in that. Um, and and diversify the information that you receive and just sort of think about it. And some of that you may have, you know, listen strong emotions, some, but maybe, yeah, that's I believe, but expand your domain, you know, try to listen to different ideas, not just to gather knowledge, but to really sort of grow your own experiential wisdom.

And that's something that I don't get to listen to as many podcasts these days as I used to, but it's so wonderful to be in different places of education and different ideas and really truly explore that and seek to integrate that because there's just so much go back to that, you know, we humans first, we each have two such unique stories and you know, some of this stuff may sound less physiological, less medical, but it really, truly is. But to me, beautiful and some of the things that really helped to get folks to degrees of health or health organization that diet and supplementation just would never be able to. – Well, thank you Dr. Abbott, I really appreciate this conversation. I think it's going to be very helpful for the audience. I know some will want to find out more about you, where can they go? What would be the best place for people to find out more about your work, your clinic, anything you're up to?

– Yeah, so I would say the two things would be, yes, most of my work nowadays is in my private practice, actually work alongside my wife who does nutrition work practices called Resilient Roots were in Charlottesville Virginia. So in the shadow of the University of Virginia, but while most of our folks are local, we do work with people virtually.

That's where I was spending most of my my time nowadays. I also it's been a few months now last fall actually released a book that's not an educational book. Um not a not a thyroid book, it's actually a medical memoir of my own life in medical education and it was something that was very wonderful to very therapeutic to try to write and just felt gotten feedback from patients that they really enjoyed reading it. And so it's not yeah, it's not gonna you're not gonna learn anything topically, but it'll definitely for those who are not in medicine can really shine light of some of the things that our release, causing suffering for our health care system and the folks within it.

So that book is called the Breaking of our healers becoming a doctor I never planned to be. And it's I think it's not all of the places you can tend to be by books.

I've literally spent no time trying to market it because you know, business and other things, but it really is a a wonderful book and a lot of folks have said they've read it very quickly because it's just a short chapters and and stories.

So if folks want something that's kind of more spiritual and and not a heavy medical science book, check out the memoir. – Thank you. Well, Dr. Abbott, this has been a pleasure. Thank you everyone for joining for this interview on the microbes and Mental health summit.

I'm your host Dr. Miles. Goodbye for now.