THE FATIGUE SUPER CONFERENCE

Making sense of Fibromyalgia
Guest: Dr. David Brady

Alex: So welcome to today's interview. I'm talking with Dr David Brady. David Brady is of foremost authority on properly diagnosing and treating Fibromyalgia. He's published in leading peer review medical journals including The Open Journal of Rheumatology and Autoimmune Disease and Integrative Medicine. He is in private practice at Whole Body Medicine at Fairfield and additionally is the Director of Human Nutrition Institute at the University of Bridgeport. As well as the Chief Medical Officer of Designs for Health Incorporated and of Diagnostic Solutions Laboratory LLC.

Dr David Brady thank you very much for your time for joining me today.

Dr Brady: Oh my pleasure, it's always a great opportunity to be on and share some information on these disorders that are so illusive to so many and I appreciate the opportunity.

Alex: Brilliant, thank you. Well we're going to get I think quite deep into Fibromyalgia, particularly some of the differences between Fibromyalgia and Chronic Fatigue. As I've been diving deeper into your work one of the things I most appreciate is that you make a very clear differentiation and indeed a lot of things that get lumped in with being Fibromyalgia, help create some separation and some clarity to people with that. So we'll come into that in a bit but I think a good starting point would be what got you so interested in Fibromyalgia in the first place? What was the thing that drew you in?

Dr Brady: Oh that's an interesting question and as always there's a story (laughs). You know my initial training was as an engineer, right, and then I decided to go into healthcare and I was really, I thought I'd be interested more in biomechanical research and biomedical engineering. So before I ever went to medical school or even studied nutrition and botanical medicine, and so forth, I went to Chiropractic school and I went to Chiropractic college here because it's really one of the best educations in functional biomechanics and how to help the human condition from a physical medicine perspective. And when I went through that training, I actually took a left turn because many of

my mentors in the programme I happened to choose, unbeknownst to me, were really into interventional nutrition, into what we would call naturopathic medicine more now, you know, in the modern sense, botanical medicine and many different ways to deal with chronic complex metabolic disorders without or in a complimentary way to pharmaceuticals.

So including lifestyle intervention and diet and so forth. So I was immersed in this new world and I combined that with kind of an inclination to be interested in that because when I was growing up in the 70's my mother battled breast cancer almost my whole childhood and I literally saw her get chemotherapy, radiation, like old school. Like when it was even more brutal than it is now.

Alex: Right

Dr Brady: And some of the best outcomes she got toward the end of her life unfortunately, I wish we had found this sooner, is through some integrative complimentary type of physicians who really improved her quality of life at the end. So it made a big impression on me and you know I went to Chiropractic school and I got out and I started seeing a lot of these really complex patients that had, you know, came in with the label of Fibromyalgia or Chronic Fatigue Syndrome or combinations thereof. And I realised very, very quickly honestly that I was totally incapable of helping them. I did not have the right training, I didn't know enough. What I learned about these disorders, turns out looking backward now, was what I learnt about it was wrong most of what they taught me was absolutely wrong and most of it was taught from the perspective or a, you know questioning whether it really exists.

Alex: Right, right.

Dr Brady: Kinda condescension you know and all of that. But I realised once I started seeing these patients that they had some significant issues that were bigger than what we were taught Fibromyalgia is. Like if you ask most doctor's, even today, or most healthcare providers what is Fibromyalgia they'll tell you a lot of things that are patently incorrect like, it's a muscle problem, it's not a muscle problem it's a brain problem, right. That it's inflammatory, it's not systematically inflammatory, they'll say it's an autoimmune disease, it's not autoimmune, and you know, they'll give you a lot of other, you know, ideas about it. That it's Chronic Fatigue Syndrome, right, and it's not exactly the same as Chronic Fatigue Syndrome. So I figured out very quickly I didn't know enough about it, I basically went to the medical literature, which is more challenging at the time than it is now, you know, now you just go on the internet.

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Alex: (laughs) You had to go to the library and you had to fine books right?

Dr Brady: Yeah I had to go to the Jessie Jones medical library in Houston and dig through the card catalogues and blow dust of journals and put quarters Zerox machines and I basically read…

Alex: And it takes a month to get the journal shipped in, right, the one they haven't got that you need?

Dr Brady: Exactly, and then I actually, I reached out personally to many of the world's experts in Fibromyalgia to get even more information and to kind of talk to them and over the course of about a decade, decade and a half, me and a colleague of mine, who had the same kind of thing going on, Michael Schneider whose now a researcher at the University of Pittsburg, we made ourselves Fibromyalgia experts. And then later on we actually, we both went into academia in addition to clinical practice, so we both ended up doing research in the field and doing a lot of publishing in Fibromyalgia textbooks and so forth.

So, you know, here we are almost 30 years later, it's the end, way far down this journey but what got me involved in it was sheer desperation that I didn't know how to help these people. And I knew that they weren't making it up, they had significant problems, and I also knew another thing. I knew from my limited understanding at the time that they weren't all the same. They didn't all have the same thing but a lot of different things were all getting called Fibromyalgia or Chronic Fatigue Syndrome, it was this sort of lazy basket diagnosis and, you know, one of the first days of medical school you learn that proper diagnosis is half the cure. If you don't know what you're dealing with how do you really propose to find a viable intervention strategy to really help someone in an efficient, efficacious way. So a lot of my initial publications in the field of Fibromyalgia, global pain and fatigue, was really to my colleagues to try to get them up to speed and try to get them to understand that you really have to pay attention and properly differentially diagnose these patients and not just assume they have Fibromyalgia because they've been labeled with it, because if you don't get the diagnosis right you're probably not going to get the treatment right.

Alex: Yes. One of the things that I'm, before we come more into that, one of the things that I'm also curious about is that for many physicians seeing this group of illness is often, it's overwhelming. People want to of course have clarity and have answers and often those are not at least forthcoming in the ways that one would be used to. What do you think it was about your makeup or you as a practitioner that you became curious and you wanted to dive deeper where others, in a sense are kind of, to put it in a polite well, often not

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that a particularly helpful with that group. Why do you think you were so curious to dive deeper and understand?

Dr Brady: That's a good question, I'm not sure I ever really thought about it from that perspective but probably because of my engineering background. I'm curious, I want to know why, right, and I want to try and solve things and try to figure out, you know, what's going on in complex systems and how you can bring it back to balance. And, so I guess I saw it as a bit of a challenge. I would like to think, you know, the reason I went, I became a doctor is because I'm compassionate and I like to try to help people that need help.

Alex: Sure.

Dr Brady: And I wasn't willing to give up and probably because I was naïve enough early in my career that I still held really strongly to those principles where, you know, some of the older physicians I feel could be very dismissive of these things like Fibromyalgia, Chronic Fatigue and so forth, that they were trained never to even deal with them and to question them and to think that it was all sort of made up. And, you know, doctors have big egos and you know, quite frankly, when they feel like they don't have a lot to offer someone or they don't know the answer it threatens their world, right, and they get defensive and they act pretty stupidly sometimes and you end up with patients who are dismissed, feeling like they're not being understood and like they're not being listened to and frankly in the end they're underserved and they don't get the kind of care they deserve. So I think that was the motivating factor to me to a large degree.

Alex: Yes, and it takes a certain, I think, level of courage to be vulnerable with ones patients and to be vulnerable in that curiosity and that uncertainty and not knowing and I look at some of the things that we were doing at The Optimum Health Clinic 15/16 years ago when we started and I slightly cringe in memory…

Dr Brady: Yes, yes.

Alex: …that we were trying to figure out and we were trying to learn and it does, it takes I think a courage and a vulnerability to be willing to learn and clearly that hugely served this group of conditions that you've taken that approach.

Dr Brady: I've never had a particular problem with telling people 'I don't know but I'm going to try to find out'.

Alex: (laughs) Right.

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Dr Brady: …the answer. I've actually gone into patient treatment rooms when I've already known the patient for a while, right, I've been working with them for a length of time and I'll walk in and say 'Hi Mrs Jones I'm Dr Smith' and they'll say 'You're not Dr Smith your Brady, what are you talking about your Dr Smith?' and I say 'No today I'm Dr Smith because Dr Brady clearly has no idea what's wrong with you' (Alex laughs) 'We're starting again'. You know.

Alex: That's great.

Dr Brady: We're starting all over because clearly I missed something, you know.

Alex: That's great and I can just imagine how much patients appreciate that willingness…

Dr Brady: They laugh.

Alex: Yeah totally, totally because they're used to going to places and no ones got the answers and someone that's willing to hang in there and find the path forwards of course is crucial.

So coming on to, you kind of alluded to this, but how would you define Fibromyalgia. So specifically Fibromyalgia, how would you classify and define that?

Dr Brady: Well that's interesting. Fibromyalgia really in it's classic sense, and I'll use that word classic Fibromyalgia meaning that it has all the classical characteristics of what the literature is talking about, what the research is really pointing to when they're discussing this disorder. At its root it's really a central sensitivity or what we call a hyper vigilance disorder. It really involved central pain processing, central sensory input processing that is doing some things that are not optimal or normal, and so it has all the classic characteristics. We use that terminology because in my experience as a clinician and then talking to a lot of colleagues that also do similar things to what I do, but also in looking at actual research that's been done, the vast majority of people that come in to a providers office and say they have Fibromyalgia or have been diagnosed with Fibromyalgia, and that takes many forms, right.

It could be that their neighbour told them they had Fibromyalgia, it could be that they consulted doctor Google or web MD or it could be that their family physician diagnosed them or it could be that a Rheumatologist at an academic centre of excellence diagnosed them, but still the vast majority of them don't

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have classic Fibromyalgia. They have stuff wrong with them, right, they have real problems that they're not making up but they have issues that the doctor is not getting to the bottom of, it's flying under their radar so to speak, and they're getting an erroneous labeling of Fibromyalgia and often unfortunately they're being put on the medications for Fibromyalgia that if you really don't have a central pain processing disorder or a central sensitivity disorder the drugs have very little chance of helping you but a pretty high probability of causing significant side effects.

So, you know, it's really critical that you get it right for a lot of reasons but the classic Fibromyalgia patient they have pretty defined things, right. They're major complaint, if you will, or symptom if you ask them is generally this sort of unrelenting achiness or pain in their body but it's not just anywhere in their body, it's not in specific places, it's not confined to specific regions. This is truly generalized or global pain, they have pain everywhere. They're achy most places in the body, particularly in the softer compliant tissues and that's where the disorder gets it name, Fibromyalgia – algia - pain, mio - muscle and fibro the fibrous compliant soft tissues.

In other words it's not bone pain, it's not joint pain, it's not arthritis, it's pain that's perceived in the softer compliant tissues but when you dig deep into it the pain isn't being generated by problems in those tissues. The problems not in those muscles, it's not in the fascia, it's not in the tendons, it's not in the ligaments, it's in the way that they're perceiving their experience in their brain but they're feeling this pain or perceiving this pain out in these areas of the body. It's not unlike phantom limb pain in someone who's an amputee, right. Years later they can still have pain in the leg that's no longer there. Well I've got news for you the problem is not in the leg, the problems in the brain and how it's being processed.

So treatment directed at the leg obviously isn't going to work and just the same in classic Fibromyalgia generally treatments directed and the somatic tissue; the muscles, the fascia all the, you know body work, acupuncture, chiropractic, all of that kind of stuff generally yield poor results, unless they also have milbactor pain syndrome or some other type of muscle problem. But it's a central problem that needs to be treated centrally and since it is a centrally mediated issue you have other issues that are involved. So it's not only this perception of pain throughout the body, it's centrally mediated phenomena like anxiety, panic attack common, inability to get into deep refreshing sleep. So they don't want to get into stage 3 and 4 Delta wave restorative, rejuvenating sleep. They can sleep 14 hours and they wake up feeling like they never slept so they can't, they try to sleep their way out of it and they can't, right, so they get up feeling like they never slept. It's called un-refreshed sleep and it has a very typical pattern in a sleep study that most

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sleep study centres never look for. It’s called Alpha Wave Intrusion during Delta wave sleep.

But the other manifestations that are centrally mediated, sort of by proxy into the enteric nervous system, is a lot of vague GI problems. You know gas, bloating, post perennial distention and bloating, constipation and or constipation alternating with diarrhea. Most of the patients meet the criteria for Irritable Bowel Syndrome and often get diagnosed with Irritable Bowel Syndrome; it’s almost 100% with true classic Fibromyalgia.

And then the final latch is persistent unrelenting fatigue that is different in Chronic Fatigue Syndrome in many ways, particularly in its origin. Its not necessarily fatigue that tends to come on after a viral like flu like illness, there’s not objective alterations in the persons immune system, you know in the way the lymphocytes are behaving in the relative counts of the lymphocytes and rations and so forth. So it’s not a post immune challenged type of fatigue disorder it’s really something different, there just happens to be fatigue associated with this disorder as well.

And I guess the final thing that’s very common in these classic Fibromyalgia patients that can help you differentiate it from those who get the label and don’t have it is that it’s almost always a woman. It’s a female disorder, almost a 100, not a 100% nothing’s a 100%, but if I have a male in my office saying they have Fibromyalgia, been diagnosed with Fibromyalgia I’m very, very skeptical of that diagnosis. It’s basically a female disorder and it’s often a learned experience on how that female brain deals with the world and deals with sensory input from the world that the perception of that world was altered, usually, early in life, usually in early childhood. There’s a strong correlation with difficult childhoods, parental strife, divorces, substance abuse in parents, physical abuse, verbal abuse, sexual abuse. Not 100% but it’s way more common in these patients that go on to develop Fibro, anxiety, panic disorder, IBS, than in the general population.

So the female brain when it’s young, when it’s neuroplastic, when it’s leraning how to deal with its world can often get locked into this aberrance stress physiology and get in a state of hypervigilance, which is oddly enough, well I guess not oddly makes sense, is very similar to what you see in Post Traumatic Stress Disorder physiology for instance. So Mole and others have researched this and talked about it as life distressing events if you will, but they often have difficult stories in their childhood. It wasn’t the greatest thing.

Alex: You’re making I think some really crucial distinctions here so I’m going to break some of this down and come through it a bit more.

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So the, firstly you're saying, which I really appreciate as I mentioned at the start this distinction between, it's almost like if you're tired and it's unexplained you get a Chronic Fatigue diagnosis. If you're tired and you have pain and both are unexplained you get a Fibromyalgia diagnosis.

Dr Brady: If you're a middle-aged woman…

Alex: Right, right.

Dr Brady: …Absolutely. Yep.

Alex: And what you're saying, and I appreciated particularly going deeper into your book as well, is that actually what a lot of people that are either self diagnosing or they're being diagnosed by physicians that don't have anything like the experience that you have, is there's not investigation for other origins. Be that, we can come more to this, be that structural origins, be that functional origins that could actually be an explanation of those symptoms that when appropriately addressed and treated will actually result in a resolution.

Dr Brady: You got it. It's amazing to me how many patients come in being told they have Fibromyalgia by a physician, and this can be a family physician it could be an internist, it could be a rheumatologist, could be an endocrine, whatever. They come in, they get a diagnosis of Fibromyalgia, like you said because they complain that they have pain, they complain that they're tired a lot, especially if they have some gut problems, right. And they get diagnosed with Fibromyalgia, they get put on one of the two in the US FDA approved drugs for Fibromyalgia and we can discuss them and their pros and cons if you'd like. But they get put on these drugs, which have significant side effect profiles, they're not easy drugs to take. And they've never had blood work done, they've never had their thyroid looked at comprehensively, let alone going into more functional things like mitochondrial/ATP energy production. Right. They're, they're production of ATP at the mitochondrial level in muscle can be a big issue on why they have pain and why they're fatigued.

Thyroid disorders, another big mimicker of Fibromyalgia. And then as you properly alluded to, true sematic structural stuff, things that are more like myofascial pain syndrome and trigger points, which trigger points are not associated with Fibromyalgia. They used to be in the original criteria called 'tender points" but they were distinct from trigger points and doctors would always confuse those. They'd talk about, I've picked up medical textbooks that are talking about the trigger points of Fibromyalgia, they have no clue and this is in a medical text book. It's just astounding but it's there.

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Alex: Yeah. So to clarify what you're really saying is that if you have an explanation of your pain and or your fatigue, which is explained be that through a functional approach, be that through a structural approach, then actually it's not what you call classic Fibromyalgia. There's actually, there's an entity of a condition which, which is Fibromyalgia, which is not just 'there's pain and there's fatigue', but there is a very specific makeup of that which is the also the absence of these other explanations.

So I think what would be, what I'd like to do is to go a bit deeper into classic Fibromyalgia and the makeup of that.

Dr Brady: OK.

Alex: And it would also I think be helpful to explore some of these others areas in a bit more detail that you touched on, for example, mitochondrial function, other pieces which one might, one with perhaps a less skilled approach might just go 'Oh that's Fibromyalgia' but actually having some signposts towards those pieces that either practitioners that are watching this that can become more aware of looking at those areas or indeed, as you'll be aware, many patients that have, or people suffering from these conditions, have been suffering for many years often become more expert than may of the physicians that they go and visit…

Dr Brady: (Laughs) Yes.

Alex: …Simply because they are living with the suffering of it day to day.

So this, what you're calling classic Fibromyalgia, just for the context of people that are familiar with The Optimum Health Clinic approach, we talk about a Maladaptive Stress Response. Where effectively the nervous system is in an over stimulated state and that's either perpetuating or causing symptoms. I think, but correct me if I'm wrong Dr Brady, but I think, is that similar to what you're talking about here in terms of how you're defining, or maybe there's some differences in terms of how you'd define Fibromyalgia.

Dr Brady: Well yeah I believe so. It really is, part of it is a sort of overdriven HPA axis, stress response if you will, but it's deeper than that it appears. It's not just sort of a sympathetic dominant state, it is, but it's a perpetuating central sensitivity and we don't exactly know how and why this sort of loop gets locked in in these patients' nervous systems and clearly there is a susceptibility. We know genetically everyone's about snp's and genes now, right, so we do know there's higher predilection of developing something like Fibromyalgia in offspring of mothers who had Fibromyalgia than not. We know that there's females, young females that are put in very difficult circumstances

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in youth, maybe abuse scenarios, feeling patently unsafe, you know physical trauma, whatever, that don't go on to develop anything like this and others do.

So there's clearly a susceptibility, like there is in most things, right. But there is definitely a, the best way to describe it I think is Hypervigilance Syndrome. Their nervous system is locked in a situation of hypervigilance meaning that, it's almost like their nervous system is waiting for the next threat, the next problem to come their way, right, and they need to be on guard and react to it. So it creates a heightened sense of everything. So light touch becomes pain, right, and little things become big things. It's amplification within the deep centres of the brain of everything and it's likely some level of protective mechanism that these people get into and in the end it's not very protective for them but I, I think that's probably why it occurs.

Alex: Yes.

Dr Brady: There's some newer research looking at activation of the microglia in the brain and really deep seated micro inflammatory events and peptides in the brain that might be fuelling the fire, if you will, in these deep brain centres. But interestingly enough, Fibromyalgia is not systemically inflammatory. Like these patients don't have elevated sed rates of sebreactive proteins and things like that. So most doctors think it is inflammatory because it's painful, so they've been taught to equate pain with inflammation but there's a lot of pain which isn't driven by inflammation or driven by tissue trauma. You know, which is your classic nociceptive pain, or their learned a little bit about neuropathic pain in metabolic circumstances like diabetes.

But there's a whole third kind of pain that in the pain literature they actually sometimes refer to as third pain, some people call it emotional pain. That tends to discount it, right, make you say that you're just making it up and that's not the case. This is pain that's very deep seated, that's poorly understood, but clearly it's an amplification of this aberrant system and we've been able to pull it apart to a certain degree. Like, these patients with global pain and fatigue syndrome's, so you know let's say classic Fibromyalgia, we know that they have lower brain serotonin and central nervous, or cerebral spinal fluid serotonin than people who don't have it. When your serotonin levels drop in the cerebral spinal fluid and in the brain, correspondingly a peptide known as 'substance P', which is a pain modulating peptide, goes up. They're inversely proportional to one another. When your 'substance P' goes up and it bathes all you're association neurons in your spinal cord it makes these secondary neuron circuits more likely to fire, to turn up. So it's almost like they have the volume turned up on their nervous system and one of the, we use that to our advantage. One of the things that we do is to modulate the serotonergic nervous system and it's not only the serotonergic system being a

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little array in the central nervous system, we see it in the enteric nervous system, which is the nervous system of the gut. And that's why there's this tie in with IBS because motility disorders and IBS serotonin is a major player. So what's cool is, you know, we can kinda kill two birds with one stone, if you will, with going after optimizing serotonergic pathways but we also have to look at other neurotransmitter problems that are commonly seen.

In hypervigilance disorders, whether it's PTSD or Chronic Fibro or Panic Disorder, they tend to overproduce adrenal medullary products known as catecholamines. So epinephrine, norepinephrine, dopamine, and if you look on something like an Organic Acids test you see the metabolized of those things elevated quite frequently. And what we do is try to calm the nervous system with nutraceuticals, calming neuro transmitter precursors, CBD, all kinds of different things and in some case medications to calm down the catecholamines, up regulate serotonin, lower substance p. And it doesn't always involve biological therapies, many times it involves Cognitive Behavioral Therapies and heart rate variability and real time EEG and different kinds of cognitive skills that the patients can learn to sort of change their brain state.

Alex: Yes. I think it's interesting the point that you around the, even where the origin is within the volume being turned up let's say in the central nervous system, that even if the origins of that is some kind of childhood trauma, and be that kind of trauma with a big T, like one big significant event that happened or be it a more developmental trauma of not being held and nurtured in the way that we needed so our nervous system didn't learn that there's a safe place, a soft place to kind of come back to. That even where the origin may be like that we're not talking about Fibromyalgia, therefore being all in the mind, we're not talking about it being something that people are making up. It's not any less valid as a lived experience someone's having, it just so happens that that has an impact on the whole system in terms of how it sets things up for this group of conditions of specifically classic Fibromyalgia and this condition.

So it's also interesting as you're talking that in terms of the ways to kind of reset that that there's coming at that from a psycho-emotional point of view and I'm actually curious a bit more of some of the pieces that you use there, but also using nutraceuticals and it sounds like in some instances there's also pharmaceuticals to actually help from a biomedical point of view to calm down and settle the system.

Perhaps, I don't know if there's a way you are able to give any specific kind of case studies, or kind of example case studies of how you would kind of

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combine those different pieces to have a combined effect in terms of actually settling and calming the system?

Dr Brady: Yeah in classic Fibromyalgia, as you eluded to, it kind of takes a team, right, and I'm in an integrative medical centre here in Connecticut in the USA called 'Whole Body Medicine' and we by intention have built a team of people that have skills across a large array of competencies because none of use can do it all, right. I'm not a mental health provider but I've been in practice almost 30 years and I've seen a lot of patients that have a lot of, sort of, psychological issues involved in their physical health challenge or condition.

So I can ferret them out, I'm not necessarily the person that's the therapeutic interventional person but, you know, I have counselors, I have psychologists and in some cases psychiatrists that work with us either within our centre or we refer out to that can manage that side of it. And it really depends what the trauma's are, like you mentioned, sometimes its micro cumulative trauma, over many many years, sometimes it's one horrific thing and those have to be dealt with differently and even in the sort of counseling realm if you will, I've seen it change and evolve over the years to where earlier in my career a lot of the techniques used on that side were sort of having to relive it and sort of process it and sort of get beyond it. And that's not really in vogue now.

Alex: To retraumatise someone to try and resolve trauma is a somewhat odd approach (laughing).

Dr Brady: Yeah so now the focus is on more things like forgiveness therapy and it's not excusing it therapy if it's abuse but it's forgiveness personally for yourself to have permission to move on. And sometimes if it's, let's say abuse by a family member, maybe a parent, maybe a father figure of a young girl that's the classic right, and maybe that person's now elderly and they've changed, they're different. They've come to a different place in their life and there's a way to forge a new relationship if you will. Sometimes they're deceased and you can't do that but the person could still reframe it.

So I work with people to do that but then we also have them work with the patients on things that they can control, skills to sort of reset their brain state, you know. Many times one of my colleagues in my practice, Dr Adam Breiner, works a lot with real time sort of functional EEG studies because he does a lot of traumatic brain injury work, for instance, and we use those types of things to get the patient to sort of, almost consciously get in a calmer brain state, in a waking state. But we try to transition them off of office or physician or provider dependent therapies as quick as possible. So we'll get them on to

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more, nowadays we have these app based Cognitive Behavioral Therapy things on iPods, on iPhones. Things like heart rate variability devices that can work really well, we don't want them on there in the evening because we're trying to get them off the electronics at night, right, and you know get them not in blue light late at night and all that and get them to sleep better and do proper sleep hygiene. But those kinda CBT, Cognitive Behavioural Therapies are kind of good, and everyone's different. In some patients it's prayer, in some patients it's meditation, in some patients it's guided imagery or progressive relaxation or non exertional stretching hot yoga.

I mean there's a lot of different ways you can go but that's part of it, while we're working on the metabolic sort of bio chemical side. And on that side we're using a lot of things that are calming to the central nervous system and the stress response. So, and I see my colleague's often go wrong in this regard. They'll use adaptogens, right, because they're good to adapt the stress. Well your classic adaptogens, things like let's say panax Ginseng or, which is Korean or Chines ginseng, or rhodiola or liquorice, those are stimulating catecholamine producing adaptogens that are meant to lift up like shot adrenal glands that are in a really state of low adrenal output. That's not what you need to use in these patients, you'll make them worse, you'll give them worse anxiety, right. We use adaptogens but we'll use calming adaptogens, things like ashwagandha with, if you look at the actual name of ashwagandha if you look at the actual name of ashwagandha its Withania somnifera; somnolence right to promote sleep or a calming state. We'll use things like German chamomile; we'll use precursors to calming neurotransmitters, like inositol, L-theanine. We'll use phosphotite serene, for instance, phosphatidylinositol, but we use nutraceuticals, particularly serotonin precursors like 5 hydroxytryptophan is a big one that we use in our and the literature is really compelling in the use of it in these conditions. We'll use fermented forms of the neurotransmitter GABA, simply called pharma GABA, particularly in a sublingual type of tube and I don't know what the status of it in the location where all the listeners may be but in the US we've made a lot of strides with having medical marijuana available. But in this case you don't really even need the medical marijuana because you don't need the THC mind-altering component.

Alex: Right, right.

Dr Brady: You need the cannabinoid component or there is CBD. So now we've had some clarification in our regulations over here, which had made it a little bit easier and more clear cut to get…

Alex: Yeah it's the same in the UK and I think parts of Europe.

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Dr Brady: Yeah so good quality CBD fractions can be very helpful in the anxiety component, in the deep sleep component and even the pain perceptual component in these classic Fibro patients.

Alex: That's fascinating.

I'm also, one thing actually I wanted to ask of kind of agenda of particularly how we look at this for through our lens of, one of the things that we see is that this kind of activation of the nervous system is, yes there's the origins and there's the things that have happened in childhood and those different experiences. But there's also a perpetuating factor of suffering from a condition where no one can tell you what's wrong with, or it appears that no one can tell you what's wrong with you, why is it wrong with you, there's all of these kind of weird symptoms. That in of itself becomes its own trauma after a while and sometimes the underlying trauma is not the piece, which is actually causing the ongoing perpetuation of the symptoms.

Dr Brady: Yep, no doubt.

Alex: I'm curious of your thoughts on that?

Dr Brady: Yeah absolutely. I mean we tend in our acute medicine mind, the way we were all trained in this very myopic Western medicine paradigm, to think that something right now is causing what's right in front of us. Right. One bug, one disorder. You know, Koch's postulate, right and that's the first textbook of medicine. It doesn't look like that in chronic complex disease. So this cumulative trauma or this significant trauma in the past may have been a big part of why this situation manifested itself but it's actually long gone, right. So there's other, there's triggers, there's antisedans there's, but there's perpetuators right. So usually there's still stuff going on, right. A lot of people get in another bad relationship as an adult or they start having this immerge when they have another trauma come into their life, it kind of reactivates it if you will or the straw on the camels back. So sometimes you have to look into those situations or current social circumstance or relationships and so forth, but that's not always the case. There are many people in good circumstances, nurturing relationships; you know not a high stress environment, that are suffering from this. So it takes many forms but you're right you've got to deal with what they have at that moment but one of the traumas is the whole chronic illness experience. Dealing with providers that don't show compassion, they're discounting and there is a lot of male female bias. It's getting less, there are more female providers and things like that, but it's a big issue.

And on the other side you get the chronic illness mentality that sets in in the patients themselves often and its hard to pull them up our of it. It really,

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you've got to coach them out of it. I remember one time I had a patient come in years ago, I was in a different group but a group of really good doc's and they came in with a Fibromyalgia diagnosis and what we figured out is they didn't have classis Fibromyalgia. They ended up having an undiagnosed thyroid, you know, that was a mess and they were just metabolically just in a very, very bad state. And what we did is we dared to tell the person that we don't think you have Fibromyalgia, you have this and we think you can get better if we treat this. The patient was actually so distraught by learning that they didn't have Fibromyalgia it was, you know, we took their lift raft away. Sometimes it takes them so long to get the label that once they have the label they cling to it because now I have something real, I can tell my family members what I have, right.

But you don't want to walk around with that label and never getting treatment because you're afraid to lose the label and get the right treatment, right.

Alex: Right (laughs).

Dr Brady: So you have to nuance it but we were, I mean that one group I was in for a while was actually black listed on one of the fibromyalgia support sites and the reason was given was because we dared to tell a Fibromyalgia patient that they can get better.

Alex: (Laughs) Optimum Health clinics had a few of those run ins over the years as well.

Dr Brady: Yeah so you know you've gotta be careful, you know people with a disorder tend to find others with the disorder now with the online communities, which is a good thing. The bulk of that is great, right, but you can get in these situations where it's a perpetuating negativity, which is not good.

Alex: Yeah. I think the challenge is that when people have been disbelieved or misunderstood for so long that finally they find people that actually share the world view that they're experience is legitimate and somehow that then becomes a sense of identity and it becomes a sense of connection, that it's hard to then start to challenge.

Dr Brady: It's perfectly understandable from the human perspective. I've had several of the patients their actual email address was their disorder.

Alex: Yeah. I've seen it on social media as well. It becomes an identity rather than something that's happening to someone.

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Dr Brady: Right.

Alex: You touched on earlier and if you don't mind I'd like to just expand a little bit more, that both for someone whose suffering from, from what they believe might be Fibromyalgia, or indeed for practitioners that are working with someone. We've talked quite a bit about what you'd define as classic Fibromyalgia and that piece but as we touched on towards the start there's people, which can have a whole range of structural things and functional things, and you mentioned briefly some what that may be.

But can we just go into a little bit more detail of how almost, not necessarily kind of to tend to that checklist, but almost like what are some of the questions that perhaps you ask yourself as a physician when you're sitting in front of a patient. What are the things that you exclude and perhaps what's the process what's the process through which you go to do that?

Dr Brady: Well here's the reality, right. Things like pain, things like fatigue, these are common symptoms that a lot of people have for a lot of different reasons.

Alex: Yes.

Dr Brady: Therefore, it would not be uncommon at all for people to have both pain and fatigue for reasons that have nothing to do with Fibromyalgia but they're existing concomitantly but like you said it's a ticket to get that diagnosis, right. So you have to, you have to weed through all of this and try to find out and there are a lot of things that can cause this but I can tell you what I feel are the three, and I talk about this in my book. Because in my book 'The Fibro Fix' I try to take, the book was written for patients, right, I've written a million medical journal articles and textbook chapters and all that for my colleagues but people for years were telling me you need to write a book for the patients and I kind of always, for various reasons, didn't do it.

I finally did do it and it's 'The Fibro Fix' and it's really meant to not make you a doctor but it's meant to make you a very informed advocate for yourself through this, to navigate this health system that doesn't do a good job with patients like you, right. So, a lot of healthcare providers read it and they learn a lot from it and they love it and they recommend it to patients so that the patient can better understand the kind of things they're doing and investigating but the book talks about what is this classic Fibromyalgia? What's the origins of it, what do we understand about it? And more, maybe as important or statistically more importantly, what's not fibromyalgia. And what are the other most common things that get diagnosed or labeled as

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fibromyalgia? And we put these in what we call buckets, different categories if you will, and we work the reader through a lot of different questionnaires and different examinations of their own experience and their symptoms and so forth and try to have them figure out 'does it really sound like I have this classic fibromyalgia thing or does it more sound like I have one of the other things that is getting me the diagnosis and if so, which one?'

And then we give ideas on how you go about trying to maybe address whatever that is, whatever bucket you're in and how to find the right kind of provider to help you through all of this, right. So try to find a good functional integrative healthcare provider that may have a clue, particularly when you get into some of the more functional things that usually fly below the radar of the very conventionally trained doctor. Like one of the masqueraders is poor performing or suboptimal ATP energy production, so mitochondrial function. So if you have mild to moderately uncoupled mitochondrial respiration you will not make a lot of energy or ATP, therefore you will be fatigued, you'll have brain fog, so called 'fibro fog' because your brain needs a lot of ATP, and you will end up with muscle pain because if you're not making energy well through aerobic mitochondrial respiration you'll back up into anaerobic metabolism at some, to some degree on a chronic basis. So you're producing lactic acid and other types of metabolites that cause pain in the muscles, particularly if the doctor comes and mashes his finger there to challenge you to see if you have pain. Right.

So sometimes it's as easy as trying to find out if there is energy deficiency at a cellular basis and addressing that. And for that it really takes an integrative functional physician most of the time because you've got to turn to things like Organic Acid test and other types of functional testing. So one of the main masqueraders is mitochondrial issues.

The second masquerader is hyperthyroidism, which is extremely common in women as they get older, right. It's mostly women or very less likely men, right, and it takes many forms. If it's really overt classic in your face primary hypothyroidism your general physician usually finds it, right. Your THS is through the roof and your hormone, you know your T4 is low, but there's a lot of more subtleties to thyroid function than most of the providers look for.

So we look at not only are you making enough total T4 but are you converting it in the periphery, which is enzymatically dependent reaction, which a lot of stuff has to go right, right. So genomically if you're not making enough of the enzyme and you're making a warped enzyme or you don't have the right nutritional cofactors, and these are called the deiodinase enzymes, the five prime and five deiodinase enzymes, we measure their functionality. We look

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for T3 resistance syndrome we look for all kinds of different subtleties of thyroid function that you have to get right or the patient often feels like they got hit by a bus, and that includes muscle ache, it includes fatigue, it includes brain fog, it includes slow bowels, so you get constipation and you get IBS type of symptoms. So thyroid is number two.

And the third biggest masquerader is structural muscular issues. Myofascial pain syndrome, trigger points, postural distortion patterns, disc injuries, facets syndrome, all of that kind of stuff that you really do need a really good physical medicine body worker type of provider usually to address. The problem is that a lot of those providers treat lot patients who say they have Fibromyalgia, they do what they do with their physical medicine, many of the patients get better so the perception of the provider is 'when I do this I'm curing Fibromyalgia'.

Alex: Right.

Dr Brady: No. You're treating successfully probably myofascial pain syndrome, because you mislabeled it and got something better doesn't mean you cured the disorder that you inappropriately labeled it as, right. If that were, that's not fair in medicine. If that were the case then every patient I see is going to have an astrocytoma of the brain or pancreatic cancer because I'm going to start getting a lot of people better with those two disorder, right. And I'm being factitious obviously.

Alex: (Laughing) I understand.

Dr Brady: But it's like, in the states here you know it's a little different than the environment in the UK, I mean you go on the internet and look at a lot of physical medicine providers, you know physio's and chiropractors and things like that, and usually on most of their practice ads it'll list Fibromyalgia, right. Very few of them are treating fibromyalgia like we're talking about; centrally mediated disorder and attacking it centrally. They're doing physical medicine for physical problems that are being misappropriated a Fibromyalgia. And that's not just me saying that, the medical literature large study by Fitzpatrick's, one of the prominent researchers in Fibromyalgia rheumatologist, took large numbers of Fibromyalgia patients who were diagnosed as Fibromyalgia and referred to rheumatology, right. These were diagnosed by family physicians, internists and rheumatologists; they were then examined by an expert panel of rheumatologists highly trained in Fibromyalgia and they corroborated the diagnosis that generated the referral of Fibromyalgia only about 34% of the time. Which means 66% of the tie it

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was incorrect, which means the doctors would have done a lot better to flip a coin.

Alex: (Laughs) And also as you said at the, right at the start, having the right diagnosis is an enormously important part of the process because if you think you've got a diagnosis of one things and actually it's something else you can literally spend decades going down the wrong path and being frustrated and of course one of the things that often happens with this group of patients is they become impaired in their ability to work, they're spending large amounts of money often trying different treatments and I think after decades of that people are, understandably, become very disillusioned and become somewhat feeling hopeless in terms of potential, of anything being able to help them.

As we come towards the end, perhaps as a second to last question, one of the things I would be curious to hear is when you have those patients come and see you where you can see that they've been systematically failed by the medical profession and perhaps they're, they've only really made it through your door because they've come across someone else whose seen you who've been significantly helped and they're like 'I'm just going to try this one last thing'.

What do you say to those kinds of patients to help re-engage them with the potential for things to change?

Dr Brady: Well I guess the first thing is I acknowledge their right to be frustrated and I acknowledge the failings in the system and I've apologized on behalf of my colleagues for some of the ways that I've heard through their stories that they've been treated and dismissed. So I think that helps, you know, reset sort of the relationship in the patient doctor encounter and I make it very clear to them that, you know, I'm not some magic healer, I can't guarantee that I'm going to get you better. All I can guarantee is that I'm going to give you my best effort to try to get to the bottom of why you feel the way you do and I'm not going to do it based on an agenda. I'm not going to put you on a certain therapy like some providers do because that's the therapy they do. So, you know, they have a hammer and everyone's a nail.

I try to come into it without an agenda and I tell them 'I'm going to go where your story brings me and I'm going to go, maybe even more importantly, where the data brings me'. So I'm going to test and I'm going to use the best tools I have and hey 20 years down the road we're gonna have a lot better tools and I'm going to look back at what I'm doing now and probably be embarrassed, but it's the best we have right now.

But I'm going to look into it and I'm going to go where the story and the date leads me but we're going to have to try some things because in the end it's a

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personal experience, right. You have to do an intervention based on clinical experience on the data, on doing the most appropriate thing given the circumstances but, you know, where the rubber meets the road is their outcome. So I'm going to work with them on their journey, I'm not their, I'm more their health coach. I'm someone whose their advocate along with them and we're trying to get to the bottom of it and if I can't them I'm going to try to do my best to get them to someone else who I think may have an answer. We're not gonna stop.

Alex: Dr Brady it's been fascinating, I really appreciate not only the depth of your knowledge but also your passion for this group of patients. You mentioned your book 'Fibro Fix', that's obviously one place people can find out more about you and your work. Say a bit more about how people can find out both about your practice and yeah anything else you'd like to share in terms of people that want to connect with you or go deeper into your work?

Dr Brady: Sure, you know if someone's particularly interested in Fibromyalgia, global pain fatigue syndromes and so forth. If you think you have it, you have a family member who might have it, you're a provider who wants to learn more about it, resources for your patients; probably the best place to visit is fibrofix.com. There's a lot of resources there, lots of interviews, lots of journal articles, lots of articles for the general public, TV appearances, there's the intro and first chapter to the book that you can read just as a complimentary thing, there's some white papers. There's all kinds of different resources, information on different types of interventional strategies I use. Also if you're on Facebook just Dr David Brady, facebook\Dr David Brady.

If you are more interested in some of the other work that I do in functional gastroenterology, work in the microbiome and some of the novel molecular diagnostic testing I've helped develop in that regard and autoimmune work that I've done you can probably just visit my main site, which is drdavidbrady.com. Once again it's chocked full of different resources that I try to share as freely as possible. I have a lot of full texts in many of my papers and so forth.

So those are probably the best two sources and I guess I'll leave it at that.

Alex: Fantastic. Dr Brady than you so much for your time and your, it's been a pleasure. I've rally enjoyed it, thank you very much.

Dr Brady: Thank you I appreciate it, OK. Bye bye.

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