

Episode #:	1
Guest:	Sarah Perdue & Tessa Thralls
Title:	Holistic Podcast: Integrative and Functional Nutrition

Justin Spears:

Hello everyone. This is Justin Spears here from the VHA Employee education system. Welcome to today's podcast on integrative and functional nutrition IFN. Joining us today is Tessa Thralls. She is an integrative and functional nutrition dietician who works at the Eureka community-based outpatient clinic which is part of the San Francisco VA Medical center. She is certified in mind body medicine and is a registered yoga teacher. She has completed training in integrative and functional nutrition through Bastyr University, the Center of Mind Body Medicine, the Academy of nutrition and Dietetics and the Integrative and functional nutrition academy. She also leads the VA's national functional nutrition workgroup through the national nutrition and food services clinical nutrition subcommittee in her spare time, Tessa enjoys cooking and loves to ride bikes. She rides her bike to work daily and competes in recreational road and mountain bike races.

Also joining us is Sarah Purdue clinical nutrition manager for the Oklahoma City VA healthcare system. Sarah serves on the clinical nutrition subcommittee and is liaison for the functional nutrition workgroup. Sarah has completed some training in integrative and functional nutrition through the Academy of nutrition and dietetics. In her spare time, Sarah enjoys teaching others how to scuba dive, traveling, reading, and running. She recently got back from a scuba dive trip to Belize where she saw sharks on every dive. Thanks for joining us today, Ladies

Sarah Perdue:  
thank you for having us.

Tessa Thralls:  
Yes, glad to be here.

Justin Spears:  
Can you start by telling us a little bit about why we're here today to discuss this topic.

Sarah Perdue:  
Well, it's no secret that obesity and chronic disease are on the rise in America and among veterans the problems even worse one third of veterans, they have more than three chronic conditions and account for more than 65% of the total cost in the VA Healthcare. And for this reason, the culture of healthcare delivery is changing. Veterans today desire holistic, more cutting-edge care and the VA has begun providing this through the whole health model which is specific to the VA It's a bold redesign of healthcare focused on empowering and equipping veterans to take charge of their own health and well-being. It's unlike the conventional medical model of care which that focuses more on treatment of disease or managing symptoms while an integrative and functional model of care is more healing oriented, and it emphasizes the centrality of the health care provider patient relationship. The focus of today's podcast is on Integrative and functional nutrition which you might hear us refer to as IFN Which is much less of a mouthful to say IFN Is a more specialized area of nutrition practice. It supports the shift in philosophy from a standard medical approach to a holistic patient centered model of care. But most VHA clinicians, most VHA Clinicians have been trained in the more traditional disease management

model of care. So, there's in the field there's currently a knowledge gap that must be filled to help those in VHA Transition from the old model to a newer model of healthcare. Under the new model of care, health is defined as vitality. It's not merely just the absence of disease, nutrition is central to this vitality and health nutrient deficiencies or inadequacies can lead to all kinds of systemic imbalances in the body and at the same time food can be used as medicine to restore balance and health in this podcast will introduce IFN, as a holistic integrative and specialized approach to health care that can be used within the whole health model to dramatically improve veteran outcomes and their quality of life as well.

Justin Spears:

wow, this sounds like an exciting topic. Tessa maybe you can start by defining integrative and functional nutrition in further detail.

Tessa Thralls:

Yeah, certainly. Integrative and functional nutrition. I like to think of it as really a unique perspective to health care, It's a change in how we look at our patients and how we look at health in general. Maybe this analogy will be helpful to think of a gardener who has a tree in his garden, and he starts to notice that some of the leaves are turning yellow. Some of the parts are starting to die. What is that gardener going to do? He's not just gonna look at the tree and say this tree has yellow leaf syndrome. Let me paint some of the leaves green or maybe just cut off the part that I don't want to look at. Instead, he's going to start to see why the leaves are turning yellow. He's gonna start to think about why the roots might be sick. How does this tree need more or less sunlight, more or less food? And start to see how we can nourish that tree and bring it back to life and we can do the same thing with people instead of just looking at their symptoms and trying to make them go away or cover them up. So, in integrative and functional nutrition and functional medicine, we are not just treating the symptoms, but we're looking for the root causes and addressing the system and balances that might be going on.

Justin Spears:

Where did this ideal of Integrative and functional nutrition come from?

Tessa Thralls:

Well, that's a good question. So, it comes from two different models, the model of integrative medicine and also functional medicine. And it's coming together and we're calling it integrative and functional nutrition. It really, the functional medicine model started in the 1980s by Dr Jeffrey Bland and functional medicine is a patient centered approach to health care that recognizes the biochemical uniqueness of each individual and that means that every person has genetic uniqueness. Every person really has their own story, and we can't treat them with a one size fits all approach. Rather, we use a holistic approach that strives for a dynamic balance between body mind and spirit. In this model, physiological systems are not considered as separate entities, but rather as an interconnected web with each part affecting each other part, instead of focusing on treating the symptoms of disease. The functional medicine approach emphasizes identifying root causes that may be upsetting an individual's physiological balance. Integrative and functional nutrition is essential component to the functional medicine model. In this model, food is used as medicine. So that means that food is not merely energy, but it has a much greater impact on our body. Food can harm us or help us. And so, in this model we find the foods that could be harming people and help them exclude them. And we also find the foods that can be used as medicine to help treat their diseases.

Sarah Perdue:

So, Hippocrates must have been onto something way back when he said that food is medicine.

Huh?

Tessa Thralls:

Yes

Sarah Perdue:

You explain that very well, Tessa. So let me recap basically what you're saying is that in IFN the practitioner acts sort of like a detective searching for the root cause of the problem and then uses food as medicine to restore balance in the body as well as to promote health. So, in other words, you don't just treat symptoms.

Justin Spears:

Thank you both for the explanation that gives me a better understanding about what integrative and functional nutrition is. I've been also hearing a lot about whole health. How is that any different from IFN.

Sarah Perdue:

I'll start by telling a little bit about the whole health model within the VA. It's a new approach. It's a transformation, a paradigm shift if you will from the traditional medical model which we alluded to earlier, that focuses on disease management. The new model under whole health is more comprehensive. It's holistic, personalized, proactive, and patient driven. The whole health model places the veteran at the center of his own healthcare. It basically places them at that point where they can ask themselves what is important to me, what does health look like to me and by having the veteran at the center of their own health care, it really engages them, and it helps form a partnership with the health care team. And this approach to care is really based on that partnership across time between the veteran as well as the interdisciplinary health care team with which they work, and the focus is not merely on physical health of the veteran but also their emotional mental and social health and well-being. So, Tessa maybe now you can tell us how that differs from IFN.

Tessa Thralls:

Whole health and IFN do share some of the same principles, they're both holistic in nature. So, they both see health as not only physical like you said, Sarah, but also emotional, mental, and social. They both use an interdisciplinary team approach and they both put the patient at the center of their own care, but it is important to realize that providing whole health nutrition care is not limited to those who have received training in IFN. So many practitioners and dietitians are working within the whole health model, who are not necessarily practicing functional medicine or functional nutrition. That being said functional medicine and functional nutrition do fit beautifully within the whole health model. So that is a great avenue for practicing this more specialized area of care. I'll also say that in whole health it's important for people to be trained in the VA's whole health model if they want to be practicing in a facility that's using whole health. And that's because there's specific tools in whole health, such as a circle of health, the personal health inventory and personal health planning that whole health practitioners use, and they need to become familiar with those tools. Um And then IFN. Has different tools and um that that people trained in conventional medicine wouldn't necessarily know about. So, IFN uses therapeutic diets, there's a greater use of supplements, There's a different way of looking at labs and there's even specialized labs and testing that are done in IFN. And so those are things that people that don't have that additional training wouldn't know about.

Sarah Perdue:

So, both whole health and IFN are patient centered holistic with the veteran at the center of care, but whole health seems to me like it's more of a general term and IFN is more specialized in specific.

Tessa Thralls:

That's one way to think of it, and I would just emphasize that whole health is a term that's really specific to the VA and it's the VA's. It's a cultural shift within the VA. Um That being said whole health practitioners need training to and it's just different than the training that IFN practitioners would use.

Justin Spears:

Okay, that makes sense. Thank you for clarifying that for me and for our listeners, Tessa, I'd love to hear more about what you do as an IFN Dietitian.

Tessa Thralls:

Okay so like all dietitians those who practice within IFN. Make the connection between science and food choices and provide their patients with personalized nutrition care through the steps of the nutrition care process. So, if you're not familiar with, the nutrition care process includes five basic steps assessment, diagnosis, intervention monitoring and evaluation. So, IFN dieticians do that just the same as all dieticians. However, how they play out those steps might look a little bit different. Um So the nutrition assessment might be more thorough. They're gonna ask more questions about digestion. They're gonna ask questions about sleep and stress. Um And there might be there are some different tools that they use in in the nutrition assessment and also of course they're looking at root causes of disease and as they're conducting this nutrition care process, they are also looking for root causes that might be causing some of the symptoms or the veterans' complaints. One way to think of the root causes an acronym called STAIN and what it stands for the S is Stress, T for toxins, A for adverse food reactions, I for infections, and N for nutrition. So, these things can cause a STAIN on a person's health and upset the physiological balance of the systems. So, the IFN Practitioner aims to restore balance in each system by removing impediments to health and providing the ingredients needed for optimal function.

Sarah Perdue:

I know that stress does play a big role in overall health Tessa, but can you give us an example of how it can be the root cause of disease?

Tessa Thralls:

Yeah, that's a great question. Stress is a very big factor in our health, and I think a lot of people realize that. But let's look a little bit deeper about what could actually be happening when we are under stress. So, think of a veteran that's struggling with PTSD, that veteran is constantly experiencing perceived threats that are triggering the sympathetic nervous system to turn on and send him into the fight or flight response. In fact, he may be in the fight or flight response most of the time. And this means that stress hormones such as cortisol remain at elevated levels in his body, elevated cortisol levels are associated with insulin resistance and carbohydrate cravings. Chronic stress also creates an imbalance in the immune system that leads to chronic inflammation, setting the stage for a variety of chronic diseases such as heart disease, arthritis, diabetes, and of course chronic inflammation contributes to pain, which many veterans suffer with already. So, they might have increased pain and chronic inflammation can even be associated with depression. To take it a further step. Chronic stress also has a negative impact on gastrointestinal health. One study showed that even one stressful event led to an alteration in the gut microbiome. So, the gut microbiome is the trillions of microbes that live in the gastrointestinal tract and

when it's out of balance, this is called dysbiosis, dysbiosis leads to an increase in pro inflammatory immune markers and the inflammation in the gut can trigger inflammation in other parts of the body, especially in the brain via the Vagus nerve. So, we can see that the trauma of the veteran with PTSD experienced not only affected his mental health but is having a profound lasting impact on his physical health. So, this is one example of how stress can be a root cause of disease.

Sarah Perdue:

Well, that's very interesting. We all know stress has a negative impact on health but learning more about exactly what happens when we experience stress. That helps me understand just exactly why it is so important to reduce stress when you talked about the root causes. You also mentioned adverse food reactions. Can you talk more about what you mean by that?

Tessa Thralls:

Yeah, that's a great question. So adverse food reactions is referring not only to food allergies which a lot of people understand but also food sensitivities and food intolerances and all of these are becoming much more common and affecting a lot more people every day really. Um Food allergies are easy to test for and so a lot of people have that under control when they are allergic to a food. However, the food sensitivities and food intolerances that's a lot more nebulous people. It's hard to identify them. There are different tests that you can use to help you try to figure it out. Such as IGG Testing which you can actually do at most VA's. Um But actually the gold standard for testing for food sensitivities and intolerances is using an elimination diet where you really cut out a lot of a lot of foods that could cause intolerances or sensitivities and then you start adding them back in one by one and seeing if you do experience any reactions and one more thing those reactions. They could be obvious like abdominal pain or diarrhea, but they could also be a lot less obvious like headaches or a skin rash or postnasal drip and those ones are harder to make the connection unless you really do the full elimination diet and then start to systematically look for the system symptoms.

Justin Spears:

That certainly is a hot topic. Sounds like it could even be the subject of another whole podcast.

Sarah Perdue:

I agree, Justin it certainly could. So, Tessa once you've identified root causes and assessed how those root causes are creative system and balances. What do you do next? What does an IFN intervention actually look like?

Tessa Thralls:

Well, the next step is the diagnosis. So, you write a nutrition diagnosis and then you start the intervention process, and we want to create an intervention that will address the root causes of the disease that you've identified during the assessment. The intervention also aims to restore balance among the physiological systems that are being upset by those root causes. So, the nutrition intervention includes five aspects foods, supplements, lifestyle factors, additional labs or testing, and referrals.

Sarah Perdue:

So, Tessa, what are some of the dietary interventions, a dietician who practices IFN might use?

Tessa Thralls:

Good question. So, we like we use what we like to call therapeutic diets. As I mentioned before, we think of food as medicine. So, we think of the diet as being therapy really to heal the body.

Some of those diets a lot of times it starts with a really basic whole foods diet trying to remove the foods that will harm us, a lot of those are processed foods and food allergens. Foods with allergens and foods that might be causing sensitivities and people. Um and then from there the diets get more specific like the elimination diet that I just mentioned is a good therapeutic diet and there's lots of different forms of the elimination diet. For example, the FODMAP diet. A lot of people know about now which is used for treating IBS. Or the specific carbohydrate diet used for treating IBD, Which is like Crohn's disease or ulcerative colitis.

Sarah Perdue:

And speaking of IBS and other got related disorders. There's a kind of a protocol in IFN called the Five R's. What's that?

Tessa Thralls:

The five R's stands for remove, replace, re inoculated, repair, and rebalance. So, this plan is not just about food but it's incorporating the other aspects of the intervention to supplements. And the rebalance component is lifestyle factors trying to create balance in somebody's life and reducing the stress. So, remove is removing things that are causing harm. So, like I said like the foods that might be causing sensitivities and that have ingredients in them that our bodies don't like that might be damaging the gut um replacing digestive enzymes that might be deficient. Re inoculating is eating more pre and probiotics to try to bring balance back into the gut microbiome that I was talking about. And then repair is usually with healing foods and supplements that are used to heal the lining of the of the digestive tract and depend on the person's condition. There might be different foods or supplements that are needed depending on where the damage is in the digestive tract. But yeah, so that's what the five R's is.

Sarah Perdue:

So, another aspect of nutrition intervention is lifestyle factors? What do you mean by that?

Tessa Thralls:

Lifestyle factors is referring to everything else that's affecting the patient, not just the food. So, food is a really important component that and that's as dieticians, that's a lot of what we're focused on. But in functional medicine and functional nutrition, we're really starting to look at what else is affecting the patients. So, um like we've been talking about stress today and that's definitely something that we need to address in our patients is decreasing their stress. So, we might teach them breathing exercises and a lot of um functional nutrition dieticians are trained in other mind body practices.

Sarah Perdue:

So, you're a certified yoga teacher, right?

Tessa Thralls:

I am. I also teach yoga now.

Sarah Perdue:

How do you, do you incorporate that into your practice at work?

Tessa Thralls:

I do. I teach two classes a week for veterans and it's really interesting. It's probably the best thing I do in my job. It's definitely the most fun part of my job and I love it because um veterans come to the class and by the time, they leave in an hour they're always feeling better. It's just and I love that um the other

really exciting thing about is that it's the easiest thing for me to get people to do. Like I thought it would be hard to get veterans to come to yoga. It doesn't see most of them have never tried it, never even thought about trying it. They picture like skinny college girls bending into pretzels when they think of yoga, but once they know me and I invite them, and they come then they really start to realize the benefits of yoga because it really is a mind body practice, and they start to use the breath to relax and to connect with their bodies.

Sarah Perdue:

I really like how in IFN it really there is such a focus on all aspects of a person's lifestyle and their health and um looking at nutrition interventions again from a perspective um one of the aspects that you mentioned was supplements, I know that that is a hot topic and that a lot of dietitians and other health care practitioners and veterans are very interested in this topic. So, what kind of supplements would an IFN dieticians recommend or how do you approach supplement use?

Tessa Thralls:

Great question supplements is definitely a hot topic and when I start to talk to patients, a lot of them are already taking a lot of supplements. So, I'd say that's step one in in supplement starting to use supplements in your practices, learn how to evaluate the supplements that they're already taking and really ask them, ask patients about the supplements they're taking and don't just write it off like okay they're on multivitamin there on whatever but really start to look at them, ask them to bring the supplements in and ask them how much they're taking and then use some tools to figure out if to look them up. So, you can use tools like consumer labs is a really good it's a subscription-based website but it's definitely worth it. I use every day um looking up supplements to see if they pass the consumer labs testing which is a good a good start at least. Um That really just helps you see is this even safe for them to be taking? Um So I'd say that's the first step is really evaluating the ones that are already on and helping them weeds them out. A lot of them are already on a ton of medications and do they really need to be taking 10 supplements also? Um Like are they even helping or maybe they're hurting them. So that again that's the first step. Um And then starting to learn more about which ones might be helpful for them. And I would really recommend just starting with one or two. Maybe looking into multi vitamins since a lot of people are on that and figuring out um one or two you can recommend and maybe thinking of a couple other diseases that you want to know which supplements you could recommend for. So, one that I use a lot is called DGL Which stands for Deglycyrrhizinated Licorice and that is used for treating gastric ulcers or even GERD or anything that's going on with the stomach because it's very healing for the lining of the stomach and it's super easy one for people to take. They can just chew it tastes pretty good and to one or two before meals and over time it will start to really help along with the rest of the intervention. But I think try to take one or two that are easy and start learning about them and then you'll just start adding to your repertoire of supplements.

Sarah Perdue:

And I know that supplement use can be controversial that there are you know some supplements that might have evidence backing their use and some that might not have so much evidence base um to promote their use. So how do you how do you look at supplements and determine which ones actually have good sound scientific backing to promote their use.

Tessa Thralls:

So. Great question I just look them up. I really just look up each one I use especially use a tool called the natural medicines database and you it grades them on how effective and how safe the supplements are.

Sarah Perdue:

Okay well I think we could probably talk about supplements all day looking at other aspects of the intervention. I think I probably have a pretty good understanding about at least a couple of them. So, when you're looking at referrals or coordination of care essentially that's saying that as an integrative and functional dietitian, we need to be working with all members of the health care team. We all can support one another, and um coordinate our care to help best work with the work with the veteran I know that there's more specifics involved with that, but is that essentially what that means?

Tessa Thralls:

Yes exactly.

Sarah Perdue:

Okay. As far as additional labs are testing, can you just briefly touch on that aspect of integrative and functional nutrition interventions?

Tessa Thralls:

So additional labs and testing is definitely an important part of the IFN intervention. There are a lot of conventional labs that we use and that are very useful. We might ask for more labs than others might be used to. So instead of just testing for blood glucose we might ask for a fasting insulin test which is um can show insulin resistance before diabetes ever manifests. And uh we might also look at the labs a little bit differently and use like a narrower range for the reference range which would be more showing more optimal health.

Sarah Perdue:

Now. It seems like I've heard of something called like functional labs or functional tests.

Tessa Thralls:

Yeah. So, um there's there are some functional labs and testing that really uh the VA doesn't have access to right now. But they do offer some additional information that is helpful in functional medicine. A lot of people think that we can't do functional medicine unless we have these functional tests and that's really not true. There's a lot that we can do um that we can do right now, and right now in the VA.

Sarah Perdue:

So, well that's good to know. Thank you for providing all that wonderful information. So, one thing I've been wanting to ask you, I often get the question from my dietitians that they want to know, how is this different than what we're already doing.

Tessa Thralls:

So yeah, that's a great question.

And I think in a lot of ways dietitians are already practicing patient centered care and holistic care, nutrition is holistic by nature really. So, I think dietitians are already doing a really great job and are really um ahead of the field I would say. Um that being said there are some specific aspects of IFN.

That dietitians that aren't trained in, it wouldn't really know about. Like we've been talking about the functional labs or um supplements are used a lot more, more and in more depth. Um And then really like looking for the root causes of disease I say is different. So, it's it really is, it starts with a change in perspective. And then there are some also specific tools that we use, that other dietitians not trained in, it wouldn't really know about. So, what do you think Sarah how, how would you see, IFN benefiting your dietitians and the veterans they serve?



Sarah Perdue:

Well for my dieticians I think they're them learning about integrative and functional nutrition and beginning to incorporate into their practice would really help advance their practice and elevate their role as part of the interdisciplinary team. And I also think that it would really help us become even better champions as we move forward in the VA with the whole health initiative and as the whole health model advances, we need providers and dietitians who are trained in looking at health from this different perspective from this holistic perspective that is looking for the root cause of disease and treating that instead of just the symptoms. And we also have more and more providers who are trained and functional medicine who want dietitians who can practice integrative and functional nutrition on their teams and the role of the dietician is crucial to the team and this just would elevate our importance even more and from a patient perspective, I think that this would really benefit a lot of patients who maybe they haven't been responding well to conventional nutrition treatment, especially those who may have gut related disorders. Younger veterans, especially in veterans that are motivated, this is the kind of care that our veterans are, are expecting and we need to really rise to the occasion to where we can provide that optimally.

Justin Spears:

Wow, it sounds like it really will have a positive impact on veteran care. So, if our listeners want to learn more about integrative and functional nutrition, what are some good resources they can use.

Sarah Perdue:

Well, Justin we have many exciting opportunities within the VA for those of you who are interested in learning more. The office of patient centered care and cultural transformations Whole health SharePoint and whole health library are both great places to start. There are plenty of educational information there for staff including literature, online courses via TMS. As well as information on some face-to-face courses. This year there were three offerings of the face-to-face eating for whole health training. And next year the plan is to offer many more throughout the nation. There's also a new eating for whole health course on TMS.

Tessa Thralls:

Yeah, that's great. And we also have a functional nutrition work group that we mentioned earlier. So, the functional nutrition workgroup works under the nutrition and food service clinical nutrition subcommittee. And we are trying to work on implementing IFN into practice at the VA. We're also working on educational resources for patients and practitioners about IFN. So, you can check out our page on VA Polls called functional nutrition. And also, our SharePoint page for more information.

Justin Spears:

I didn't know so many resources about this topic were available within the VA, Are there any outside of the VA?

Tessa Thralls:

Yeah, there are plenty of other resources outside the VA that people can use to get more information about functional medicine and integrative and functional nutrition. So, the academy of nutrition and dietetics has a great five module online course. Each module two hours. That is a good starting place. Also, the institute of functional Medicine has a great website with lots of information and handouts on it, and then they also offer some free online courses about functional medicine. Also, the Academy of nutrition and Dietetics has a practice. This group called Dieticians and Integrative and functional Medicine which would be a great practice group to join or even just to go to their website, look at some

of their resources, their Master's programs in focused on functional nutrition. There are other online trainings in Integrative and functional nutrition, such as the Integrative and Functional nutrition Academy's program and the Center for Mind. Body Medicine is the final great resource. They offer an annual conference called Food as Medicine, which I highly recommend.

Justin Spears:

Wow, we've gone over a lot today. This is an exciting emerging topic and today I can tell we've just touched the tip of the iceberg. There's so much more to talk about. Thank you both for being here and thank you to our listeners for joining us today.

Sarah Perdue:

Thank you so much Justin for having us here today. I've really enjoyed it.

Tessa Thralls:

Thank you, Justin