

Anxiety in children, adolescents and young adults: an integrative psychiatric approach

- The incidence of anxiety in children: official stats and real life numbers
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Trudy Scott:

Welcome to season 4 of *The Anxiety Summit*. I am your host, Trudy Scott, food mood expert, certified nutritionist, and author of *The Antianxiety Food Solution*. Today we are talking about “Anxiety in Children, Adolescents and Young Adults: An Integrative Psychiatric Approach.” And we have Dr. Zendi Moldenhauer here to share this information. Welcome Dr. Zendi.

Zendi Moldenhauer:

Thank you so much Trudy. It’s a pleasure to be with you.

Trudy Scott:

It’s a real pleasure to have you speak on this topic. It’s a topic that we don’t cover much in the prior Anxiety Summits and it’s been requested so when I met you and have gotten to know you over the last few years I decided you would be perfect to speak on this topic. It was a real pleasure to meet you at the Integrative Medicine for Mental Health Conference. We actually met two years ago and then we spent more time together at the last one in

San Diego swimming in the ocean after the conference. It was wonderful.

Zendi Moldenhauer: It was really wonderful and I was so glad that you are including information about children and adolescents. I think it's so important.

Trudy Scott: Yes and I got that from talking to you and getting to know you and hearing your passion for this topic. I think it's important that we give kids a start and help so many moms that are looking for answers. So I'm really excited to share this. I'm also super excited because you're from my country – South Africa. That's really nice to bring a fellow South African on and share this information. So it's great to have you here.

Zendi Moldenhauer: Thank you Trudy.

Trudy Scott: Let me read your bio and then we'll go into the questions. Dr. Zendi Moldenhauer was born and raised in South Africa and completed her bachelor's degree in nursing and midwifery at the University of Cape Town. She moved to the USA in 1996 to pursue graduate studies at the University of Rochester in upstate New York. She completed her Master's Degree as a Pediatric Nurse Practitioner and a Leadership in Adolescence Health Fellowship and practiced primary care pediatric and adolescent medicine for eight years. During this time she completed a post-Master's Certificate as a Psychiatric Nurse Practitioner and a PhD in Nursing, with a research emphasis on adolescent mental health. Dr. Zendi taught in the Nurse Practitioner Programs at the University of Rochester and worked in private psychiatric practice for the next eight years serving children, adolescents and young adults with their families. She is the co-author of the *KYSS Guide to Child and Adolescent Mental Health Screening, Early Intervention and Health Promotion* and presents frequently about child and adolescent mental health topics.

Through her own personal journey and that of her children she became aware of the power of food as medicine. So she studied nutrition and health coaching with the Institute for Integrative Nutrition. Dr. Zendi realized the need to integrate wellness approaches for the body, mind and spirit and wanted to combine her background and experience in both physical and psychiatric medicine so she began a fellowship in functional medicine. Approaching health from functional and integrative perspective made so much sense to her, namely combining the best of conventional and alternative health traditions and then

determining and addressing the underlying reasons for ill health. After hearing a life changing presentation by Dr. Leila Kirdani about stress and adrenal fatigue she joined the practice of Dr. Leila, Quality of Live Medicine in Rochester, New York shortly thereafter.

Dr. Zendi works with children, adolescents and young adults integrating her convention medical background in pediatrics and psychiatry with more natural holistic and functional healing modalities to help people attain the highest level of health and wellness. She's particularly interested in nutrition and the gut-brain relationship in conditions like anxiety, depression, ADHD, stress-related conditions and gut disorders like IBS. She teaches a six week healthy guts course in her office and is developing an online version of this course for adults as well as for parents of kids with gut-related disorders.

I just love the journey that you've taken and I love that you have this passion for the gut-brain relationship and are teaching this to parents so they can help their kids. Tell us a little bit more about your journey into this world. From the bio we can hear that you have your own personal health journey and that of your children and this is how you got into this power of food as medicine - which is so exciting to me. Tell us a little bit more about this and why you've chosen to work with kids.

Zendi Moldenhauer: Well thank you Trudy. I have always wanted to work with children. I can still remember wanting to be a nurse of children since about age five. And when I had my first job after I got out of college was in South Africa on a general medical ward with children with renal function issues, renal failure. And there was no emotional support services for these children at all. Psychiatry for children and adolescents was nonexistent at that time 20 plus years ago in South Africa. And so I knew I wanted to study further specifically looking for training in psychology and psychiatry for children and supporting them. And really that interplay again between physical issues and emotional mental health issues. So I decided I needed more training and it wasn't available at that time for me in South Africa. So that's why I looked at both the UK and USA. I came 20 years ago to start my pediatric nurse practitioner training because at that time there weren't any training programs for psychiatric nurse practitioners for children and adolescents even in the US.

So I started as a pediatric nurse practitioner and then I actually helped develop a child and adolescent psychiatric nurse

practitioner training at the University of Rochester and taught in that program. So I just really feel strongly that we need to start with preferably prevention of mental health issues with children. But if not then at least address mental health as early as possible. Because otherwise we see so much morbidity and mortality in children that now have become teenagers and then into adults. And I really see how mental health affects physical health and vice versa.

So my personal piece of how my journey changed was that I have three children. And my middle son Neam had had some health issues right from the time he was a baby. And he used to throw up three, four times a week without a reason. We hadn't found a reason - it was just this projectile vomit and eventually at around age five after he was diagnosed with sleep apnea, asthma and allergies and of course that affected his behavior. My chiropractor suggested that I order a food sensitivity testing which we did. And the results were positive for corn, specifically high fructose corn syrup and gluten, wheat. And it was quite amazing within three weeks of removing those foods my child wasn't throwing up anymore, didn't have any symptoms of snoring or sleep apnea anymore and was healed of his asthma because his whole respiratory system and his nasal cavities, his sinus cavities were all inflamed from the foods he was eating. And so the following winter when we would have used asthma treatment six times a year we used it once in the spring after a cold. And for me that was so dramatic and so empowering as a mother to be able to help my child through food or the removal of foods that were irritating him to be able to get him off all his medications. He's nine now, doing beautifully. We haven't used asthma medicine for a couple of years now and he doesn't snore like a trucker anymore.

And so that was really powerful. And so that made me really sort of pay attention and that's when I started studying with the Institute of Integrated Nutrition because I felt like I really needed more training in nutrition and the power of food. And then I helped kind of fix myself if you will. I'd had chronic arthritis and chronic headaches which were so bad I actually had a hip replacement three or four years ago. And didn't realize that it had been preceded by leaky gut probably from acne treatment as a teenager with antibiotics and Accutane and then chronic Advil use or chronic NSAID use which then led to a lot of food sensitivities. And I was able to heal my gut and reverse my arthritis and headaches. And so the two particular situations really made me question the way I was practicing medicine and psychiatry and I realized that there was more out there to approaching health from

a more functional perspective, from a more integrative perspective.

I went to a lecture given by Dr. Leila Kirdani on stress and adrenal fatigue which I'd never even heard of before. And at the end of her lecture I went up to her and I said have you ever thought of working with a nurse practitioner? And we met for coffee and she hired me. And so I've been with her the last three years in a functional medicine practice working primarily in functional or integrative psychiatry but generally with children, adolescents and young adults as well. That really changed the direction for my career.

Trudy Scott:

Wow, what a journey. And it's so interesting because everyone that I interview on the summit and so many people that have moved into integrative nutrition and integrative health have a journey with a family member or themselves. And we get exposed to these things, we learn it and then we want to share it with everyone. So what an amazing journey that your son went through to find a solution and to get a solution so quickly. That's so interesting. And then your results are very profound as well. I think the message here is that food can have an impact and the other thing is that it can cause different symptoms. So in your son he had the snoring and the allergies and the asthma and in you it was the headaches and the arthritis.

I had a follow on question about your son. You said that he was diagnosed with the apnea and the allergies and asthma and it affected his behavior. How did it affect his behavior?

Zendi Moldenhauer:

Well I think if a child can't breathe well and is affected by allergies and not sleeping well because of sleep apnea and snoring I think that has profound effects on behavior. And for him it was mostly ADHD symptoms and struggling with focusing and learning and being more impulsive and interestingly we have been able to manage his symptoms without any ADHD medications. We have used food and a few supplements and obviously exercise and sleep as well. But we've been able to really do a lot through food instead of having to resort to ADHD medications. And again I think that's very empowering as a mom of my own child.

Trudy Scott:

That is. That's wonderful. And it's just wonderful that things have turned around and he's doing so much better. It's wonderful to hear. For both of you it's just really great.

Zendi Moldenhauer: Thank you.

Trudy Scott: I know that in your practice you're seeing this on a daily basis and we're going to talk specifically about anxiety today but a lot of kids with ADHD also have anxiety and vice versa. So some kids may see relief of their anxiety, some may see relief of ADHD. And then we have these physical symptoms that are impacted as well. It's wonderful to hear and I'm so glad that he's doing better and that you found the answers for him. Because imagine if you hadn't he would be likely on medications long term and probably recommendations for ADHD medication. So it's very powerful when we can find the solution in food and nutrients.

Zendi Moldenhauer: Right. I agree with you.

Trudy Scott: Tell us about anxiety and kids. There are official stats on how common it is and then you have shared with me that in real life the numbers are a little bit different. So tell us a little bit about that.

Zendi Moldenhauer: Well anxiety disorders in children are probably the most common psychiatric disorders that start in childhood. And depending on studies and depending on how anxiety is defined the rates are anything between 10 to 30 percent. Less common in younger ones and more common in teenagers. But really the lifetime prevalence of that is a child or teenager developing anxiety sometime up to age 18 is somewhere between 25 and 30 percent. That means one in three to one in four children or adolescents at some point during that time period which is very high.

Trudy Scott: That is. And then we have other mood disorders that we will often see with the anxiety, correct?

Zendi Moldenhauer: Absolutely. There's a huge what we call comorbidity so when somebody has an anxiety disorder they're more like to have more than one anxiety disorder because they could have generalized anxiety disorder or social anxiety disorder or separation anxiety or panic disorder. So it's really very common like up to 60 percent of patients with anxiety disorder can have another anxiety disorder or depression or ADHD.

And that's just sort of more the mental health disorders. There's also an incredibly high association between anxiety and IBS. In fact nearly half to three-quarters of children with IBS can have anxiety. So there's a huge relationship between anxiety and other mental health disorders but anxiety and other physical disorders like gut issues or headaches for example.

Trudy Scott: So tell us a little bit more about IBS. Firstly tell us what IBS is and what IBS stands for for those who may not be familiar with it. And then let's talk a little bit about this connection to IBS and anxiety.

Zendi Moldenhauer: Oh sure. Well IBS, the official description of IBS is a child that is growing well so IBS doesn't usually affect the growth of the child whereas maybe inflammatory bowel disease like Crohn's or ulcerative colitis could affect the way a child is growing in terms of how quickly or slowly. IBS doesn't affect growth usually. And it is abdominal pain or discomfort at least once a week for at least two months without some kind of disease or injury that could otherwise explain the pain.

Sometimes children also have a change in their bowel functions so they could either have more bowel functions than usual so diarrhea or less bowel functions than usual like constipation or have the abdominal pain actually improved when they go to the bathroom and have a bowel movement. So the main symptoms would be stomach cramping or stomach pain, tummy discomfort and then more or less stooling. And then some of the other symptoms that are often described as IBS could be things like – it doesn't strictly meet the criteria of IBS but these are the sort of associated symptoms. Children often feel tired. They can feel anxious or depressed. They can have difficulty with concentrating. They could have headaches or nausea, bloating, gas, backache. So some other things like that as well.

Trudy Scott: And IBS stand for irritable bowel syndrome.

Zendi Moldenhauer: Irritable bowel syndrome. That's right.

Trudy Scott: And there is research supporting this connection between IBS and anxiety?

Zendi Moldenhauer: Oh yes. There are actually a lot of studies published in children as well as teenagers, obviously adults as well that describe the relationship between scores like worry or anxiety as well as IBS. Or the other way it's described in the literature is functional abdominal pain. So again pain where there isn't an obvious organic origin that's been found like an ulcer for example, this is just kids that experience pain. And there have been a number of studies published between worry scores and anxiety and IBS. There's a study called the *Relationship between irritable bowel syndrome, worry and stress in adolescent girls*. And this is

published in 2012 and we can share a link to that one. And what it showed is that the worry score in adolescent girls was significantly higher in the irritable bowel syndrome group compared to the normal group. And quite consistently in the research shows that the high school students whether they're boys or girls show more anxiety and worry in relation to IBS than middle school students. And the stress scores are also higher in the high school students compared to the middle school students.

There's another study that was published more recently in 2015 in the *Journal of Pediatric Gastroenterology and Nutrition* called *Symptom profiles in patients with irritable bowel syndrome or functional abdominal pain compared with health controls*.

And they also showed that when looking at the gastrointestinal symptoms and the worry scales that it actually distinguished between patients with IBS or functional abdominal pain compared to the healthy controls. And so there are other studies as well but those are two recent ones that demonstrate the point.

Trudy Scott:

Okay, excellent. And we'll make sure to include links to those on the speaker blog so folks can look at those if they want to look at some of that research. Thanks for sharing that. So now we've talked about the symptoms when we have IBS and the stomach pain and the discomfort. Tell us a little bit more about symptoms of anxiety in kids because it varies somewhat from adults possibly because kids may not be able to articulate that they are anxious. How would we actually know that a child that we're working with or that one of our own children has anxiety?

Zendi Moldenhauer:

Oh that's a great question Trudy. Children with anxiety can often not express that they're anxious. And if you can imagine a five or six or seven year old they don't necessarily come to us and say mommy, I feel anxious about whatever is going on in their lives. So often with children we see it through their behavior. So children who are either nonverbal at all or haven't yet developed the emotional language to describe anxiety act out anxiety. So you might see a child that's more withdrawn and doesn't want to participate, doesn't want to leave the house, doesn't want to get on the school bus, doesn't want to go to school, doesn't want to participate in activities. There's a lot of avoidance kind of behavior. You can see children often complaining of headaches or stomachaches or other physical complaints like pain in their bodies. Children will often have a lot of meltdowns and will look as if they're being difficult or oppositional or uncooperative. But often those symptoms that you're seeing in their behaviors

actually because of anxiety, not because children are not trying to be cooperative. And when the behavior is understood in that context then the approach a parent or teacher or coach can have with the child is very different and obviously will result in improved outcome.

Children with anxiety often have constant thoughts and intense fears about things. They're often scared of becoming sick. They're often scared about the safety of their parents or their siblings. They're often scared about what might happen when they're away from their parents or siblings. There's often concern about believing their parents or children will struggle with, for example, sleepovers or going on field trips. Young children will often be more clingy. They might have more tantrums. In adolescence that looks like panic. In little ones it looks like tantrums. Children might have trouble with sleeping or have nightmares.

And then they can, depending on the anxiety disorder, have different kinds of symptoms. So, for example, symptoms of extreme phobia might include extreme fear about a specific thing or a specific situation whether it's dogs or insects or needles. Children with social anxiety might appear really, really shy and have fears of meeting with or talking to people, avoid social situations. They might have very few friends outside of the family. They might struggle with doing class presentations.

Children with panic might have intense fearfulness and a sense of something terrible that's about to happen. Children with panic or teenagers with panic might feel like they've got a racing or pounding heartbeat or they might feel dizzy or lightheaded. They might feel like they have shortness of breath or feel like they're being smothered. They might feel really trembly or shaky or sort of a sense of losing control or dying or losing their mind.

And then of course children with OCD might have recurrent intense obsessions and compulsions. So they can really engage in a lot of rituals like counting or repeating words or having to do something in a particular order or do something over and over again or handwashing. So depending on the kind of anxiety disorder that children have the expression of anxiety might look a little bit different both by the anxiety disorder as well as the age of the child, with teenagers maybe being a little bit more able to express themselves verbally whereas children expressing it more behaviorally.

Trudy Scott: Great. Thanks for that and this is important to be able to identify some of these things and then start to think well is this possibly related to how anxious they are.

Zendi Moldenhauer: I think parents really need help with helping their children with this because children don't necessarily have an emotional language to describe what's going on. Children will often feel like something is wrong with them. They'll feel like something is bad. They'll feel guilty. They'll feel broken. They'll feel embarrassed. They'll start feeling less confident and it will affect their self-esteem. They'll start feeling like they can't do things or like they're a failure at things.

And they can't necessarily identify that they're anxious. They just don't understand the way they're behaving necessarily and parents don't always understand how or why their children are behaving in a certain way. And so when working with a practitioner I think it's really important to help parents understand the origin or the reason behind their children's behavior as well as help children with more of a feeling language or an emotional language.

When children are working with me or teenagers are working with me I'm very careful to say that all feelings are valid and all feelings are okay. And help children and teenagers to identify what their feelings are and then to be able to use their words to express their feelings rather than just their behaviors. Because when child can tell you that they are anxious and they need some help the response by the teacher or by the parent is very different from when a child just acts out and then might get a negative consequence. And so that's an important piece - really helping with emotional language and correctly identifying behaviors.

Trudy Scott: Wow. That's profound. And you're right. When a kid misbehaves you're going to react differently to when they actually say what's going on and, in fact, don't know how to say it or to articulate it that's difficult for both the child – probably not so much for the teenager but for the younger child and then for the parent or the teacher because they don't know what's going on. And the fact that you say kids feel broken. I hear that a lot from parents. The mom knows something's wrong and she's trying to help. And so the kid feels broken because there's all of this intervention going on. I've worked with some moms with their child and the kid sort of oscillates between feeling broken to saying everything's fine, there's nothing wrong with me to saying yes there is something wrong, we need to try and find an answer.

So it's a very hard time for kids. They sometimes have a hard time fitting in because they're making these dietary changes. They're going to parties and they can't eat the cake. So having this information and knowing what's going on I think is just so valuable.

Zendi Moldenhauer: Yes and I find also with teenagers - not to assume that teenagers have their emotional language either. I often find, especially with boys who are acting out, they might look like they're being really oppositional, preferably even aggressive in middle school or in high school. Even in elementary school. And again the difference in the response to children is very different when a child is seen as anxious and therefore oppositional, anxious and therefore feels possibly cornered or caged and needing some reassurance that they're okay and to help them cope with the anxiety piece rather than to react in an angry way or a dismissive way or a punitive way in terms of punishment. So often with underlying oppositional behavior I find anxiety as well.

Trudy Scott: Thanks for that clarification about teens not having the emotional language. And it's interesting that you mentioned boys. I think this carries on into adulthood. I work primarily with women and when I do work with men I find that they often can't articulate how they feel or there's a shame factor that "I'm a man and I'm tough and I'm strong and I shouldn't be talking about emotional stuff." So I think some of that continues as well and I'll find a lot of men when I'm having them do the symptom questionnaire they'll underreport because they just don't know how to articulate how they're feeling. And I think if we can help children get this emotional language early on in life I think it's very powerful.

Zendi Moldenhauer: And I think it's really hard not just on the kids themselves but on families. Families really struggle with anxiety. I mean if you have a child who is really fearful and really anxious it can often impact the whole family. So it definitely can impact the siblings because if Suzie is really afraid of leaving the house or will take 20 minutes to leave the house because she's got to engage in particular rituals it can impact the other children as well in terms of the places a family can go to or the activities that a family can do or the amount of people that the family can go and visit.

And I think because anxiety can be hard to understand a lot of other people in the community can react negatively to a child with anxiety. And so parents can feel misunderstood. They can feel judged. They can feel alone. They can feel isolated. They can

feel confused as to how best to help their children. There can be difficulty between parents in terms of how best to handle a particular situation. So I think it's really important not to just benefit and support the child but to really address and support the whole family because these issues are hard.

Trudy Scott:

Absolutely. Thanks for sharing that. Now I really want to go into the dietary aspects and the gut-brain connection and some nutritional deficiencies and some of the approaches that you use. But before we do that I just want to start with a few articles that have come across my radar recently and it's to do with the conventional approach. And I'd just love to get your thoughts on two of these and then we will go into the wonderful integrative approach that you use with your patients. There was a paper that was published in *Scientific American* just in May 2016 titled *The hidden harms of antidepressants : Data About the True Risks of Suicide and Aggression for Children and Teens Taking These Drugs Have been Suppressed*. I'd just love to hear your thoughts on this article and the paper that they were referencing in this article.

Zendi Moldenhauer:

Well thank you for asking. And I think that we do overprescribe medications and that we're using too many meds, too soon, too quickly and too young. And unfortunately children are being prescribed medications earlier and earlier and earlier. There have been a number of articles in the last couple of years speaking about the rates of psychotropic medications prescribed in toddlers, in preschoolers and in children and the rates that have climbed and climbed and climbed. I find it is quite scary and alarming. So yes I think that we overprescribe. I think there is a role for medications in more severe anxiety. I do prescribe medications too but I really try and do it carefully only after I've exhausted other options after I've looked for underlying causes that might account for the anxiety. Because I think that kids can really get hooked on medications. It can be really hard to get off an SSRI or a benzodiazepine or, you know, children come to rely on medications for instant relief versus learning coping skills.

And unfortunately there are a lot of side effects. There's weight gain and increased appetite. There an increase in aggression. There's an increase sometimes in anxiety or depression. And increase in suicidal ideational aggression and homicide ideation. And the article that you're referencing to is a little alarming because it seems like until recently because this article is referring to a study published by the *British Medical Journal*. The study was published on the 27th of January 2016 and it's entitled

Suicidality and Aggression during Adolescent Treatment: Systematic Review and Meta-Analysis Based on Clinical Study Reports. And it was a huge study. The meta analysis included 70 trials that included 18,500 patients. And a lot of the information on harm, specifically aggression and worsening depression and suicidal ideation were underreported. Many of the reports were only available upon request and those requests were frequently denied. So the authors of this article really struggled to obtain all the information and so therefore the information that is reported often underreports the risk for increased suicidality and aggression.

And it was double the values for children and adolescents compared to adults in the original study. And I think that is alarming because we don't necessarily get informed about that when practitioners prescribe. They work with the best information they have available to them and if that information isn't available to us as practitioners then we can't adequately let our patients know risks for them to have full informed consent.

Practitioners are trying to do the best job they can with the tools at hand and for many busy primary care practitioners or psychiatrists with all the difficulties with how much time you have to spend with a patient and financial constraints and so on, you know, if your only tools are medications then that's what you're going to use because obviously you're wanting to try and do a good job by your patient. You're wanting to try and do something to make them better. But if you're working with faulty information in the first place because a lot of this information is not published, not readily available then we're at a disadvantage and we're certainly not serving our patients well. And so information like this really does need to come to light and be more transparent.

Trudy Scott:

Absolutely. Now the fact that you know about this and this could affect the way that you think about some of these antidepressants, how would information like this typically be disseminated to practitioners? Would it be up to them to try to keep up to date with what's going on or would they hear about it from going to a conference? How would this information get out because I know typically what we see in the research takes a long time to get into clinical practice.

Zendi Moldenhauer:

You're right. It takes years and years and years for information to trickle down and that's information that we kind of want everybody to know. Unfortunately I think that there are market factors at play when it comes to prescriptions. And this kind of

information might be damaging to the sales of particular psychotropic medications. So I'm being very diplomatic. So I think that if the information is hidden in the first place how the heck is this information going to get out to practitioners at the best of times, especially as we know that so much of this information takes a while to get into the hands of practitioners. And practitioners get this information through published studies. They get it through scientific journals. They get it through independent reviews of research that they do or at conferences. And it can be scary to hear that so many studies can be written by ghost writers or by scientists that have ties to pharmaceutical industry. And so we've got to be questioning the information that's available to us and how accurate the reports are.

Trudy Scott:

Absolutely. And it's really fortunate that this study did go back and look at all of these prior trials and brought this information out. But the fact that they did have this information and it was buried in appendices is very concerning and I'm glad it has been brought to light. And I think we're seeing more and more in the research - we're seeing more and more in some of these articles. Certainly a summit like this is great for disseminating information. Dr. Kelly Brogan has just come out with her book *A Mind of Your Own* where she talks about the harms of antidepressants and how difficult it is to get off of them. So I just think more and more awareness is the best way that we can make sure people know about this so we can change things. And then of course having these great integrative approaches means we don't have to use medications as the first approach and we don't have to be overmedicating like you just said.

There is this other article that I wanted your comment on and this is an article titled *American Psychiatry Association Lobbies the FDA to Electroshock Children*. And when I saw this I was horrified about it and I know you had some pretty strong opinions about this as well.

Zendi Moldenhauer:

Trudy, when you sent me that article and I read it I have one word. No. No. No. No. We don't know enough about electroshock in adults. We certainly don't have enough information to apply it to children. Children's brains are developing. I think the research demonstrates that cortical development is in progress, is continuing until age 25. And so why would we want to be shocking a developing brain. So I was kind of horrified when you sent me the link to that article - in terms of the lobbying that might be happening for ECT and I don't think there is a role for ECT in children and adolescents.

Trudy Scott: Thank you for your strong opinion and I felt the same way. And we'll make sure to share a link to this. This was an article that was published May of this year and it's concerning and I think it's because possibly there are not answers that are being found with medications and now we're taking a step back and saying let's use electroshock therapy. We've got so much more at our disposal, why go there.

Zendi Moldenhauer: Well I think that's a good point though. Just because medications don't work in children it doesn't mean we need to move to electroshock. I think we need to step a huge step back and look at other reasons for why children might be depressed and anxious and what either environmental factors are playing into that, what social and family and school factors are playing into that. And what underlying physiological factors are playing into depression and anxiety. And there are many and so we've really got to take more of a functional approach as in why is the body not working and what's going on and what can we do to uncover those causes and correct those imbalances.

Trudy Scott: Which leads us perfectly into the next question. Let's talk about some of these underlying factors that are contributing to the anxiety.

Zendi Moldenhauer: There's many. I think that there are many issues that contribute to anxiety and we've got to start with kind of what's going on in the environment in terms of nutrition and toxins, additives, preservatives. I mean one of the things that we all do every day is eat. And the food that we eat can either be contributing towards to our health or to potential disease or deficiencies. And when I look at the standard American diet and the diet that is marketed to children I can understand why children have deficiencies. As I said I have three children and when I go into their school lunchrooms I want to shudder at the things that either children are eating through the school line although schools are trying to improve nutrition that is being offered to children. But as soon as you are offering a kind of preserved package processed foods then there are just less nutrients in it and there are more preservatives, potential toxins and additives in it. There just are. That's how you preserve food.

Or the things that children are bringing from home. There's so much marketing to parents in terms of what is considered kid food or healthy food or fast and convenient food. And the things that children are eating doesn't have nutrients in them. And you need

good nutrients to make healthy neurotransmitters. You need good quality proteins. You need good cofactors which are minerals and vitamins that we get from fruits and vegetables and whole grains. And so I think food is a huge place to start. Children are being overloaded with sugars and sugars that are hidden even in food that are impacting their blood sugars. That are impacting their behavior. And just addressing diet goes so far to helping children improve their behavior, the ability to focus, to feel more calm, to interact with the world more appropriately. So I always start with food and nutrition and the help of the gut when I'm working with a family.

Trudy Scott: Wonderful. So I want to talk a little bit more about the gut but before we do that I've got a question for you about your kids and the school lunchroom. What do you do? How do you address that and what would you recommend moms do when they're faced with that situation?

Zendi Moldenhauer: We could speak for a whole hour just on this.

Trudy Scott: Just a one minute summary.

Zendi Moldenhauer: Okay, one minute summary. I would encourage parents to bring food from home. I would encourage for food to be as organic as possible, especially for the dirty dozen. Every year the environment working group publishes lists of the dirty dozen and the clean fifteen. And so the dirty dozen should really be organic foods because it's just introducing too many toxins to children for the foods that are the most heavily pesticided.

So organic for the ones that really count or really matter. And then whole foods so not packaged foods. So children need to be getting fresh fruits or vegetables every day. They need to be getting proteins in their lunch. They shouldn't be getting extra sugars in their lunches. So I think the one thing we can do as parents is we can control the food that we send our children to eat during the day.

Trudy Scott: Perfect. Well said. We absolutely can and just knowing these options are available I think gives people sort of this feeling of oh, there is something I can do. It's difficult, you know. You've got to realize that it may not be easy because you may get some kickback from kids. You may get some kickback from their friends. It's not easy. The world is set up to make it challenging for us but as you say we do have control. We absolutely do.

Zendi Moldenhauer: And it's interesting. My children will comment on the food that they eat versus what other children eat and how much certain kids are affected by the foods that they eat. So young children are already noticing as well as my children notice that when they eat more healthy fats and protein they are better able to focus and concentrate.

Trudy Scott: And that's such a profound thing because a lot of parents will say well my kids are going to rebel or they're not going to be interested or they just like these certain foods. As soon as they start to make those changes they know. They can feel it. Just like we can feel it. And I think we mustn't discount the fact that kids are a lot smarter than we realize and that they feel so much better. I've worked with so many kids who've just added in protein at breakfast and gone off gluten and they just suddenly feel like a new person. And I worked with one kid whose anger issues completely disappeared when she went off gluten. And kids don't like it when they're feeling bad and if they can make these dietary changes and feel better why not.

Zendi Moldenhauer: Absolutely. And I think engaging families and engaging children is where it's at. There's certainly the educational piece so helping families understand and be educated but eliciting cooperation as well. So engaging children in the process and then helping them see the relationship between the foods that they're eating and their behavior I think is really important.

Trudy Scott: Thanks for saying that. Yes, if they're part of going to the farmer's market. If they're helping to go shopping. If they're helping with the cooking. If they're part of the whole process - I think it can become a fun thing. And then when they're seeing the results it's even more profound. And I think that's better than just dictating "this is what's going to happen."

Zendi Moldenhauer: I agree with you.

Trudy Scott: Excellent. So I'd like to mention the gut-brain connection. You said that this is something that you're very interested in and we've seen so much research on this connection between the gut and mental health.

Zendi Moldenhauer: We've seen a ton of relationship and emerging research which is really exciting. I think it's really profound to realize that we make most of our brain chemicals in our gut. So about 50 percent of dopamine which we need for focus and being calm and being motivated is made in the gut. And between 90 to 95 percent of

serotonin is made in the gut, not the brain. And so we absolutely need the gut to be healthy and to be supplying the nutrients needed for the gut to be healthy and for the gut to actually make healthy neurotransmitters and without realizing that I don't think we can have a healthy brain without having a healthy gut.

I see a huge relationship Trudy between stress and anxiety. I have a lot of kids come to see me because of stress. Young ones, school age children but especially my college age and high school student population that are stressed with either multiple activities or just school by itself or advanced courses or college courses or the whole combination. And they'll come and see me either for anxiety or for struggling with focus or depression. And then the huge relationship between that and the gut.

And they might not necessarily realize that they have gut issues at first. A common complaint I would hear is I just feel so bloated and I feel so full after a meal or I'm not hungry or I feel kind of sick or nauseous after a meal. And we know that stress really impacts the gastrointestinal system. It really like makes the GI system just not work as well. And one of the things it does is it decreases stomach acid. And a simple little intervention like helping kids increase stomach acid through the use of something for example like betaine HCl with meals or digestive enzymes with meals can make a huge difference with kind of helping their gut start working a little bit better and helping them understand the relationship between stress and their gut.

So I explain to them for example when we are in the midst of a battle, when we are fighting the tiger our gut is not about rest and digestion and absorption and making nutrients. Our body is about surviving the stressor that the child is perceiving and doing everything it can to either flight or flee and that when a child then eats in that state they're not going to be digesting well. So something as simple as realizing that when eating a child needs to be quiet and peaceful and take time and chew and allow for time for digestion and for that not to be a time of family conflict or the TV being on or turmoil or eating in the car or eating on the run. Just a couple of those kinds of changes can make a very big difference with the ability to be able to digest and to be able to make healthy neurotransmitters and to be able to have the gut working better and a child to be less anxious.

Trudy Scott:

It's so interesting that you talk about the stress-gut connection. I saw a recent clip from Michael Moore's new movie and he's talking about how in Finland the kids don't have homework and

they're only at school four hours a day and they play a lot. And I think we've gotten to the point where kids have just got so much on their plates they're super stressed out. I hear from moms, you know, I remember working with a mom and she wanted some help with her daughter for anxiety. And I just said well you need to find a way to take some stuff off her plate. She's just got so much on her plate. She's so stressed out about school and all these after school activities. I think that's a big thing as well as making all these food changes.

And then your comment about stomach acid. I remember when I went to [nutrition] school 12 years ago we talked about stomach acid declining as you get older. You don't think about it being an issue in teens and young kids. So it's very interesting how stress has such a big effect on our gut and our digestion and then in turn on our mental health.

Zendi Moldenhauer: Absolutely.

Trudy Scott: And the other thing related to the whole stress issue is the effect it has on the adrenals. And we don't think of kids as having adrenal dysfunction. And this is something that you see a lot in your practice too isn't it?

Zendi Moldenhauer: Absolutely. I really pay attention to stress and adrenal fatigue or adrenal issues in children and adolescents once children are old enough. Especially my teens I'm measuring saliva cortisol through the day. But it's interesting that stress and cortisol and the impact on behavior is actually fairly well studied in the literature. I've seen a 2016 article so recently published in March in the *Journal of Developmental Psychopathology* looking at the understanding and unfolding of stress regulation in infants. And this is a study in which cortisol is measured in children in the first three years of life and seeing how children respond to stress and adversity. So it's not just something we look at or study or measure just in adults. This is something we're looking at in children. And there are other studies that look at the influence of stress and adrenal fatigue and cortisol changes in children with autism or in children of parents with PTSD or looking at the difference between parents mitigating the effect of stress by being warm and being nurturing and being supportive.

So there's a study in *Health Psychology: Daily Stressor Reactivity During Adolescence: The Buffering Role of Parental Warmth*. - which I just loved. It was a study of about 332 children and it looked at their experience of stress and their cortisol measures and

then looked at how parents interacted with their children. And this was mostly a young adolescent study. The average age was about 13 years of age and how parental warmth moderated the amount of stress children felt and the negative affect that they had. And even impacted their cortisol measurements. Isn't that interesting?

Trudy Scott:

Wow. That is so interesting. I love it. Very impactful to think that something like that can make a difference and why not. It just makes common sense. So with regards to adrenal dysfunction tell us some things that you do to support children with adrenal issues.

Zendi Moldenhauer:

Well the first thing I do in addressing stress and adrenal function is making sure that folks are eating well, specifically paying attention to issues of blood sugar variations because so often when blood sugars are going up and down and up and down children can feel anxious or irritable or weak or shaky or headachy or stomach achy just because their blood sugar is really high or really low. So I ask families to cut out the excess sugar and increase protein specifically. I'm asking children to eat protein every two to three hours to regulate blood sugar and introduce healthy fats like coconut oil, olive oil, nuts, avocados, grass fed butter.

And the second thing I look at is that children are well hydrated both with water as well as with maybe a little bit of sea salt in their water because our bodies really need good electrolytes and the adrenals need to be fed and well hydrated. The third thing I do is make sure that the source of stress that is affecting the child or the adolescent in the first place is being addressed because unless stress is actually addressed and the issues mitigated children will continue to stress the adrenals pouring out extra cortisol. So whatever is going on in the child's life if that can be addressed to the best of the family's potential then obviously that helps with adrenal function.

And then I like to use some adrenal gland adaptogens. My go to that I love to use and usually is my starting place is L-Theanine which is an amino acid derivative from green tea and it's thought to really cross the blood brain barrier and exerts a variety of neurophysiological and even like pharmacological effects on the brain in terms of its anxiolytic and calming effects because it actually upregulates inhibitory neurotransmitters like GABA and possibly modulates serotonin and dopamine in specific areas of the brain. It actually also increases alpha wave activity. So

children can either sleep better because they're sleeping at a deeper level or they feel more calm and focused during the day without feeling drowsy so there's no side effect to L-Theanine which is great.

Sometimes I'll use some other adrenal gland herbs like rhodiola or ashwagandha or holy basil depending on the cortisol pattern. I measure salivary cortisol four times over the day to see what the pattern is. I also like kids to be on a good general multivitamin multi-mineral especially with high B complex because our brains so badly need B's and we need all those cofactors just to make healthy neurotransmitters. So those are my sort of baseline supplements that I use when I'm addressing adrenal support.

Trudy Scott:

Wonderful. Tell us a little bit more about theanine. I know you had pulled a few studies that you wanted to share with us. It's very encouraging to see how beneficial theanine can be for the anxiety and then for other issues like sleep and you also mentioned ADHD as well.

Zendi Moldenhauer:

Well there's a really nice study published 2014 in *Nutritional Neuroscience*, an international journal on nutrition, diet and nervous system which actually looks at L-Theanine works in the brain. So if anybody wants more information on exactly how it works in the treatment of psychiatric and neurodegenerative disorders that's a really great article by Anne Lardner and that is in 2014.

And then a couple of studies with regards to children. There's a nice study in 2011 in *Alternative Medical Review* and it looks at the *Effects of L-Theanine on objective sleep quality in boys with ADHD*. And this is a randomized double blind placebo control trial with L-Theanine in about 98 male children with ADHD over six weeks. And the conclusions of the study demonstrated that 400 milligrams daily of L-Theanine was both safe and effective in improving some aspects of sleep quality with ADHD. And of course sleep issues are so often a comorbidity with ADHD and then poor sleep affects behavior. And so L-Theanine was looked at as safe and an important adjunct in helping with childhood ADHD.

Another study I really liked was published in 2011 and this was published in *Child Care Health and Development Journal* and this looked at using both L-Theanine and 5-hydroxy tryptophan in children that were adopted that were behaviorally at risk. And interestingly children that are adopted or at least in the foster care

system are prescribed psychiatric medications at a much higher degree than the general population. There have been some recent articles publishing the rates at which these children are prescribed psychotropics and it's really awful because the rates are so, so high. And so I love that this is potentially an alternative really safe option to help. The conclusions of the study was that both the urinary levels of bile markers for serotonin and GABA were increased in children that received L-Theanine and 5-hydroxy tryptophan. And it was correlated with significant decreases in parent support of their children's behavioral problems.

Trudy Scott: Wonderful. So here we've got Theanine that is affecting the GABA levels and then the 5-HTP which is affecting the serotonin levels. Now in the study where you talked about the boys and the ADHD that you mentioned 400 milligrams of Theanine a day. Is that what you typically use?

Zendi Moldenhauer: Yes. In young children so maybe four or five, six, seven, eight year olds I'm using a Theanine called Relax-a-Saurus at 50 milligrams. It's chewable, it's grape flavor that's pleasant tasting. And I'm using a smaller dose in young kids and I'm using that two or three times a day. In older children somewhere around eight to ten to twelve I'm using up to 200 milligrams of L-Theanine in a chewable form. And up into adults or adolescents and college age students I'm using 200 milligrams. And you can use that three or four times a day. It's really pretty safe without any side effects.

And we can either use the chewables which obviously breaks down and gets absorbed more quickly in the sublingual vessels under the tongue or capsules in the older teens depending on preference.

Trudy Scott: Okay, excellent. And often with kids the chewable is easier because some kids have a problem swallowing so it's nice that there's this option available for younger kids.

Zendi Moldenhauer: Right. And with GABA I'm using Source Naturals and the dose there is 125 milligrams. In younger children I'm breaking that in half or quarters depending on the age of the child from about eight onwards I'm probably using a full tablet. And again two or three times a day. And I haven't found side effects with GABA either. There's less studies in children with the use of GABA but I certainly see that it works well in helping with anxiety in children and adolescents.

Trudy Scott: Okay. So this is the Source Naturals GABA Calm and that's something I use a lot in my practice. I use less of the Theanine interestingly enough but having had this discussion I'm certainly going to be looking at that a little bit more. Tell me when would you decide to use Theanine versus the GABA Calm?

Zendi Moldenhauer: I usually use L-Theanine first and I explain to families that it does four things. It helps with supporting the adrenal glands. It helps with supporting the neurotransmitters. It helps with anxiety and focus and calm. And it helps with sleep. So I'm getting four things with one supplement which I love. And then I might add GABA Calm if I'm not getting enough of a response with more severe anxiety.

Trudy Scott: Okay, excellent. That's a great approach to have. And as I said I use GABA a lot. It's my first go to and we all have slightly different approaches so that's why doing these interviews is so great because we get different perspectives and we hear about these different approaches. So thanks for sharing that.

And just a little side note. The fact that you said there's not as much research on GABA. It's unfortunate but we know that it definitely does have an impact and my interview on the summit is going to be a whole hour on GABA. There's a new paper that came out in October 2015 talking about the possible mechanisms of how GABA works. We still have a lot to learn but clinically we see that it helps, together with theanine obviously, and we're just trying to figure out how it's working so we can understand things a little bit better. But we know it works. We've heard many practitioners on prior summits talk about it and it's a little bit controversial. A lot of people will say it doesn't cross the blood brain barrier, how can it possibly work. You're only going to see it work if there's a leaky blood brain barrier. And there's a lot more to it and I'll be digging into that in my interview in more details. So it's just good to hear that you have results with both the theanine and the GABA and it's just good for folks to hear that other practitioners are seeing results as well.

Now I've got two final questions for you. The first one is for moms. What advice would you have for moms who may be working with a conventional doctor or nurse practitioner who is starting to learn about the importance of nutrition, has heard this interview, maybe have heard other interviews or read books and they're interested in this integrative approach. How do they take this back to their practitioner?

Zendi Moldenhauer: That's a great question. I think firstly educate yourself. So try and see what's out there in the literature because so often conventional practitioners might be more swayed or more open to doing things a different way if there are studies that back a particular approach. So whenever possible see if there are any studies and take those studies to your provider so that you can engage in a discussion. Moms, dads trust your instinct. You know your kid best and you know how they work and the kinds of behaviors they're exhibiting or feelings they're describing to you. So I really encourage parents to trust themselves with their kids as their kid's best experts.

Sometimes parents are not going to be heard. Sometimes parents are not going to be listened to. And then I think it's really okay to look for a functional integrative provider to add to your team. I always try and collaborate with other providers in the community as well as with parents. I present myself as an addition to the healthcare team versus in competition. Because parents often feel caught between a functional or integrative provider as well as their conventional provider whom they've known, who the trust, who they want to work with. And so I don't feel like parents should have to choose between. I feel like we can work in collaboration with both areas of expertise informing each other.

I really like parents to feel empowered and engage in mutual collaboration. The thing about functional medicine is that it really looks at the child as a unique individual and that's not the way conventional medicine is set up because conventional medicine is set up with protocols and flow sheets and standards of practice for a particular medical condition, not necessarily that unique or individual child. And I think that's where functional medicine can take more of a unique approach. But the approaches can work in collaboration with each other and so I encourage parents to explore both and then see what makes sense to them.

Trudy Scott: Excellent. Thank you for that. And then the second part of this question is what advice do you have for psychiatric nurse practitioners or other practitioners who may be listening to this. And I know we have a lot of practitioners tuned into the summit who are inspired by what they're hearing today that may be practicing conventional medicine and want to start incorporating some of the integrative approach into their practice.

Zendi Moldenhauer: Well I certainly encourage any conventional practitioners to explore this more. This makes so much sense. This is exciting. This is cutting edge. This has such wonderful results with families. So

dive in, look at the research, ask questions, collaborate and engage with families. Start testing for underlying physiologic imbalances like low levels of vitamin D or ferretin or B12. Start applying some safe and research backed supplements and notice the effects that you have in addition to maybe your conventional approaches.

And then get educated. So ways of getting educated is by engaging in a fellowship program like the Institute of Functional Medicine or the Metabolic Medicine Institute. There are a variety of really excellent fellowships to educate further. And then attend conferences. The one I would high recommend specifically for mental health is the Integrative Medicine for Mental Health Conference, IMMH conference which is always in September. This year it's in Washington DC I believe in the third weekend of September. Excellent conference. I've been to it several times.

And then another great one for general integrative and functional medicine is the Integrative Healthcare Symposium always held in February in New York City. And then reading books. I love your book Trudy and use it. I recommend it to my families all the time. I have it on my desk the whole time. It's been very influential in my approach to using amino acids in anxiety with children and with adults. So I love your book *The Antianxiety food solution* book. There's lots of other great books looking at different aspects of integrative or functional medicine. And I'm hoping to write my own sometime in looking at anxiety and IBS in children and adolescents. We'll see.

Trudy Scott: That's great. And yes, write that book. We need it. Liz Lipski's written a great book on digestive health and she's actually got a book on digestive health in children. She's another speaker on the Summit and I know you're a big fan of her work.

Zendi Moldenhauer: I love Liz Lipski's work. Her book is *Digestive Wellness* and then *Digestive Wellness for Children*. And I have both of them in my office as well. I think highly of her work.

Trudy Scott: Wonderful. She's just great. We had a great interview and taking that to the next level and looking at the anxiety and the strong connection to IBS - I think will be fantastic. We'll be waiting for that book and I'm a big fan of books. Thanks for saying those kinds words about my book. It's a wonderful way to reach more people. It's a wonderful resource to hand to your patients or your clients so they can read and be more empowered and informed. As you said earlier it's so important to be empowered and be

informed. So books are great. And then I wanted to add one other thing. I second all the conferences you mentioned here. The National Association of Nutrition Professionals, I'm a member, I'm past president. They have an annual conference. They have a lot of nutritionists. So if you don't want to become a nutritionist or you don't want to study nutrition yourself you could always team up with a nutrition professional and have someone that you collaborate with.

So there's many ways of going about this but just starting to be excited about it because it is a very exciting time and we're seeing so much research in this area. And it's just really wonderful to know that we can get such powerful results by having children make food changes, addressing gut health as Dr. Zendi has said. Supporting them with specific nutrients. Helping them destress and all of these other wonderful things that we've heard about today. It's just very encouraging and very hopeful and just wonderful to have you share this information Dr. Zendi. It's the first time we've had someone speak on children's anxiety and teen's anxiety. So I really appreciate you coming and sharing this information today. It's been so super.

Zendi Moldenhauer: Well thank you so much. I'm hoping to also share by reaching a bigger audience with teaching folks about healthy guts and the whole relationship between anxiety, depression and having a healthy gut and addressing some really common gut disorders like IBS.

Trudy Scott: Wonderful. And I know you're in the process of developing a course. You teach it in person and you're going to be developing an online course so we'll make sure that we make it available when it is ready and in the meantime you've got a digital gift for parents, *Practical tips for parents of children and teens with anxiety and IBS*. So for everyone who's listening to this and is loving what you're hearing we'll share that link to that gift on the speaker blog and you can sign up and get access to it and then you'll be able to stay connected with Dr. Zendi. So you can learn more about what she has to offer for children and teens when it comes to anxiety and gut health and other areas that may impact your kids and the kids that you might be working with. Any final words of wisdom for us Dr. Zendi?

Zendi Moldenhauer: No I just wanted to say thank you so much for doing this anxiety summit Trudy because this is really a way to get this information to so many people and I thank you for what you're doing.

Trudy Scott: It's a pleasure. Thank you for being part of it and thanks for sharing your wisdom and thanks for your passion in this area. We need more information about this so we're looking out for your book.

Zendi Moldenhauer: Thank you so much Trudy.

Trudy Scott: Thanks Dr. Zendi. Thank you everyone for joining us on another great interview on *The Anxiety Summit*. This is Trudy Scott signing off.

Speaker Blog: <http://www.everywomanover29.com/blog/anxiety-children-adolescents-integrative-psychiatric-approach>

Dr. Zendi Moldenhauer, PhD, NP, RN



Dr. Zendi Moldenhauer was born and raised in South Africa and completed her Bachelor's Degree in Nursing and Midwifery at the University of Cape Town. She moved to the USA in 1996 to pursue graduate studies at the University of Rochester, in Upstate New York.

She completed her Master's Degree as a Pediatric Nurse Practitioner and a Leadership in Adolescent Health (LEAH) Fellowship, and practiced primary care pediatric and adolescent medicine for eight years. During this time she completed a post-Master's Certificate as a Psychiatric Nurse Practitioner and a PhD in Nursing, with a research emphasis on adolescent mental health. Dr Zendi taught in the Nurse Practitioner programs at the University of Rochester, and worked in private psychiatric practice for the next eight years serving children, adolescents and young adults, with their families. She is the co-author of *The KySS Guide to Child and Adolescent Mental Health Screening, Early Intervention and Health Promotion* and presents frequently about child and adolescent mental health topics.

Through her own personal health journey and that of her children, she became aware of the power of "food as medicine", so she studied Nutrition and Health Coaching with the Institute for Integrative Nutrition. Dr Zendi realized the need to integrate wellness approaches for the body, mind, and spirit – and wanted to combine her background and experience in both physical and psychiatric medicine so she began a Fellowship in

Functional Medicine. Approaching health from a functional and integrative perspective made so much sense to her, namely, combining the best of conventional and alternative health traditions, and in determining and addressing the underlying reasons for ill-health. After hearing a life-changing presentation by Dr Leila Kirdani about stress and adrenal fatigue, she joined the practice of Dr Leila, Quality of Life Medicine in Rochester, NY, shortly thereafter.

Dr Zendi works with children, adolescents and young adults, integrating her conventional medical background in pediatrics and psychiatry with more natural, holistic, and functional healing modalities to help people attain the highest level of health and wellness. She is particularly interested in nutrition and the gut-brain relationship in conditions like anxiety, depression, ADHD, stress-related conditions, and gut disorders like IBS. She teaches a 6-week “Healthy Guts” course in her office and is developing an on-line version of this course for adults, as well as for parents of kids with gut related disorders.

Trudy Scott, CN, host of The Anxiety Summit, Food Mood expert and author of *The Antianxiety Food Solution*



Food Mood Expert Trudy Scott is a certified nutritionist on a mission to educate and empower anxious individuals worldwide about natural solutions for anxiety, stress and emotional eating. Trudy serves as a catalyst in bringing about life enhancing transformations that start with the healing powers of eating real whole food, using individually targeted supplementation and making simple lifestyle changes. She works primarily with women but the information she offers works equally well for men and children.

Trudy also presents nationally to nutrition and mental health professionals on food and mood, sharing all the recent research and how-to steps so they too can educate and empower their clients and patients.

Trudy is past president of the National Association of Nutrition Professionals. She was recipient of the 2012 Impact Award and currently serves as a Special Advisor to the Board of Directors. Trudy is a member of Alliance for Addiction Solutions and Anxiety and Depression Association of America. She was a nominee for the 2015 Scattergood Innovation Award and is a faculty advisor at Hawthorn University.

Trudy is the author of *The Antianxiety Food Solution: How the Foods You Eat Can Help You Calm Your Anxious Mind, Improve Your Mood and End Cravings* (New Harbinger 2011). She is also the host of the wildly popular *Anxiety Summit*, a virtual event where she interviews experts on nutritional solutions for anxiety.

Trudy is passionate about sharing the powerful food mood connection because she experienced the results first-hand, finding complete resolution of her anxiety and panic attacks.

The information provided in The Anxiety Summit via the interviews, the blog posts, the website, the audio files and transcripts, the comments and all other means is for informational and educational purposes only and is not intended as a substitute for advice from your physician or other health care professional. You should consult with a healthcare professional before starting any diet, exercise, or supplementation program, before taking or stopping any medication, or if you have or suspect you may have a health problem.