

PUBERTY, EMOTIONS & THE BRAIN



Are you and your child interested in participating in a research study on the teen brain?

- To qualify, your child must be:**
 Female 10-12; Male 11-13
 No mental health diagnoses
 No metal in the body (dental fillings are ok)

Participation involves completing interviews, rating scales, and computer tasks during an fMRI scan and EEG. You and your child will be compensated for participation.

For details, please call **412-383-8134** or text **PEBSTUDY** to **412-999-2758** or email **pebs@pitt.edu**.

Is your 9-14 year old child experiencing frequent anxiety, worries, and fears?

Interested in trying a smartphone app for child anxiety?

If you answered yes to these questions, your child may be eligible to participate in a research study conducted by researchers at the University of Pittsburgh.

The study examines the effectiveness of a smartphone app designed to enhance therapy for childhood anxiety. This research study does not involve any medications.



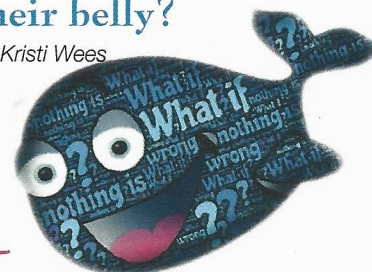
Participation involves a diagnostic assessment, eight weekly sessions of talk therapy as well as visiting our lab with your child up to three times (eight to 10 hours total). You and your child will complete questionnaires and clinical interviews. Children will also receive a smartphone for the duration of the study that may increase their benefit from therapy.

You will be compensated with a debit card for completion of the research study.

For more details and to see if you qualify, please call **412-624-8992**
 visit **www.fendlab.pitt.edu/research**,
 or e-mail **smartcat@pitt.edu**.

Childhood anxiety – All in their head or their belly?

By Kristi Wees



It seems like everywhere I turned last month I was speaking with another friend whose child was struggling with anxiety. Anxiety seems to take many forms including: anxiety about going to school, anxiety about reading, anxiety about riding the bus, anxiety about a thunderstorm, anxiety about separating from a parent or even anxiety about bedtime routines, yet the underlying theme is that many of the situations are causing great stress and heartbreak for many of these mothers and their families.

As a curious chemist, I'm always looking beyond the label, seeking a root cause. What does anxiety really mean? Some may say it's a state of nervousness, other say it's a state of not being able to be calm or at peace with something. The Mayo clinic explains it this way: "People with anxiety disorders frequently have intense, excessive and persistent worry and fear about everyday situations. These feelings of anxiety and panic interfere with daily activities, are difficult to control, are out of proportion to the actual danger and can last a long time."

The assumption is that this is a psychological condition, something that comes from the mind. But, what if it is not all in their heads, what if another part of these children's bodies is involved, specifically their stomachs? A new area of research is focusing on the microbiome and its connection to mental health. Micro-what? Microbiome: the colony of bugs (bacteria, fungus, parasites) that lives in our body. It is estimated that the human body contains ten times more microbial cells than human cells and that the "bugs" constitute nearly three lbs. of our body weight.

How does all this relate to anxiety? Well, researchers once thought the connection between the brain and the belly only went one way... for instance having anxiety before you get on stage to do a presentation for your company's shareholders meeting may produce a queasy stomach. Mind anxiety=queasy stomach. But recent research now shows this connection between mind and gut is NOT

just one way. Instead the messages go BOTH ways.. which means the bacteria in the gut contribute to the chemical balance of the body and the brain.

So could it be that the balance and the health of the digestive tract can impact our little ones minds and their anxiety?

Recent research out of McMaster University in Ontario suggests that it is possible. Microbiologist Premysl Bercik and gastroenterologist Stephen Collins discovered that if they inserted bacteria in the intestines of one strain of germ-free mice with bacteria taken from the intestines of another mouse, the mouse receiving the bacteria would take on aspects of the donor mouse's personality. Naturally timid mice would become more exploratory, and daring mice would become apprehensive and shy. This research suggests that intestinal microbes interactions with the brain could induce anxiety and mood disorders in animals and possibly in humans. (links to their scientific papers: www.ncbi.nlm.nih.gov/pubmed/22404222 and <http://www.ncbi.nlm.nih.gov/pubmed/21683077>)

What does that mean for our little ones who are living in angst right now?

What is a mom to do? Look at your child's belly. What is going in it and what is coming out the other end! Are the highest qualities of "fuel" entering their mouths? Does their diet include plenty of proteins, fruits, vegetables and not so much junk food and empty calories? How is their digestion? Do they have constipation or belly aches? What about their poop? Yes, I said it and I mean it. What does it look like? What does it smell like? Is it formed or loose? Do they have a bowel movement each day or only once a week? All of these questions are clues to what is going on in the gut, an area of the body that is not so easily accessible to take a peek at otherwise!

Changing the belly's ecosystem, the microbiome, will take some effort and some mommy detective work, but can begin as easily as changing a child's diet. Remove something not so great and replace it with a little more nutritional value. Probiotics (good bacteria) can be helpful for some, but should be used with the discussion and supervision of your child's physician. Microbial stool testing can also be helpful, as it can give a glimpse into the digestive tract to see if any opportunistic bacteria have crowded out the good guys. These opportunistic bad guys can sometimes show up after a round or two of ANTI-biotics, in which the good and bad bugs "balance" have been destroyed and must be restored.

If your child is filled with fears, anxiety and angst, I encourage you to look beyond their mind, thoughts and psyche

continued on page 36

ACHIEVA is the premier provider of Early Intervention Services.
We work with children from birth to three years of age and tailor services to each child's specific needs.

- Feeding and Nutrition
- Hearing Services
- Occupational Therapy
- Physical Therapy
- Preschool Readiness
- Social Work
- Speech Therapy
- Vision Services

ACHIEVA
 711 Bingham Street • Pittsburgh PA 15203
 412.995.9000 • 1.888.272.7227
www.achievaearlyintervention.org
www.achieva.info

PITTSBURGH BALLET THEATRE SCHOOL
 Artistic Director Terrence S. Orr | Co-Directors Marjorie Grundvig and Dennis Marshall

AGES 18mo-6yrs
 Grown-Up & Me and Pre-Ballet classes

AGES 7+
 Five levels of strength and technique training

AGES 14+
 Open registration Ballet and Pilates mat

Open Registration | Call 412.281.6727 to Enroll Today!
 PITTSBURGH BALLET THEATRE SCHOOL | 2900 LIBERTY AVENUE PITTSBURGH, PA 15201 | WWW.PBT.ORG

Anxiety... *continued from page 17*

and focus on their diet, digestion and microbiome. Rebalancing their belly, may just lead to a happy, healthy kiddo! ■

Kristi Wees is the mom of two children from Gibsonia.

Dear Teacher... *continued from page 19*

to say words.

- Says reading is easier for his or her classmates.
- Falls way behind classmates.
- Can't figure out unknown words.
- Avoids reading.
- Resists reading aloud.

2nd and 3rd grades:

- Starts to withdraw.
- Has some troubling behavior.
- Seems to guess at unknown words.
- Does not get meaning from reading.

These signs of a reading problem were provided by Kyla Boyse, R.N. of the University of Michigan Health System. Additional information can be found online at www.med.umich.edu/yourchild/topics/dyslexia.htm. ■

Parents should send questions to Dear Teacher, in care of Pittsburgh Parent, PO Box 395, Carmel, IN 46082-0395 Distributed by King Features Syndicate

Safe at camp... *continued from page 35*

What kind of security is in place?

Are cabin or residence halls locked after hours? What methods are in place to keep strangers off camp property?

How does camp staff handle safety situations?

The answer to this question helps you know how quickly and appropriately safety violations or incidents are handled.

How does camp staff respond to disciplinary problems?

Knowing the protocol for behavior situations gives you clear understanding of guidelines that staffers are expected to follow.

Kids: Know about privacy

- Prior to your child leaving for camp, have a conversation about safety. Dr. Allison Bashe with New Directions

Counseling Services in Wexford, suggests parents talk about different topics. "The best approach is having a general conversation about camp safety," Bashe says. Include items like swimming safely, staying with a group and walking on designated paths. The conversation is a great time to talk about the aspect of privacy.

- At camp, kids share living space; but, privacy with respect to bodies should still be maintained. "Before heading to camp, kids should know what privacy means," explains Bashe. "A child should know that undressing is done in the bathroom, and in private." Children are taught at young ages about private parts. Review the conversation you've had.
- Make sure your child knows who is in charge, from their immediate camp counselor to the director. Advise your child to inform a person in charge if an employee or a camper does or says something that makes him or her feel uncomfortable, even if, and especially if, the person causing the uneasy feeling threatens the child. "Often an abuser uses threats so the child won't tell," Bashe says. "Let your child know how important it is to tell someone what is happening." Additionally, if a child witnesses something happening to another person that causes them to feel unsafe or uneasy, the action should be reported as well.
- Camp is still safe. At the end of the day, camp is still a safe and fun adventure for kids. "Camps build character, foster independence and create a sense of curiosity," Ditter says. A parent's initial inclination is to protect their child by any means possible. But Ditter reminds parents to be reasonable. "You can't wrap your kids in a bubble wrap," he says. Through being proactive in asking questions of staff members and having safety conversations with kids, parents can drop their child off at camp and look forward to hearing fun stories by session's end. ■

Kelli Robinson is a freelance writer from North Carolina who grew up in Pittsburgh.



Pittsburgh Parent.com

has lots to offer you...

- Editorial for parents of infants to teens that is updated throughout the month!
- What's New? Check out this new local feature on our Home Page!
- Visit Family Resource Directories for camps, schools, after school activities, party ideas and more!
- Check out our facebook®



Visit pittsburghparent.com and sign up today to receive our monthly E-Blast!