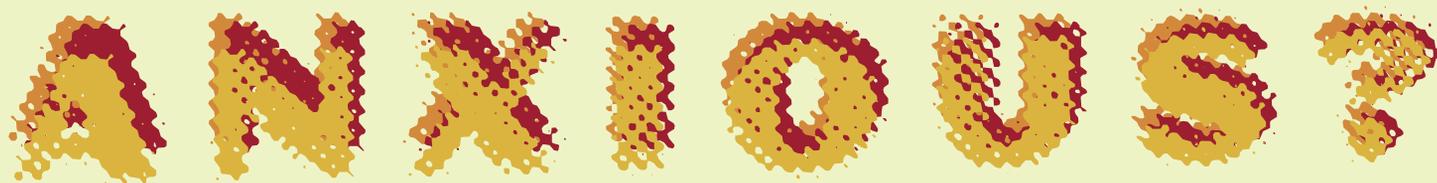




# FEELING



## **Humans are instinctively social creatures.**

They work together. They play together. They form relationships with each other. Interacting is an important part of growing and learning.

But, for 15 million American adults suffering from social anxiety disorder, interacting socially can bring overwhelming feelings of dread. These individuals are excessively self-conscious in everyday social situations. They may worry for days or weeks before a dreaded situation, such as an interview or social gathering. Then, they may worry for hours afterward about how they were judged.

The symptoms are not pleasant, either. They may sweat profusely, blush or tremble, or have difficulty talking. They may experience nausea and diarrhea. Their hearts may pound forcefully in their chests.

In more severe cases, the physical symptoms and feelings of dread and fear are so strong or negative, people just start to avoid certain situations altogether. This fear can be debilitating and prevent a person from pursuing normal life activities, and even their own dreams.

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ANNE RAYNER



NEIL BRAVE

**Vanderbilt researchers such as Jenni Blackford, Ph.D., left, and Judy Garber, Ph.D., are studying different methods to find the appropriate interventions for treating or preventing anxiety disorders.**

“At first they avoid public speaking or going to parties,” said Jenni Blackford, Ph.D., assistant professor of Psychiatry at Vanderbilt Medical Center. “But then the fear of the fear can result in not pursuing friendships or romantic relationships, which can then extend to work.”

Anxiety takes a toll on daily lives, and not just on the person experiencing the illness, but also their families, said Bruce Compas, Ph.D., the Patricia and Rodes Hart Professor of Psychology and Human Development at Vanderbilt.

“Then, it goes beyond,” Compas said. “It goes to their ability to be financially stable; to be able to contribute to society.”

### **FIRST, IDENTIFY**

Anxiety disorder often develops in childhood or early adolescence, and occurs in both men and women, although some anxiety disorders are more common

in females. And, oftentimes, it’s a precursor of depression.

Both anxiety and depression, however, are very treatable when identified. Some people respond well to only psychological counseling or medication, but some respond better to a combination of both.

The struggle for caregivers, however, comes from identifying the disorder as early as possible. Once an individual starts experiencing the more severe symptoms, such as panic attacks, the harder it is to treat to a point of eliminating symptoms altogether.

Past studies have been helpful in identifying at-risk individuals. Using those studies as a baseline, Vanderbilt researchers such as Blackford and Compas, as well as Judy Garber, Ph.D., professor of Psychology, are studying different methods to find the appropriate interventions for treating or even preventing anxiety disorders.

Blackford has begun a five-year study, funded by the National Institute of Mental Health (NIMH), studying people with inhibited temperaments, those who were very shy as children and have continued that developmental path into adulthood. Using neuroimaging, she has been comparing their brain function to that of those with uninhibited temperaments. She will also be comparing their genes and hopes to identify one specific pathway to anxiety.

“I’m working to understand how inhibited temperament is a conferring risk for anxiety,” she said. “When we look at a group of people with anxiety, we are mixing together many different types of anxiety and many underlying causes. My approach is to look for individual differences, ways that each one of us is different, to understand risk factors for psychiatric illnesses.”

Although studying anxiety with neuroimaging isn’t new, Blackford is using a new method of studying brain function. Instead of looking at just the degree to which the brain responds, she is looking at the timing of the brain’s response, for example, how quickly the brain responds and how long the response lasts. She is finding that in people with inhibited temperaments, the amygdala (an almond sized-and shaped part of the brain that signals warnings) responds faster to new faces, than those they have seen several times.

Blackford said inhibited temperament is characterized by avoidance of novelty, such as new people, places or things. As predicted, her study group showed more sensitivity to novelty.

By identifying one specific developmental pathway and making it recognizable

ble, intervention might be possible for a young child. Parents could then teach their children adaptive strategies, or preventive measures could be taken.

### A FAMILY AFFAIR

The family unit has been shown to have a significant impact on childhood development in studies of anxiety and depression. Research shows that children who have a parent suffering from depression are at higher risk to also become depressed.

Garber is studying depression in this at-risk group, specifically children whose parent(s) are being treated for depression. She wants to identify factors that increase the chances of these children developing problems, and is also looking at methods of prevention.

“We know these children are vulnerable,” Garber said. “Sometimes, we begin to see problems in children as young as 8, 9 or 10 years old.”

These problems often take the form of anxiety, at school or at home. The anxious child may worry about a multitude of things, and may not be able to concentrate or sleep.

Garber has found that if a parent is currently depressed, the child doesn't function as well as the child of a parent who is being treated successfully for depression. As the parent gets better, there are concurrent positive changes in the child.

Data also suggest that anxiety and depression in children are under-recognized. It would help if parents had a greater awareness of what is typical behavior at a particular age, she said. “If they can recognize it, it can be normalized,” she said.

Garber is also studying the efficacy of a universal intervention program to help teens cope with stress and reduce future distress. Since 2006, this program has been offered to all students in wellness classes at Lebanon (Tenn.) High School.

“The empirical premise of our work is that children and adolescents who are psychologically healthy perform better in school and have more rewarding interpersonal relationships, compared to children who are distressed,” Garber said.

The intervention program is conducted in 90-minute block periods that meet once weekly for 10 weeks, discussing strategies for managing stress and the students' particular issues and concerns. The periods consist of single-gender groups of about eight to 10 students; parental permission is required to participate.

So far, approximately 500 students have participated. Preliminary results suggest the program is having beneficial effects.

“Our long-term goal is to make this program available to schools to include in their regular wellness class curriculum,” Garber said. “We would be especially interested in working with schools to train their teachers and school counselors.”

### ANXIETY AND CANCER

Although most types of health care are anxiety-provoking to some extent for children, the anxiety is even greater for those battling cancer. Just the word, cancer, when associated with a child, can evoke feelings so strong that it has produced post-traumatic stress symptoms in parents in later years.

Compas just began a new five-year study, funded by the National Cancer Institute, on how communication

between parents and children diagnosed with cancer impact anxiety and depression in both the parent and child. While many childhood cancers are very treatable, the way families deal with this stress can have a lasting effect, long after the cancer is gone.

While young children may not understand the significance of their diagnosis, they can sense their parents' concern and fear. Older children not only understand the concern and fear, but also what a diagnosis of cancer can mean.

Compas is spending time observing the communication between parents and child.

“While we know we have these families in a somewhat unnatural environment while we observe, the differences we are already finding have been astounding to us,” he said. “We want to learn from the families who are doing it well.”

In general, Garber said the good news about all of this is that experts are now doing a better job at identifying at-risk individuals, and at treating these patients. “This is all good news,” she said.

Perhaps in years to come, researchers will find a way to reduce the staggering number of 15 million Americans struggling with social anxiety disorder, that number representing 2 million more people than the total estimated 2007 population of Pennsylvania.

Success, after all, will be measured by just one person who has struggled for a lifetime with social anxiety who can now stand up in front of a class or a group of friends, or even the world, without trembling, without heart racing, without nausea, and give a speech of a lifetime. **VM**