Social Anxiety: An Expert Interview With Eric Hollander, MD

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Editor's Note:
Although some consider social anxiety to be a trivial disorder, it is extremely common and its consequences can be devastating. In an interview with Elizabeth Saenger, PhD, Medscape Psychiatry and Mental Health, Eric Hollander, MD, Director of the Compulsive, Impulsive, and Anxiety Disorders Program at the Mount Sinai Medical Center, shares information about the prevalence, causes, types, and treatment of social anxiety disorder.

Medscape: What is social anxiety?

Dr. Hollander: Social anxiety disorder is one of the anxiety disorders listed in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revision* (*DSM-IV-TR*). Other anxiety disorders include panic disorder, agoraphobia, specific or simple phobias, obsessive-compulsive disorder, and general anxiety disorder, to name some of the most common. Social anxiety disorder is characterized by marked anxiety in social situations. Those with social anxiety either avoid these situations or endure them but with a lot of dread and discomfort.

There are 2 basic forms of social anxiety disorder. There's the generalized form of social anxiety disorder, where people are fearful of most social situations; this can involve, for example, being on a job interview, meeting new people, eating in a restaurant, going on a date, or speaking up in class. During those situations, the person feels like he or she is being judged or evaluated and is fearful of being humiliated or embarrassed or that people will recognize his or her anxiety. So, the person self-monitors symptoms of anxiety, such as tremor, rapid heart rate, sweating, mind going blank, knees getting wobbly, and upset stomach.

In fact, the physical symptoms of social anxiety disorder can look identical to a panic attack, but the symptoms occur only in situations where there is some kind of social provocation or where the person thinks that he or she may be embarrassed or humiliated, that people may be sort of observing them or may even reject them.

There is a second subtype or form of social anxiety disorder called discrete or performance anxiety. These people don't have anxiety in most social situations but only in a performance situation, such as, for example, public speaking, musicians who have to perform, etc. There again, people feel like they're being evaluated or judged so they can have physical symptoms such as a panic attack, but it's only in these performance situations and it's not in all different kinds of social situations.

Medscape: How common is social anxiety disorder?

Dr. Hollander: As a group, the anxiety disorders are the most common of all psychiatric disorders, and social anxiety disorder is the most common of the anxiety disorders.

There are a couple of interesting aspects of social anxiety disorder, including that it has a very early onset. Everyone who develops social anxiety disorder had a particular temperament as a child - namely, somewhat behaviorally inhibited and shy. It turns out that most children who are behaviorally inhibited and shy don't develop social anxiety disorder, only a subgroup do. But all people who have social anxiety disorder start early on by being shy and inhibited, and then a subgroup of those individuals develop the generalized form of social anxiety disorder and a subgroup of those individuals develop avoidant-personality disorder, where they pretty much end up avoiding most social situations.

Medscape: What causes this behavior?

Dr. Hollander: It's not fully known, but we know that there are physiologic effects, biological vulnerability, and that social anxiety disorder tends to run in families; in other words, familial transmission contributes to the development. There are also certain basic brain circuits that seem to get either activated or hijacked, which is associated with social anxiety disorder, in particular, marked activation of limbic regions such as the amygdala and a failure of frontal regions to give a logical or appropriate assessment of what the realistic harm is. So, in a sense, this is an imbalance between the amygdala and frontal regions.

Medscape: Can you explain more about that?

Dr. Hollander: People with social anxiety disorder are exquisitely sensitive to social cues, such as, for example, another person's glance or look in their direction or, in particular, faces looking directly toward the individual. These simple types of provocations can elicit an exaggerated response of the amygdala than can lead to a fight-or-flight response where the person feels like he or she needs to flee the situation or completely freezes.

The outputs from the amygdala in such a case can be associated with all of the physiologic sensations of social anxiety disorder - racing heartbeat, sweating, gastrointestinal-type problems such as diarrhea, and tremor; it can even cause the mind to go blank, namely, an adrenaline-like response.

Also, there is a positive feedback loop for those with social anxiety. The person makes some logical errors by thinking, "Everybody is paying attention to me, everybody can see that I'm anxious," which leads to hypervigilance, where the person monitors the physiologic reactions to anxiety, increasing feelings of anxiety along with its physiologic reactions, and so on - a vicious cycle.

Medscape: What is the best treatment for social anxiety?

Dr. Hollander: There are 2 basic approaches -- one that is cognitive-behavioral and another that is pharmacologically based. Medication approaches vary a lot, depending on whether the person has the generalized form of social anxiety disorder or the discrete/performance-type anxiety.

If people have performance anxiety fears, then the treatment of choice is generally a beta-blocker such as propranolol (Indera l) or atenolol (Tenormin). These medicines simply block the peripheral effects of adrenaline, although propranolol blocks both the central and peripheral effects of adrenaline. When taken at appropriate times, therefore, their usual physiologic responses are blocked; therefore, heart rate doesn't go up, sweating and tremor don't occur, and the mind does not go blank. As a result, the beta-blocker helps the person feel better.

For the generalized form of social anxiety disorder, the treatment of choice, in terms of medication, includes the selective serotonin reuptake inhibitors (SSRIs) and the serotonin norepinephrine reuptake inhibitors. For example, paroxetine (*Paxil CR*), sertraline (*Zoloft*), and venlafaxine (*Effexor XR*) all have specific Food and Drug Administration (FDA) indications for the treatment of social anxiety disorder, although other SSRIs, such as fluvoxamine, citalopram (*Celexa*), or escitalopram (*Lexapro*), also seem to be very helpful.

Medscape: You mentioned that cognitive-behavior therapy was a different way of approaching this?

Dr. Hollander: Cognitive-behavior therapy is also extremely helpful; in fact, the treatment of choice is a combination of the right medicines plus cognitive-behavior therapy.

With cognitive-behavior therapy, there are a couple of components. One is exposure and response prevention. The No. 1 issue is to get people to face these fearful social situations, get them to try to tolerate the anxiety -- see that nothing terrible happens, they're not going to die or lose control or go crazy, people aren't going to reject them, they're not going to be humiliated. This approach is exposure and then response prevention to learn not to do all the avoidant-type behaviors that may otherwise occur.

In addition, there is also cognitive restructuring to get the person to challenge these irrational, illogical assertions, such as "Everybody in the room can tell that I'm anxious; nobody's going to want to be with me; I'm going to be a social outcast." Cognitive restructuring allows the person to see that maybe there are alternative explanations.

Group-related processes also tend to be helpful, because sometimes people with social anxiety disorder say, "Well, this therapist is just saying that because they're being polite. They don't want to hurt my feelings." If they're in a group with other people who have social anxiety disorder, they can see that statements made by others about being embarrassed or rejected or humiliated are not true, and participants can get individual

feedback from other group members about how others see them. They are often more trusting of feedback from those who also have social-anxiety disorder.

Medscape: I would imagine they would also recognize other people having the same distorted thinking; that is, they identify with the thought process like a light bulb -- "Oh, that's just what I'm doing as well."

Dr. Hollander: Exactly. They can identify with that. Although, still, often someone with social anxiety disorder tells himself or herself, "I agree that this person's cognitions are distorted or illogical, but that person is really much better off than I am; I have a real reason to have these thoughts and he or she does not."

Medscape: So, no matter what, they'll persist in believing their distorted thinking?

Dr. Hollander: To some extent that is true. However, when they get consistent feedback from others who don't have a vested interest in changing their thought process, they can slowly start to accept that their thinking might be distorted. It can be extremely helpful to get such feedback from other people who have been in similar situations with similar feelings and self-perceptions.

Medscape: How did you get interested in doing this kind of research?

Dr. Hollander: I did an anxiety-disorder fellowship at Columbia and got exposed to the various anxiety disorders. One of the things that interested me specifically about social anxiety disorder is that many people feel that this is a trivial disorder; some even espouse that it is a creation of the pharmaceutical industry to sell more drugs. But that's not the case.

When you look at the consequences of social anxiety disorder, they can be quite severe. For example, people who have social anxiety disorder, particularly the generalized form, are significantly less likely to graduate from high school or college; they're less likely to function in a professional or management capacity, because that involves having to do performance and feeling evaluated by other individuals; they're less likely (especially men) to get married or have children. They are more likely to end up with substance use problems, since many people with the condition try to self-medicate by drinking alcohol or taking drugs to ease the symptoms.

Such big consequences can also be associated with big costs, particularly indirect costs. Those with social anxiety disorder are less likely to earn the same amount of money during their lifetime, and they're more likely to have lost job days.

In addition, these conditions are very common, especially performance anxiety. If you ask Americans, for example, "What are you most afraid of?" the No. 1 answer is public speaking. I can identify with that, because when I started out doing public speaking as part of my research career I often would get an anxious feeling, a slight tremor and my mind would go blank - I couldn't organize or remember my thoughts or ideas. I started

taking a beta-blocker before speaking engagements, which just knocked out the peripheral effects of the adrenaline. That was a quick learning process; I found out that it could be easy to do public speaking. Now, it's something that I enjoy doing, and I no longer need to take medication.

Medscape: What do you think is on the horizon for treatment of social anxiety?

Dr. Hollander: There are a number of new developments, both in terms of medication and in terms of psychosocial or cognitive-behavior therapy.

In terms of medication, I mentioned that SSRIs are probably considered the treatment of choice. Other treatments that are of some benefit are the benzodiazepine-type medicines such as clonazepam and the monoamine oxidase inhibitors such as phenelzine sulfate (*Nardil*) or tranylcypromine (*Parnate*); both, however, are associated with some undesirable side effects. There are new classes of medicines that are also being studied that have more selective effects in the GABA system; some of these medicines will be coming to market in the near future. They may have a role in social anxiety disorder with fewer side effects.

In terms of cognitive-behavior therapy, I mentioned individual cognitive-behavior therapy and group cognitive-behavior therapy. Another approach is a kind of in vivo exposure, where the person actually faces the situations that bring on his or her feelings and symptoms of anxiety, or imaginary exposure, where the person role-plays or practices being in the particular anxiety-provoking social situations. Nowadays with computerized forms and processes, people can have imaginary exposure and do so in settings that are much more realistic, for example, an interactive video exposure that seems like real life.

Some recent studies have also suggested that so-called smart drugs can enhance the learning effects associated with cognitive-behavior therapy. There was one study, for example, that showed that D-cycloserine, originally marketed as an antibiotic, has some effects on the glutamate system. Taking cycloserine in conjunction with cognitive-behavior therapy led to more dramatic learning processes associated with the cognitive-behavior therapy.

On the horizon, therefore, are integrated treatments that not only reduce anxiety but also facilitate learning, enabling people to learn in a more rapid fashion from cognitive-behavior therapy or more real-life type of exposures.

Medscape: Is there anything you would like to add?

Dr. Hollander: Of the points we've touched on, a few are worth reiterating -- social anxiety disorders are the most common of the anxiety disorders; they tend to start or show warning signs early, and they are associated with clear-cut alterations in brain circuitry. Also, something we haven't discussed, there are abnormalities of certain neurotransmitter systems - namely, serotonin and dopamine.

I'd also like to mention a couple aspects of working with people who have social anxiety disorder that are really gratifying. First, these people can function at extremely high levels, and, second, they're highly responsive to treatment.

It usually takes a long time, however, between the onset of symptoms and when these people finally get the appropriate diagnosis and treatment. This is partly due to their own shame, anxiety, and humiliation, which prevents them from seeking help, partly due to clinicians thinking that this is a trivial disorder, and partly due to lack of systematic screening for social anxiety disorder by clinicians. But, if screened for, social anxiety is often picked up, and, if picked up, it's highly treatable.

When we think about spending healthcare dollars, it's important to make certain diagnoses, because only then can people receive access to treatments that are really going to make a difference. Social anxiety is one disorder where an effective intervention will make a big difference and will improve long-term functioning.

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