



Lifeline

anxiety disorder newsletter

A quarterly newsletter for people – and the families of people – who suffer from the panic brought about by fears, anxieties and phobias.

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Non-prescribed use of pain relievers precipitates anxiety disorders

A study published in the *Journal of Psychological Medicine* investigates the association between anxiety and mood disorders and non-prescription – i.e. use without a prescription or taking more than what is prescribed – of such prescription opioids as ocytocin. Opioids are highly addictive and create neurological changes and physiological dependence when over-used. Prescription opioids are currently second only to marijuana in terms of illegal drug usage in the U.S.

The researchers – from Johns Hopkins Bloomberg School of Public Health – used data from the National Epidemiologic Study on Alcohol and Related Conditions, an in-person survey of individuals aged 18 years and older during 2001 to 2002 and 2004 to 2005, to assess study participants for a history of psychiatric disorders. They found that lifetime use of non-medical prescription opioids correlated with a high lifetime risk of anxiety and mood disorders, including panic disorder, bi-polar disorder and major depressive disorder. Non-medical opioid-use disorder due to non-medical prescription use of opioids also proved to co-occur with anxiety and mood disorders.

An increased risk of opioid disorder due to non-medical use was also seen in study participants with pre-diagnosed mood disorders, major depressive disorder, dysthymia and panic disorder. This demonstrates the possibility that these participants were using opioids to alleviate their symptoms. The researchers stress the need for early identification and treatment of mood and anxiety disorders to offset the risk of self-medication with prescription opioids and the risk it leading to future development of opioid-use disorder.

Whether the co-occurrence of non-prescription use of opioids and anxiety and mood disorders is due to genetic or environmental risk factors is not known and needs to be studied so that the risk levels of those vulnerable to anxiety and mood disorders can be documented whether their use of opioids is prescribed or not. In view of the increased use of non-medical prescription drugs today, especially among adolescents, the association between opioid use and anxiety and mood disorders gives reason for great concern over the possible future development of anxiety and mood disorders among such opioid users.

Omega-3 fatty acids essential to reducing anxiety in more ways than one

Higher levels of Omega-6 fatty acids are associated with increased anxiety in older adults, while Omega-3 fatty acids are known to reduce the symptoms of anxiety.

A newly published King's College London, UK, study, which included 130 participants aged 60 to 86 years of age, from outpatient psychiatric services of four hospitals, concludes that the higher levels of Omega-6 are associated with higher residual depression and anxiety.

In contrast, a 12 week, double-blind study that included 68 healthy young medical students by National Center for Complementary and Alternative Medicine of the US National Institutes of Health suggests that not only does a daily diet of Omega-3 fatty acids reduce anxiety symptoms in young and healthy individuals, but also reduces depressive symptoms in clinically depressed people.

A study from the National Institute on Alcohol Abuse and Alcoholism of National Institutes of Health and the Uniformed Services University of the Health Sciences recommends 2 grams of Omega-3 fatty acids per day to reduce depression and anxiety scores among active service members with recurrent self-harm tendency.

Omega-3 and Omega-6 are Essential Polyunsaturated Fatty Acids obtained only through diet and are an important part of all cellular membranes. Omega-6 is found in most food, but Omega-3 can only be attained from leafy green vegetables and cold-water fish which is often scarce in the diet of many people. This scarcity tends to result in it being substituted with more readily available Omega-6 and it is this that causes the association with the higher anxiety and depression levels shown in the King's College study. High levels of Omega-6 actually demonstrate that there is a deficiency of Omega-3 in the diet and can only be reduced through higher dietary intake of Omega-3. Supplements are available if foods high in Omega-3 are not available.

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How our dreams can help us to heal after traumatic experiences

Sleep helps to minimize painful memories - specifically, the rapid eye movement (REM) phase when we dream.

A research team at University of California, Berkeley, led by psychologist and neurologist Matthew Walker, has solved the mystery on how we can prevent traumatizing events from crippling us emotionally. While scientists assume that REM has an important role in helping calm emotions that disturb us, there has not until now been any evidence that it does or how it works.

Stress chemicals suppressed during REM

Dr. Walker's team discovered that during REM, while we dream, stress chemicals are suppressed in the amygdala as memories are reactivated and put into perspective. In other words, they have uncovered the meaning of the age-old maxim we hear when something is bothering us – "Sleep on it – things will seem better in the morning."

The fact that people with post traumatic stress disorder (PTSD) also suffer from sleep disorders, especially involving the REM phase, has led scientists to believe that REM is important in helping us deal with emotions. About 20 to 25 percent of our sleep is spent in REM.

In the study, thirty-five healthy young adults spent several hours experiencing lab-induced stress during two sessions inside a magnetic resonance imager, 12 hours apart. They were shown 150 images ranging from benign to highly emotional images while their brains were being scanned for neurochemical activity. They were divided into two groups with one group having their first scan early in the day and their second 12 hours later, with no time to sleep between the sessions. The second group had one scan in the evening and the second the next morning, after sleeping in a controlled environment in the university's sleep lab.

They had to rate the emotional intensity they were feeling in response to the individual images so that the researchers were able to record a subjective measure of the emotion involved in addition to the objective measurement by the scanner of their individual reactions. The amygdala was seen to be highly active during the first session for both groups, brain chemicals reacting strongly to the stress. During the second session, the group that had no sleep experienced comparatively stronger neurochemical reactivity when shown the images but the group that had had a full night's sleep had relatively mild reactions to the images.

Sleep reduces emotional reaction

The interpretation is that it was not the passage of time but sleep that caused the reduction in emotional reaction and consequent healing. Electroencephalographs (EEGs) of the participants during their night in the sleep lab showed that it was during the REM phase that the neurochemical reactivity was suppressed. REM let them deal with their emotions, so that, on seeing the images the second time

and remembering them from the first session, they were able to view them without experiencing the emotional trauma again.

Sleep needed to regulate emotions

If we don't allow ourselves enough sleep, our brains cannot regulate our emotions sufficiently. If we get no REM sleep, they cannot regulate them at all. For people with PTSD, sleep is often disordered and they either do not reach the healing REM phase or they do, and the process is not working properly; it is thought that abnormally increased metabolism in the brain is the cause of this. The emotional wounds cannot heal and the pain remains.

For healthy people then, a good night's sleep will at least soften the emotions that trouble them to the point that they can cope with trauma. Unfortunately, in modern society, many people constantly challenge their brains' emotional regulation potential by not allowing themselves enough sleep. In the US, the average has been shown to be less than seven hours and is most likely comparable in other western countries.

Insufficient sleep and anxiety disorders

Going beyond the fact that interrupted or absent sleep patterns prevent recovery in PTSD, a study from the Centers of Disease Control and Prevention assessed self-reported anxiety disorders and depression diagnoses and frequency of insufficient sleep in a telephone survey during 2008 and found that insomnia is often associated with anxiety disorders, with or without co-occurring depression, in more than 94,000 Americans in 16 states. Participants were asked how frequently they did not get enough rest or sleep during the last month, with responses of *14 days or more* being classified as *frequent insufficient sleep*. 39.4% of participants reporting frequent insufficient sleep had also self-reported having received an anxiety diagnosis from a physician or healthcare provider and 37.9% a diagnosis of depressive disorder. Co-occurring anxiety and depression was at 50.1%. For people with generalized anxiety disorder, bedtime is when they start to worry and spinning thoughts prevent them from sleeping. Anti-anxiety medication often provides relief from both the anxiety and the sleep problem.

Rapid eye movement as treatment

While attaining sufficient sleep, including the REM phase, can provide a solution to getting painful memories into perspective for many people, going a step further, the fact that REM appears to allow us to do this is the basis for Eye Movement Desensitization and Reprocessing (EMDR), a treatment for trauma used all over the world. The movement of the eyes back and forth lessens the strength of negative emotions of memories by creating similar brain activity to that of the REM phase of sleep.

FROM ONE READER TO ANOTHER...

Tonya

Tonya really needed help. She and her husband Stephan had come to the United States from Russia. They had made a few friends but had no relatives in this country. They spoke very little English, especially Tonya. While they were still learning about their new homeland, Stephan had become seriously ill and was placed in hospice care. After his death, Tonya was left alone, without employment and unable to read or write in English.

One of the hospice workers knew that I had taught English and was looking for students to tutor. Since I had been waiting for a very long time for a student to appear, I accepted right away. Before, tutoring had been only a possibility. Now I was faced with an actual student. Because of my panic disorder, I hadn't taught in years. I had one of those "What have I done?" moments. Oh, mama!

After all the details were decided, I had agreed to meet with Tonya for an hour every Tuesday afternoon. We would be in a conference room at a small public library. The twenty-minute drive there didn't worry me. Everything else did worry me. My greatest fear was that I would need to leave before the hour was up. Getting places isn't usually a problem now, the trouble is staying there without panicking.

To ease my anxiety I prepared thoroughly for our first lesson. I taped index cards with a penny, nickel, dime, and quarter. The backside of each card had the spelling and numerical value of the coin. I would use these homemade flashcards as well as pictures of clothing cut out of magazines. I mentally rehearsed, picturing myself as confident and calm.

As I drove to the library on that first Tuesday, I was hoping Tonya would already be there. She wasn't. I browsed

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through the library books, knowing I needed the distraction. Then she and her driver arrived. Grinning, she greeted me with a kiss on each cheek. Because I was raised by a French mother, this custom didn't throw me. All my attention was on Tonya. She was 65, slender, with brown shoulder length hair. She seemed thrilled to be meeting her teacher.

The tutoring room was perfect. We had privacy. This was important to me. Like most phobics, maybe most people, I do not like to be observed while I work.

After a few minutes with Tonya, I could tell already that she knew some nouns but very few verbs. She said to me, "Colette tall. Colette basketball?" I had to laugh at the idea of my playing basketball.

I began to teach her the words for American money by using the coin cards. Very quickly she understood, and we made a game of her memorizing the meanings and the spellings. As we continued with other vocabulary, I began to feel some muscle tension and anxiety. I glanced at my watch and was disappointed to see that only forty minutes had passed. I walked to the doorway and tried to spot Tonya's driver. She had left to run errands and had not yet returned. I went back to the table. I was relieved to find that simply walking around must have released some of the muscle tension. I wasn't as anxious.

In an effort to keep myself relaxed, I tried to have a simple conversation with Tonya. When I asked her where she was born, she answered in her charming Russian accent, "Siberia," she told me, "Country cold, people warm."

Before she left, we reviewed what she had learnt. I'm not sure who was happier. Tonya's face showed pure joy. In spite of what she had suffered, she was determined to improve her life. Of course, she didn't realize how much she was helping me improve mine.

Colette Carner.

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Genetic marker found to predict child's response to cognitive behaviour therapy

The genetic marker, Serotonin Transporter Promoter Polymorphism (5HTPP), has been demonstrated by Research funded by the Medical Research Council (MRC) in the UK, to have the capacity to predict when a child suffering from anxiety disorder will benefit from cognitive behaviour therapy (CBT).

There are two forms of the 5HTTP gene - a short form and a long form. The short form has been shown in previous studies to predict which individuals are likely to be prone to depression when under stress and, more recently, it has been proposed that the short form influences how

individuals respond to their environment. DNA was collected by researchers at the Institute of Psychiatry at King's College London from 359 children diagnosed with anxiety disorder. The children found to have a shorter version of the 5HTPP genetic marker were 20 per cent more likely to respond to CBT and to be free of their anxiety six months after the end of the treatment. Having a short form of the gene can contribute to a child feeling more negative when things are stressful but on the other side of the equation, they are more responsive to the positive messages taught in CBT.

Social phobia not necessarily related to shyness

An examination of shyness and social phobia rates among more than 10,000 teens aged 13 to 18 taking part in a national survey in the U.S., demonstrates that social phobia is not simply shyness that has been inappropriately medicalized as so many detractors claim.

Researchers from the U.S. National Institute of Mental Health found that about half of the teens said they were shy, 12 percent of these self-reported shy teens, and about 5 percent of those who said they weren't shy, had met the criteria for social phobia during their lifetime. These findings indicate that shyness and social phobia are not necessarily related. The teens with social phobia proved more likely than other teens to also have another psychiatric disorder in their lifetime, for instance depression or drug use. They also had higher levels of impairment in relating to family and to peers at school or work, but were not more likely than shy teens to be receiving professional treatment. While teens with social phobia were no more likely than shy teens to be taking prescription psychiatric medication, the rates of prescribed drugs were low for both shy teens and those with social phobia, paroxetine being taken by only 2.3 percent of teens with social phobia and 0.9 percent of shy teens. A National Institutes of Mental Health news release on the study says, "*...social phobia affects a minority of youth and only a fraction of those who consider themselves to be shy. In addition, despite the greater disability that youth with social phobia experience and the greater likelihood that they will have another disorder, they are not more likely to be getting treatment compared to their peers, questioning the notion that these youth are being unnecessarily medicated.*" Dr. Alan Manevitz, a clinical psychiatrist at Lenox Hill Hospital in New York City, responded to news of the study with, "*Social phobia can be limited to only one type of situation -- such as a fear of speaking in formal or informal situations, or eating or drinking in front of others -- or, in its most severe form, may be so broad that a person experiences symptoms almost any time they are around other people. People with social phobia have a persistent, intense and chronic fear of being watched and judged by others and being embarrassed or humiliated by their own actions. The importance of identifying and treating those adolescents with social anxiety disorder is important as they have higher levels of impairment in multiple domains, including school/work ability, social life and family relationships.*"

The study has now been widely reported, appearing online prior to being published in the journal *Pediatrics*. While easier to explain than it used to be because, ironically, of the hyping of medication by the pharmaceutical industry, it is still often difficult to make people understand that the social phobia is a 'real' disorder.

Postpartum depression presents high risk of anxiety disorders for children

Studies have shown that the children of depressed mothers are at increased risk of developing anxiety and conduct disorders. A well-functioning oxytocin system may lessen the risk.

Postpartum depression affects up to 15% of women but often goes undiagnosed and has long-term effects on the social and emotional development of their children. Researchers at the Bar-Ilan University, Ramat Gan, Israel found that children exposed to chronic maternal depression through the first 5 years of their life were more likely to develop a psychiatric disorder by the time they reached school age. The mental health status, oxytocin levels, genetic variation in oxytocin receptors and social interactions were studied in 155 mother-child pairs. Approximately 50 of the mothers had been depressed on and off throughout the child's early life and about 60% of these children developed either an anxiety disorder or a conduct disorder by the time they reached school age compared to only 15% of the children of mentally healthy mothers. The depressed mothers and their children also proved to have lower levels of oxytocin in their saliva and were 3 times more likely than their healthy counterparts to have the variant on the oxytocin receptor known to confer a risk of depression.

The oxytocin system supports the capacity to form social affiliations and close bonds, to trust and to feel empathy. The study included videotaping family interactions which demonstrated that children of depressed mothers were less socially engaged, more withdrawn, did not have the skills to interact socially within their families and had lower levels of empathy with the pain and distress of strangers. The children of depressed mothers who did not have the variant showed better social and emotional development. This research indicates the need for treatment options for postpartum depression to help the children to develop stronger oxytocin systems. Touch, close contact and eye gazing can all trigger the oxytocin system.

Women with PTSD risk inflammatory disease

Researchers at the University of California San Francisco have discovered that post-traumatic stress (PTSD) can lead to a dangerous increase in the immune response in women, triggering inflammation and leading to such conditions as cardiovascular disease and arthritis. Blood was taken from 67 people, 34 of whom had PTSD and 33 serving as a control group. There was no evidence of increased immune activation among the men in the test but the PTSD women showed significant evidence of immune activation compared to the women without the disorder.

This is the first evidence that men and women respond differently.