brain
REPORT
FOCUSED ON MENTAL HEALTH, BASED ON SCIENCE, FILLED WITH HUMANITY

Welcome to the premier issue of the Brain Report

A Bi-Monthly Newsletter Issue: 1 August 2009

Seven Secrets to Happiness

Remission vs. Response

Is it social drinking?

Breaking news in ADHD

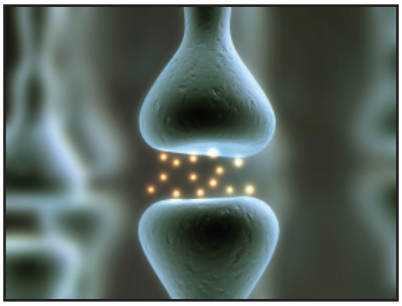
Swing High, Swing Low

Widespread Pain and Fatigue


Welcome to the premier issue of the Brain Report. We are looking forward to sharing with you information based on the science of mental health, written for patients and their families, and filled with the humanity of all those involved in the field of mental health.

In just the last few years, major innovations in neuroscience have transformed our understanding of mental illness. However, the gap between the knowledge base and the information available to patients and their families remains a serious problem. This discrepancy contributes to the stigma surrounding mental illness, a stigma that causes unnecessary pain and suffering for patients and their caregivers and increases their burden on society.

We believe in the power of courage. Those who put a man on the moon did. Those who built the Eiffel Tower did. Courage changes everything. It creates opportunity to change lives today and transform tomorrow. Courage has led to the birth of the Brain Report, which will work to bridge the gap between rapidly expanding knowledge and the availability of timely and high-quality information for patients.



The same courage helped me to attend medical school and become a doctor, immigrate to the United States, further my studies at the Cleveland Clinic, achieve six board certifications from the American Board of Psychiatry and Neurology, start a private practice of psychiatry, and teach other physicians. That courage has inspired the creation of The Brain Report, with its ultimate purpose of helping many more people around the world.

As the founder and editor-in-chief, I will serve with thoughtfulness, humility, and great care. As Albert Einstein said, "Imagination is more powerful than knowledge." We hope that our vision has rekindled your imagination as it has ours. We hope our efforts will bring opportunity, hope, and courage into the lives of patients with mental illness and their families.

Every life is precious and every patient with mental illness deserves the best opportunity to achieve his or her full potential. We believe that our efforts will transform many lives for generations for to come and will inspire others to follow in our footsteps.

Anil M Parikh MD.

Anil M Parikh MD DFAPA
Founder and Editor-in-Chief

About the Founder

Dr. Anil Parikh is the founder and Editor-in-Chief of the Brain Report. As Editor-in-Chief, Dr. Parikh guides editorial strategy, selects content and writes articles.

A psychiatrist with more than 20 years of experience in private practice in Akron, Ohio, Dr. Parikh graduated from Seth G.S. Medical College, a prestigious medical school in Bombay, India. He completed residency training at the world-renowned Cleveland Clinic. Dr. Parikh is board certified by the American Board of Psychiatry and Neurology in six specialties: General Psychiatry, Geriatric Psychiatry, Addiction Psychiatry, Forensic Psychiatry, Psychosomatic Medicine and Pain Management.

In addition to being a clinician, Dr. Parikh is also a teacher who has given lectures and seminars to medical students and physicians on topics related to psychiatry and pain management. Dr. Parikh is a member of the American Psychiatric Association and the Ohio Psychiatric Association. He was recognized as a Distinguished Fellow of the American Psychiatric Association. Dr. Parikh was also recently appointed by Governor Strickland, of Ohio, to the Board of Trustees of NEOUCOM (Northeastern Ohio Universities College of Medicine).

Dr. Parikh has helped tens of thousands of patients in his private practice in the last quarter of a century. His dream is to help millions of people with mental illness around the world through the Brain Report and www.thebrainreport.com.

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Swing High, Swing Low

What you should know about bipolar disorder

Bipolar disorder is a psychiatric condition where patients' moods swing between highs (mania) and lows (depression). Every person gets some mood changes, but for the changes to be considered significant enough to qualify as a symptom of bipolar disorder, they must be extreme and have an impact on the person's ability to function, either at home or at work. Even though the lifetime prevalence of bipolar disorder is approximately 1%, the prevalence of bipolar spectrum disorders are 2.6%-6.5% (depending on the definition used). 35% of bipolar patients wait for more than ten years for an accurate diagnosis and 40% of patients diagnosed with unipolar depression eventually turn out to be bipolar depression patients. The symptoms of bipolar disorder can have a devastating impact on patients and their families - patients with bipolar disorder are more likely to be fired or laid off, or be arrested, jailed, or convicted of a crime.

There are three major categories of Bipolar disorder patients: Bipolar disorder I patients have had at least one manic episode, with or without a previous episode of depression, Bipolar disorder II patients have had hypomanic (not severe enough to classify as manic) and a depressive episode, and Bipolar disorder mixed type patients have had symptoms of depression and mania at the same time. Cyclothymia is a mild form of bipolar disorder and includes mood swings, but the highs and lows are not as severe as those of full-blown bipolar disorder. Rapid cycling bipolar disorder patients have had four or more swings in 12 months (these mood shifts can occur rapidly, sometimes within hours).

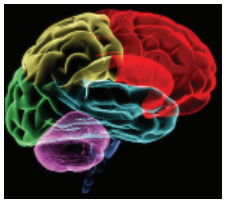
Even though the exact etiology of bipolar disorder is not known, genetic, biochemical, and environmental factors have been implicated in the development of bipolar disorder. Undiagnosed bipolar disorder can severely disrupt life and may have a negative impact on education, employment, and relationships. Early intervention improves outcome, but inappropriate treatment may be harmful – bipolar patients who are misdiagnosed as unipolar depression patients may be inappropriately treated with antidepressants alone, which can worsen bipolar disorder and cause or induce mania.

The diagnosis of bipolar disorder is usually made by a psychiatrist who takes a thorough history, performs a mental status examination, and orders lab tests to rule out other etiologies (medical conditions, medications, drug and alcohol problems, or other psychiatric diagnoses) of the patient's clinical presentation. Psychiatrists use specific diagnostic criteria to make the diagnosis of bipolar disorder as described in the Diagnostic and Statistical Manual IV.

Bipolar disorder, which is both underdiagnosed and misdiagnosed, can be effectively and safely treated. Even though there is no cure available for bipolar disorder, early intervention and treatment can help to improve the patient's prognosis. If you are interested in learning about the diagnostic criteria of bipolar disorder, please visit our website at www.thebrainreport.com.

Illness or Weakness?

Drug and Alcohol Addiction



Throughout much of the last century, scientists studying drug abuse labored in the shadows of powerful myths and misconceptions about the nature of addiction. When science began to study addictive behavior in the 1930s, people addicted to drugs were thought to be morally flawed and lacking in willpower. Those views shaped society's responses to drug abuse, treating it as a moral failing rather than a health problem, which led to an emphasis on punitive rather than preventative and therapeutic actions.

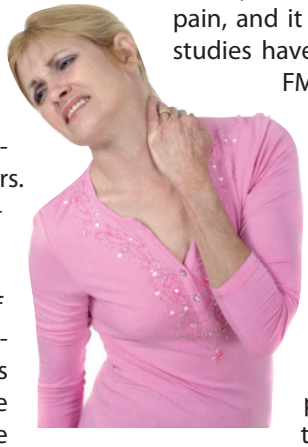
Today, thanks to science, our views and our responses to drug abuse have changed dramatically. Groundbreaking discoveries about the brain have revolutionized our understanding of drug addiction, enabling us to respond effectively to the problem. Now, we know that addiction is a disease affecting both brain and behavior. We have identified many of the biological and environmental factors and are beginning to search for the genetic variations that contribute to the development and progression of the disease. Scientists use this knowledge to develop effective prevention and treatment approaches that reduce the toll drug abuse takes on individuals, families, and communities.

Based on the understanding of the disease process of addiction, many medications have been approved by the Food and Drug Administration (FDA) for addiction treatment. These medications, in addition to comprehensive rehabilitation programs, give patients the best chance to recover from their illness.

Fibromyalgia

Chronic Wide Spread Pain with Fatigue

Fibromyalgia (FM) is one of the most common chronic widespread pain conditions, affecting 6 to 10 million patients in the United States. The majority of patients are between 35 and 60 years old, and women are more likely to be diagnosed with FM than men. Symptoms of FM include chronic wide spread pain and tenderness, fatigue, sleep disturbances, morning stiffness, cognitive complaints, and mood disorders. Symptoms of FM have a significant impact on the quality of life of patients, and it can lead to extensive use of health care services and disability – up to three times more when compared to the general population. Despite its widespread prevalence and significant impact on patients' ability to function, there is much skepticism among the medical community regarding the diagnosis of fibromyalgia.



Recent advances have helped reduce doubt in the medical community about the existence of fibromyalgia. These studies include genetic findings, neurotransmitter changes, and Functional MRI (fMRI) data. First-degree relatives of FM patients are 8.5 times more likely to get FM when compared to the general population. Changes in two specific genes, one controlling the COMT enzyme and a second, which is a serotonin transporter, are potentially associated with FM. Levels of neurotransmitters (chemical messengers), for example substance P, glutamate, and BDNF, in the brain in the cerebrospinal fluid of patients with fibromyalgia are higher than non-FM patients. fMRI studies have confirmed what fibromyalgia patients have been telling the skeptical medical community for decades – "They are really in pain, and it is not in their head." These studies have revealed that at base line, FM patients' fMRIs look different than those from normal people. Administering painful stimulus results in changes in brain activity consistent with verbal reports of pain intensity. FM patients normally detect and experience a full range of perceived pain magnitude, but sensations become unpleasant at stimulus intensities that are significantly lower than those observed in people without FM.

All these findings support the theory that fibromyalgia is a central nervous system pain processing disorder. Thus, it is a real medical condition with a biological basis and is definitely not "all in your head." If you or your family member have symptoms of chronic wide spread pain and fatigue and your doctor has not been able to diagnose your condition, you should see your physician and discuss the possibility of you having fibromyalgia. There are three new medications that have been approved within the last two years by the FDA, and there are many other modalities of treatment that may help in alleviating the symptoms of fibromyalgia.

FDA Approved Medications for Fibromyalgia

1. Cymbalta (duloxetine) is an antidepressant which is believed to dampen pain signals by increasing the levels of norepinephrine and serotonin within the descending pathways in the spinal cord.

2. Lyrica (pregablin) is an anti-convulsant which is believed to decrease the release of excitatory neurotransmitters prior to the ascending pathways of the spinal cord.

3. Savella (milnacipran) is also an antidepressant which is believed to dampen pain signals by increasing the levels of norepinephrine and serotonin within the descending pathways in the spinal cord.

Does Grandma have Alzheimer's?

I frequently see patients in my clinic who are brought by family members with complaints such as "grandma has occasional forgetfulness." Others complain of misplacing their car keys and some have difficulty remembering a familiar name. Some people do become forgetful as they become older, which is a normal part of aging – but memory loss that disrupts life is not typical. It may be a symptom of Alzheimer's Disease, a fatal brain disease that causes a slow decline in memory, thinking, and reasoning skills. The following are some of the most common warning signs of Alzheimer's Disease:

1. *Memory changes that disrupt daily life*
2. *Challenges in solving problems*
3. *Difficulty completing familiar tasks*
4. *Confusion with time or place*
5. *Trouble understanding visual images and spatial relationships*
6. *New problems with words*
7. *Misplacing things regularly*
8. *Decreased or poor judgment*
9. *Withdrawal from social activities*
10. *Changes in mood and personality*

In trying to diagnose Alzheimer's, physicians take a detailed history, perform physical examinations, and order lab tests, X-rays, or MRIs. The physician may also refer the patient to a neurologist, a psychiatrist, or a neuropsychologist to perform testing. The main goal of all the above tests and consultations is to rule out other etiologies for your grandma's symptoms. Even though there is no single test available that will diagnose Alzheimer's disease, this approach is very successful in identifying most, if not all patients with Alzheimer's disease.

Early intervention is the key in preventing the progression of Alzheimer's disease. Do not ignore the warning signs of Alzheimer's, because if your grandma has Alzheimer's disease, it can be helped.

Depression: Remission vs. Response

Total recovery is now possible

Angelina, a high school teacher in her 30's, was waiting in the examination room anxiously to see her family physician regarding symptoms of sadness, insomnia, tiredness, weight gain, difficulty with concentration and loss of interest in teaching for the last several months. She had her first episode of depression after she broke up with her boyfriend at age 19. She developed a second episode of depression after her mother passed away and only recovered partially from both the first and the second episodes. Angelina's case is typical of many patients with depression who partially respond (response) to the treatment of depression but do not recover completely (remission).

Response to treatment of depression is generally defined as a fifty percent reduction in symptoms of depression, whereas remission is defined as complete resolution of all the signs and symptoms of depression and a return to the level of functioning prior to the onset of depression. Response rates to treatment of depression vary between 50% – 75% while remission rates for the treatment of depression varies between 35% - 45%.

The urgency to treat patients with depression until they achieve complete remission is greater now than ever before. According to a study published in Journal of American Medical Association (JAMA), eighty-percent of patients diagnosed with major depressive disorder do not receive adequate treatment. Not achieving remission has serious consequences. Patients who do not achieve remission are more likely to suffer relapses and recurrences of major depressive disorder similar to Angelina's case, develop chronic depression, and have shorter durations between subsequent episodes of depression. In patients with chronic depression, studies have demonstrated a decrease in the volume of hippocampus, possibly due to an atrophy (or shrinking) of the nerve cells in the hippocampus. The hippocampus is a region of the brain that has a role in learning and memory. Some recent studies have hinted at the role of recurrent episodes of depression in patients with dementia, including ones with Alzheimer's type. In patients with heart problems, depression can be associated with poor quality of life, recurrent cardiac events, and mortality. Stroke patients with depression have poor outcomes and an increased mortality rate. In patients with diabetes depression is associated with poorer compliance, outcome, and prognosis and increased complications, Moreover, depression has been associated with decreased bone mineral density in some patients. Chronic depression can cause impairment in work including decreased productivity and increased absenteeism. It can cause relationship problem, including martial problems.

In a recent landmark study, remission of depression in mothers had a positive impact on the children's well being, and non-remission had a negative impact. Moreover, patients who do not achieve and sustain remission are at a higher risk of suicide.

All of the above consequences have created an urgency to both diagnose and treat depression aggressively. The following factors are generally recognized as significant in achieving remission in management of patients of depression.

The longer the duration between the onset of symptoms and treatment of depression, the worse the outcome becomes. Addressing both the emotional and physical symptoms of depression improves the chances of achieving remission. The better the compliance with treatment, the higher the chances of remission. A generally accepted duration of treatment is nine to twelve months for the first episode, eighteen to twenty-four months for the second episode, and life-long for the third and subsequent episodes. Each episode of depression increases the chances of relapse and incomplete resolution. Patients with drug or alcohol abuse in addition to depression would have lower remission rates, and patients with physical conditions (for example chronic pain) in addition to depression will also have lower remission rates. Patients with a good level of functioning, coping skills, and a support system before the onset of depression have better prognosis in achieving remission. Additional treatments including counseling, exercise, and proper nutrition can also have positive impacts on the rates of remission in patients with depression.

Based on the above information, patients and doctors need to take the following steps to improve the chances of improving remission and thus prevent the consequences of failure to achieve remission.

If you develop the symptoms of depression get immediate attention from your physician. Depression is an illness and not a weakness, and once diagnosed, doctors need to treat patients with the appropriate antidepressant medications and counseling to achieve remission.

Continued on Page 7 - "Depression"

Alcoholism: Is it social drinking or alcohol addiction?

Even though there is no one definition of a "problem drinker," most experts agree that when alcohol consumption results in problems with social, vocational, and recreational areas of life, there is a problem. Those who have experienced some of these problems as a result of drinking and still cannot stop are thought to be addicted to alcohol. Thus, loss of control over alcohol use is an important criterion to identify people with addiction to alcohol.

The amount of alcohol it takes to cause problems varies from person to person. Because of body mass and metabolism differences, women feel the effects of alcohol far more quickly than men, and therefore are at risk of developing alcohol related problems with less alcohol consumption. Elderly people are also more easily affected because their livers are less efficient at clearing alcohol from the body than younger people. Alcohol more quickly intoxicates on an empty stomach or if it is consumed rapidly. In general, though, low-risk or responsible drinking is defined as no more than one drink per day for women and two drinks per day for men. This means one 12 oz. beer, one 5 oz. glass of wine, or one 1.5 oz. shot of liquor (vodka, whiskey, or rum). A family history of alcoholism can predispose you to move from a social drinker to a problem drinker more rapidly, and the earlier one begins drinking regularly (such as during the teenage years), the more likely it is that an alcohol problem will develop.

A simple screening test called the CAGE Questionnaire is a good way to gauge if you are moving from low-risk drinking to problem drinking. It is one of the most widely used screening tests for alcoholism.

If you or your loved one has symptoms suggestive of an addiction to alcohol you can use the CAGE test to make a preliminary assessment to see if they have a problem drinking. You may want to consider getting an evaluation from an addiction psychiatrist if the result of the test is positive. The FDA has approved three medications, each with a different mechanism of action to help people with alcoholism. Along with medication, counseling and Alcoholics Anonymous involvement can be successful in managing alcoholism. Early intervention and treatment can help to stop the progression of the disease, and also prevent organ damage.

**Below, you will find the CAGE Questionnaire. If you answer "Yes" to two or more of the questions, it is considered "clinically significant" for alcohol dependence*

CAGE Questionnaire

1. Have you ever felt you should **c**ut down on your drinking?
2. Have people **a**nnoyed you by criticizing your drinking?
3. Have you ever felt bad or **g**uilty about your drinking?
4. Have you ever had a drink first-thing in the morning to steady your nerves or get rid of a hangover (**e**ye-opener)?

Erasing Depression's Myths

The top 10 misconceptions about mental health and why you shouldn't be embarrassed to seek professional advice

1. Depression is a weakness

2. Depression goes away on its own

3. People who think they may have depression are just feeling sorry for themselves

4. Depression only happens after traumatic or stressful events (like breaking-up, the death of a loved one, or failing an exam)

5. Talking about depression makes it worse

6. Depression is no different than "the blues," which are a normal part of life

7. You can will depression away, and if you can't, you are weak

8. Depression is not a medical problem

9. Depression only affects women

10. If someone in your family suffers from depression, you will inherit it

Breaking News in ADHD

Attention Deficit Hypercativity Disorder

Attention Deficit Hyperactivity Disorder is a condition that is commonly diagnosed in children and is characterized by hyperactivity, inattention, and impulsivity. It is diagnosed by using criteria as defined by The Diagnostic and Statistical Manual for Mental Disorder Fourth Edition (DSM IV). If not diagnosed, ADHD can have significant negative consequences, such as a lower rate of school and career achievement and higher rates of substance abuse, incarceration, injuries, and car accidents. If it is properly diagnosed and treated, the treatment of ADHD (including medications and counseling) can be extremely effective, Some of the most recent advances in ADHD research include:

1. A landmark study published in the September issue of Archives of Pediatrics and Adolescent Medicine revealed that of 8.7% of children who met the criteria for diagnoses of ADHD, only 47% had been diagnosed and only 32% were treated consistently with medication. Thus, contrary to the popular belief, ADHD is both under-diagnosed and under-treated.

2. A study done at the National Institute of Health on drug abuse by Dr. Nora Volkow documented decreased dopamine activity in the brains of a group of adults with ADHD. Decreased dopamine activity is related to systems associated with the attention, cognition, and reward system of the brain.

3. Dr. Shaw at the National Institute of Mental Health published a study based on Magnetic Resonance Imaging (MRI) and DNA testing that revealed that a version of a gene involved with dopamine appeared to be associated with ADHD and with thinner tissue in the areas of the brain that control attention.

Stimulants that have been used for decades in managing the symptoms of ADHD work by their effect on dopamine in the brain. The recent findings by Dr. Volkow at the NIH and Dr. Shaw at the NIMH described in numbers 2 and 3, respectively, and the mechanism of action of stimulants that is known for several years confirm the biological nature of the illness and specifically the role of dopamine in patients with ADHD.

The recent advances made in understanding ADHD have led to earlier diagnosis and better interventions including medications and counseling, which have improved results of treatment of ADHD.

"Depression" - Continued from Page 5

Antidepressants, which can address both the emotional and physical symptoms of depression, have a better chance of achieving remission. Patients must be informed of the side effects as well as the positive effects of the medication and the need for compliance with the treatment.

If patients develop side effects they need to discuss them with the doctor so that the appropriate adjustments can be made with either the dosages of the medication or the type of medication. Patients who fail to respond to treatment by their family physician should be referred to a psychiatrist, who would be able to do a more thorough assessment regarding their diagnosis and developing a treatment plan to address treatment resistance. Once a patient has achieved complete resolution and remission of depression for adequate duration, their medication can be gradually tapered off successfully. Patients must be educated so that after the treatment has concluded if patient develops recurrence or relapse of the condition they need to return to treatment immediately.

Depression is a common illness that is both under-diagnosed and under-treated. According to the World Health Organization, depression will become the second leading cause of disability worldwide by 2020. Remission is the goal of the treatment of depression, and not achieving remission has serious consequences, including the atrophy of neurons in the hippocampus area of the brain. Both patients and physicians must become proactive in the early diagnosis and aggressive treatment of depression to achieve remission. In the near future, genetic testing, fMRI (Functional MRI) and PET (Positron Emission Tomography) scans will help us with early diagnosis, selection of anti-depressants, and duration of treatment. All these tools will give us the best chance at achieving complete victory over the battle with depression like the one Angelina faced. This in turn will help patients like Angelina achieve their full potential in life because every life is precious and every patient with depression deserves a chance at achieving their full potential.

Seven Secrets to Happiness

"Happiness is when what you think, what you say, and what you do are in harmony"
–Mahatma Gandhi

1. Give back to family and society – it will give you more happiness than taking.
2. Practice a profession that will naturally allow you to help others.
3. Plan. Planning will help mitigate risk and prevent negative surprises and unhappiness in life.
4. Accept some difficulties and pain in life as inevitable.
5. Surround yourself with happy people.
6. Think positive.
7. Have a sense of humor.

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