



HEADACHE

NEWSLETTER OF THE AHS COMMITTEE FOR HEADACHE EDUCATION

Dear Public and Members of the American Headache Society®:

Welcome to the slightly late March 2011 Edition of the Third Volume of the American Headache Society® Committee on Headache Education (ACHE) Online-Newsletter.

In this installment behavioral headache experts tell us about critical to know issues for our health. This Newsletter opens with an introduction to behavioral self-care and closes with the very practical ABCs of management. Next find advice about getting the most out of professional behavioral advice. Specific discussions follow on critical associations complicating migraine including depression and anxiety, abuse and post traumatic stress disorder and sleep. Read and find opportunities and peace!

The Editors are especially grateful to these experts for their time, dedication to patients and fantastic ACHE articles. This month's authors combine years of caring for and with headache patients.

Our intent remains to have medical providers and the public copy this Newsletter for whatever their purpose. Please encourage everyone in need of reliable headache information to access this online via achenet.org. They are available under either ACHE News: 2011 Newsletters and/or Information for Patients: Articles. Our pledge to provide usable articles we think is met this month. Let us know your thoughts by using Contact on achenet.org. Comeback often and inform us of your needs.

At this time this Newsletter Editor takes the opportunity to inform our readership that our beloved Chairman Fred Sheftell is ill. Words are insufficient to express the deep love and gratitude we in the world of headache have for him. I know we all wish Fred and his cherished wife peace and joy in each other and their family. Your thoughts and prayers are welcome.

Frederick R. Taylor, MD FAHS
Newsletter Editor

Fred Sheftell, MD FAHS
ACHE Chairman

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Co-morbidity: Helping Yourself Help Your Headaches

Robert A. Nicholson, PhD

When you talk with your provider about your headaches, do you ever wonder why they also ask about other issues in your life... "Are you sad?" ... "Do you get anxious?" ... "How's your sleep?" ... "What triggers your headaches?" Do you ever wish they would just give you a useful medication and focus on the headache? If headaches are the only issue for you, then you are in the minority. Most headache patients needing a provider deal with more than just headaches. This is due to an increased link between headache and several other disorders. This increased connection is called "co-morbidity". It turns out that most headache patients have one or more co-morbidity.

Think about what kinds of conditions are more common than chance among people you know with headache. What comes to mind? It turns out that the most common are sleep problems, especially insomnia. Anxiety, depression, bipolar II, and posttraumatic stress disorder (PTSD) are also very frequent in headache patients. These kinds of links with headache are called psychological, psychiatric or behavioral comorbidities. In this ACHE issue, we discuss some of the most common headache-psychological links.

How common are these comorbidities? Well, it turns out that nearly 3 out of every 10 people with migraine have depression. As many as 5 out of 10 have anxiety. Recently, we have learned more about the impact of childhood abuse and maltreatment on headache. Recent research has told us that as many as 3 out of 10 people with severe migraine have PTSD and many have been abused. And among behavioral comorbidities, problems with sleep are likely the most problematic along with difficulties coping with stress,

But why? What causes these comorbidities to be so common among persons with headache? It turns out that sharing of many of the brain's message systems is the answer. Brain regions and messengers that communicate information about mood also determine how the body sleeps and copes with stress. These in turn involve communication that leads to headache and feeling pain.

The brain also uses certain chemicals called neurotransmitters to communicate (if you've seen any commercial for a medication on TV you have probably seen an example of how the brain uses these chemicals to communicate). In people who struggle with mood, the

communication doesn't work as well as it is supposed to work. In people with headache some of these same areas of communication also don't work as well as they are supposed to work.

In addition, research has shown that there is likely a genetic reason for why someone with headache is more likely to have depression or other mood issues.

Finally, people who have headaches have a brain that is highly sensitive to changes that can occur within their body. Examples include hormones, responding to stress, not sleeping well, and skipping meals. They are also sensitive to changes from outside their body. Examples include weather, light, smoke and perfumes. This sensitivity appears to be due to an "over alert" or "hyperexcitable" brain. It turns out that this may also be true among people with comorbid mood disorders. We also know abused people are more sensitive to the outside environment as well.

In this issue of ACHE, we write about these issues. Most of these topics were provided to specialists interested in headache management at the 2010 American Headache Society Annual meeting. They are rewritten and edited for your benefit here.

The first article, written by a psychologist seeing headache sufferers daily, addresses whether you might be a good candidate for a psychological referral, how to talk about getting a referral, and what to expect on your first visit.

The next article discusses depression and anxiety, two of the biggest psychological issues faced by people with headache. This article was written by two of the leading experts in the issues of mood and headache, and both of them use their own experiences as clinicians to help you better understand this topic.

The article on PTSD and abuse discusses how abuse and PTSD are more common in headache. It tells why those who experience PTSD and abuse as children are at greater risk for having headaches later. We are honored to have one of the leading researchers in this area and one of the top headache psychologists in the country write this article.

Next we have an article on the connection between sleep and headache. The author is the leading expert on sleep and headache in the USA and she built on her research and clinical experience to

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write this article.

Finally, the editor of this newsletter, a practicing headache specialist, offers his ABC's on behavioral self care. The intent is to maximize success and minimize the problems discussed herein.

As you read through this issue of ACHE, we hope that it helps you better understand these issues. We hope you will obtain better tools to use if psychological comorbidities apply to you.

Robert A. Nicholson, PhD, Associate Professor, Dept of Neurology & Psychiatry, Saint Louis University School of Medicine; Research and Methodology Consultant, Mercy Health Research/Ryan Headache Center, St. Louis, MO.

Behavioral Treatment of Headache and Migraine Patients – Making Referrals

Lucy Rathier, PhD

Why would I want to get behavioral treatment for my headaches?

There are quite a few reasons why a patient could benefit from seeing a psychologist. Of all these reasons, the most important is that 30-60% of all patients who use biofeedback, relaxation, or cognitive-behavioral therapy have many fewer headaches than before they started. Ultimately, the reason would be so that you have fewer headaches and get back to living life like you want.

However, not everyone finds behavioral treatment useful. So, how do you know whether you and behavioral treatment are a good "fit"? Here are some signs that you might benefit.

Do you have a hard time managing headache triggers, especially stress?

Stress is the most common headache trigger. Stress can cause change in the brain that makes it more likely you will have a headache. Stress can also make a headache last longer and make it feel more painful. People who feel over-stressed also don't do as well with the rest of their lives when they have a headache. This means that if you have a headache and are stressed, it is likely that the headache will have more of an impact on your life. This impact affects time with family/friends, things you do for fun, and work.

So should your goal be to not get stressed? No, because everyone experiences stress. Everyone, however, does not handle stress in the same way. Stress can't be completely avoided. Learning to better deal with stress can help you have fewer headaches. This leads to less of an impact on your life.

Who might benefit? Patients who have depression and/or anxiety

People who have headaches and depression or anxiety feel like they are in a vicious cycle. Headaches may make a person feel more sad, worried, or anxious. When you are sad, worried, anxious, or frustrated, your chances of getting a headache are higher. In fact, research shows that people with migraine are between 2 and 4 times more likely to have depression and anxiety. So if you have this, don't worry, you are not alone. This newsletter has an article that tells you more about the links between headache, depression, and anxiety.

Who might benefit? Patients who have problems taking medication as prescribed.

Providers do not limit behavioral treatment of headache to only those patients who have difficulty managing stress or experience depression, anxiety, or other mental health concerns. Many patients have trouble sticking to the medical treatment recommended. This leads to inadequate management of their headaches or migraines. There are many reasons why people do not take headache or migraine medications:

- * Concerns about adverse side effects leads to a delay in taking medication in more than one in three. Feeling sleepy/tired was the most common and most bothersome side effect.
- * Nearly 7 out of 10 want to wait to see if it really is a migraine.
- * Nearly half want to take medications only if it is a severe attack.
- * High cost is a reason in one in three for not refilling a headache medication.
- * Patients hesitate to use a triptan when pain is mild due to limitations on pill quantity and reimbursements imposed by insurance companies.
- * Weight gain or its possibility from preventive medications influence adherence.
- * Safety concerns for pregnant women.

Who might benefit? Other issues that can be treated with behavioral treatment

There are other issues in your life that influence your headaches and their impact. These include problems with sleep, having a history of childhood abuse or neglect, or taking medication too often for your headaches. This newsletter contains other articles on sleep and abuse/trauma.

In terms of taking medication too often, how do you know if it's too often? Have concern if you are taking **any symptom relief medication** more than 2 days a week. You may be overusing medication if you worry about having enough or hoard them. Talk

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with your health care team about your use of acute drugs. If using acute drugs too often, expect, even require your provider to create a plan on how to prevent overuse. Patients find that using behavioral treatments make this process easier and more successful.

HOW DO I FIND A PSYCHOLOGIST WHO TREATS HEADACHE PATIENTS?

Those who treat headaches work in a variety of settings. Some work in hospital-based headache treatment programs, while others are in hospital or clinic based behavioral medicine clinical services, or in private practice. Start by talking with your providers. The next best referral sources are the American Headache Society membership and referral database (www.achenet.org), the American Psychological Association Psychologist Locator Service (<http://locator.apa.org>), State Psychological Associations, and your health insurers' list of mental health care providers. It is most helpful to search for psychologists who specialize in headache and/or pain management.

SHOULD I TALK WITH MY PROVIDER ABOUT BEHAVIORAL TREATMENT?

There are misconceptions about the behavioral treatment of headaches. One is that meeting with a psychologist says that the pain lacks a physical cause. None of us wants an encounter that might suggest our pain is not real. Psychologists understand that there is a physical basis to headaches and migraines. Psychologists are involved in the treatment of headaches and migraine because they know the pain is real. They can offer effective strategies for the management of this pain. They also know patients suffering from headaches or migraine many are in a vicious cycle. For the sufferer it can be very helpful to discuss all this with someone familiar with pain. It is no misconception that pain is real and causes stress, tension, anxiety, or depression which in turn causes more pain.

Patients may incorrectly assume that seeing a psychologist for headache pain management means termination of the relationship with their medical provider. They may also think that a psychologist will not support the use of medications in the treatment of headaches or migraine. Psychologists who specialize in the treatment of pain are not against the use of drugs. They support a comprehensive, multidisciplinary team approach.

When discussing a referral for behavioral treatment with your provider, you may wish to address the following points:

Let him or her know that you would like to work closely together on the treatment of your headaches or migraines. Express that you are the expert in understanding your body and your pain. This means you would like to take an

active role in self-management.

- * Share that you would like options to reduce the frequency, intensity, and duration of headaches. Indicate one or more of these tools are relaxation strategies and/or biofeedback. Indicate you want to learn ways to manage your life to minimize the impact of headache pain or migraines on relationships, work, home chores, sleep, mood, stress and more.
- * Ask for referrals to licensed psychologists who specialize in the treatment of headache pain or migraines.
- * Ask this team of providers to share information with each other for your best care. This may involve phone conversations, e-mails when privacy is secure, and/or the sharing of medical records. You will need to sign consent forms to authorize the communication of your protected health information.
- * Find out if you have health insurance coverage for visits with a psychologist who treats headache patients by calling the Member Services number of your health insurer. This is typically found on the back of your health insurance card.

What should I expect from my first visit with a psychologist?

The psychologist wants to understand how headaches or migraine affects your life. He or she will ask questions about the history and nature of your headaches and migraines. There will be questions about past treatment attempts. There will be a focus on how headaches or migraines currently affect your work, relationships, home life, and leisure activities. The provider may ask you to fill out some questionnaires in advance to best understand you.

Cognitive-behavioral therapy (CBT) teaches how to recognize and cope with stress. It helps to understand how thoughts and behaviors affect symptoms. CBT helps to understand how to change the way the body responds to anticipated pain. You and the psychologist or behaviorist will set specific treatment goals together. The chief goal is to exchange sick time for wellness time. You can spend the exchanged time enjoying yourself, staying healthy, managing triggers and stress thereby minimizing headaches/migraines. Treatment may focus on any or all of the following:

- * Wellness Activities (Healthy Sleep, Physical Activity and Eating)
- * Relaxation Strategies and Stress Management Techniques
- * Managing Headache Triggers
- * Modifying Thoughts to Make Them More Adaptive and Beneficial
- * Pacing of Activities

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Behavioral treatment is meant to empower you to act in your own best interests. Choosing comprehensive treatment helps you manage the difficulties in the many areas of your life that have been influenced by headache or migraine. If you are ready to approach the management of your headache or migraine in a new way, pursue behavioral treatment.

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Depression and Anxiety in Migraine Patients

Todd A. Smitherman, PhD and Steven M. Baskin, PhD

Key Points:

- *Migraine patients are more likely to have depression and anxiety.*
- *Depression and anxiety are worse with migraine 15 or more days a month.*
- *When depression and anxiety are worse, more migraines are likely.*
- *Learning to recognize symptoms of depression and anxiety is helpful.*
- *There are medications and behaviors that help with depression and anxiety.*
- *Talk to your health care provider if you experience these symptoms.*

Migraine, Depression and Anxiety

Many migraine patients suffer from symptoms of depression and anxiety. Migraine patients are between 2-5 times more likely to have these symptoms than patients without migraine. About 25% of patients with migraine have depression. About 50% have anxiety. Some patients have symptoms of these disorders after living with the burden of migraine. Others develop them before they develop migraine. At this time, scientists don't know the exact answer why all are so common. Scientists think they all share several problems. One is how the brain sends chemical messages from one neuron to another. Each shares a messenger called serotonin. Hormone changes in men and women affect depression. In most women hormone changes are also important for migraine. People with migraine, depression, and anxiety are more sensitive to changes inside their body and around them.

Symptoms of depression and anxiety are most common among persons with chronic migraine. Chronic migraine consists of very frequent migraine attacks with 15 or more days of headache each month. For persons with fewer headaches, depression or anxiety

puts them at risk for more headaches over time. Symptoms of depression and anxiety also impact other areas of health. Migraine patients with depression or anxiety have higher medical costs. They are at increased risk for suicide. They have higher levels of disability than do migraine patients without depression or anxiety. Also, and perhaps most importantly, headache treatments don't work as well when not being treated for these mood disorders. Untreated patients are less likely to follow medicine or behavior treatment plans. They also show less response to headache medications, and are more likely to relapse. For these reasons, best treatment of all these disorders is very important.

Warning Symptoms – especially Feelings and Thoughts

Depression and anxiety treatment begins first with symptom recognition. Recognition of depression and anxiety can be hard. Both often appear as physical symptoms. They may share some symptoms with migraine. For example, problems with sleep and appetite change, being easily upset, trouble concentrating, low energy, and dizziness are all symptoms of migraine, depression and/or anxiety. As a result, it is better to pay attention to thoughts and feelings to help determine the difference. Depression usually involves strong feelings of sadness or hopelessness. These feelings usually last at least 2 weeks. Some migraine patients who are depressed do not feel sad, down, or hopeless. Instead, they are not as interested in activities that they normally enjoy. Others include feeling worthless, guilty, or thoughts of suicide.

Anxiety types

Anxiety disorders are the most common type of mental disorder. Nearly 30% of all people will meet criteria for an anxiety disorder at some point, but 50-60% of migraine patients will suffer from an anxiety disorder. Though there are several types of anxiety disorders, most involve chronic worry or fear and avoiding places and objects that trigger these feelings. The most common anxiety disorders for patients with migraine are panic disorder, generalized anxiety disorder, and phobias. In panic disorder, the patient has recurrent, unexpected feelings of terror. The heart starts beating rapidly and breathing becomes strained; other symptoms may involve sweating, fear of dying, or losing control. Although attacks don't last very long and are not dangerous, many people develop significant anxiety between attacks, avoid certain places, and sometimes fear normal physical sensations that they associate with panic attacks. Patients with generalized anxiety disorder can't control their constant worry about life events that may never even happen. They are "worry warts" who often expect disaster even though there is little reason to feel that way. Physical symptoms often accompany this exaggerated worry. Phobias are fears of specific objects or places, such as an intense fear of social interactions that causes the patient to avoid most social situations

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(social phobia). Physicians and mental health professionals assess these symptoms through interviews, questionnaires, and observations of patient behavior.

Treatment Options

A number of drugs and behavioral treatments help with symptoms of depression and anxiety. Antidepressants reduce symptoms of depression and anxiety; they change how the brain sends chemical messages (such as serotonin) from one neuron to another. Sometimes a single method can help both symptoms of depression/anxiety and headache. However, many patients require two different drugs or behavioral treatments for a period of time. One method may be best for depression or anxiety. The second a best approach to prevent headaches. Behavioral treatments for depression require a belief in self care. They often involve using enjoyable or rewarding activities. Patients often improve skills for interacting with other people. Changing thoughts about certain aspects of life can also be used. Behavioral interventions for anxiety include safe, gradual, and prolonged exposure to those people, places, or situations that the patient fears. It too involves changing how the patient thinks about those things. Behavioral treatments are effective for mild-moderate depression and tend to be more effective than drugs for anxiety disorders, particularly for long-term symptom relief. For many patients, combining medication and behavioral treatment is better than either one alone for depression, anxiety, and headache.

Much work remains to help determine the best treatment options for different types of patients. We also need to better understand the impact that treating depression and anxiety has on headache and vice versa. Remember, it is extremely important to obtain best treatment for each disorder; the depression or anxiety and the headache disorder. Safe and effective drug and behavioral treatments are available, so talk with your provider about any symptoms of depression or anxiety that you have.

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Abuse, Post Traumatic Stress Disorder and Migraine

Gretchen Tietjen, MD and Dawn C. Buse, PhD

Key Points:

- Abuse is common worldwide and can be physical, sexual or emotional.
- Victims and perpetrators of abuse can be any age, gender, or ethnic group.

- The abused have higher rates of migraine than people without abuse.
- Some victims develop post traumatic stress disorder (PTSD) manifested by flashbacks, nightmares, increased anxiety, and avoidance of reminders of the event.
- There is a strong link between migraine, abuse, and PTSD.
- Psychological therapies are the mainstay of treatment; cognitive-behavioral therapies have the most evidence supporting their use; certain types of antidepressants may also be helpful.
- If you or someone you know is a victim of current or ongoing abuse call the National Domestic Hotline: 1-800-799-SAFE or law enforcement now.

Childhood Maltreatment and Migraine

Sadly, abuse is common. Abuse can happen to someone of any age, gender, and race, by someone of any age, gender, and race. Child abuse is especially heartbreaking. In 2009 alone, the U.S. Health And Human Services - Child Protective Services received more than 2 million reports of suspected child abuse. This number is likely lower than what actually occurs. It is believed that the majority of cases are not reported. In that same year, it was estimated that 1,760 children died in the US due to child abuse or neglect. The Federal Child Abuse Prevention and Treatment Act (CAPTA) of 2003 defines child abuse and neglect. It states this to be: "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm." The US Department of Health and Human Services- Child Welfare Information Gateway calls these events "Childhood aversive experiences." These include:

- Abuse
 - Emotional Abuse
 - Physical Abuse
 - Sexual Abuse
- Neglect
 - Emotional Neglect
 - Physical Neglect
- Household Dysfunction
 - Mother Treated Violently
 - Household Substance Abuse
 - Household Mental Illness
 - Parental Separation or Divorce
 - Incarcerated Household Member

See <http://www.childwelfare.gov> for more information.

Childhood maltreatment or abuse predicts many other possible

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problems. These occur both during childhood and adulthood. Problems include medical and psychological conditions. They sometimes include harm to others (called “revictimization” or inflicting abuse upon others). They sometimes include harm to oneself, such as cutting, burning oneself, or suicide attempts. These behaviors can last well into adulthood. Many persist throughout life if not treated. Several studies demonstrate that childhood injury or abuse makes it more likely to develop migraine later in life. The more severe the abuse, the stronger the link grows. These headaches are also more likely to be frequent and disabling. Severe abuse is also linked to other conditions, including chronic pain, fibromyalgia and irritable bowel disease.

Chronic maltreatment early in life alters the brain’s response to stress. This may make it more likely to have migraine. A study of inflammatory blood tests suggests a mechanism for the link. In this study, adults showed higher levels of biomarkers in the bloodstream when exposed to abuse in childhood. Genes are also important in this process. Genes are responsible for how a person and their body respond to early stressful experiences. It is also possible that early stressful experiences may become hard-coded into DNA. This creates a memory of events that leads to impaired health at a later date.

Post Traumatic Stress Disorder and Migraine

Childhood maltreatment, abuse or violence may lead to post-traumatic stress disorder (PTSD) at a later age. PTSD is a condition that results from exposure to an event that caused feelings of intense fear, helplessness, or horror. Many traumatic stressors exist. These include natural disasters and transportation accidents. Others are physical and sexual assault such as rape and exposure to war or combat. Finding out about a traumatic event or about the violent death of a loved one may also lead to PTSD. The main symptoms of PTSD include 1) re-experiencing the traumatic event through flashbacks or nightmares; 2) avoiding reminders of the trauma; 3) increased anxiety and emotional arousal such as feeling irritable, jumpy, or being easily startled; and 4) feeling detached from others or emotionally “numb”. Other symptoms may include feeling angry, guilty, hopeless, and experiencing physical aches and pains, including headache.

Studies show a connection between PTSD and migraine. PTSD occurs in about 10% of the general population. It is present in about 25% of patients in a headache clinic. About 50% of combat veteran clinic patients have headache. In one study of PTSD and migraine, nearly 60% reported physical or sexual abuse as the cause. Not unexpectedly, the presence of PTSD complicates migraine. In persons with migraine, headache frequency and headache-related disability are greater than in those without PTSD. Interestingly, in a study of the PTSD-migraine link, men with migraine were 3 times more likely to have PTSD than women with

migraine.

PTSD Therapy

The process that links migraine and PTSD is not known. PTSD may affect the autonomic (or “automatic”) nervous system. This part of the nervous system controls the “fight or flight” response. This is the body’s natural response to danger. It is controlled by the hypothalamus, pituitary and adrenal glands. Relaxation therapies can counteract the “fight or flight” response. They engage the parasympathetic branch of the nervous system which controls the “relaxation response”. The relaxation response can often be started through deep breathing or focusing on a pleasant image or memory. PTSD also affects the brain’s corpus callosum, a bundle of nerve fibers that connect the right and left sides of the brain. In PTSD, the corpus callosum shrinks.

Cognitive behavioral therapies (CBT) have the best evidence for treating the effects of PTSD and abuse. CBT can be helpful both during and immediately following a traumatic experience, or years later to help one cope with the after effects. CBT can be used in adults, children, elderly or disabled persons. There are several subtypes of CBT with scientific data supporting their use for PTSD. Cognitive therapy involves identifying and managing distressing trauma-related thoughts and abnormal patterns of thinking. Exposure therapy involves reducing the fear associated with traumatic experiences. This occurs through repeated confrontation combined with relaxation. This can be for feared places, situations, memories, thoughts, and feelings. Stress inoculation therapy involves developing skills for managing stress and anxiety. Types of skills include deep breathing, muscle relaxation, assertiveness training, role playing, thought stopping, and positive thinking. In eye movement desensitization and resensitization (EMDR) therapy, a person focuses on emotionally disturbing material. At the same time they focus on an external stimulus. This is usually eye movements, hand tapping, or sounds. For people who struggle with self-harm behaviors, dialectical behavior therapy (DBT) is especially helpful. Behaviors include self-cutting or suicidal thoughts or actions. DBT is also useful for those making dangerous or unhealthy life choices. DBT combines the basic principles of CBT with relaxation training, mindfulness meditation, and other proven interventions.

For help finding a mental health provider who uses these therapies see the recommendations below. In addition, everyone can benefit from learning and practicing relaxation techniques such as deep breathing, meditation and visual imagery. There are many tools such as workbooks and self-guided audio resources available.

The role of medication for the treatment of PTSD is less firmly proven. Selective Serotonin Reuptake Inhibitors (SSRIs) are a group of antidepressant medications. They are often prescribed for PTSD, but

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there is debate over the benefit. Studies in animals suggest that treatment with SSRIs may actually reverse some of the effects of maltreatment on the stress response. Other medications which are currently being investigated for the treatment of PTSD include beta-blockers (e.g. propranolol), Prazocin, and Ketamine. It is not recommended to take benzodiazepines, such as Valium, Ativan or Xanax, because they are not effective in treating PTSD and can be addictive.

Summary

- Abuse is common in the US and around the world and can be physical, sexual or emotional.
- Victims and perpetrators of abuse can be any age, gender, or ethnic group.
- The abused have higher rates of migraine than those without abuse.
- Some victims of abuse and other horrible events develop post traumatic stress disorder (PTSD).
- Symptoms of PTSD include flashbacks, nightmares, anxiety, and avoidance of reminders of the event.
- The occurrence of PTSD is 3 to 4 times more common in persons with migraine than those without migraine.
- The brain-body stress response is altered in PTSD, and there may actually be changes in the structure of the brain as a result of PTSD.
- Psychological therapies are the mainstay of treatment for PTSD and coping with the effects of abuse. Cognitive-behavioral therapies (CBT) have the most evidence supporting their use. Certain types of antidepressants (SSRIs) may also be helpful, either individually or in conjunction with psychotherapy.
- Dialectic behavior therapy (DBT) can be helpful for someone who has difficulty with relationships or participates in self-harm or risks behaviors.
- If you or someone you know is currently being abused call the National Domestic Hotline: 1-800-799-SAFE or law enforcement immediately. Help is available.
- If you have been a victim of abuse and/or have PTSD consider treatment.
- Talk to your healthcare provider, or to find a mental health care professional (psychologist, psychiatrist, or social worker) visit the following websites:
 - American Psychological Association (APA): www.apa.org
 - Association for Behavioral and Cognitive Therapies (ABCT): www.abct.org
 - American Committee Headache Education (ACHE): Do a provider search by: “psychologist” or “psychiatrist”: www.achenet.org

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Sleep Disorders and Headache

Jeanetta Rains, PhD

Key Points:

- Allow yourself to sleep 7-8 hours per night.
- Regular, adequate sleep leads to fewer headaches.
- Sleep loss and oversleeping are common headache triggers.
- Frequent waking from sleep with headache is a potential sign of a sleep disorder.
- Insomnia increases risk for depression and anxiety; discuss combined headache-sleep-mood disturbance with your healthcare provider for a holistic plan.
- Nightly snoring can cause daily headache. Habitual snoring may be a sign of sleep apnea. Treating apnea can reduce or even eliminate headache.
- Record sleep time to bed and rising, length and quality, along with headache to help diagnose insomnia and identify sleep related headache triggers.

Introduction

Scientists do not argue about a link between headaches and sleep disorders; nor should headache sufferers. Headache sufferers have a great risk for sleep disorders. This risk is 2 to 8 times greater than the general public. In specialty headache clinics, well over half of headache patients have chronic sleep problems. Sleep disorders increase as headaches become more frequent and severe. Regular restful sleep improves headache. Fortunately, specific sleep patterns identify sleep disorders for treatment.

Nearly half of all migraines occur between 4AM and 9AM. The pattern of waking often or daily with a headache is an important sign that sleep may be provoking headache. This is often called “awakening headache.” This may present as migraine, tension type or other headache. The key features are the timing of the headache and tendency to come on during or shortly following sleep. To wake up first thing in the morning often with a headache suggests the need to assess sleep as a cause. It just makes sense. Sometimes the cause, but more often the trigger for headaches is found in sleep.

Chronic daily or awakening headache patterns, regardless of diagnosis, are suggestive of sleep disorders. It appears that almost any sleep disorder can provoke headache. Obstructive sleep apnea and insomnia are the most common. Others common conditions include restless legs, excessive daytime sleepiness and the abnormal sleep behavior of jaw clenching. Others include circadian rhythm or ‘body clock’ disorders, narcolepsy and sleepwalking.

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Snoring and Sleep Apnea

Regular snoring is a risk factor for chronic daily headache. Snoring is the first sign of serious abnormal breathing. All snorers do not have obstructive sleep apnea. Snoring is an important result of sleep apnea. Other symptoms of sleep apnea include apparent pauses in breathing witnessed by the bed partner, awakenings, nighttime urination, night sweats, and daytime sleepiness. Sleep apnea is linked to hypertension, heart disease, and stroke. Those with awakening headache should report snoring to their healthcare provider. Overnight testing may be needed to confirm the diagnosis. A significant proportion of sleep apnea-related headaches will improve or stop with treatment of apnea.

Insomnia

The most common sleep problem for headache sufferers is insomnia. This includes difficulty falling or staying asleep, early morning awakenings and non-refreshing sleep. Total sleep time is usually < 6 hours per night for adults. Insomnia impairs daytime functions. This results in fatigue, poor attention and concentration and loss of motivation. Insomnia also creates worries over not sleeping and irritable, anxious or depressed mood. Providers diagnose insomnia by history or sleep diaries. Use a diary to record time to bed and getting up, duration, and quality of sleep for 2 weeks. Use a combined headache and sleep diary to diagnose insomnia and identify links between headache and sleep.

Headache sufferers with insomnia often suffer from anxiety or depression. Headache mixed with poor sleep and mood problems reduces function and quality of life. The combination increases headache frequency. Managing sleep and mood is critical for treating such headaches. Cognitive behavior therapy or antidepressant drugs can help. Choice of medicine depends on individual needs. Some antidepressants promote sleep and help insomnia. Nutrients may also help. Talk to your providers about pharmaceutical grade L-tryptophan, 5-HTP, or melatonin. The treatment of choice for insomnia is behavioral sleep therapy. See healthy sleep habits described below. Sleep specialists or psychologists offer more intensive treatments such as cognitive therapy, relaxation training, and sleep behavior modification.

Biology Links Headache-Sleep-Mood

The link between sleep and headache is not poor luck. Common brain regions control sleep, headache and mood. They also share chemical brain messengers. Therefore, not enough or poor quality sleep increases the odds for headache and mood change. Sleep loss lowers the pain threshold. This increases the physical and emotional experience of pain. On the other hand, restful sleep eases pain and improves mood. These shared factors explain why a wide variety of sleep events trigger headache.

Sleep-Related Headache Triggers

Sleep loss, oversleeping, and quick shifts in sleep schedule are

common triggers for migraine and tension headache. The optimal sleep span for adult headache sufferers is 7 to 8 hours per night. Research found that both extreme ends of the sleep period including short (≤ 6 hours) and long sleep periods (≥ 8.5 hours) were associated with increased headache severity. Normal sleep periods (7- 8 hours) were associated with the least headache. Data supports the common wisdom that headache sufferers should have a regular sleep schedule and sleep an adequate number of hours. Allow for a good night's sleep. Adults should determine their rise time and go to bed 8 hours earlier. Adolescents and young adults need more sleep.

Healthy Sleep Habits

Regular restful sleep improves headache. Because insomnia occurs often and behavioral sleep changes can reduce headache, practice healthy sleep habits:

1. Establish consistent bed and wake times.
2. Aim for age-appropriate sleep length, which for adults generally ranges from 7-8 hours in bed; longer if younger.
3. Create a dark, quiet, optimal sleep space.
4. Avoid caffeine, nicotine, and alcohol that impair sleep.
5. Avoid alerting the brain—no television, reading, internet or texting in bed.
6. Practice mind calming activities at bedtime to prevent sleep problems.

Practice regular sleep and other self-management skills at least 4 weeks to determine impact on headache. Headache diaries help to see patterns and evaluate the impact of sleep on headache.

More Information

National Sleep Foundation (<http://www.sleepfoundation.org/>)
American Academy of Sleep Medicine
(<http://www.sleepeducation.com/>)
American Sleep Apnea Association (<http://www.sleepapnea.org/>).
American Committee on Headache Education
(<http://www.achenet.org/>)

Jeanetta Rains, PhD, Clinical Director of the Center for Sleep Evaluation, Elliot Hospital, Manchester, NH.

ABC's of Headache Trigger Management

Frederick R. Taylor, MD

Key Points:

- Nearly everyone believes their headaches have one or more causes or triggers.
- Managing triggers is widely recommended.
- Trigger coping may be better than an emphasis on avoidance.

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- *The A, through G of headache management balance these concerns.*

Introduction

We all want our headaches to have a defined cause. Even more so a cause we can avoid. Most often the cause is found in a good family history. The actual cause involves our genes, while any given headache has one or more possible triggers. When in acute pain, we think about what triggered it. We normally connect the pain to the closest negative event. This may be a bad night's sleep, stress from that next test, a menstrual period or a weather front moving through. We and our health care providers want to find the triggers so we can avoid them. Too often everyone thinks, remove the "cause" and stop the attacks. Sometimes we go to the Internet to learn about the "cause". We may obtain lists of "known" triggers for headache. The lists are endless. This process is a problem when there is little to no truth to the trigger. Many "known" triggers have no proof.

Creating Trigger Lists

An early study on triggers involved a newspaper ad and questionnaire. It asked 500 "food-sensitive" migraineurs to report on food and headache beliefs. Seventy-five percent of responders reported chocolate as a trigger, nearly fifty percent cheese, less than one in three citrus and alcoholic drinks by twenty-five percent. For providers food sensitivity or allergy became a significant belief following a study in which patients were placed on a minimal diet of lamb, pears and spring water. After 5 days one to three foods believed by the patient to trigger headaches were added back and a very large list of physical symptoms were surveyed and headache assessed. With elimination on average of 10 foods believed by the patient to cause headache 85% of subjects reported being headache free. The study reported food as an allergen for and significant cause of headache. The method of the study severely limited any ability to reach a valid answer. Patients added back foods believed to cause headache. No one was blinded or unaware of the process or results. Follow-up was limited or at least never listed. The study was invalid due to withdrawal of overused medications, smoking, oral contraceptives and other important factors triggering headache. However, foods became known as a major trigger of headache. In an effort to solve headache, food elimination diets were off and running. Books, the internet and other promoters keep food elimination alive and well today. Even an ACHE website article was written on this topic.

Recent studies on patient triggers exist. The recorded triggers are a collection of patient beliefs. The trigger list closely follows those listed in the introduction above. The most common triggers are sleep changes, stresses in everyday life, menstrual periods for women, changes in weather and travel. It turns out that research

has not consistently found food to be a common, predictable or proven headache trigger.

Trigger Avoidance or Trigger Coping

The World Health Organization states good headache management requires "identification of predisposing and/or trigger factors and their avoidance through appropriate lifestyle change." Despite this, avoiding a trigger may not be possible. An example is the weather. Select studies suggest that headache triggers act to produce an anxiety response. With infrequent short duration exposure a trigger increases the pain response. With regular and prolonged exposure something different occurs. The pain response to the anxiety promoting trigger decreases over time. Based on this science, patients and providers need to manage triggers in several ways. One approach is to control exposure with a "learning to cope with the trigger." This style of trigger management rather than avoidance leads to successful headache management for many. This "learn to cope strategy" may be best for all but those impossible to manage in this manner. The ABCs of triggers combines these steps.

ABC's through G of Headache Management

The ABC concept derives from important steps in cardiac resuscitation. Consider these our critical steps in preventing or recovering from disabling headache. While the A in this list is priority #1, the other letters are each important, but requires each of us to prioritize what fits our life. This list is set up to help us remember. We need information to know what to manage. We should then label or rank what is most important for our success. Put another way, what can we start and continue for success? What matters most is that we think about the ABCs, rank their importance and then act on one and then another.

A - for Assessing Sleep.

Sleep is our most important priority to control pain. Inability to sleep is known as insomnia. Inability to fall asleep is very common. Not being able to fall asleep is often due to a racing mind. This is often referred to as sleep-onset insomnia. This results from an inability to let our mind relax. We fail to let today's thoughts and tomorrow's concerns rest on a tablet on the vanity overnight. Instead they rumble about in our head causing trouble. This trouble includes tomorrow's headache, especially with less than 6 and more than 9 hours of sleep. Inability to maintain sleep has additional causes and is more complex. The ability to return to sleep immediately after going to the bathroom during the night is normal. Having to check on young "sleeping" kids in the middle of the night is not normal. Anxiety is a very critical factor in all types of insomnia. Snoring may be one factor causing sleep difficulty. Our snoring partner may disturb an hour on average of sleep. It may be our own breathing habit. A formal sleep assessment is warranted when headaches are frequently present on awakening that resolve

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after getting up. If waking in the morning not feeling refreshed or restored is a problem than a sleep study may well be worthwhile. If dozing often during the day is a problem, get on the Internet and take the Epworth Sleepiness Scale test. Always try to allow ideally 8 hours of sleep or more based on younger age. If sleep fails to improve over time, make this an even bigger priority seek help. See achenet.org including another article in this edition for additional information. The commandment or mantra is: **sleep restores health.**

B - for Biofeedback, Breath Work and Behaviors

We must lead for best success. Be a best cheerleader. Collect a team. Then cheer and lead the team to rforever fewer headaches. Behaviors matter and thoughts in our head change results. Later parts of this ABC list are loaded with options for behaviors. Specific efforts at biofeedback, deep breathing, cognitive-behavioral therapy (CBT), guided imagery, meditation, progressive relaxation, tai chi, yoga are considered a short list. Talk with a health care provider to learn more. More and more health care systems have an Integrative Health Care team. If none is available seek benefit from such an approach, perhaps from a headache specialist.

C – for Chemicals and Caffeine

Caffeine is put into medication because it can help headache. Regular caffeine use can cause headache. Only 100mg caffeine daily increases possible daily headache by 3 fold. There are other chemicals that can cause headache, although proof for triggering migraine is often lacking. Aspartame is a known trigger and it may lead to daily headache. MSG causes Chinese restaurant syndrome headache. Nitrates and nitrites cause hot dog headache. There is a lesson here. The susceptible brain may find some dose of chemical okay but another dose a problem. Any substance of benefit can also harm. Some chemicals aren't ever helpful. Manage C by a combination of reduce, cope and avoid. See F for more details. The key in all things is **moderation.**

D - for Diet

When food is eaten may matter more to headache than what is eaten. Avoid hunger and delays or skips in meals. Eat small frequent amounts and control appetite and waist management.

What you eat matters to your waist. The larger this gets beyond normal, the more likely headache will follow headache. Don't eat junk food. Don't use processed foods with long lists of difficult to understand ingredients. Eat as many fresh foods of all kinds as possible. Think rainbow of colors.

E - for Exercise

Exercise for good health and fewer headaches. Five to six days a week is ideal. Some days are better than none. Exercise refers to a

heart rate at 50-65% of maximum. Our heart rate maximum is 205 minus half our age). For aerobic heart rate take this number and multiple by 50-65%. Set this as the goal. Talking in full sentences is another way to measure this level of activity. Any difficulty with your breath or heart rate higher than this is not necessary for heart, brain, mind and spirit health. Days per week and time spent are equally important for a headache sufferer. Exercise intensity beyond the goal heart rate is not necessary. Aerobic level activity leads to an increase in natural body joy and pain control chemicals. These natural opioids are reduced by chronic pain and narcotic use. Exercise to fight headache triggers – anxiety, poor sleep, sadness, stress, and waist and weight gain.

Non-exercise is generally any activity like walking that is done as part of a normal day. Any movement is better than none. Standing is better than sitting to manage the waist.

F – for Fluids

Fluids prevent dehydration. Dehydration is a risk for headache. Certain drugs increase the risk for kidney stones. Stones are best prevented by lots of fluids. Eight 8 ounce glasses per day are a good start. The ideal health drink is water. For waist management avoid sugared water and remember to avoid diet products. These might trigger headache. Recent data suggests they also might increase risk for stroke and heart attack. Migraine with aura may make it very important to avoid these to reduce risk. Remember C, so don't increase coffee.

G – for Groups

Healthy groups reduce loneliness and stress. Connection to other people is critical for health. The most important connections are family. Repair of family relations can be critical. Loneliness is associated with poor health. Numerous studies define the need for a support network. Being alone does not mean being lonely. However, being in a group without support is like being alone and lonely. Seek a good social support network and actively participate in it. For peace of mind, body and spirit make family ties a priority.

H – for Habits and Happiness

When able to act regularly on and make A, B, C, D, E, F, G work, habits may develop for a lifetime of happiness.

Summary

Go ahead and identify real headache triggers. Then set a plan in motion to manage them, use knowledge of A-G. By use of A-G, we can control and “learn to cope” with any headache trigger.

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