

## **Clinical Research and Studies**

Shahin Asadi \*

Open Access

**Research Article** 

# The Role of Bio- Psychological Factors in Sleep Anxiety and Hypomania Disorder

#### Seyyed Mohammad Reza Miremadi\* and Shahin Asadi

Medical Genetics-Harvard University, Director of the Division of Medical Genetics and Molecular Optogenetic Research.

\*Correspondence Author: Shahin Asadi, Medical Genetics-Harvard University. Director of the Division of Medical Genetics and Molecular Optogenetic Research.

Received Date: February 07, 2023 | Accepted Date: February 17, 2022 | Published Date: February 23, 2022

Citation: Seyyed Mohammad Reza Miremadi & Shahin Asadi, (2023), The Role of Bio-Psychological Factors in Sleep Anxiety and Hypomania Disorder, Ethiopia, *Clinical Research and Studies*, 2(2); **DOI:**10.31579/2835-2882/016

**Copyright:** © 2023, Shahin Asadi. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

#### Abstract

Sleep anxiety is feeling stressed or afraid to sleep. Anxiety is the most common mental health disorder in US research. Research shows that most people with mental disorders such as anxiety also have some kind of sleep disorder. Hypomania is an abnormal state of mind that affects your mood, thoughts, and behavior and is a potential symptom of bipolar disorder, especially type II. A hypomanic episode is usually characterized by unusual happiness, flashy excitement, or agitation, along with other features such as inflated self-esteem, excessive talkativeness, increased distractibility, decreased need for sleep, and racing thoughts.

Keywords: anxiety disorder; hypomania disorder; sleep disorder; mental health

## Overview of sleep anxiety & hypomania

Sleep anxiety is feeling stressed or afraid to sleep. Anxiety is the most common mental health disorder in US research. Research shows that most people with mental disorders such as anxiety also have some kind of sleep disorder.

Sleep anxiety is fear or worry about sleep. You may be worried about not falling asleep or being unable to sleep. Some people also have a special fear of sleep called somniphobia. They may think that something bad will happen to them when they sleep or that they should not sleep because they need to be alert and watchful. Sleep and mental disorders, such as anxiety, often go hand in hand. If you have an anxiety disorder, you may find it difficult to sleep. Similarly, if you have a sleep disorder, you may feel anxious or fearful before going to sleep because you fear someone will hurt you while you sleep. One condition usually makes the other worse, so it can seem like a never-ending cycle [1].

## Symptoms of Sleep Anxiety & Hypomania

Sleep anxiety can affect adults, adolescents, and children. If you have a sleep disorder, you will experience symptoms of sleep disorders such as: insomnia, narcolepsy, restless leg syndrome (RLS), sleep apnea, sleep walking.

People with the following mental disorders may also experience night anxiety:

## **Anxiety Disorders**

Bipolar disorder depression Drug addiction or alcoholism panic disorder Post-Traumatic Stress Disorder (PTSD) psychosis When you can't sleep because of anxiety, you may experience behavioral changes, including: feeling overwhelmed, unable to concentrate, irritability, nervousness, restlessness, a sense of danger or impending doom.

Physical effects of bedtime anxiety may include the following:

Digestive problems

Fast heartbeat

Fast and continuous breathing

Sweating

Stretched muscles

shaking

Some people also have nighttime panic attacks. A panic attack is a sudden and intense fear. Nocturnal panic attacks only happen at night and often wake you up [1].

Hypomania is an abnormal state of mind that affects your mood, thoughts, and behavior and is a potential symptom of bipolar disorder, especially type II. A hypomanic episode is usually characterized by unusual happiness, flashy excitement, or agitation, along with other features such as inflated self-esteem, excessive talkativeness, increased distractibility, decreased need for sleep, and racing thoughts [1].

The specific symptoms experienced during hypomania can vary from person to person, and can also change over time. Examples of behaviors and characteristics of hypomania include:

Inappropriate behavior, such as crude remarks at a dinner party

Dressing or behaving flamboyantly

Clinical Research and Studies Page 2 of 7

Hypersexuality, which may include making unusual requests of your partner, making inappropriate sexual advances, engaging in one-on-one sex, or spending a lot of money on phone sex, pornography, or sex workers [1].

Jumping from one unrelated topic to another while talking Decreased need for sleep

You take risks you wouldn't normally take because of the "lucky feeling".

Talking so fast that it is hard for others to follow what is being said

Unusual irritability, excitement, hostility, or aggression

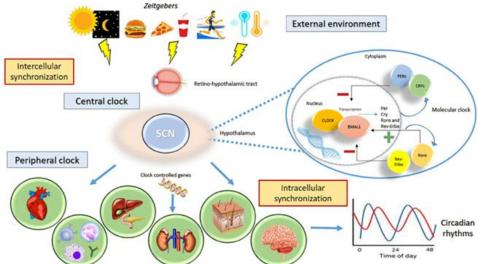


Figure 1: Schematic of the mechanism of the influence of sunlight and moonlight on brain cells in the cycle of sleep and wakefulness.1

#### Frequency of Sleep Anxiety & Hypomania

Anxiety is the most common mental health disorder in the United States, affecting approximately 40 million people. Research shows that most people with mental disorders such as anxiety also have some form of sleep disorder [1,2].

### **Etiology of Sleep Anxiety & Hypomania**

Anxiety is a natural part of being human. What we mean is that we experience feelings of fear or worry in dangerous situations. Stress and

anxiety cause our body to release hormones that help us react quickly to escape harm. But if you have chronic anxiety, you may feel stressed or worried all the time. You may feel afraid of everyday situations like driving to work or even going to sleep [1,2].

Chronically high levels of these hormones, especially before bed, can make it hard for your body to relax. You may have trouble sleeping. If you fall asleep, you may wake up during the night with stressful or worrying thoughts and be unable to get back to sleep [1,2].

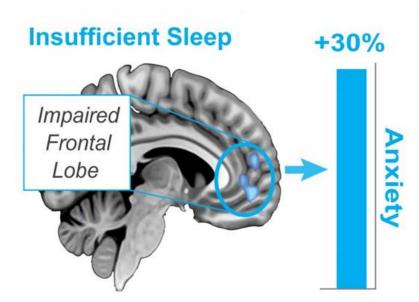


Figure 2: Schematic of the effect of anxiety on the brain with the interaction of insomnia.1

A combination of anxiety and insomnia can also be caused by a condition where there is not enough thyroid hormone in your bloodstream and your metabolism slows down (hypothyroidism) [1,2].

Research shows that anxiety can affect rapid eye movement (REM) sleep. This is when you tend to have lucid dreams. If you have anxiety, dreams can be disturbing or turn into nightmares that wake you up. Just as anxiety can affect sleep, sleep can also affect anxiety. Sleep anxiety is a common feature

of insomnia, where a person experiences anxiety throughout the day and evening about poor sleep, which may lead to another bad night's sleep. While hypomania can be a symptom of bipolar disorder, it can also occur for other reasons. Some potential causes of hypomania include:

Alcohol or drug use: Hypomania or depression occurs in 11% of people with substance use disorders and 55% of people with substance-related disorders.

Clinical Research and Studies Page 3 of 7

Changes in sleep patterns: Insomnia is associated with hypomanic experiences in some people, especially if the circadian rhythm is persistently disrupted.

Depression: Depression can be a part of bipolar disorder, but it can also exist alone and co-occur with hypomania. It should be noted that in some cases, it is the treatment of depression that leads to hypomania. This is called antidepressant-related hypomania and occurs in 0.3% to 22.4% of people taking antidepressants.

Genetics: Research on twins suggests that hypomania may be genetically inherited, and the risk is higher for males (59 percent) than females (29 percent) [1,2].

High stress levels: A study involving 99 students in an emergency medicine residency program found that not only did students' stress levels increase significantly during the course, but their rates of hypomania also increased significantly. These findings suggest that higher levels of stress may contribute to hypomanic behaviors [1,3].

Medications: Medications you are taking may also lead to hypomania. Citalopram is one of the drugs that is often used to treat depression and generalized anxiety disorder and is better known by the brand name Lexapro [1,3].

Herbal Supplements: Like drugs, herbal supplements are not without risks, and some have been linked to psychiatric symptoms. There have been reports of large combinations of herbal supplements causing symptoms of hypomania when taken together long-term [1,3].

Even in the absence of psychosis and the grossly exaggerated mood associated with mania, hypomania can have serious long-term consequences. For example, heterosexuality can lead to relationship breakdowns and sexually transmitted infections (STIs). Reckless spending can lead to severe financial problems, and misbehavior can cause you to lose your job or alienate your loved ones [1,4].

To be clear, not all effects are negative. For example, one case study found that hypomania appears to increase aerobic capacity and cardiopulmonary function, potentially through increased mobility and goal-directed behavior associated with hypomania [1,4].

Increased energy can also help you get more done. Increased self-confidence will help you feel better mentally, and you may even find yourself more creative. However, the one thing to keep in mind is that these hypomania benefits are often accompanied by pure euphoria, which is unusual because hypomania usually turns into something more negative than positive [1,4].

#### Diagnosis of Sleep Anxiety & Hypomania

Your healthcare provider will perform a physical exam, review your medical history, and evaluate your symptoms. They may ask you questions such as:

Do you eat or drink anything before bed?

Does your anxiety always occur before bed?

How long does it take you to fall asleep?

How often do you wake up during the night?

What activities do you do before sleep?

What tests help diagnose sleep anxiety?

In some cases, your provider may perform a sleep study to determine if you have a sleep disorder. This study, also called polysomnography, is a test

where you sleep overnight in a laboratory. Your healthcare provider will assess how your body functions during sleep by examining your posture:

Blood oxygen level

Body positioning

breathing

Electrical activity in your brain

eve movements

Heart rate and rhythm

leg movements

stages of sleep

Snoring or other noises you make while sleeping

Treatment Methods for Sleep Anxiety & Hypomania

There are many ways to control sleep anxiety, including: cognitive behavioral therapy (CBT), healthy sleep habits (sleep hygiene), medications [1,5].

How does cognitive behavioral therapy treat sleep anxiety?

CBT is a form of psychotherapy or talk therapy. It teaches you how to change your behavior by changing your mindset. It is a common treatment for people with anxiety. A specific form of CBT called Cognitive Behavioral Therapy for Insomnia (CBTI) focuses on helping people with insomnia. This treatment can take anywhere from 6 to 12 weeks to show results [1,5].

During CBT or CBTI, you may learn to: Avoid behaviors or environmental factors that cause you anxiety or make it difficult to sleep. Better understand how sleep and anxiety affect your brain and the rest of your body. Change negative or inaccurate thinking about bedtime or sleep [1,5].

Your therapist may teach you how to sleep with anxiety using biofeedback. Biofeedback teaches you to control your body's functions. You learn to relax your muscles, regulate your breathing, lower your heart rate, and focus your attention. Your therapist may use special sensors to measure these body functions, or may do exercises such as deep breathing and meditation at home [1,5].

How can healthy sleep habits cure sleep anxiety?

Sleep habits or sleep hygiene are your daily habits during sleep that can affect your sleep. Your healthcare provider may ask you to keep a sleep diary for several weeks. This is a daily log of your sleep habits. This can help identify things that may be making it difficult for you to fall asleep or stay asleep [1,6]

Some common ways to improve sleep hygiene include: Avoid drinking too many liquids before bed, especially alcohol. Do relaxing activities before bed, such as meditation or listening to soft, soothing music. Do not consume caffeine in the late afternoon or evening. Do not go to bed until you feel sleepy. Go to bed and wake up at a certain time every day. If you don't fall asleep within 20 minutes, get out of bed. Make sure your bedroom is comfortable, quiet and well lit. Only use your bed for sleep and sex. For example, avoid watching TV or doing work in bed. Set your goal to sleep at least seven hours a night. Stop using electronic devices at least 30 minutes before bed. Try not to eat right before bed. If you are hungry, eat a light snack rather than a large meal [1,6].

Clinical Research and Studies Page 4 of 7

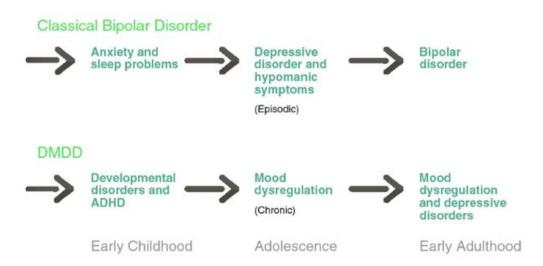


Figure 3: Schematic of the factors involved in bipolar disorder and hyperactivity in childhood and adulthood.

How can medications treat sleep anxiety? Your healthcare provider may recommend medications to treat anxiety or other mental health disorders. Medicines can also help improve the symptoms of sleep-related disorders such as restless legs syndrome or insomnia. But some medications may increase your anxiety or make it difficult to sleep when you first start taking them. If you experience these side effects, consult your doctor. Many overthe-counter sleep medications can also be habit forming. Do not give any medication for anxiety or sleep without a doctor's supervision [1,7].

Medications called mood stabilizers are the most common and effective way to treat hypomania. A healthcare provider may prescribe one or more of the following:

Antipsychotic medications, which can reduce symptoms of hypomania until other medications (such as lithium or valproic acid) have fully worked, include:

Benzodiazepines or anti-anxiety drugs

Lithium, a mood stabilizer with antidepressant effects

Valproic acid, anticonvulsant

There are also holistic approaches and lifestyle changes that can help treat hypomania, including:

Avoiding stimulants that can act as stimulants such as caffeine, sugar, and noisy and crowded social scenes all fall into this category.

Eat regular meals daily exercise

Sleep seven to eight hours every night

If you're experiencing hypomania-like symptoms, make an appointment with a mental health care provider, such as a psychiatrist. A mental health professional experienced in diagnosing mood disorders can determine whether a diagnosis of hypomania is accurate and whether it is a sign of underlying bipolar disorder. In the meantime, here are some tips to help you deal with the symptoms of hypomania:

Educate Yourself The more you learn about hypomania and your individual symptoms and triggers, the easier it will be to manage your condition [1,8].

Keep a mood diary. Writing in a diary or using an app can help you chart your moods so you and your healthcare provider can work together to keep your hypomanic episodes under control.1,8

Continue the course of treatment. If you have bipolar disorder, seeking treatment and following your treatment is important for managing hypomania.1,8

Request support. Reaching out to trusted friends and family members or joining a support group for people with similar symptoms can help [1,8].

#### Conclusion

Anxiety disorders are actually a chronic and intense experience of fear and anxiety. Sufferers feel a lot of anxiety about future events and also experience fear in response to current events. This issue has a negative impact on their performance in daily life. Anxiety disorder - with the exception of substance use disorder - is the most common mental disorder and affects approximately 28% of people in their lifetime. The prevalence of this disorder peaks between the ages of 30 and 44. [1,9].

Bipolar disorder, formerly called manic depression, is a mental condition that causes severe mood swings and includes periods of high mood (mania or hypomania) and low mood or depression. When a person is depressed, they feel sad or hopeless and lose interest and pleasure in most activities. When a person's emotions change to mania or hypomania (slightly milder than mania), the person feels overly happy, energetic, or abnormally irritable. These mood swings may occur rarely or several times a year. While most people experience some emotional symptoms between the two mood swings, others do not experience any in this regard [1,10]

There are different types of bipolar disorder and related disorders. They may include mania or hypomania and depression. Symptoms can cause unpredictable changes in mood and behavior, resulting in significant distress and difficulty in life [1,11].

Bipolar disorder type one

Bipolar disorder type 1 is characterized by one or more manic episodes or mixed episodes (this is when you experience symptoms of both mania and depression). In this disorder, you have had at least one manic episode, which may have been preceded or followed by hypomanic or major depressive episodes. In some cases, mania may cause dissociation from reality (psychosis) [1,12].

Clinical Research and Studies Page 5 of 7

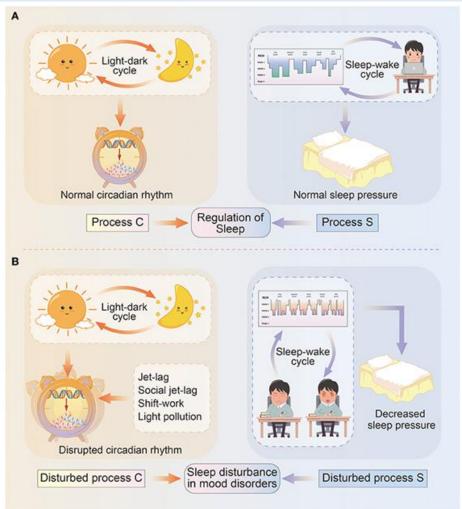


Figure 4: Schematic of the role of the daily activity cycle in the process of sleep and wakefulness along with the illumination of sunlight and moonlight.1

Diagnosis of bipolar I type

The person must have experienced at least one manic episode.

The person may have had a previous episode of major depression.

The doctor must rule out other disorders such as schizophrenia and delusional disorder.

Bipolar disorder type 2

In this disorder, the person has experienced at least one major depressive episode and at least one hypomanic episode, but never had a manic episode. Bipolar II disorder is diagnosed after one or more episodes of major depression and at least one episode of hypomania [1,13].

The peak of bipolar II, called hypomania, is not as severe as bipolar I (mania). Bipolar II disorder is sometimes misdiagnosed as major depression. If you have frequent depressions that go away periodically and then come back [1,13]

There are many treatment methods to reduce and manage the symptoms of anxiety disorders. Usually, people with this disease take medicine and go to counseling. Among these methods are:

Treatment of anxiety disorders with neuroscience

Neuropsychological treatments are based on functional changes in brain networks. First, the difference in brain function at the network level is compared with that of normal people, and then by using Loretta's advanced technology, they improve the damaged parts of the brain. This method of treatment, which is offered in neuroscience and cyber psychology centers, is the newest type of treatment for anxiety disorders and is very effective. Also, unlike medicine, Loretta has no side effects and is permanent [1,14].

Several types of medication are used to treat anxiety disorders. Discuss the pros and cons of each medication with your doctor or psychiatrist to decide which one is right for you. Modern antidepressants (SSRIs) and (SNRIs) are usually the first drugs prescribed for a person with anxiety disorders. Examples of SSRIs include escillopram (Lexapro) and fluoxetine (Prozac). SNRIs include duloxetine (Cymbalta) and venlafaxine (Effexor) [1,15].

Another type of antidepressant is commonly used to treat chronic anxiety. This drug is different from SSRIs and SNRIs. They include tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs). These types of drugs are less commonly used because side effects such as low blood pressure, dry mouth, blurred vision, and urinary retention can be unpleasant or dangerous for some people [1,15].

Your doctor may prescribe one of these medications if you have persistent feelings of anxiety. These drugs help reduce anxiety. Examples include alprazolam (Xanax) and clonazepam. These drugs work quickly, but you can become dependent on them. They are usually used as an adjunct to the treatment of anxiety disorders and should not be taken for long periods of time. This type of high blood pressure medication can help you feel better if you have physical symptoms such as palpitations and shaking. A beta blocker may help you relax during an acute anxiety attack [1,16].

These drugs are also used to prevent seizures in people with epilepsy and can relieve some of the symptoms of anxiety disorders. This anti-anxiety drug is sometimes used to treat chronic anxiety and should be taken for several weeks to see complete relief of symptoms [1,16].

Clinical Research and Studies Page 6 of 7

It is a type of counseling that helps you learn how your emotions affect your behavior. Sometimes psychotherapy is also called talk therapy. A trained mental health professional will listen and talk to you about your thoughts and feelings and suggest ways to understand and manage them. This type of psychotherapy teaches you how to transform negative thoughts and behaviors or fear-inducing factors into positive ones. You will learn ways to approach and carefully manage fearful or worrisome situations. Some centers also offer family CBT sessions [1,16].

There is no surefire way to prevent bipolar disorder. However, getting treatment at the first sign of a mental health disorder can help prevent bipolar disorder or other mental health conditions from getting worse. If you've been diagnosed with bipolar disorder, some strategies can help prevent minor symptoms from turning into full-blown manic or depressive episodes:

Pay attention to the warning signs. Treating symptoms early can prevent episodes from getting worse [1,16].

Avoid drugs and alcohol. Using alcohol or recreational drugs can make your symptoms worse and make them more likely to come back [1,16].

Take your medications exactly as directed. You may be tempted to stop treatment – but don't. Stopping the drug or reducing the dose by itself may cause withdrawal symptoms or make your symptoms worse or recur [1,16].

#### References

- Asadi S, Human Sleep Pathology Book (2 Vol), Amidi Publications, Iran.
- Anxiety & Depression Association of America (ADAA). (2021). Facts & Statistics.
- 3. Anxiety & Depression Association of America (ADAA). (2021). *Sleep Disorders*.
- 4. American Academy of Sleep Medicine (AASM). (2021). Sleep Education.
- 5. Sleep Foundation. (2021). Anxiety and Sleep.
- Sleep Foundation. (2021). Cognitive Behavioral Therapy for Insomnia (CBT-I).
- Camacho M, Almeida S, Moura AR, et al. Hypomania symptoms across psychiatric disorders: Screening use of the

- Hypomania Check-List 32 at admission to an outpatient psychiatry clinic. *Front Psychiatry*, 9:527.
- 8. Moriarity D, Bart C, Stumper A, Jones P, Alloy L. Mood symptoms and impairment due to substance use: A network perspective on comorbidity. *J Affect Disord*.278:423-432.
- Barton J, Kyle S, Varese F, Jones S, Haddock G. Are sleep disturbances causally linked to the presence and severity of psychotic-like, dissociative and hypomanic experiences in nonclinical populations? A systematic review. *Neurosci Biobehav* Rev. 2018; 89:119-131.2018.02.008.
- Stanton K, Khoo S, Watson D, Gruber J, Zimmerman M, et al. Unique and transdiagnostic symptoms of hypomania/mania and unipolar depression. *Clin Psychol Sci.*7(3):471-487.
- 11. Hosang G, Martin J, Karlsson R, et al. (2022). Association of etiological factors for hypomanic symptoms, bipolar disorder, and other severe mental illnesses. *JAMA Psychiat*. 79(2):143-150.
- Rahmati F, Safari S, Hashemi B, Baratloo A, Khosravi Rad R. (2019). Prevalence of depression and personality disorders in the beginning and end of emergency medicine residency program; a prospective cross-sectional study. *Arch Acad Emerg Med.* 7(1): e5. PMID:30847440
- 13. Yamaguchi Y, Kimoto S, Nagahama T, Kishimoto T. (2018). Dosage-related nature of escitalopram treatment-emergent mania/hypomania: a case series. *Neuropsychiatr Dis Treat*. 14:2099-2104.
- 14. Kazi S, Karia R, Leontieva L. (2021). Herbal supplements: Can they cause hypomania? *Cureus*.13(2): e13476.
- Shoval A, Armstrong H, Vakhrusheva J, Ballon J, Bartels M, et al. (2018), The impact of hypomania on aerobic capacity and cardiopulmonary functioning—A case report. Front Psychiatr. 9:729
- Takeshima M. (2017), Treating mixed mania/hypomania: A review and synthesis of the evidence. CNS Spectr. 22(2):177-185.

Clinical Research and Studies Page 7 of 7

## Ready to submit your research? Choose ClinicSearch and benefit from:

- > fast, convenient online submission
- rigorous peer review by experienced research in your field
- > rapid publication on acceptance
- > authors retain copyrights
- > unique DOI for all articles
- > immediate, unrestricted online access

## At ClinicSearch, research is always in progress.

 $\begin{array}{ll} \textbf{Learn more} & \underline{\text{https://clinicsearchonline.org/journals/clinical-research-and-studies-}} \\ \end{array}$ 



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <a href="http://creativecommons.org/licenses/by/4.0/">http://creativecommons.org/licenses/by/4.0/</a>. The Creative Commons Public Domain Dedication waiver (<a href="http://creativecommons.org/publicdomain/zero/1.0/">http://creativecommons.org/publicdomain/zero/1.0/</a>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.