



# "From Sleepless Nights To Peaceful Minds: Bridging Modern Challenges And Unani Insights On The Role Of Sleep In Mental Well-Being"

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**Abstract:** Sleep is not just a biological necessity; it is fundamental to both physical and mental well-being. Despite its importance, a significant portion of the population, including one-third of adults and 30% of high school students, are not getting the recommended sleep, leading to widespread consequences on mental health. Insufficient sleep is intricately linked to disorders such as depression, anxiety, and emotional instability. This article delves into the physiological mechanisms of sleep, exploring the alternating stages of NREM and REM sleep, and how disruptions to circadian rhythms can heighten mental health risks. It also draws on the ancient wisdom of Unani medicine, which emphasizes the balance between sleep (Naum) and wakefulness (Yaqza) alongside emotional and psychological tranquility (Harkat wa Sukoon Nafsani). In Unani thought, an imbalance in these elements leads to disturbances in mental faculties and physical health, with sleep playing a crucial role in restoring equilibrium.

The article discusses modern sleep disorders, including insomnia and its association with mental health conditions such as post-traumatic stress, eating disorders, anger, and hallucinations, and highlights the severe impact of shift work and social media on sleep quality. Sleep deprivation also impairs reproductive health, as seen in both male and female fertility. With insights from both modern psychology and Unani medicine, this article underscores the necessity of proper sleep hygiene and mental balance. It calls for public health initiatives to emphasize sleep's critical role in mental and physical health and offers strategies to restore healthy sleep patterns in today's fast-paced world.

**Index Terms** - Sleep, Mental health, Unani, Naum wa Yaqza, Harkat wa Sukoon Nafsani, Anxiety, Depression.

## Introduction

Many of us know that we feel better after “a good night’s sleep” and more grumpy or foggy if sleep deprived. And there is now robust evidence similarly supporting that sleep is critical to not only our physical health but also our mental health.

Just like our electronics need to be charged, sleep may recharge or reset the brain to optimize functioning,” says Elizabeth Blake Zakarin, an Assistant professor of psychology at the Columbia University Clinic for Anxiety and Related Disorders.<sup>[1]</sup>

There is no universal answer to how much sleep a person needs, but many people do not get enough. One-third of adults sleep less than the recommended amount, and only 30% of high school students get at least eight hours of sleep. Around 34% of Americans report poor sleep quality, with over 50 million having chronic sleep

disorders. The average sleep duration has decreased to 6.8 hours daily, compared to 9 hours a century ago, and about 30% of adults now sleep less than 6 hours a night. Sleeping between 6 to 10 hours is essential for good health.<sup>[2,6,22,23]</sup>

Poor sleep increases the risk of poor mental health, just as diet and exercise do.<sup>[2]</sup> Sleep is crucial for physical and mental rejuvenation, and inadequate rest can lead to stress, impacting both personal and professional lives.<sup>[14,15]</sup> Long-term sleep problems can affect relationships, social life, and daily tasks, leaving individuals feeling tired, overeating, and unable to function well. Factors like physical or mental health, upbringing, experiences, and temperament influence sleep quality.

Sleep disorders are linked to health issues like depression, hypertension, cardiovascular disease, and anxiety. In women, sleep disturbances can be connected to postpartum depression, pregnancy, menopause, and premenstrual dysphoria.<sup>[7,23]</sup>

According to *Unani System Of Medicine*, When there is an imbalance in emotions and psychological rest (*Harkat wa sukoon e Nafsani*) and sleep and wakefulness (*Naum wa yaqza*) it results in disturbance in mental faculties, this implies that along with the balance of emotions and psychological rest (*Harkat wa Sakoon e Nafsani*) and balance (*tawazn*) of sleep and wakefulness (*Naum wa Yaqza*) is equally responsible to keep away mental disorders. Disturbed or improper sleep would affect nervous system so as to avoid mental disorder one should take optimum required sleep.<sup>[17]</sup>

The importance and benefits of sleep for both mental and physical health should be highlighted in national and local public health campaigns, including in schools and workplaces. New and easily accessible resources should be made available advising people on what they can do themselves to improve their sleep.<sup>[2]</sup>

## I. RESEARCH METHODOLOGY:

The concept of role of sleep in mental health in modern & Unani medicine was explored by reviewing authentic Unani texts & Modern Perspectives. Additionally, online platforms, including various websites and articles from Google Scholar, were searched using keywords such as *Sleep, Mental Health, Insomnia, Unani Medicine, Naum Wa Yagza, Bekhwabi, Harkat Wa Sukun E Nafsani, Anxiety, Depression, Work shifts, Social Media Etc.,*

## II. REVIEW OF LITERATURE:

Insomnia is a sleep disorder characterized by having difficulty falling asleep or staying asleep. In Greco Arab medicine, Insomnia is known as *Sehar/Bekhwabi* - *Ibn-e-Hubul Baghdadi* explained *Sehar* as excess of awakening which produces dryness in the body.<sup>[16]</sup>

Although research most commonly studies the associations between insomnia and depression and anxiety, there is also evidence that problems sleeping associated with a variety of mental health difficulties. For example, poor sleep has also been associated with post-traumatic stress, eating disorders, and psychosis spectrum experiences such as delusions and hallucinations. Studies have also found that specific sleep disorders, such as sleep apnoea, circadian rhythm disruption, restless leg syndrome, excessive daytime sleepiness and narcolepsy, sleepwalking, and nightmares are all more prevalent in those experiencing mental health difficulties.<sup>[4]</sup>

Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.<sup>[13]</sup>

Unani medicine is a scientific, holistic system that addresses mental health through a balanced approach. Renowned physicians like *Hippocrates, Abu Bakr Bin Zakaria Razi, and Ali Bin Rabban Tabri* have detailed mental disorders (*Nafsiyati Amraz*) in their writings. Unani medicine focuses on six essential factors (*Asbab-e-Sitta Zarooriya*), especially the balance between bodily and psychic movement (*Harkat wa Sukoon Nafsani*) and sleep and wakefulness (*Naum wa Yaqza*). The concept of *Tadeel-e-Ruh*, or maintaining mental balance, is key to preventing mental disorders, with equilibrium between these health factors promoting mental well-being.<sup>[13,17]</sup>

### 3.1 Physiology of sleep:

Sleep is defined as unconsciousness from which the person can be aroused by sensory or other stimuli. It is to be differentiated from coma, which is unconsciousness from which the person cannot be aroused. There are multi stages of sleep, from very light sleep to very deep sleep

Two Types of Sleep: Each night, a person goes through stages of two types of sleep that alternate with each other. They are –

- (1) *Slow Wave Sleep (NREM)*: In this type of sleep, the brain waves are very slow,
- (2) *Rapid- Eye- Movement (REM) Sleep*: In this type of sleep the eyes undergo rapid movements despite the fact that the person is still sleeping.<sup>[21]</sup>

Many of our biological systems – including our sleep and wake cycle, our appetites and digestive patterns, our body temperatures, and even our moods – follow daily patterns, or “*circadian rhythms*.” These cycles are set by circadian clock genes that are found in nearly every cell in our bodies. The timing of our daily rhythms is strongly influenced each day when light is first detected by our eyes. Light stimulates areas of the brain to tell our bodies to be awake, active, and hungry. When darkness falls, the hormone melatonin is secreted by the pineal gland in the brain and is produced all night long, promoting sleep. Our master clock in the brain controls the timing of our circadian rhythms so they work together: this harmony is important for a healthy functioning body. When our sleep patterns or lightness and darkness cues are severely disrupted—as can happen with night shift work, travel across multiple time zones, or exposure to light during our normal sleeping hours—we can develop what is referred to as “circadian disruption.” Circadian disruption means our circadian rhythms are not working together, which can make us feel ill, increase our risk for poor health, and increase our chances for making mistakes that risk our safety and the safety of others.<sup>[24]</sup>

### 3.2 Etiology of psychological problems in Unani medicine:

Unani medicine attributes psychological problems to imbalances in the body's basic elements (*Anasir*), which interact to form fluids (*Akhlat*) like Balgum, Dam, Safra, and Sauda. These fluids regulate bodily functions, and any imbalance leads to various pathologies. These pathologies are influenced by six essential life factors (*Asbab-e-Sitta Zarooriya*): air (*Hawa*), food and drink (*Makoolat wa Mashroobat*), rest and body functions (*Harkat wa Sukoon Badni*), emotional and psychological rest (*Harkat wa Sukoon Nafsani*), sleep and wakefulness (*Naum wa Yaqza*), and retention and evacuation (*Ahtabas wa Istafraq*).<sup>[17]</sup>

Sleep and wakefulness are crucial factors; any imbalance can cause conditions like insomnia (*Sehar*), which disrupts physical and psychological activity. Proper sleep is governed by wetness and coldness (*ratoobat wa baroodat*) in the brain, while imbalance in sleep-wake cycles leads to dryness and heat (*yaboosat wa hararat*), disrupting mental and physical health.<sup>[19]</sup>

- *Avicenna (Ibn Sina)* identified three key factors for health preservation: exercise, diet, and sleep.<sup>[17]</sup> In his psychological treatise, he highlighted five faculties of the interior senses, but emphasized three as essential for medicine: imagination, reasoning, and memory. He also discussed disorders related to sleep, consciousness, thinking, memory, reason, judgment, and imagination.<sup>[13]</sup>

According to *Avicenna*, sleep helps regulate the innate heat (*hararat-e-gharizia*) and strengthens the physical body. When

wakefulness predominates, it disrupts the brain, causing dryness and weakness, which can lead to insomnia and confusion.<sup>[20]</sup>

- According to *Majoosi*, sleep provides assistance to brain and *Hawas-e-khamsa batina* (five inner powers) and *Quwwat-e-Iradi* (will power) Sleep also affects the secretions of endocrine hormones and exerts inhibitory affect.<sup>[17]</sup>
- *Hippocrates* mentioned that the brain is human's important organ. He also said that it is brain alone from which we feel pleasures, joys, laughter and jest, as well as our sorrows, pains, grief and tears and thus that brain becomes the interpreter of consciousness. If the brain is affected by abnormal phlegm the patients are quiet and silent, if by bile they are vociferous, malignant and act improperly. If the

brain heated, terrors, fears and terrifying dreams occur, if it is too cool, the patients are grieved and troubled.” This statement also justifies the theory of *akhlaat or humors* and their relation with the mental behaviour of an individual.

- *Asclepiades* defined mental impairment as ‘an affection in the Sense.
- *Azam Khan* said that “*Ikhtalat-e-Zahn*” is the name of anxiety and nervousness which does not reach extreme levels. Sometimes, this disease occurs due to excess of wakefulness, sorrow and excessive worry, excess and continuous intake of bad diet and due to abnormal retention in body like amenorrhea and oligomenorrhea.
- *Ghulam Jeelani* Said that In Melancholia, thoughts and thinking process of the patients is disturbed and perturbed i.e., he becomes overanxious and thought-ful. Bad thoughts come to his mind and he becomes doubtful for everybody. It results due to *Zof-e-Dimaghi* (excessive mental work), *Sahr* (excessive awakening) and excessive thoughts for resolving difficult problems.<sup>[13]</sup>

The consequences of insomnia are significant, such as depression, impaired work performance, work-related/motor vehicle accidents, and overall poor quality of life.<sup>[5]</sup>

### 3.3"Exploring the Impact of Sleep Disturbances on Mental Health"

#### **Anxiety and Depression: The Sleep-Mood Connection:**

The amount and quality of sleep are crucial for both physical and mental health. Disturbances in sleep and circadian rhythms are linked to the onset and worsening of mental health disorders, such as depression, anxiety, bipolar disorder, and schizophrenia. While insomnia can be a symptom of conditions like anxiety and depression, it is also recognized as a contributing factor to the development and intensification of these issues, including suicidal ideation.<sup>[1,8]</sup>

Improper sleeps itself alters body's hormones and physiology, which in turn further exaggerates the mood fluctuations and worsen the depression. Depression in Unani system of medicine has explained under *Amraze Nafsan* (psychiatric disorders) where it is called as Melancholia, a disease caused by excess of black bile in body. The literal meaning of the term melancholia is “black humour” which is the predominant causative factor of this disease. Sleep disturbance or Insomnia is an important vegetative sign of depression.<sup>[16]</sup>

Not getting enough sleep can significantly affect mood, leading to increased irritability and emotional instability. In one study, participants who experienced sleep deprivation also reported heightened feelings of anxiety and depression. This illustrates the strong link between sleep and emotional well-being. Furthermore, an analysis of 21 different studies revealed that people who suffer from insomnia are at a two-fold higher risk of developing depression compared to those without sleep problems. Another study found that problems with sleep were a predictor for generalized anxiety disorder in children and teens between the ages of nine and sixteen.<sup>[3]</sup>

#### **Night Shift Work: A Disruptor of Sleep and Mental Health:**

Just as food and water is necessary for human being, like wise sleep is also essential for wellbeing of humans Nature has designed the night time especially for rest or sleep whereas, the day is made for work.<sup>[22]</sup>

The timing of sleep can also influence mental health, according to another [new study](#). Individuals vary in their preferences for sleep timing (e.g., some of us are ‘night owls,’ some are ‘early birds’). However, the demands of daily life do not necessarily allow people to act on those preferences. Preferences and actual sleep timing are often misaligned.<sup>[8]</sup>

Sleep deprivation is mostly caused by an individual's contemporary lifestyle and work-related factor such as shift works. Several cases of cardiometabolic and reproductive dysfunctions are reported by shift workers.<sup>[23]</sup>

Working in night shifts has never been an easy task for workers. Primarily, because of biological cycle or popularly known as circadian rhythm, our body is built to work during day and sleep at night. Hence, physical and mental health problems are faced by workers who work at night shifts and sleep during daytime.

In modern society, shift work is very common, and health professionals, especially nurses, are bound to work in shift duties to provide round-the clock health care to their patients throughout the year. Shift work disorder is a circadian rhythm disorder that is associated with sleep problems and sleepiness that usually occurs with the shift work.<sup>[10]</sup>

A study conducted on nurses working in public and private hospitals in Karachi, Pakistan, aimed to explore sleep-related issues, work performance, and the psychological effects of shift work. It found that 68% of nurses on shift duties experienced psychological distress, while only 32% considered themselves mentally healthy. Previous research linked poor mental health to higher medical errors. The study also revealed that 56% of nurses suffered from poor sleep quality (PSQI), possibly due to night shifts. Overall, shift work was shown to negatively impact sleep, mental health, and physiological well-being across all age groups.<sup>[18]</sup>

A study conducted in 2023, at Seth G.S. Medical College and KEM Hospital, Mumbai, found that healthcare employees working on shift duty have a significant amount of poor sleep quality at night as compared to healthcare employees doing day duty who have adequate sleep quality at night.<sup>[9]</sup>

### **Anger and Sleep Deprivation: The Emotional Fallout:**

Research finds that lack of sleep can lead to increased levels of anger and aggression. This is because when sleep-deprived, the brain cannot function normally, which means it can't suppress the reactivity of the amygdala (the emotional center of the brain).<sup>[3]</sup>

### **Hallucinations: The Psychotic Effects of Sleep Deprivation:**

Severe sleep deprivation is linked with the development of temporary psychotic symptoms. One study found that some participants who went 24 hours without sleep experienced hallucinations and other perceptual changes; others who went 60 hours without sleep experienced both hallucinations and delusions.<sup>[3]</sup>

### **Eating Disorder's: Sleep and the Struggle with Mental Health:**

People with eating disorders are at higher risk for medical complications and co-occurring mental illnesses, including depression, anxiety, and substance use disorders.

Research suggests that disrupted sleep, commonly seen in individuals with eating disorders (EDs), may not only increase the risk of developing an ED but also contribute to co-occurring mental illnesses such as depression and anxiety, highlighting the complex relationship between sleep disorders and mental health conditions like EDs.<sup>[3,11]</sup>

### **COVID-19 and Sleep Disturbances: The Rise of "Coronasomnia":**

While insomnia symptoms and insufficient sleep were already a widespread problem pre-pandemic, people are reporting more sleep problems than ever before. The increase in insomnia and related sleep problems related to stress caused by the COVID-19 pandemic have been labelled "Coronasomnia"

We know that stress can interfere with sleep and understandably the global pandemic has significantly increased daily stress and uncertainty. Spending more time at home and changes to daily routine can also impact sleep patterns by limiting light-based cues for wakefulness that help keep your circadian rhythm on schedule. And more time in bed and less activity or exercise can also interfere with sleep by reducing sleep drive. In a survey by AASM, over half (56%) of Americans (and 70% among those 35-44 years old) say they have experienced sleep disturbances during the pandemic. Common sleep disturbances include problems falling or staying asleep, sleeping less, and experiencing worse quality sleep

According to a study of 22,330 adults from 13 countries published in Sleep Medicine in November 2021, one in three participants, had clinical insomnia symptoms and nearly 20 percent met the criteria for insomnia disorder—rates more than double what they were before the pandemic. Furthermore,

sleep disturbances were linked to higher levels of psychological distress. Anxiety and depression rates were also considerably higher than pre-pandemic levels in the same survey.<sup>[1]</sup>

### **Reproductive Health & Sleep: The Impact On Fertility:**

Sleep disorders in both men and women are linked to several health issues, such as depression, hypertension, cardiovascular disease, and anxiety. In women, sleep disturbances are often seen during specific phases like postpartum depression, pregnancy, menopause, and premenstrual dysphoria. A study on rats showed that sleep deprivation reduced sperm motility but did not significantly affect sperm count.

Melatonin, a hormone essential for sleep regulation, also plays a crucial role in reproductive health. It helps synchronize sexual behaviours with ideal periods for conception and protects oocytes from oxidative stress during ovulation. Sleep deprivation reduces melatonin secretion, which can increase oxidative stress in ovarian follicles, negatively impacting fertility.

Supplementing melatonin has been shown to improve IVF outcomes, such as oocyte retrieval, quality, and fertilization rates, especially in women with PCOS. Sleep deprivation also affects thyroid function, increasing TSH levels, which can lead to issues like anovulation, miscarriages, and amenorrhea. Proper sleep is vital for reproductive health and the success of fertility treatments.<sup>[23]</sup>

### **Social Media and Sleep Disruption: The Digital Dilemma:**

Research on social media and young people's mental health has recently increased, and numerous studies have examined whether frequent use of social media is linked to issues such as anxiety, stress, depression, eating disorders, insomnia, frustration, feeling alone, and externalizing problems among adolescents. Even though social media offers numerous benefits, such as connectivity and information sharing, excessive use can have detrimental effects on mental health, particularly among adolescents. excessive use of social media is correlated with increased stress, anxiety, and depression. Adolescents engage in compulsive behaviours such as scrolling in the middle of the night, which negatively impacts their mental and physical health, and leads to significant sleep disruption.<sup>[12]</sup>

### **III. CONCLUSION:**

Sleep is a cornerstone of both physical and mental health, playing a crucial role in maintaining emotional well-being, cognitive function, and overall quality of life. As evidenced by research, the increasing prevalence of sleep disturbances, including insomnia, is directly linked to a variety of mental health issues such as anxiety, depression, and stress. Factors such as modern work demands, including night shifts, social media use, and the global impacts of the COVID-19 pandemic, have further exacerbated the challenges of achieving restorative sleep. These disruptions not only impair mental health but also affect physical functioning, leading to conditions like cardiovascular disease, eating disorders, and reproductive health issues.

The Unani system of medicine emphasizes the delicate balance between sleep and wakefulness, highlighting how disturbances in this balance can lead to mental and physical disorders. Both modern psychological insights and traditional practices underline the importance of optimizing sleep to prevent long-term health problems. Public health initiatives, focused on promoting sleep hygiene and the importance of sleep, are essential in raising awareness and encouraging healthier sleep habits across communities.

Moving forward, efforts should be made to integrate these insights into both individual lifestyles and broader societal structures, particularly in schools, workplaces, and healthcare systems. By addressing the root causes of sleep disturbances and promoting sustainable practices, we can safeguard mental and physical health, paving the way for a more balanced and healthier future.

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