

Perspective

A Study to Explore the Concepts of Insomnia and its Treatment in Unani System of Medicine

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Abstract

Insomnia is a common problem across the world due to various reasons as increasing mental work and stress, less physical activities, social and personal life problems, lifestyle diseases and medication. Consensus proved its 30% incidence overall in the population but sleep-maintenance insomnia is considered up to 66.5%.

The study aims to enlighten the Insomnia in Unani classical books in the mean of weighted causes, pathological condition and best treatment. Gathering tribute knowledge of insomnia from Unani books and framing up it on newly researched neurotransmitter consideration in the same meaning, as Unani System of medicine describes *Su-i-mizaj Har yabis* (hot and dry temperament) is a pivotal cause that is a pathological condition develops after hitting several causes as a collection of briny liquid, accumulation of waste material in the passages of the brain and meninges and Gastro-intestinal insufficiency, excessive flatus, headaches and cancer etc. these condition directly or by signalling motivates the nerves and brain cells and sometimes obstacle in the passage of psychic powering pathway causes more psychological disorders. In the right direction of reason, Unani physicians have presented lucid and articulated treatment to restore the brain's temperament by administration of soothing and tranquil medicines, evacuate waste from brain channels and regularize the CSF flow and ion exchange.

The study is concluded the result with hypothesis to set some clinical trials of mentioned drugs schedule and recommended modulation in a new scale to make practical generalize its result for future studies.

Keywords: Insomnia; Unani medicine; Neurotransmitter; Trended unani treatment

Introduction

Insomnia is a sleep disorder in which a patient has trouble falling or staying asleep. The same concepts are presented in the Unani system of medicine; indeed it is a psychological condition that occurs after over casting of hotness and dryness in the brain due to excessive *istifragh* (evacuation) out of the body or taking some hot medicines and foods, stimulation from the waste product of GIT, collection of briny fluid in the brain and some illnesses or severe pathological conditions in the body [1-3].

It is one of the challenges in the outpatient department. Especially for chronic diseases, e.g. systemic hypertension, diabetes mellitus, congestive heart failure, coronary insufficiency and

its medication as Dopamine agonists, Psychostimulants, Anti-convulsants, decongestants, Steroids, Beta-agonists, Theophylline, alpha agonists, beta-blockers, Diuretics, Appetite suppressants, Caffeine, Alcohol and Niacin [4].

Lack of sleep is proven to slow down brain function drastically. Everything from memorization to simple motor abilities impacted by insomnia. Incidence of drug-induced insomnia is high, above 60 years of age about 50% has been reported, while consensus proved its 30% incidence overall in the population. Insomnia was reported by 66.5% of patients, with sleep-maintenance insomnia the most frequent issue, followed by early morning awakening and sleep-onset insomnia [5].

Insomnia is one of the most frequent complaints around the world but also one of the least understood, recent research has begun investigating how neurotransmitters function in insomnia [6].

Aim of the Study

1. To explore Insomnia in the Unani system of medicine, and its effect on the body, even for those who have long-lasting medication in the direction of chronic illnesses.
2. To fix the co-relation between observed facts of Unani physicians with newly researched possible neurotransmitter imbalance effects.

Study method

- This is an exploratory study; literature is extracted from the classical Unani books from the 9th AD to the 20th AD.
- Modern knowledge is obtained from the latest research papers available on the internet as PubMed and research gate and other research sites to use them in a correlation manner and precise them in a single frame.
- The discussion will be done to explore insomnia and its utmost suitable, reasonable and safe treatment in the view of trended Unani prescription patterns.
- The study will be concluded to hypothesise the possible future study.

Rational of Study

While conducting the OPD at the Co-location research Centre of Unani Medicine at J.J Hospital, Byculla Mumbai, it revealed that enough patients visited OPD merely for insomnia treatment. Interrogation and investigation brought to notice that many of them were using some medicines for co-morbidities for a long period, like Diabetes mellitus, hypertension, hyperlipidemia and chronic allergies, ischemic heart disease and joint pain etc. After prescribing the Unani treatment, patients had reported significant results; to bring it on clinical trials required an exploratory basic study of insomnia.

Unani Concepts

A deprived sleep or staying awake is called Insomnia (*Sahar*) [1-4]. Wakening and sleep cycle are normal physiological sets of the mind, controlled by the power of *Rooh-e-Nafsaniya* (psychic pneuma). Insomnia occurs due to higher casted Hotness and dryness in the brain. Sleep is a resting, and waking is a movement phases of the body; while sleeping, innate heat confined within cells to make nerve and brain cells free from burden of work and relax and widen its passages [7]. It is a psychological disorder, immense the brain and body functions [3].

Sleep is endowed for the resting of nervous system and enhancing metabolism in untidy body [7]. Sleep is different from other body's works by two means; one-the time of sleeping is fixed by the nature; second –promoters substances of sleep are responsible for its activation [1].

The motion of the psyche is a motion of pneuma because the power in the body exists or inherits with pneuma, thus no power regulation is possible without motion in pneuma [8].

Modern Concepts

Insomnia is one of the Complex symptoms of Adrenal Fa-

tigue Syndrome. Cortisol level considered the causative factor, and Stress is the stimulus for its secretion [9,11,19]. Balance Neurotransmitters maintain the heartbeats, breathing, and digestion and may be behaviour. On the other hand, it creates discomfort to severe illness at worst. Stress, eating the wrong foods, toxins and genetics may be a reason for all imbalances. Serotonin converted to melatonin it may synthesize by the pineal gland. Low levels of GABA may come with low levels of serotonin/melatonin or may cause sleep problems [9,11]. Neurotransmitters include compounds such as acetylcholine, hypocretin, histamine, serotonin, noradrenaline, and dopamine secreted from structures deep within the brain and the brain stem. The new study reveals that the sleep-wake state appears dependent upon the concentration and balance of ions in the CSF. They can change the electrical activity of cells, causing them to either polarize or depolarize. When depolarization occurs in neurons, the cells become excitable, alert, and awake [10]. Histamine is probably a strong contributor to arousal or staying awake [11]. GABA helps decreasing activity of wakefulness promoters and will block serotonin messaging in different parts of the brain [9,11].

Infographic Abstract

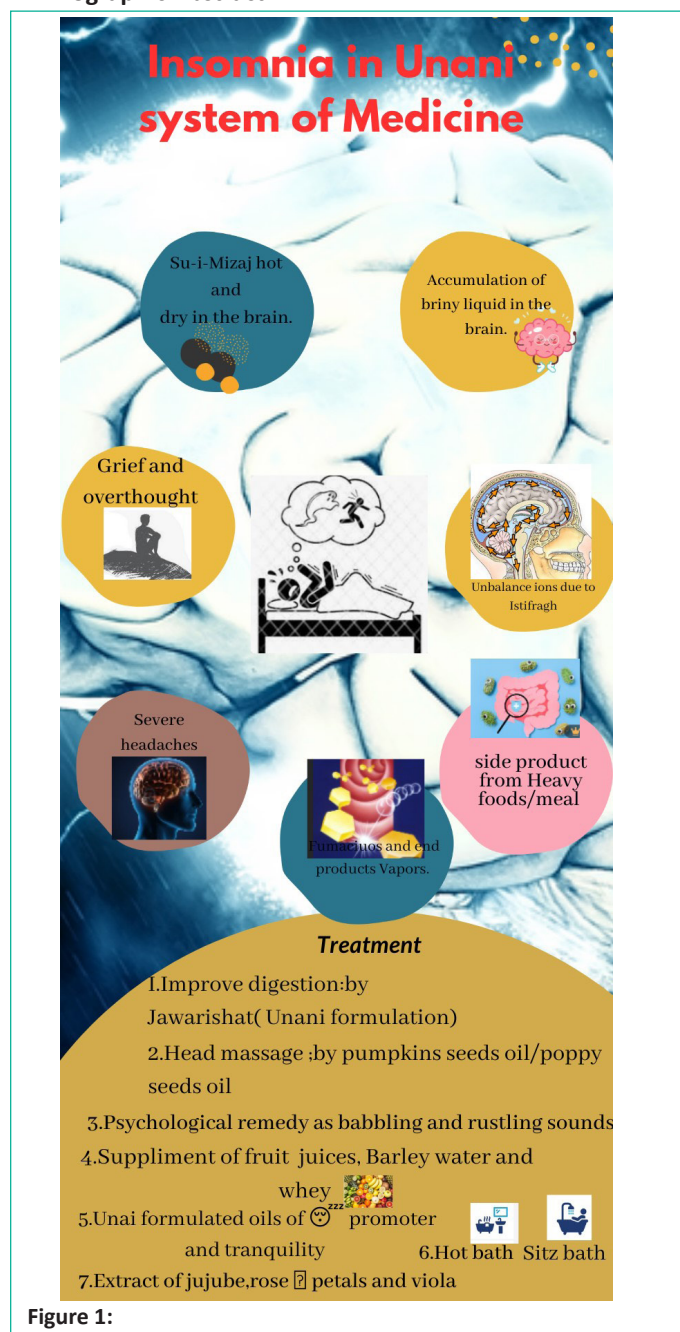


Figure 1:

Table 1: There are various causes have been written in the classical books, concisely be present in tabulated form.

S.No	Reason	Signs/Symptoms	Treatment
1	Su-i-Mizaj Hot and dry, Dry brain [1,3,4,8].	Features of dryness are prominent in eyes, nose and tongue) [13]. Insomnia is categorized relatively higher rate of dryness [1,2,4,7].	Raughan banafsha(viola)*, Raughan kadu(pumpkin seed)* and <i>Istifragh</i> (evacuation) of the body [12]. Listening soft melodies, babbling and rustling sounds. Hamam(Warm bath) and Abzan(sitz bath) [1,2,4,7,12]
2	Accumulation of briny liquid in the brain [1,2,4,7].	Wetness in nose eyes and mouth. Heaviness would be lesser. Person awaken-up earlier. Disturbed sleep [1,2,4,7]. Catnap	<i>Istifragh</i> (evacuation) by Habbe Ayarij*2 tab bed time with lukewarm water Gulqand(preserved rose petals in honey) with sikanjabeen Asli*(Oxymel- Honey) [19] Raughanbaboona*(chamomile) [12].
3	Grief and overthought [3,4,8].	Fatigue	Listening soft melodies, babbling and rustling sound. Hamam (warm bath) and Abzan(sitz bath) [1-4].
4	Old age due to briny liquid and dryness in brain [2].	Hardest one to be treated [8,9].	Raughan baboon* (chamomile). [†] use as a nasal drop Kahu(lettuce), or its seed are useful. Kahu(lettuce)+darchini(cinnamon) are effective [3,4,12].
5	Severe headache [2,7].	Pain makes the patients awake	Qurs musallas*, Raughan kahu (lettuce) * for local application over the head [3,4,12].
6	Overloaded side product [3,4].	Fatigue and tiredness	Gentle exercise and Hamam(warm bath) and Application of Raughan baboona* (chamomile) and kahu* (lettuce)over the temporal area are useful [7,12].
7	Indigestion of foods/Heavy meal and indigestible foods [3,4].	Flatulence, hiccough, fullness in stomach [3,13].	Light diet recommended, evacuation of wastages by Habb-e-Ayarij* 2 tab bed time with lukewarm water [7,12,13].
8	Fumacious and end products Vapors [3,4,8].	Nightmare, frightened dream and catnap.	Diyaqoozah* is effective to settle down the fumacious vapors. Raughan khashkhash (poppy seed)* and kahu (lettuce) * are useful.
9	Cancer or other swelling around head [2,4,7,13].	Pain and heaviness	Recommended for Cancer treatment.
10	<i>Istifragh</i> (Evacuation)	Excessive usage of diuretics and exposure to sun light for longer and staying longer in highly bright pplaces [7].	Supplement of fruit juices.

[†]Unani formulations

Discussion

The above literature reveals that Insomnia is ascertained in the Unani system of medicine in its terms, there are concepts of imbalance substances in the body and brain as *majusi*, *Jurjani*, *Ibn sina*, *Arzani* said that *Su-i-mizaj* Hot and dry is the main reason for insomnia. Modern researchers consider the neurotransmitters to play the same roles of it becomes imbalance in the body [10,11] as; if a patient has a dry nose, tongue and subtleness in the head with normal senses, indicative not massive changes or secretion of neurotransmitters [4,10,11,13]. And, dry nose, tongue heaviness in the head along with features of melancholy indicative of initiation of *Su-i-mizaj* Dry melancholy; [2,7,10,11] as effects the low level of serotonin, melatonin, dopamine and norepinephrine considered a result of melancholy. While dry nose, tongue, heat sensation in the entire body burning in epigastrium, throat urine and stool etc. Indicative of *Su-i-mizaj* Hot and dry (bilious), Histamine is one of the strong probable contributors to develop such types of pathology. If a person has insomnia with nightmare indicative accumulation of briny fluid in the brain (stasis CSF channels) Unani physicians observed a way of production of vapours from the stomach and intestine after eating bad foods as well fumacious product may stimulate the brain and nerves and alter its function (Obviously it occurs due to various neurotransmitters). A large number of patients meet in OPD with complaints of a state of being produced from undigested foods that stimulate and cause hot flashes, headache, vertigo, palpitation, burning in the head neck, sometimes entire body, gas formation in the stomach and abdomen, develop weakness and few are fainted with no any noticeable pathology and diseases, now all these

functions are referred to the effect of neurotransmitters. Unani Physicians have drawn a line of treatment in insomnia patients just to calm the mind and brain, restore the brain temperament, correction of digestion. Recommended medicine to soothe the hotness and dryness in the brain because the brain's normal entity is cold and moist, *Raughan Kahu* (lettuce) *Raughan kadu* (pumpkin) *Raughan khashkhash* (poppy seed) are highly recommended for insomnia and melancholia as these are providing *Tanweem* (promoter of sleep), *Taskeen* (tranquillity), *Tarteeb* (promoter of ion exchange in the brain). The following causes; as it varied in respect of primary and secondary gets accuracy in treatment not only administer to internal but modulation to bring back normal sleep, Insomnia greatly enhances many more abnormal substances in the body that make people unhealthy, and ill and aggravate serious health issues. The accumulation of briny fluid in the brain may be treated by the *istifragh* after giving *Habbe Ayarij* 2 HS with lukewarm water, as this medicine is the most recommended to evacuate the waste from the brain and meninges [12,18]. In a state of grief or over thought, there is psychological treatment recommended; such as listening to soft melodies, babbling and rustling sounds washed in *Hamam Mutadil* (warmth bath) and *Abzan* (sits bath).

Old age, though, is the hardest one to be treated even if they are recommended the same treatment as given in the *Su-i-mizaj* Hot and dry as well, one thing additionally Cinnamon is required just for preventing more tranquillity, due to less physical power. In case of indigestion, improving it is a primary task, have been prescribed *jawarish jalinos/Shahi/kamooni/Amla sada* according to the indicated direction [12,18].

Headache and cancer growth are considered potential causes of secondary insomnia. The *Qurs Musallas* is recommended for local application over the temporal area in headaches. It is highly prescribed formulation and potent to reduce severe headaches in an emergency. In the case of Cancer, a prime recommended treatment is to treat the patient for growth. *Istifragh* (Evacuation of the waste) outside of the body is one of the main reason has been considering for insomnia; as purging more, diarrhoea, heavy bleeding, polyuria, excessive sweating, and frequent vomiting are the way of heavy *Istifragh* [2,4,7,13]. Now it is known that these situations unbalance the electrolytes in the entire body, it alters the CSF flow rhythm and exchanging ions in the brain too.

Despite advanced technology in medical science diagnosis of psychological disorders and nervous system diseases is based on the interrogation and history of the patient [15]. In the Unani system of medicine, physicians have observed and written all diagnoses after measuring the primary and relative causes. The primary reason there is *Su-i-mizaj* Hot and dry overcast the brain, accumulation of briny liquid therein and severe grief, anxiety or over thought usually pushes the people in a state of insomnia [2,4,7], it may contribute to or exacerbate medical or psychiatric conditions [16].

Secondary or related causes may consider in the respect of heavy food items habit, indigestion, huge production of side product matter, vapours from the intestine and stomach, some illness as cancer, and other growth around the neck, old age and severe headaches. These conditions have been considered the causes of Insomnia in the present era too [10,14,16]. Study of Unani Literature is mostly the same as the newly researched knowledge.

Patients with these types of illnesses usually have recommended the line of treatment distinctly in the direction of resolving the reason with the provision of some soothing and re-

frigerating food and medicine such as *harerajat*, (ground and liquid syrup of almond, pistachio, pumpkin seed, lettuce seed, cucumber seeds and poppy seed with milk and cow butter) and other internal medicine to strengthen those cells which are running under more combustion and production of excess pathological *safra* (*Bile*) and *sawda* (Black bile) in the body.

Conclusion

The study concluded that Insomnia can be treated by Unani trended prescription, it would be significant if conduct some clinical trials on a new scale. *Su-i-mizaj* Hot and Dry is a measurable pathological state as it is same of neurotransmitter imbalance effects. Accumulation of briny fluid is a definite reason for stagnant CSF in the brain and nervous system; it can be measured in the view of insomnia-neurotransmitters-impact. Psychological disorders with the Unani line of treatment with trended formulation as well modulation as *Hammam* (warmth bath), sitz bath, Head massage listening melodies, rustling sounds, soft music, sharing thought and the consoling person may be a significant aspect. Vapours rising and fumacious fluid accepted now as it secreted serotonin from the gut and converted to melatonin. These theories can be tested and trail in future for gathering data to make it useful for further new research in Insomnia patients.

Author Statements

Disclosure Statement

There is no conflict of interest regarding this study.

Authors' Contributions

Dr Humaira Bano; created concepts, evaluated idea and collected literature, organized and accessed it a format, Dr. Masroor Ali advised to add the newly researched knowledge be a part of the study. Dr Jamal Akhtar contributed the glossary of the article.

Glossary: Term ID	Term or concept in English	Description	Corresponding term in Diacritics	Corresponding term in Arabic/ Persian/Urdu script
IUMT-3.1.79	pneuma(s)	Light gaseous substance obtained from the interaction of inspired air with subtle humours found in organs and fluids of the body and help faculties in their functions; the term does not cover Rūḥ mentioned under Unani pharmacy	Arwāḥ/ Ruh	حاورا / حور
IUMT-3.1.80	psychic pneuma	The pneuma found in the organs of the psychic faculty whose centre is brain and helps psychic faculty to perform its functions	Rūḥ Nafsāniyya	حورہ نفسان سفن
IUMT-3.1.102	psychic faculty / mental faculty	Faculty which is furnished in an individual for sensory/perceptive and motor/motive function of the body; it controls nervous tissues to perform the functions of sensation/perception and regulates the nervous system for motor activity	Quwwat Nafsāniyya	وقوت نفسان سفن
IUMT-3.1.152	hotness	One of the two active properties naturally associated with matter	Ḥarārat	تزارح
IUMT-3.1.153	coldness	One of the two active properties naturally associated with matter	Burudat	تدورب
IUMT-3.5.9	morbid hot temperament	When heat dominates abnormally in the body	Sū'-i-Mizāj Ḥārr	وسء جازم راح
IUMT-3.5.12	morbid dry temperament	When dryness dominates abnormally in the body	Sū'-i-Mizāj Yābis	وسء جازم راب د
IUMT-4.1.22	signs and symptoms of abnormal hot temperament	Signs and symptoms of abnormal hot temperament, viz., heat intolerance, excess fatigue, increased thirst, dislike of eating foods of hot temperament, etc	'Alāmāt-i-Sū'-i-Mizāj Ḥārr	ءوسء جازم راح تامالاع
IUMT-7.5.50	evacuation	One of six essential factors for maintenance of health; it is necessary for removal of waste products/metabolites through defecation, micturition, menstruation, coitus, sweating and spittle; in case of any imbalance, various disorders may occur; it may also be used for managing certain disease conditions	Istifrāgh	غرافت سلالا
IUMT-5.1.85	insomnia	A morbid state characterized by sleeplessness of such a degree as to cause dryness in the body	Sahar	رہس

References

1. Majusi Ali Ibn Abbas, Kamilus sana't. translated by Gulam Hasnain Kanturi 1889, Munshi Naval Kishore Lucknow, 1889: 287-288. Urdu.
2. Jurjani Mohammad Ismail. Zakherah khawarizm shahi. Munshi Naval Kishore lucknow. 1903; 6: 49-50. Urdu.
3. Ibn Sina, Abu Ali Hussain bin Abdullah, Alqanoon fil tib urdu translated by Gulam Hasnain Kanturi 1896, munshi Naval Kishore lucknow. 1896; 1: 127-128 Urdu.
4. Arzani, Hakeem Muhammad Akbar, Taibb-e-Akbar 1903, Kitabul shifa daryaganj New Delhi. 1903: 36-38 Urdu.
5. Sara Lindberg Mar. 9 types of medication that cause insomnia. <https://www.singlecare.com/blog/medications-that-cause-insomnia/>
6. Ann Van Gastel. Drug-Induced Insomnia and Excessive Sleepiness. 2018; 13: 147-159.
7. Ibn Sina, Abu Ali Hussain bin Abdullah. Alqanoon fil tib. Translated by Gulam Hasnain Kanturi. Munshi Naval Kishore lucknow. 1896; 3: 73-75 Urdu.
8. Ibn nafis Burhanuddin, Kulliyat Nafisi. Barqui press Delhi. 1935; 1: 315. Urdu.
9. Lara Grau-Lopez, Laia Grau-Lopez, Constanza Daigre, Raul Felipe Palma-Alvarez, Nieves Martinez-Luna, et al. Insomnia Symptoms in Patients with Substance Use Disorders during Detoxification and Associated Clinical Features. *Psychiatry*. 2020; 11: 540022.
10. Mark Michaud Subtle. Chemical changes in brain can alter sleep-wake cycle. April 28 2016 University of Rochester medical Centre. <https://www.urmc.rochester.edu/news/story/subtle-chemical-changes-in-brain-can-alter-sleep-wake-cycle>.
11. Neurotransmitters in Sleep and Wakefulness An interview with Robyn Kutka, *Natural Medicine Journal*. NMJ, Supplement. 2019; 11: 28-31.
12. Anonymous. National Formulary of Unani Medicine.. C.C.R.U.M, Ministry of Health and Family Welfare, Government of India, New Delhi. 1993; 1: 29,9173,167,163,300,293,338,180 Urdu.
13. Khan, Hakeem Muhamma Azam. Al-Akseer Translated and précised by Hakeem Kaberuiddin. Jama Masjid Road Rawalpindi. 1940: 196-200 Urdu.
14. Charles M Morin, Geneviève Belleville, Lynda Bélanger, Hans Ivers. The Insomnia Severity Index: Psychometric Indicators to Detect Insomnia Cases and Evaluate Treatment Response. 2011; 34: 601–608.
15. Andrew R Houghton and David Gray. Chamberlain's symptoms and signs in clinical medicine. An introduction to medical diagnosis. 2010: 185.
16. Fauci. Braunwald. Kasper. Hauser. Longo. Jameson. Loscalzo. Harrison's principle of Internal Medicine. The McGraw-Hill Companies. 2008: 28.
17. Judith Marcin MD, Adrienne Santos-Longhurst. What Is Chronic Insomnia and How Is It Treated?. 2018.
18. Najmulghani, Hakeem Muhammad. Qarabadeen-Najmul Ghani, Naval Kishore Lucknow. 1928: 144 Urdu.
19. Ibn sina, Al-shaikh al Rais abu ali al hussain Abdullah. Al-Qanun Fi'l Tibb. Jamiya Hamdard New Delhi. 2002; 5.5,102,67,68.