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“Aging And Sleep: A Narrative Review On Insomnia In Older Adults”

Dr. Shaik Abdul Haseena

PG scholar, Dept of Psychiatry, JIMS Homoeopathic Medical College and Hospital, KNR University, Hyderabad, Telangana, India.

Dr. K. Divya

Assistant Professor, Dept of Psychiatry, JIMS Homoeopathic Medical College and Hospital, KNR University, Hyderabad, Telangana, India.

ABSTRACT:

“Sleep disturbance is common in older adults, because aging is associated with an increasing prevalence of multimorbidity” polypharmacy, psychosocial factors affecting sleep, and certain primary sleep disorders. It is also associated with morbidity and mortality. Several studies have demonstrated that aging-related poor sleep quality is associated with a worsening in cognitive functions, specifically associated with excessive diurnal sleepiness. “Despite advancements in diagnosis and management, sleep disorders remain under recognized among both healthcare providers and the general population”

KEYWORDS:

Geriatric Insomnia, Sleep Hygiene, Circadian Rhythm Changes, Pittsburgh Sleep Quality Index (PSQI), Cognitive Decline.

INTRODUCTION:

Sleep plays a vital role in maintaining cognitive functions, emotional stability, and overall physiological health. It consists of multiple distinct stages, each serving specific functions and regulated by unique mechanisms ⁽¹⁾. Deprivation of particular sleep stages often triggers compensatory responses, highlighting their biological significance. Contrary to popular belief, sleep is not merely a state of rest but involves periods of heightened brain activity and metabolic processes. The regulation of sleep depends on complex neurophysiological systems, and disturbances in these pathways can result in various sleep disorders. Initially explored by mental health and neurological specialists, the field of sleep medicine has expanded significantly over recent decades ⁽¹⁾

Insomnia: definition

Insomnia is the most prevalent sleep disorder worldwide and is characterized by difficulty in initiating or maintaining sleep, early-morning awakening and an inability to return to sleep, occurring for at least three nights a week over a three-month period ^[2]. Insomnia impairs daytime functioning and can be caused by a variety of factors ^[2]. It frequently co-occurs with underlying medical conditions such as cardiovascular diseases, renal disorders, or obstructive airway diseases ^[3]. The long-term use of certain medications, psychological disorders, substance use disorder (SUD) aging, genetic predisposition, or traumatic brain injuries can also contribute to its development ⁽⁴⁾

Scope of the problem:

The population of older adults continues to expand rapidly from the current 205 million persons aged 60 years or older, to a projected 2 billion by 2050. As many as 50% of older adults complain about difficulty initiating or maintaining sleep. Prevalence of insomnia is higher in older individuals than in the younger population. The overall prevalence of insomnia symptoms ranges from 30% to 48% in the elderly, whereas the prevalence of insomnia disorder ranges from 12% to 20%. Insomnia is often classified by the predominant symptom of either difficulty in sleep onset or sleep maintenance.

Sleep maintenance symptoms are most prevalent among individuals with insomnia (50% to 70%), followed by difficulty in initiating sleep (35% to 60%) and nonrestorative sleep (20% to 25%). A study of 6,800 older adults (age 65 years or older) observed an incidence rate for insomnia symptoms of 5% per year, with a yearly incidence of 7.97% at 1-year follow-up.

Approximately 50% of the patients with symptoms of insomnia will have a remission during the follow-up period, with higher remission rates among older males relative to females⁽⁵⁾.

INSOMNIA: AN OVERVIEW:

To gain clearer insight into sleep and its disorders, it is necessary to recognize three core aspects of sleep. First, sleep is vital for healthy brain function. When individuals do not get enough sleep, it negatively affects their ability to think clearly, regulate emotions, and maintain normal bodily functions. Second, sleep is made up of several different stages, rather than being a single uniform process ⁽⁶⁾. Each stage serves a specific purpose, varies in its characteristics, and is controlled by different biological mechanisms. If a person is deprived of one type of sleep, the body often responds by increasing that stage when regular sleep resumes. Third, sleep should not be seen as a passive or inactive state. In fact, certain stages of sleep involve significant brain activity and energy use, indicating that Sleep is a dynamic and active process ⁽⁶⁾. Human sleep cycles through three NREM stages followed by REM sleep, lasting 70–120 minutes per cycle, with 4–5 cycles nightly. REM sleep makes up 20–25% of total sleep and increases across cycles, while deep NREM (stage 3) decreases ⁽⁶⁾.

AGE RELATED SLEEP CHANGES:

Aging is associated with significant changes in sleep patterns and circadian rhythms. Sleep is divided into four stages based on electroencephalogram (EEG) findings: three non-rapid eye movement (NREM) stages (N1, N2, N3) and one rapid eye movement (REM) stage. In older adults, light sleep (N1) accounts for approximately 18% of total sleep, stage N2—marked by slower brain waves and decreased heart rate—accounts for 48%, and deep sleep (N3 or slow-wave sleep) accounts for 16%. REM sleep, characterized by brain activity resembling wakefulness and muscle atonia, constitutes around 18% of sleep and is the stage where dreaming occurs.

Sleep in adults' cycles through wakefulness, three NREM stages (N1–N3), and REM sleep. In older adults, features include reduced N3 (slow-wave) sleep, more frequent awakenings, earlier sleep onset, and earlier morning awakening ⁽⁷⁾.

Age-related changes in sleep and circadian rhythms ⁽⁸⁾

Increased N1 sleep

Increased N2 sleep

Decreased N3 sleep

Decreased REM sleep

Earlier typical bedtimes

Earlier circadian preference (greater “morningness”)

Shorter nighttime sleep duration

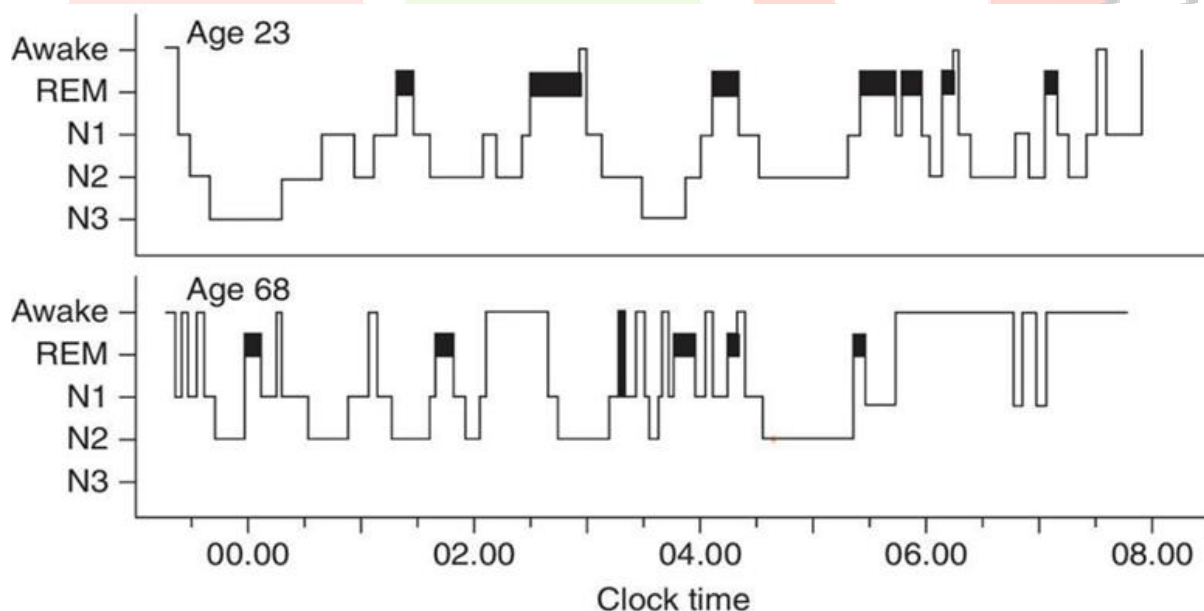
Greater sleep fragmentation

Increased time awake after sleep onset

More frequent napping

Decreased sleep efficiency

The National Sleep Foundation recommends 7 to 8 hours of sleep for older adults, similar to the 7 to 9 hours recommended for those under age 65 years.²⁵ Evidence suggests that older adults who sleep between 6 and 9 hours have improved mental and physical health, cognition, and quality of life compared with those with shorter or longer durations.



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ASSESSMENT TOOLS:**INSOMNIA RATING**

SCALES: The Insomnia Severity Index (ISI) evaluates perceived insomnia over the past two weeks, with scores above 14 suggesting clinical insomnia. The Pittsburgh Sleep Quality Index (PSQI) is a 19-item self-report tool that measures seven dimensions of sleep over the previous month. While sleep issues are common among psychiatric patients, few instruments are specifically designed for this population. The PSQI demonstrates high reliability and validity, particularly in individuals with primary insomnia. **Scoring:** Each component is scored 0–3. The global score ranges from 0 to 21. A score >5 indicates poor sleep quality ^(9,10). Nineteen individual items generate seven "component" scores:

1. Perceived sleep quality
2. Time taken to fall asleep
3. Total sleep duration
4. Regular sleep efficiency
5. Sleep disruptions
6. Use of sleep aids
7. Daytime impairment.

MEDICAL, PSYCHIATRIC, AND ENVIRONMENTAL FACTORS IMPACTING INSOMNIA AND OTHER SLEEP DISTURBANCES

The more comorbidities an older adult has, the more likely he or she is to report a sleep complaint. Common medical conditions strongly associated with insomnia and reduced sleep quality include heart disease, cancer, hypertension, neurodegenerative disorders, respiratory disease (including OSA), urinary issues, diabetes, chronic pain, and gastrointestinal disorders. When evaluating a sleep concern, clinicians should screen for shortness of breath, somatic pain, nocturia, gastrointestinal symptoms, and limitations in mobility, all of which may compromise sleep and should be addressed ⁽⁸⁾.

Table 10.2 Elements of sleep history ⁽¹¹⁾**Obtain sleep history (from patient, family members, caregivers)****Determine characteristics of sleep disturbance**

Time required to fall asleep

Times of going to bed and waking up

Total sleep time

Number and duration of nighttime awakenings

Quality of sleep (restorative, refreshing?)

Level of daytime alertness (hypersomnolent?)

Napping pattern

Recent changes in sleep pattern

Previous history of sleep problems

History of snoring, sleep-disordered breathing, abnormal limb movements

Exclude potential external factors

Use of drugs, alcohol, caffeine Diet Activity level, exercise

Symptoms of dysfunction of other organ systems

Situational stressors

Sleep hygiene

Assess impact of problem

Duration of sleep disturbance

Degree of functional impairment caused by sleep difficulties

COURSE AND PROGNOSIS ^(12,13):

Insomnia in older adults often becomes long-lasting or recurring, especially without timely treatment. Around 70% report symptoms lasting over a year. Relapses frequently occur when treatment focuses only on medication rather than behavioural changes. Chronic insomnia is linked to various health issues such as Depression, Anxiety, Cognitive decline, Cardiovascular problems, and Increased fall risk due to sedative use or Daytime sleepiness. It is also associated with higher mortality rates, particularly when combined with depression or multiple medications, and can lead to reduced functioning, social withdrawal, and increased chances of institutionalization.

“HOMOEOPATHY AS AN ALTERNATIVE THERAPEUTIC APPROACH FOR INSOMNIA”

Due to the adverse effects of pharmacological interventions, many people seek alternative treatments, such as homeopathy, for managing insomnia. Homeopathy is a patient-centered treatment where dosage can vary, contributing to uncertainty in outcomes. Based on the principle that “like cures like”, homeopathy utilizes extremely diluted substances intended to stimulate the natural healing processes of the body. Potential mechanisms through which it may influence sleep include the modulation of stress responses and the regulation of circadian rhythms. However, the individualized nature of homeopathic prescriptions, variations in remedy formulations, and differences in patient characteristics add complexity to its research and interpretation of findings ⁽¹⁴⁾

Kent was converted to Homoeopathy, reason behind his conversion was his wife was seriously ill. No amount of eclectic and allopathic treatment helped her. She entreated her husband to seek medical advice and help from a known Homoeopath in their neighbourhood. To satisfy her whim he called Dr. Phelan, the homoeopath. He watched, with possibly contemptuous amusement, taking the case -history and later his giving her some globules to be dissolved in water and taken according to his directions until she fell asleep. Mrs. Kent had been suffering from sleeplessness for days and nothing had helped her the least in giving her some sleep. Kent chuckled within himself when Dr. Phelan mentioned about her from getting sleep from the medicated water. He however, fulfilled his part of the contract by giving her the first dose. The second dose to be given to her was delayed because Dr. Kent became absorbed in his books. When he remembered about the dose, he found her into such a natural and sound sleep. This incident transformed his thinking. Under the care of Dr. Phelan, Mrs. Kent made a steady progress from the next day onwards ⁽¹⁵⁾.

HOMOEOPATHIC THERAPEUTICS ON INSOMNIA FOR OLD AGE: ^(16,17,18)**ACONITUM NAPELLUS –**

Nightly ravings. Sleeplessness, with restless and tossing about. Starts up in sleep. Insomnia of the aged. Sleeplessness from anxiety, with constant agitation and tossing. Sleeplessness, with restlessness (eyes closed) and constant tossing about. During sleep, lying on the back, with the hand under the head; or in a sitting posture, with the head inclined forward.

ARSENICUM ALBUM

Disturbed, anxious, restless. Must have head raised by pillows. Suffocative fits during sleep. Sleeps with hands over head. Drowsy, sleeping sickness. Nocturnal sleeplessness, with agitation and constant tossing. Unrefreshing sleep; in the morning it seems as if more sleep were needed. The pain of the affected part wakes him in the night from time to time, especially before midnight.

BARYTA CARBONICA:

Talking in sleep; awakens frequently; feels too hot. Twitching during sleep. Somnolence in the daytime. — Drowsiness night and day. At night, ebullition of the blood; strong pulsations of the heart, and sensation

in the heart as if it were excoriated, with great anxiety, and inability to lie on the side. Sleep with many unquiet dreams. Talking during sleep (in an old man).

OPIUM -Great drowsiness. Falls into a heavy stupid sleep. Profound coma. Loss of breath on falling asleep. Coma vigil. Picking at bedclothes. Very sleepy, but cannot go to sleep. Distant noise, cocks crowing, etc, keep him awake. Child dreams of cats, dogs, black forms. Bed feels so hot cannot lie on it. Shaking chill; then heat, with sleep and sweat. Thirst only during heat. Sleeplessness with acuteness of hearing; clocks striking and cocks crowing at a distance keep her awake. Sleeplessness, with anxious tossing, restlessness, and delirium. — groaning. Moaning (whining) during sleep. Terrific shocks in limbs, during sleep.

PASSIFLORA INCARNATA:

Restless and wakeful, resulting from exhaustion. Especially in the feeble, infants and the aged. Insomnia of infants and the aged, and the mentally worried, and overworked, with tendency to convulsions. Nocturnal cough. has been also used for ordinary sleeplessness.

PHOSPHORUS

Great drowsiness, especially after meals. Coma vigil. Sleeplessness in old people. Vivid dreams of fire; of hémorrhage. Goes to sleep late and awakens weak. Short naps and frequent wakings. During sleep, jerks in limbs, cries, talking, tears, complaints, lamentations, and moans. Strong tendency to sleep by day, as from lethargy— Stupefying sleep— Sleep retarded in evening, and sleeplessness at night, or frequent waking, with difficulty in going to sleep again, caused by restlessness, with anguish, tossing, heat, vertigo, and ebullition of blood.

SULPHUR

Talks, jerks, and twitches during sleep. Wakes up singing. Wakes frequently, and becomes wide awake suddenly. *Catnaps*; slightest noise awakens. Cannot sleep between 2 an 5 am. sleeplessness, sometimes caused by a great flow of ideas or from over-excitement. — Sleep too light; or agitated with frequent waking, often with starts, and in a fright. —Waking too early with inability to go to sleep again.

Syphilinum

Great restlessness at night, impossible to keep leg in one position. Absolute sleeplessness Wakes soon after midnight and cannot sleep again till 6 a.m.

Table 1: Non-pharmacological treatment for chronic insomnia disorder⁽¹⁹⁾

Treatment	Description
1 Sleep hygiene education	Diet, exercise, environmental factors
2 Stimulus control	To establish a regular pattern of sleep and maintain its association with the bed and bedroom (e.g. only go to sleep when tired)
3 Sleep restriction	Restricting the time spent in bed to sleep time, and increasing gradually as sleep efficiency improves
4 Relaxation training	Training to decrease bodily tension, control thought patterns that disturbs sleep
5 Cognitive behavioral therapy for insomnia	Using both cognitive and behavioral techniques such as stimulus control, sleep restriction and relaxation training

COMMON RUBRICS RELATED TO THE SYMPTOMS OF INSOMNIA DISORDER⁽²⁰⁾:

- MIND-FEAR sleep- loss of sleep, from
- MIND-IRRITABILITY sleeplessness, with
- MIND-RESTLESSNESS sleeplessness, from
- MIND-SADNESS-sleeplessness- with
- MIND-sleeplessness agg-
- MIND-thoughts rush sleeplessness from
- HEAD -PAIN sleep loss of from
- SLEEP-disturbed
- SLEEP- Disturbed Thoughts by
- SLEEP FALLING ASLEEP difficult
- SLEEP -FALLING ASLEEP difficult waking agg., after
- SLEEP-SLEEPLESSNESS
- SLEEP-SLEEPLESSNESS evening thoughts, from activity of

- SLEEP-SLEEPLESSNESS-Fright, after
- SLEEP-SLEEPLESSNESS sleepiness with daytime
- SLEEP- UNREFRESHING
- SLEEP-WAKING frequent
- GENERALS -WEAKNESS sleep-loss of, from

DISCUSSION:

Homeopathy may offer a supportive role in the management of insomnia in older adults, particularly when insomnia is associated with anxiety, emotional stress, chronic illness, or medication-related disturbances. Since geriatric insomnia is often multifactorial, individualized homeopathic prescription based on the totality of symptoms (mental, physical, and sleep characteristics) may help improve sleep quality and overall well-being. Remedies such as Aconitum napellus, Arsenicum album, Sulphur, and Passiflora incarnata are commonly indicated depending on the nature of sleeplessness, restlessness, and associated fears. Homeopathic management may also complement non-pharmacological approaches like sleep hygiene and CBT-I, thereby reducing dependence on sedative medications. However, more systematic clinical trials are required to establish stronger evidence regarding its effectiveness in geriatric insomnia. Thus, homeopathy can be considered as an alternative or adjunctive therapy in elderly patients when carefully selected and monitored.

CONCLUSION:

Geriatric insomnia is a common and persistent condition that significantly affects cognitive function, emotional well-being, and overall quality of life in older adults. Along with sleep hygiene and behavioural measures, thorough sleep history and review of medical and psychiatric history, medication list, and collateral history from bed partners or caregivers are crucial to effective diagnosis and treatment planning. Nonpharmacological treatment of insomnia, particularly CBT-I, should be implemented first whenever possible. Some pharmacologic treatments for insomnia are effective but should be chosen with great caution given substantial risks for adverse events, side effects, and medication interactions. A homoeopathy may serve as a supportive, individualized, and well-tolerated therapeutic approach, helping to improve sleep patterns and reduce associated anxiety without the risk of dependency seen with conventional sedatives. Therefore, homoeopathy can be considered a beneficial complementary option in the holistic management of insomnia in the elderly.

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REFERENCES:

1. Kaplan & Sadock's comprehensive textbook of psychiatry volume twelfth edition editors benjamin j. Sadock, m.d virginia a. Sadock, m.d pedro ruiz, m.d
2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th ed., text revision (DSM-5-TR). Washington, DC: American Psychiatric Publishing; 2022 [Google Scholar](#)
3. Bhaskar S, Hemavathy D, Prasad S. Prevalence of chronic insomnia in adult patients and its correlation with medical comorbidities. J Family Med Prim Care. 2016 Oct-Dec;5(4):780-784. doi: 10.4103/22494863.201153. PMID: 28348990; PMCID: PMC5353813 [CrossRef](#) [PubMed](#) [Google Scholar](#)
4. Roth T. Insomnia: definition, prevalence, etiology, and consequences. J Clin Sleep Med. 2007 Aug 15;3(5 Suppl): S7-10. PMID: 17824495; PMCID: PMC1978319 [Cross Ref](#) [PubMed](#)
5. Insomnia in the Elderly: A Review
[Dhaval Patel](#)¹, [Joel Steinberg](#)¹, [Pragnesh Patel](#)
6. New oxford textbook of psychiatry third edition edited by john r. geddes nancy c. andreasen guy m. goodwin
7. Effectiveness of Homeopathic Interventions for Insomnia and Sleep Disorders: A Systematic Review and Meta-Analysis
8. Insomnia and Other Sleep Disorders in Older Adults Zachary L. Cohen, MDa, *, Paul M. Eigenberger, MDb , Katherine M. Sharkey, MD, PhDc,d , Michelle L. Conroy, MDb,e , Kirsten M. Wilkins, MDb,e
9. Bastien CH, Vallieres A, Morin CM Validation of the Insomnia Severity Index as an outcome measure for insomnia research. Sleep Med; 2001;
10. Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. Psychiatry Res; 1989;282:193-213, 2748771. [Crossref](#) [Google Scholar](#).
11. Clinical Handbook of Insomnia Second Edition Edited by Hrayr P. Attarian, MD Catherine Schuman, PhD
12. Yaffe K et al. (2014). Sleep-disordered breathing, hypoxia, and risk of mild cognitive Impairment and dementia in older women
13. Morin CM, Bélanger L, LeBlanc M, et al. (2009). The natural history of insomnia A population-based 3yearlongitudinalstudy. Arch Intern Med, 169(5), 447–453. <https://doi.org/10.1001/archinternmed.2008.610>
14. ESSENTIALS OF PSYCHIATRY Jerald Kay Professor and Chair Department of Psychiatry Wright State University School of Medicine Dayton, Ohio USA Allan Tasman Professor and Chair Department of Psychiatry and Behavioral Sciences University of Louisville School of Medicine Louisville, Kentucky USA
15. Kent, J., 2007. Lectures on homoeopathic materia medica. New Delhi: B. Jain Publisher
16. HOMOEOPATHIC MATERIA MEDICA BY WILLIAM BOERICKE, M.D
17. A Dictionary Of Practical materia Medica By John Henry Clarke, M.D.
18. The Encyclopedia Of Pure Materia Medica By Timothy F. Allen, A.M., M.D.
19. Clinical Practice Guideline on Management of Sleep Disorders in the Elderly
20. Schroyens F. *Synthesis Repertory* [software]. Version 9.1. Brussels: Archibel; 2012