



## Unveiling the Shadows: The Alarming Link Between Sleep Irregularity and Dementia

Riffat Mehboob<sup>1,2</sup>

<sup>1</sup>National Heart, Lung and Blood Institute, National Institute of Health, Bethesda, United States

<sup>2</sup>Lahore Medical Research Center<sup>LLP</sup>, Lahore, Pakistan

[riffat.pathol@gmail.com](mailto:riffat.pathol@gmail.com)

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Nature has beautifully planned nocturnal hours during which neurobiological processes critical for the preservation of cognitive health and prevention of dementia take place. Irregular sleeping may interfere with the brain's function of eliminating neurotoxic, and results in onset of neurodegeneration. Studies have revealed a surprising relationship between irregular sleeping and dementia.

Dementia is known to be major cause of disability and mortality worldwide. According to WHO, estimated 55 million individual suffering with dementia globally and this number is expected to raise up to 140 million in 2050 [1]. A variety of neurodegenerative diseases comes under dementia, and they are all characterized by a loss of cognitive abilities including memory, language, problem-solving, and the capacity to carry out daily tasks. Alzheimer disease is the most common form and may contribute to 60–70% of all cases [2]. It is due to accumulation of beta-amyloid.

Irregular sleeping has become a widespread problem that is silently draining millions of people's cognitive capacities and may even be the precursor to dementia. Findings have shown U-shaped relationship between sleep regularity and dementia risk. Very irregular and overly consistent sleep patterns, both are linked to a higher risk of dementia.

Previous studies have shown the association between irregular sleeping and dementia but does not prove that dementia is caused by irregular sleep. Future studies, including longer follow-up periods and inquiries into the underlying molecular mechanisms, are required to better understand the complicated link between sleep regularity and dementia. It would be helpful to conduct further intervention trials aimed at improving irregular sleep in individuals with highly variable sleep patterns in order to ascertain whether restoring regular sleep patterns actually enhances brain health.

Currently, there is no treatment available for any of the prevalent form of dementia, including frontotemporal dementia, Alzheimer's disease, vascular dementia, and Lewy body dementia. Individual with dementia can preserve the quality of life and well-being by engaging in physical activity and by maintaining the social connections that stimulate brain functioning. Some tips can be followed to improve sleep, such as maintaining a regular sleep schedule or abstaining from caffeine and stimulating screen time 1-2 hours before bed or by consulting your doctor for assistance and to discuss your sleep issues, habits, and general health.

In summary, the connection between sleep disorders and dementia serves as a warning, drawing attention to a frequently overlooked aspect that may be essential to prevent a wave of subsequent cognitive deterioration.

### REFERENCES

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