

The association between sleep and migraine

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Dear Editor, A 2017 cross-sectional study found that 22.5% of Pakistanis suffer from migraines, making it the second most common type of headache.¹ Globally, migraine ranked sixth in the 2016 Global Burden of Disease report, with a significant impact on young and middle-aged women. There is strong evidence of a bidirectional relationship between migraine and sleep disorders, particularly insomnia, where sleep disturbances can trigger and worsen migraines, and vice versa.²

Insomnia is particularly prevalent among chronic migraine sufferers, leading to increased headache frequency and severity. Both insufficient sleep (≤ 6 hours) and excessive sleep (≥ 8.5 hours) have been linked to more intense headaches, whereas maintaining 7–8 hours of sleep reduces this risk.³ A 2018 sequential Bayesian analysis demonstrated that simple changes in sleep hygiene—such as avoiding meals before bedtime and limiting stimulating activities—led to 6.2 additional headache-free days per month compared to control groups.⁴ These findings highlight the efficacy of non-pharmacological interventions... may in some cases outperform traditional pharmacological treatments.

Patients with migraines frequently resort to sleep and rest as coping mechanisms, which may worsen their condition, creating a vicious cycle between poor sleep and migraines. Addressing these issues early through sleep hygiene education can help prevent migraines from worsening. Additionally, sleep management strategies, such as trigger identification through diaries or wearable devices, can help patients better manage their migraines and reduce their dependence on medications.³

In Pakistan, the overuse of benzodiazepines for sleep disorders is concerning. These drugs, often prescribed by family physicians or used as self-medication, can provide

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short-term relief but may worsen headaches or even trigger new ones.⁵ Importantly, benzodiazepines do little to address the long-term impact of insomnia on migraines. Healthcare providers should guide patients toward adopting more effective strategies for improving sleep quality, emphasizing the need to tackle sleep issues as part of migraine management.

Neurologists and family physicians should encourage non-drug interventions, such as Cognitive Behavioural Therapy for Insomnia (CBTi), as these approaches have been shown to reduce headache frequency and intensity significantly.³ The relationship between sleep and migraine is intricate, and sleep disturbances can greatly impact headache occurrence. By prioritising non-drug interventions and good sleep hygiene practices, healthcare providers can substantially improve patient outcomes and enhance the overall quality of life for individuals suffering from migraines.

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