

Beyond the pill: Advocating internet-based cognitive behavioural therapy for insomnia in PakistanAmmen Shakoor¹, Aiyaan Shakoor²

Dear Editor, I would like to highlight internet-based cognitive behavioural therapy for insomnia (CBT-I) as a promising, evidence-based, yet underutilized treatment option in Pakistan. While benzodiazepines and other sedative-hypnotics remain the default approach in many clinical settings, non-pharmacological interventions such as sleep hygiene practices and CBT-I are often overlooked, despite being internationally recognized as first-line treatment modalities, as recommended by the National Institute for Health and Care Excellence (NICE) guidelines.¹

A recent randomized controlled trial from Hong Kong investigated the effectiveness of internet-based self-help CBT-I among adults in a community setting and reported strong, clinically meaningful findings in favour of its use.² Participants demonstrated statistically significant improvements in sleep quality, with marked reductions in insomnia symptoms, pre-sleep arousal, maladaptive sleep hygiene behaviours, and dysfunctional sleep-related beliefs. The intervention also resulted in measurable improvements in daytime functioning, including reduced depression, anxiety, and cognitive impairments, alongside enhanced overall quality of life. Notably, the study identified pre-sleep arousal as the strongest mediator of insomnia outcomes, offering valuable insight into potential targets for early intervention.

Despite these encouraging findings, the management of insomnia in Pakistan remains largely pharmacological. Benzodiazepines and other sedative-hypnotics are frequently prescribed as first-line agents, often without adequate evaluation or education on sleep hygiene practices. This over-reliance is concerning, given their well-documented side effects, potential for dependence, and limited long-term efficacy. A local study from medical

outpatient clinics reported high and often inappropriate benzodiazepine use among patients.³ Another study conducted in Karachi revealed that these drugs were frequently dispensed without prescriptions by pharmacists.⁴ Non-pharmacological interventions such as cognitive behavioural therapy and sleep hygiene remain underutilized in routine care.

Beyond the clinical concerns surrounding pharmacological overreliance, psychosocial factors also limit the uptake of behavioural interventions in Pakistan. Mental health stigma remains a significant barrier to in-person therapy, often deterring individuals from seeking help. In this context, internet-based CBT-I holds unique potential: its independent nature preserves patient anonymity and autonomy, mitigating stigma-related hesitations. Moreover, the growing accessibility of technology, with over 116 million internet users reported in early 2025, up from 82.9 million in 2022,⁵ further amplifies the potential reach of this personalised intervention.

To ensure effective implementation, collaboration between clinicians and psychologists is essential to educate patients about internet-based CBT-I and facilitate its adoption. Given its accessibility, evidence-based efficacy, and potential to overcome long-standing treatment barriers, it is imperative that greater awareness is raised regarding this valuable therapeutic modality.

Disclaimer: None.

Conflict of interest: None.

Funding disclosure: None.

DOI: <https://doi.org/10.47391/JPMA.31812>

References

1. National Institute for Health and Care Excellence (NICE). Insomnia: diagnosis and management. London: NICE. [Online] [Cited 2025 Jun 11]. Available from: URL: <https://cks.nice.org.uk/topics/insomnia/management/managing-insomnia/>
2. Chan KL, Pau NHY, Poon SFO, Lam BLH, Lam CB, Chan KKS. Effectiveness of internet-based self-help cognitive behavioral therapy for insomnia (CBT-I) among community adults: a randomized controlled trial. *Appl Psychol Health Well-Being*. 2025;17:e70047. doi:10.1111/aphw.70047

¹Final Year Student, School of Social Sciences and Humanities, National University of Science and Technology, Karachi, Pakistan; ²Department of Behavioural Sciences, School of Social Sciences and Humanities, National University of Science and Technology, Karachi, Pakistan.

Correspondence: Aiyaan Shakoor. e-mail: ashshakoor5@gmail.com

ORCID ID: 0009-0002-0120-1018

Submission completed: 09-07-2025 **1st Revision received:** 29-08-2025

Acceptance: 22-10-2025 **2nd Revision received:** 21-10-2025

3. Patel MJ, Ahmer S, Khan F, Qureshi AW, Shehzad MF, Muzaffar S. Benzodiazepine use in medical out-patient clinics: a study from a developing country. *J Pak Med Assoc.* 2013;63:717-20.
4. Hasan S, Shad MU. Dispensing practices for psychotropic medications among pharmacists in Karachi, Pakistan. *Heliyon.* 2022;8:e11298. doi:10.1016/j.heliyon.2022.e11298
5. Kepios. Digital 2025: Pakistan. Kepios. [Online] [Cited 2025 June 22]. Available from: URL:<https://datareportal.com/reports/digital-2025-pakistan>

Author Contribution:

AS: Co-write the initial draft, critically reviewed, final approval and agreement to be accountable for all aspects of the work.

AS: Literature search, selected relevant references, wrote the initial draft and agreement to be accountable for all aspects of the work.