



Cognitive Behavioral Therapy for Insomnia (CBT-I)

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CBT-I

What is insomnia? ^{2, 5, 6}

- Troubles falling asleep
- Troubles remaining asleep
- Troubles waking up too early in the morning
- Is it a symptom or a condition?

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It can be either a symptom or a condition^{6,7}

- Symptoms can be the result of a wide variety of factors
- Symptoms can turn into a condition
- Functional consequences and distress associated with condition
- Shift towards addressing it as a condition in psychiatry
- How common is insomnia?

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Prevalence of insomnia linked to how it has been defined_{5, 6}

- Up to 33% of the population experiences symptoms of insomnia
- Point prevalence ranging between 20% and 50%
- “Chronic” insomnia (with distress or impairments): 5% to 15%

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What are some characteristics of insomnia, the condition?^{2, 5, 7, 8}

- Conditioned or learned behaviors (Pavlov) and stimulus control
- What underlies the perpetuation of the insomnia may not be the same thing that starts the insomnia
- Often chronic. Two-thirds, lasts 1 year
- Development of dysfunctional beliefs about sleep/not sleeping

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Dysfunctional beliefs about sleep for those with chronic insomnia_{6, 8}

- Unable to function without a good night of sleep
- Worries about losing control over one's sleep
- One night of sleep predicts future sleep problems

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Who is most at risk for developing insomnia?₅

- Elderly
- Women
- Co-occurring medical conditions
- Co-occurring mental health conditions and SUDs

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Medical conditions linked to insomnia₆

- Cardiovascular disease
- Respiratory disease
- Diabetes
- Rheumatic disease
- Morbidity

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Functional implications linked to insomnia?^{5, 6}

- Increased risks for MVA
- Diminished work productivity
- Increased healthcare costs

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Mental health conditions linked to insomnia?^{2, 5, 6, 9}

- Depressive conditions
- Anxiety conditions
- Increased risk for suicide
- Substance Use Disorders

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How has insomnia been treated?_{5,6}

- Sleep hygiene and relaxation exercises
- OTC sleep aids and alcohol
- Benzodiazepines and Z-drugs (symptom management?)
- Off label use of antidepressants
- Cognitive Behavioral Therapy for Insomnia (CBT-I)

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What is Cognitive Behavioral Therapy for Insomnia (CBT-I)?₁₀

- Grew out of sleep hygiene
- Short-term (3 to 6 sessions)
- Multicomponent treatment
- Evidenced based
- Focuses on factors that perpetuate the insomnia
- 1st line treatment for chronic insomnia (ACP)₁₁

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Cognitive Behavioral Therapy for Insomnia (CBT-I) components ₁₀

- Stimulus control
- Sleep compression and sleep restriction
- Sleep hygiene
- Cognitive reframing
- Others include mindfulness, biofeedback, paradoxical intention

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Stimulus control_{6, 11}

- Goal(s): re-establish association between attempting to sleep and drowsiness
- If unable to sleep, remove self and return to bed when sleepy
- Simple, but not easy

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Sleep restriction₁₁

- Goal(s): consolidate sleep
- Amplify sleep drive and condense sleep window
- Establish new window of sleep, roughly 30 minutes longer than the amount of sleep patient obtains
- Move bedtime earlier by 20-minute increments
- Contraindications: history for manic episodes and seizures

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Sleep compression₁₂

- Similar to sleep restriction
- Goal(s): consolidate sleep
- Amplify sleep drive and condense sleep window by gradually shrinking sleep window
- Start with current sleep window and move bedtime later by 20-minute increments weekly

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Sleep hygiene₁₁

- Goal(s): remove barriers to sleeping
- Environmental, physiological, and behavioral
- Considered a component of CBT-I, not a stand-alone treatment
- Clock watching, napping, lingering in bed, and on screens before bedtime

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Cognitive reframing₁₃

- Goal(s): modify dysfunctional beliefs and fears about sleep
- Consequences of not sleeping, loss of control, and chronicity
- Can include fears/beliefs that one cannot sleep without a sleep aid or alcohol/drug

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What are some common types of insomnia cases?

- Case 1: untreated difficulties falling/remaining asleep
- Case 2: self-medicating insomnia via alcohol
- Case 3: medicating insomnia

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CBT-I case 1

- Presenting problem: Patient complains of problems falling asleep and remaining asleep
- Patient has had insomnia for many years. Does not recall when it began
- The patient is not using any sleep aids
- No history for manic episodes/bipolar disorder or seizures

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CBT-I case 1 (baseline data)

- TIB: 9:00 PM to 2:00 AM
- Final wake up time: 8 AM to 1 PM
- TST (total sleep time): 5 1/2 hours
- SOL (sleep onset latency): 15 minutes to 180 minutes
- WASO (wake after sleep onset): 240 minutes

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CBT-I case 1 (1st session)

- Plan: sleep restriction, sleep hygiene, and cognitive reframing
- Sleep restriction: Bedtime 2:00 AM; wakeup time 8:00 AM
- Sleep hygiene: No napping, limit bed to sleep and sex, avoid looking at the time
- Cognitive reframing: Start exploring pts belief about the consequences of not sleeping

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CBT-I case 1 (2nd session)

- Sleep restriction: If sleep efficiency is greater than 90%, move bedtime 20 minutes earlier
- Encouraged pt to maintain changes in sleep hygiene
- Continued to discuss beliefs about the consequences of not sleeping

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CBT-I case 1 (next several sessions)

- Wake up time remains constant. Bedtime moved earlier by 20-minute increments, as long as sleep efficiency remains high enough
- Check in about sleep hygiene, to ensure adherence
- Address beliefs/fears about not sleeping

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CBT-I case 1 (final session)

- Once the patient has increased TST, reduced SOL and WASO, review goals
- Continue addressing fears and worries about not sleeping
- Relapse prevention

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CBT-I case 2

- Presenting problem: Hx of sleep onset and sleep maintenance problems; current sleep maintenance disturbances
- Patient has had insomnia for many years. Does not recall when it began
- Self-medicating with alcohol (2 shots before bedtime)
- Hx of TBI and seizures

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CBT-I case 2 (baseline data)

- TIB: 9:00 PM to 2:00 AM
- Final wake up time: 8 AM to 1 PM
- TST (total sleep time): 5 1/2 hours
- SOL (sleep onset latency): 15 minutes to 30 minutes (with alcohol; without it, suspects it would be longer)
- WASO (wake after sleep onset): 240 minutes

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CBT-I case 2 (1st session)

- Plan: sleep education, sleep compression, sleep hygiene, and cognitive reframing
- Sleep compression: Bedtime 10:00 PM; wakeup time 6:30 AM
- Sleep hygiene: No napping, limit bed to sleep and sex, avoid looking at the time, and screens before bedtime
- Cognitive reframing: Explore pts belief about their need for alcohol to sleep

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CBT-I case 2 (2nd session)

- Sleep compression: If sleep efficiency is less than 90%, move bedtime 20 minutes later
- Encouraged pt to maintain changes in sleep hygiene
- Discuss reducing reliance and use of the alcohol as a sleep aid; if needed, use motivational interviewing

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CBT-I case 2 (next several sessions)

- Move bedtime later by 20-minute increments, as long as sleep efficiency remains lowered
- Check in about sleep hygiene, to ensure adherence
- As patient's sleep efficiency improves, suggest reducing alcohol
- May need to address fears about not sleeping
- Continue with process until patient reaches goal(s)

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CBT-I case 2 (final session)

- Once the patient has increased TST, reduced SOL and WASO, review goals
- Continue addressing fears and worries about not sleeping
- Relapse prevention

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CBT-I case 3

- Presenting problem: Hx of sleep onset and sleep maintenance problems
- Patient has had insomnia for many years. Does not recall when it began
- Taking prescription sleep medications; manages insomnia
- Has been taking sleep med for 20+ years. Is this a clinical problem? Beers criteria?

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CBT-I case 3 (baseline data)

- TIB: 9:00 PM to 2:00 AM
- Final wake up time: 8 AM to 1 PM
- TST (total sleep time): 5 1/2 hours
- SOL (sleep onset latency): 15 minutes to 30 minutes (with sleep aid; without it, suspects it would be longer)
- WASO (wake after sleep onset): 30 minutes (with sleep aid; without it, suspects it would be longer)

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CBT-I case 3 (1st session)

- Plan: sleep education, sleep compression, sleep hygiene, and cognitive reframing
- Sleep compression: Bedtime 10:00 PM; wakeup time 6:30 AM
- Sleep hygiene: No napping, limit bed to sleep and sex, avoid looking at the time; screens before bedtime
- Cognitive reframing: Explore pts belief about their need for sleep medications to sleep

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CBT-I case 3 (2nd session)

- Sleep compression: If sleep efficiency is less than 90%, move bedtime 20 minutes later
- Encouraged pt to maintain changes in sleep hygiene
- Discuss reducing sleep aid; if needed, use motivational interviewing

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CBT-I case 3 (next several sessions)

- Move bedtime later by 20-minute increments, as long as sleep efficiency remains lowered
- Check in about sleep hygiene, to ensure adherence
- As patient's sleep efficiency improves, suggest gradually reducing use of sleep aid
- May need to address fears about not sleeping
- Continue with process until patient reaches goal(s)

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CBT-I case 3 (final session)

- Once the patient has reached goals with sleep medication and has retained baseline sleep levels...
- Continue addressing fears and worries about not sleeping
- Relapse prevention

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Summary

- Insomnia is a common condition (I.e. chronic insomnia)
- If untreated or undertreated, impacts physical well being, daytime functioning, mental health, and substance use
- While many turn to sleep medications, OTC sleep aids, or alcohol / drugs, what is long-term plan for chronic condition?
- CBT-I is both an effective and safe insomnia treatment
- Consider CBT-I for the treatment of chronic insomnia

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Summary (continued)

- Consider screening for insomnia
- Patient Health Questionnaire-9, Item #3₁₄
- “Trouble falling or staying asleep, or sleeping too much?” ₁₄
- If depression/anxiety, inquire about sleep
- If using alcohol or illicit substances, ask if they’re using them as sleep aids

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Summary

- Resource of CBT-I providers include the American Board of Sleep Medicine, The International Directory of CBT-I Providers, and Society of Behavioral Sleep Medicine
- Contact Dr. Rosenblum with questions, at mark.Rosenblum@hcmcd.org

Bibliography

1. Chakravorty, S., Vandrey, R. G., He, S., & Stein, M. D. (2018). Sleep Management Among Patients with Substance Use Disorders. *The Medical clinics of North America*, 102(4), 733–743
2. Dolsen, M. R., & Harvey, A. G. (2017). Life-time history of insomnia and hypersomnia symptoms as correlates of alcohol, cocaine and heroin use and relapse among adults seeking substance use treatment in the United States from 1991 to 1994. *Addiction (Abingdon, England)*, 112(6), 1104–1111
3. Rosen IM et al., American Academy of Sleep Medicine Board of Directors. Chronic opioid therapy and sleep: an American Academy of Sleep Medicine position statement. *J Clin Sleep Med*. 2019;15(11):1671–1673.
4. Brower, K. (n.d.). Alcohol's Effects on Sleep in Alcoholics. Retrieved from <https://pubs.niaaa.nih.gov/publications/arh25-2/110-125.htm>
5. Brasure M, MacDonald R, Fuchs E, et al. Management of Insomnia Disorder [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2015 Dec. (Comparative Effectiveness Reviews, No. 159.)
6. Buysse, D. J., Germain, A., Hall, M., Monk, T. H., & Nofzinger, E. A. (2011). A Neurobiological Model of Insomnia. *Drug discovery today. Disease models*, 8(4), 129–137
7. Seow, L., Verma, S. K., Mok, Y. M., Kumar, S., Chang, S., Satghare, P., Hombali, A., Vaingankar, J., Chong, S. A., & Subramaniam, M. (2018). Evaluating DSM-5 Insomnia Disorder and the Treatment of Sleep Problems in a Psychiatric Population. *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine*, 14(2), 237–244.
8. Morin, C. M., Vallières, A., & Ivers, H. (2007). Dysfunctional beliefs and attitudes about sleep (DBAS): validation of a brief version (DBAS-16). *Sleep*, 30(11), 1547–1554. <https://doi.org/10.1093/sleep/30.11.1547>
9. DSM-5 insomnia disorder and the treatment of sleep problems in a psychiatric population. *J Clin Sleep Med*. 2018;14(2):237–244.
10. Carney, C. E., Edinger, J. D., Kuchibhatla, M., Lachowski, A. M., Bogouslavsky, O., Krystal, A. D., & Shapiro, C. M. (2017). Cognitive Behavioral Insomnia Therapy for Those With Insomnia and Depression: A Randomized Controlled Clinical Trial. *Sleep*, 40(4), zsx019
11. Qaseem A, Kansagara D, Forcica MA, Cooke M, Denbert TD, for the Clinical Guidelines Committee of the American College of Physicians. Management of Chronic Insomnia Disorder in Adults: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. 2016; 165:125-133.
12. Pigeon W. R. (2010). Treatment of adult insomnia with cognitive-behavioral therapy. *Journal of clinical psychology*, 66(11), 1148–1160.
13. Author liL.Lichstein, K. (1988). Sleep compression treatment of an insomniac. *Behavior Therapy*, 19(4), 625–632.
14. MacGregor, K. L., Funderburk, J. S., Pigeon, W., & Maisto, S. A. (2012). Evaluation of the PHQ-9 Item 3 as a screen for sleep disturbance in primary care. *Journal of general internal medicine*, 27(3), 339–344.



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