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ELDER CARE

A Resource for Interprofessional Providers

Cognitive Behavioral Interventions for Insomnia in Older Adults

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Previous editions of Elder Care have reviewed the general problem of sleep disorders in older adults and the approach to drug therapy for insomnia. This edition focuses on cognitive-behavioral treatment of insomnia (CBT-I).

CBT-I is recognized as the first-line treatment for chronic insomnia. CBT-I focuses on sleep-related dysfunctional thinking and compensatory behaviors, along with hyperarousal or anxiety that disrupt sleep regulation (sleep drive and circadian rhythm) and maintain chronic insomnia. While studies have established the comparative efficacy of multi- and single-component treatments, multi-component interventions may be preferred due to higher remission rates. A meta-analysis, including studies of older adults, demonstrated CBT-I's efficacy for improving insomnia.

This Elder Care describes the most commonly used approaches to CBT-I. They include stimulus control therapy, sleep restriction therapy, cognitive therapy, relaxation training, and sleep education and hygiene.

Stimulus Control Therapy (SCT)

For the person with insomnia, the bed and bedroom become associated with cues for wakefulness, often due to a myriad of wakeful activities done in bed such as watching TV, using mobile phones, reading, worrying, and trying to sleep. SCT is a series of instructions focused on re-associating the bed and bedroom with sleep. Patients are encouraged to use internal cues (feeling sleepy) to signal bedtime rather than using external cues (such as a TV program is over). They are also encouraged to get out of bed when feeling frustrated about not falling asleep to decrease arousal and condition the bed for sleepiness and sleep, rather than for wakefulness.

SCT involves giving instructions to patients about sleep habits. It is important to note, however, that SCT is more effective when patients receive explanations about the rationale for these instructions, rather than simply giving them instructions as a handout. The instructions include:

First, one should only lie down in bed when sleepy (e.g., burning eyes, nodding off, fuzzy-headed) and intending to go to sleep. The bed should only be used for sleep and for sexual activity. The bed should not be used for reading, watching TV, eating, or worrying.

Second, once in bed the lights should be turned off with the intention of going to sleep. If sleep does not ensue, don't watch the clock. Rather, get out of bed, go to another room, and engage in a quiet activity until drowsiness occurs. Then return to the bed for sleep. If sleep again does not occur, get out of bed again. Repeat these steps as often as needed throughout the night. The purpose is to associate the bed with sleep, rather than with inability to sleep.

Third, set an alarm to wake up at the same time every morning. This should be done no matter how little sleep occurred during the night. The goal is to help the body acquire a consistent sleep rhythm.

Fourth, naps should generally be discouraged to prevent reduction of the sleep drive. However, some older adults, especially those with chronic medical conditions that cause fatigue, may benefit from judicious use of daytime naps. Table 1 gives guidelines for appropriate napping.

Table 1. Nap Guidelines for Older Adults with Insomnia

- Nap only in your bed.
- Nap only once each day.
- Nap for no longer than 30 minutes. Use an alarm or have someone wake you 30 minutes after you lie down to nap.
- Nap 7-9 hours after morning awakening. For example, if you wake up at 6 am, nap between 1-3 pm but no later.

The "Take a Nap" website provides guidance about the best time to nap based on morning wake-up time. It focuses on the optimal combination of deep sleep and rapid eye movement sleep. See <http://saramednick.com/htmls/book/napwheel.htm>.

TIPS FOR DEALING WITH INSOMNIA IN OLDER ADULTS

- Recommend behavioral therapies as the first-line treatment for insomnia.
- Education about sleep and good hygiene are necessary and important, but often not sufficient on their own as treatment for insomnia. Specific CBT-I therapies should also be implemented, including stimulus control, sleep restriction, cognitive therapy, and/or relaxation training.
- Daytime napping should generally be discouraged, but if necessary because of chronic medical conditions that cause fatigue, use the nap guidelines shown in Table 1.

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Sleep Restriction Therapy (SRT)

Patients with insomnia spend extended time awake in bed. SRT consolidates sleep by limiting a patient's time in bed to the average reported sleep time per night across a week or more of sleep diaries.

A regular bedtime and wake time are established. In weekly treatment sessions, bedtime is adjusted 15-30 minutes earlier based on the total sleep time reported from the diaries. Wake time remains constant to help set the circadian clock and build the sleep drive.

There are contraindications to the use of SRT. The most important are seizure disorders, bipolar disorders, and excessive daytime sleepiness.

A milder variant of SRT, called sleep compression, gradually reduces time in bed and is useful for older adults. But both SRT and sleep compression require detailed attention to sleep diaries and skill in prescribing time in bed. They are best suited for implementation in behavioral health specialty settings. Wearable sleep trackers, while useful for providing feedback about sleep to individuals who generally sleep well, are not accurate for tracking sleep in those with chronic insomnia.

Cognitive Therapy (CT)

In CT, therapists are on the lookout throughout insomnia treatment for statements suggesting that a patient either has misconceptions about sleep or holds beliefs about sleep that increase arousal and contribute to difficulties falling asleep or maintaining sleep. The therapist addresses these thoughts through education about sleep, gradually challenging and modifying the patient's thoughts, or by setting up "experiments" in which patients can test their beliefs.

Relaxation Training (RT)

RT uses a variety of relaxation methods to reduce arousal and facilitate sleep. These methods include progressive muscle relaxation, diaphragmatic breathing, guided imagery, and meditation. These should be performed in low-light environments to allow for endogenous regulation of melatonin. Several resources in Table 2 offer audio files with instructions for completing these methods. Other strategies to support arousal reduction include setting aside 15-30 minutes early in the evening to problem solve, keep a journal, or create to-do lists so worrisome concerns do not emerge at bedtime. Patients are also instructed to take 30-60 minutes before bedtime to unwind and engage in quiet pleasurable activities to start a relaxing transition to sleep.

Sleep Education and Hygiene

Sleep education involves providing information that lays a foundation for the active treatment recommendations made in SCT, SRT, CT, and RT. Education focuses on issues such as sleep architecture, sleep regulation, how insomnia develops, and ineffective sleep behaviors.

Sleep hygiene includes practices such as avoiding alcohol near bedtime and caffeine after noon, and not watching the clock when awake during the night. Older adults with difficulty staying awake in the evening before an appropriate bedtime and a wake-up time earlier than desired may benefit from evening exercise or exposure to bright light to help improve sleep quality and strengthen their circadian rhythm.

While education and hygiene are important and necessary for enhancing a patient's understanding about the rationale behind and effectiveness of CBT-I, they are generally insufficient as a treatment on their own. Some resources for patients are shown below in Table 2.

Table 2. Resources for Patients Who Have Insomnia

- How to find a clinician certified in behavioral sleep medicine: <http://www.qbsm.org/bmspecialists.aspx>.
- Websites and computer apps for guided relaxation: <http://allaboutdepression.com/relax/index.html>, <http://buddhify.com>.
- Reading about insomnia for patients with depression, anxiety, and chronic pain:
Carney C, Manber R (2010). *Quiet Your Mind and Get to Sleep: Solutions to Insomnia for Those with Depression, Anxiety or Chronic Pain*. Oakland, California; New Harbinger.

References and Resources

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