

Chronic Insomnia: The New Role for Digital/ Telehealth Treatment

By Kevin M. Adley, RPSGT, CCSH

Insomnia is the most common sleep disorder in the general population. It is defined as a persistent difficulty with sleep initiation, duration, consolidation or quality that occurs despite adequate opportunity for sleep, and leads to impairment in health and functioning.¹ It may also be a symptom of another medical condition such as obstructive sleep apnea (OSA). Recent findings show that insomnia is on the rise. Factors such as stress and anxiety have contributed to an increase in its prevalence in the United States with diagnosis rising from 33% (pre-pandemic) to 56% (post-pandemic).^{2,3} Cognitive behavioral therapy for insomnia (CBT-I) is the first-line recommendation for managing chronic insomnia. The American College of Physicians released recommendations for chronic insomnia in 2016 stating that only after patients fail CBT-I should medication options be considered. Seventy-five percent respond to CBT-I,⁴ therefore, why are so many people that are suffering from insomnia still taking sleep medications?

First, let's define terms. According to the "International Classification of Sleep Disorders" (ICSD-3), insomnia is classified in three diagnostic categories:⁵

- **Chronic:** Frequent and persistent difficulty initiating or maintaining sleep that results in sleep dissatisfaction and daytime impairment.
- **Short-term:** Occasional difficulty initiating and maintaining sleep, often associated with some sort of stressor, e.g., jetlag, grief, illness.
- **Other:** Rare cases that do not meet criteria for chronic or short-term insomnia but have symptoms indicating clinical suspicion of insomnia. This diagnostic category is used sparingly because of its nonspecific classification.

In this article, I'll be focusing on chronic insomnia and the historical challenges providers have faced with the treatment recommendation of CBT-I. Although CBT-I is the first-line recommended intervention for insomnia,⁶ its utilization is limited by the lack of clinicians who are trained in this treatment. Currently there are less than 200 board-certified behavioral sleep medicine (DBSM) specialists, with less than 60 specializing in pediatrics. Many of these specialists are practicing in larger cities or are affiliated with universities leaving people outside these areas with few treatment options.

Understanding CBT-I

What is CBT-I? Sleep hygiene is not CBT-I, nor is CBT-I talk therapy. CBT-I consists of both psychological and behavioral interventions where a patient learns how to recognize and change beliefs and behaviors that reduce the anxiety associated with their sleep. This systemized approach for treating insomnia has been widely studied and determined effective in treating insomnia. The "Clinical Guideline for the Evaluation and Management of Chronic Insomnia in Adults" published in the Journal of Clinical Sleep Medicine¹ states

a consensus that CBT-I treatment should be utilized as an initial intervention when appropriate and when conditions permit. A typical program consists of six to eight weekly face-to-face sessions.

CBT-I Session-by-Session Example:

1. Initial evaluation, sleep hygiene, complete baseline log
2. Sleep restriction and stimulus control treatment
3. Relaxation training
4. Worry time
5. Cognitive restructuring (one to two visits)
- 6.-8. Gradual increase in total sleep time (TST), maintenance, relapse prevention

Introducing CBT-I to Patients

According to insomnia specialist Dr. Lisa Medalie, "It can help to 'watch your words' when first introducing CBT-I to a new patient. I typically have my colleagues describe 'me' as an insomnia specialist, as opposed to a psychologist. While stigma for seeking therapy is improving, it still exists, and CBT-I truly is a sleep-focused program. To give a high-level of what the program feels like, it can be helpful to explain that CBT-I 'is like physical therapy, but for your sleep.'" Patients should also understand that it is data-driven and data-backed; they will fill out sleep logs

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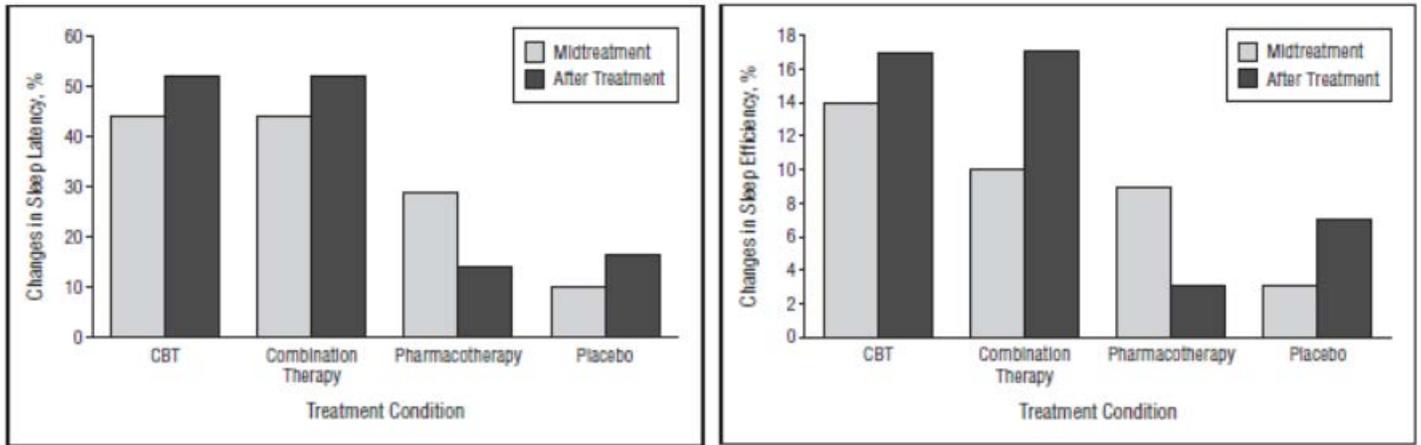


Figure 1. Source: Jacobs GD, Pace-Schott EF, Stickgold R, Otto MW. Cognitive behavior therapy and pharmacotherapy for insomnia: a randomized controlled trial and direct comparison. Arch Intern Med. 2004 Sep 27;164(17):1888-96. doi: 10.1001/archinte.164.17.1888. PMID: 15451764.

throughout treatment to track progress (data-driven), and the program is backed by repeated randomized control trials.

CBT-I has been shown to surpass pharmacological treatments in long-term efficacy and does not carry the same risks of side effects, issues with drug tolerance and/or drug dependence. At Beth Israel, Robert Stickgold and his team studied 63 adults with chronic insomnia treated with CBT-I, pharmacotherapy and a combination of the two.⁷ There were no significant differences at mid-treatment and after-treatment points, however, there were significantly more patients who met the criteria for normal sleep onset (less than 30 minutes) in both CBT-I groups compared to both the pharmacological and control groups (Figure 1).

CBT-I and Digital Telehealth and Technology

Insomnia is a serious sleep disorder that requires treatment. CBT-I is a safe and effective treatment but access to therapy is limited, and thus, a solution is required. That is where digital and telehealth technology come into play. Prior to the COVID-19 pandemic, digital apps such as Headspace, Calm and Breethe were available to assist the public with sleep and insomnia. However, even with a variety of approaches, most of which lack serious evidence-based protocols, the chronic insomnia patients were still left underserved.

The Shift to Digital Telehealth

The paradigm shift happened as a result of telemedicine flipping on in 2020 at the beginning of the pandemic, and it appears the proverbial genie has been released from the bottle; enough time has now passed comparing the effectiveness of telemedicine versus in-person visits. This shift was examined in a recent study, led by Dr. J. Todd Arnedt

at the University of Michigan.⁸ Dr. Arnedt and his team randomized 65 adults with chronic insomnia to six individual sessions of CBT-I, delivered either in person or by telemedicine. They wanted to know if CBT-I via telemedicine performed similar to (that is, not worse than) in-person CBT-I in reducing the severity of insomnia symptoms. They also compared other outcomes such as daytime functioning and patient satisfaction with the treatments.

The Results

At two different time points, the completion of CBT-I and at three months post completion, CBT-I delivered by telemedicine was not inferior to, or no worse than, CBT-I delivered in person, meaning the telemedicine group did as well as the in-person group. Telemedicine was also not inferior for other outcomes, including response rates, daytime functioning and patient satisfaction.⁸

So what does this all mean for sleep technologists? First, as technologists, we often serve as that ambassador between patients and their initial journey to treating a sleep disorder. Education and awareness are vital to patient outcomes; there is a duty for us to be informed of the latest therapies, standards of practices and technology so that we can best assist our patients. Our colleagues also rely on us to bring the “latest and greatest” in technology to their attention.

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Digital Options for Treating Chronic Insomnia

There are a few new and exciting digital options for treating chronic insomnia. Given that most insomnia patients end up in sleep clinics, we want to bring these resources to the labs. The nice thing about these resources is that you can easily “bring them to the lab” by adding a link to your lab website or via a QR code link in your lab materials.

Sleepio

- Patient age: adults
- Resource type: digital health
- Availability: offered through employers’ benefits packages
- Source: www.sleepio.com

Somryst

- Patient age: adults
- Resource type: FDA-approved digital health
- Availability: prescribed by physicians; covered by insurance
- Source: www.somryst.com

DrLullaby

- Patient age: all ages
- Resource type: digital health and telehealth
- Availability: Discounts offered to sleep labs; telehealth covered by insurance in some states
- Source: www.drlullaby.com

The Future Is Bright

The full impact of these new insomnia solutions has yet to be realized, and more time is needed to study the utility of this approach for underserved communities. However, as they become adopted into clinical practice, a paradigm shift should be anticipated with how insomnia patients navigate through the health care system. Not only can this shift be utilized by sleep providers, but the patient’s primary care team will have an option outside of medication and a referral to a sleep clinic. They too can be empowered with minimal effort in providing evidence-based solutions that are convenient to their patients without sacrificing clinical outcomes. Indeed, bright days are ahead for those who are suffering from restless nights. 🌙



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