

DISSERTATION

A MULTILEVEL ANALYSIS OF ACCESS AND IMPLEMENTATION OF COGNITIVE
BEHAVIORAL THERAPY FOR INSOMNIA (CBT-I)

Submitted by

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ABSTRACT

A MULTILEVEL ANALYSIS OF ACCESS AND IMPLEMENTATION OF COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA (CBT-I)

Despite the established efficacy of Cognitive Behavioral Therapy for Insomnia (CBT-I), a significant implementation gap prevents it from reaching diverse and complex populations. Grounded in the Stepped-Care Model, Socio-Ecological Model and the Theory of Access to Care, this three-study, mixed-methods dissertation investigates the systemic, clinical, and environmental variables that dictate treatment access and success.

Study 1 utilizes a bibliometric and thematic analysis of 554 articles (2010–2026) to map the research landscape, revealing a profound neglect of policy-level access dimensions, such as affordability and geographic accessibility, in favor of individual-level acceptability. Study 2 tests these systemic gaps through a longitudinal Hierarchical Linear Modeling (HLM) analysis of a real-world clinical sample (N = 320). Findings identify a complexity paradox, in which patients with multiple comorbidities demonstrate the steepest improvement rates but require significantly higher treatment doses (averaging 13 sessions) to achieve remission compared to standard protocols. Study 3 provides qualitative context through Interpretative Phenomenological Analysis (IPA), uncovering how household dynamics and environmental stressors create barriers to independent protocol implementation following a brief workshop.

Together, these studies highlight that clinical efficacy alone is insufficient for public health reach. The findings suggest that improving sleep equity requires a transition from rigid, one-size-fits-all delivery models toward flexible, environmentally informed, and policy-supported care. By integrating a social work perspective, this dissertation provides a roadmap for advancing a CBT-I delivery framework that accounts for the structural and social realities of the diverse populations it serves.

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CHAPTER 1

INTRODUCTION

Restorative sleep involves several processes which typically happen at night, that are designed to heal the body from the previous day. A person has likely accomplished restorative sleep when they consistently wake feeling refreshed (Hirshkowitz et al., 2015). A lack of appropriate, restorative sleep can have compounding negative effects on physical health including increased risk for cardiovascular disease (Hoevenaar-Blom et al., 2011) and stroke (Heslop et al., 2002). Lack of restorative sleep can also lead to or exacerbate mental health conditions, like mood and anxiety disorders (Seixas et al., 2015) and may partially explain the prevalence of these conditions in the population (Freeman et al., 2020). In the United States, over 70 million individuals are affected by a chronic sleep problem (Medic et al., 2017) and estimates suggest that up to 30% of healthy adults in the US experience insomnia at some point in their lives (Holder & Narula, 2022). The primary symptom of Insomnia Disorder (ID) is an inability to sleep effectively despite ample opportunity to do so, commonly due to problems falling asleep or staying asleep (American Psychiatric Association, 2013; Hirshkowitz et al., 2015).

While insomnia is a widespread public health crisis, the ability to achieve restorative sleep is not distributed equally. There are many barriers to getting sufficient sleep including environmental irritants (Johnson, Billings, et al., 2018), housing and neighborhood factors (Baron et al., 2019), caregiving (Byun et al., 2016), and stress (Lo

Martire et al., 2020). Many of these sleep-disrupting factors are disproportionately concentrated in marginalized communities, as lower socioeconomic status (SES) often necessitates living in environments characterized by increased noise, safety concerns, or limited private sleep space (Johnson, Thorpe, et al. 2018; Park et al., 2018). These environmental conditions are significant risk factors that contribute to the higher observed rates of ID in populations with lower SES (Papadopoulos & Sosso, 2023). Consequently, when examining the literature it becomes clear that there are equity issues in differential socioeconomic conditions to accessing healthy sleep (Carnethon et al., 2016; Patel et al., 2010). Indeed, these sleep differences could partially explain well established health disparities, as it is known that problems with sleep have significant health consequences (Bowman et al., 2019).

Further compounding this issue, access to treatment for sleep disorders, like ID, is also experienced unequally. Evaluation and treatment of sleep disorders mostly falls to primary care providers, many of whom are not routinely screening for sleep problems (Sun et al., 2021). When primary care providers are aware of ID in their patients, the vast majority of treatment offered includes pharmacotherapy – which can be efficacious but effects wane with tolerance to medication – and sleep hygiene education, which is not evidence-based and can actually worsen insomnia (Ulmer et al., 2017). This is despite the American College of Physicians (Qaseem et al., 2016) and the World Sleep Society International (Morin et al., 2023) recommending Cognitive Behavioral Therapy for Insomnia (CBT-I), as the gold-standard, first line treatment for ID, over medication management. Individuals with low SES are even more at risk of not receiving

appropriate care for ID, as researchers have found that they are less likely to be referred to specialists (Lueckmann et al., 2021).

When individuals are properly identified and CBT-I is recommended, there are still additional barriers to access, one being a limited number of available providers. Historically, 58 percent of behavioral sleep medicine (BSM) providers were clustered in just 12 states, leaving several states with no providers at all (Thomas et al., 2016). While the rise of telehealth and digital delivery (Xin et al., 2022) has potentially increased reach, the field lacks a cohesive understanding of how the research landscape has evolved to meet the needs of those with lower SES, specifically regarding cost and insurance (Natsky et al., 2020). Recent system-level implementation initiatives, such as those in Australia (Sweetman et al., 2025), suggest that clinical efficacy alone is insufficient. A better understanding of the systemic barriers at the policy and organizational levels is needed to ensure widespread reach.

There is a critical need to systematically map the existing literature to understand which elements of access, like affordability, are being addressed and which populations are being left behind. Examining the evolution of CBT-I literature allows for an evidence-based heat map of the field, identifying accessibility and implementation barriers and research focus areas. This foundation is necessary to understand if the post-COVID surge in digital delivery is actually improving equity or simply bypassing the structural issues of affordability that Natsky et al. (2020) identified as a primary barrier for low- and middle-income sufferers.

Furthermore, even when insurance does cover the cost of treatment, there are additional financial and logistical barriers associated with engagement – like

transportation, child-care, and less flexible work schedules – that are limiting especially for individuals experiencing poverty (Cooper & Conklin, 2015). For these reasons, individuals with low SES are also more likely to discontinue treatment early (Matthews et al., 2013; Pitkin et al., 2011). This necessitates an exploration of more flexible, abbreviated, or self-guided treatment modalities. However, many behavioral interventions have historically been normed on samples that do not reflect the environmental disruptions or clinical complexities, such as multiple comorbidities, common in real-world practice (Crowther et al., 2023; Rollo et al., 2026). This dissertation seeks to bridge this gap by quantifying the treatment volume required for success in complex clinical samples and uncovering the specific environmental barriers that often dictate how patients implement behavioral protocols at home.

Relevance of the Problem to Social Work and Social Justice

The widespread application of evidence-based practices continues to be a push for social work practitioners. However, we know that individuals with multiple chronic conditions and diverse socioeconomic backgrounds are often underrepresented in clinical trials (Annie E. Casey Foundation, 2017; Ladyman et al., 2022). While Alcantara et al. (2021) found that culturally adapted CBT-I interventions show significant reductions in adverse sleep outcomes, these adaptations are not yet the standard of care. This results in practitioners applying interventions without a clear understanding of how to adapt them for patients facing significant environmental or poverty-related stressors. The exclusion of diverse populations from much of the current evidence suggests that less is known about how CBT-I may be efficacious for complex populations, like individuals with comorbidities or lower SES. This is especially

concerning for social workers as these populations experience a disproportionate burden of health disparities and may benefit even more from interventions targeting sleep, as sleep problems may act as a mechanism underscoring unequal health consequences (Bowman et al., 2019; Feinstein et al., 2020). Therefore, access to appropriate sleep interventions is a social justice issue.

As the largest professional group working with clients in therapeutic settings (National Association of Social Workers, 2024), social workers would have an outsized impact on clients if they were more commonly trained to evaluate and treat sleep disorders, like ID. Correct assessment and management of sleep problems would result in more appropriate intervention, avoiding or correcting the detrimental medical complications that come along with undiagnosed sleep problems and ultimately improving client outcomes.

By identifying the thematic gaps in the implementation landscape (**Study 1**), quantifying the treatment volume required for clinical success in complex, real-world populations (**Study 2**), and uncovering the lived experience and environmental barriers to protocol adherence (**Study 3**), social workers can better advocate for systemic shifts in insomnia care. This multi-dimensional approach moves the focus from individual behavioral change to the structural justice required to ensure equitable access for all.

Overview of the Literature

The purpose of this literature review is to provide an overview of CBT-I efficacy, accessibility, and implementation, highlighting key gaps that are addressed by this dissertation. The gaps identified through this review present opportunities for future

research from a social work perspective, a lens that has been lacking overall from available studies.

What Is Cognitive Behavioral Therapy for Insomnia?

CBT-I is recognized as the preferred first-line treatment for ID. This gold-standard status is supported by the American College of Physicians (Qaseem et al., 2016) and has recently been reaffirmed by the World Sleep Society International (Morin et al., 2023), which mandates behavioral intervention over pharmacological management. CBT-I involves a collection of behavioral and cognitive strategies designed to specifically address the symptoms of ID, primarily difficulty falling and staying asleep (Koffel et al., 2018; Mitchell et al., 2012).

Theoretical Orientation of CBT-I

CBT-I was developed by understanding sleep behavior through the lens of biological models, the most utilized of which is the *two-process system of sleep regulation* (Borbély, 1982; Borbély et al., 2016). Borbély first proposed this theoretical framework for sleep in 1982 and made important modifications in 2016. The key tenet of this theory is there are two biological systems – the homeostatic and circadian systems – that interact in very specific ways to potentiate efficient sleep. This model has been extremely impactful, assisting sleep researchers and providers in understanding the biological regulation of sleep and informing evidence-based sleep interventions (Perlis, 2011). Although effective in explaining biological mechanisms, the two-process model does not address the impact of behavior or environmental factors on sleep.

The behavioral components of CBT-I are well understood through the *3P model of insomnia*, developed by Spielman in 1987 with continued improvements and

adaptations through the years (Perlis et al., 2005; Spielman et al., 1987). The 3P model includes predisposing, precipitating, and perpetuating factors of chronic ID, which all contribute to the development and maintenance of the disorder. Predisposing factors are elements that make it more likely for an individual to develop ID, such as higher levels of anxiety (Jansson & Linton, 2006). Precipitating factors are anything that trigger short term insomnia symptoms, like a stressful life event (Grima et al., 2019).

Perpetuating factors are the behavioral changes that a person makes to cope with short term insomnia that actually lead to ID as a diagnosable condition, such as napping during the day, catastrophizing about sleep, and staying in bed too long trying to sleep (Perlis, 2011). CBT-I was further designed to address especially the perpetuating factors of insomnia by assisting clients in understanding that these behaviors are continuing the sleep problem and encouraging the behavioral components of CBT-I to counteract those perpetuating behaviors.

Though these models have been instrumental in the development of evidence-based practices to address chronic insomnia, reliance on them alone leaves out the impact of the environment, which also provides important context in understanding the ability to sleep.

Treatment Components of CBT-I

CBT-I involves a collection of applied behavioral strategies designed to improve sleep efficiency, which in turn improves sleep quality (Mitchell et al., 2012). Sleep efficiency is defined as the ratio of total sleep time per night to total time spent in bed (Reed & Sacco, 2016) or how efficient your body is at using the time you have allotted for sleeping to actually sleeping. The main components of CBT-I are *stimulus control*

therapy and *sleep restriction therapy*, which can be used in treatment separately or in combination with one another (Perlis, 2011).

Stimulus control therapy aims to strengthen associations between a person's bed and sleep by recommending they are only in bed if they are sleeping and no other time, including lying awake trying to sleep (Bootzin & Perlis, 2011). During this approach, a therapist will work with a client to make a plan to stay out of bed until sleepy and to get out of bed if unable to sleep in the middle of the night or upon awaking in the morning, even if the awakening is earlier than desired.

Sleep restriction therapy recognizes the mismatch between time in bed and time spent sleeping and attempts to correct this by assigning a time in bed prescription that matches the average amount of sleep a client has actually gotten over the course of 2-4 weeks (Spielman et al., 2011). The therapist will assist a client in determining this amount, usually based on sleep diary data (Carney et al., 2012) and schedule a consistent time of night for the client to be in bed. Once sleep efficiency adjusts and the client begins filling up that time with sleep, an extension in time is warranted. Other important components of CBT-I include education on biological sleep systems and cognitive reappraisal of previous sleep beliefs throughout the course of treatment (Edinger & Carney, 2014).

Measuring Insomnia

Outcome measures are fairly consistent across studies on CBT-I. Most commonly utilized is the Insomnia Severity Index (ISI; Morin, 1993), which researchers have found to be effective in measuring the impact of CBT-I over time. For this reason, it is often used in clinical settings as well to evaluate progress (Chen et al., 2017). The

ISI is a 7 item self-report questionnaire that measures the severity of insomnia symptoms by assessing difficulty with sleep, how symptoms interfere with functioning, and how satisfied the respondent is with different aspects of sleep (Bastien et al., 2011).

In addition to measuring raw score changes, researchers and clinicians utilize specific ISI thresholds to determine treatment success. Clinical Response (CR) is typically defined as a reduction of 6 points or more from the baseline score, representing a meaningful improvement in symptoms (Qin et al., 2024). Diagnostic Remission (DR) is more rigorous, generally defined as achieving a post-treatment score of 10 or less, indicating that the individual no longer meets the clinical criteria for insomnia (Morin et al., 2011).

Sleep logs, or sleep diaries, are also commonly used in both research and clinical settings. Sleep logs are kept by patients or participants throughout the course of intervention and are filled out daily to include bedtime, sleep latency, number of awakenings, amount of time awake in the middle of the night, time of final awakening, and time out of bed for the day (Carney et al., 2012). From these logs, sleep efficiency can then be calculated and used to guide treatment.

There are also more objective ways to measure insomnia symptoms, like actigraphy, a small device worn on the wrist continuously for the evaluation period that is a validated measure of sleep and wakefulness (Ancoli-Israel et al., 2003). Actigraphy is considered by many researchers to be the gold-standard measurement of insomnia, but associated costs can be a limiting factor to their use (Ahn et al., 2021; Billings et al., 2021; Galbiati et al., 2021).

Efficacy and Dosage of Cognitive Behavioral Therapy for Insomnia

CBT-I is a robustly effective treatment, with significant improvement typically observed within four to six sessions (Edinger et al., 2007; van Straten et al., 2018). A landmark network meta-analysis of 61 trials demonstrated that while individual and group formats are the most effective, alternative delivery methods, including digital and self-help formats, all significantly improve sleep compared to standard care (Gao et al., 2022). Additionally, CBT-I continues to demonstrate significant effects lasting up to a year after therapy has ended (van der Zweerde et al., 2019). In their study on additional effects over time, Perlis and colleagues (2019) found that 60% of participants achieved 30 or more minutes of additional total sleep time 3 to 12 months after their last of a six-session course of CBT-I.

However, critical questions about optimal dosage remain. The standard recommendation of 4 sessions is based on early efficacy trials that often excluded complex patients with co-occurring medical or psychiatric disorders (Edinger et al., 2007; Muench, 2022). In their review of the state of the literature on CBT-I and proposal for a unified future research agenda, Muench and colleagues (2022) recommend a return to the question of optimal dosing for CBT-I. They suggest limitations in the seminal study by Edinger (2007) that warrant updating, like a disconnect between the procedure the study followed and how typical CBT-I is delivered (Muench et al., 2022). They argue that the exclusion of clients with comorbidities limits application to a real-world clinical environment. The research on CBT-I has grown exponentially since 2007, with researchers and clinicians now understanding that CBT-I is effective with individuals with different types of comorbidities, yet the question of dosage remains

unclear in this population. Understanding the actual treatment trajectories of complex, real-world patients is necessary to inform scalable intervention models without sacrificing clinical gains. This gap provides the direct justification for **Study 2**, which utilizes longitudinal data to identify the dose-response relationship in a heterogeneous clinical sample.

Efficacy and Dosage of CBT-I with Comorbid Psychiatric Disorders

As stated, CBT-I has been evaluated with samples experiencing different types of comorbidities. Hertenstein and colleagues (2022) evaluated studies on CBT-I with individuals with mental health diagnoses and comorbid ID and found medium to large effects with this population, especially for those diagnosed with depression, PTSD and alcohol dependence. Additionally, improvements in mental health symptoms were also observed, though this was not a specific focus of treatment (Hertenstein et al., 2022). However, less is known about the number of sessions needed to achieve positive outcomes on insomnia symptoms when participants also have a co-occurring psychiatric diagnosis. In the review and meta-analysis by Hertenstein and colleague (2022), the number of sessions completed within the 22 RCTs included for analysis ranged from one to eight. The study involving just one treatment session saw only 38% of participants in the treatment group improve, lower than the typical rate for CBT-I participants (Wagley et al., 2013). Therefore, further research is needed to determine if more sessions are necessary to achieve the same outcomes in individuals with comorbid psychiatric conditions.

Efficacy and Dosage of CBT-I with Comorbid Medical Disorders

Similarly, Zhou and colleagues (2020) found in their review of 13 RCTs that CBT-I was effective in trials with individuals with medical comorbidities as well, with medium effect sizes. Medical comorbidities in this review included cancer, migraines, osteopathic pain, and fibromyalgia. Of note, researchers reported that specific to individuals with comorbid medical conditions, CBT-I had the positive benefit of decreasing nighttime awakenings as well (Zhou et al., 2020). For CBT-I participants with chronic pain, significant improvements were observed post-treatment on insomnia symptoms, pain, and depression, though there was no observed effect on anxiety or daytime fatigue (Selvanathan et al., 2021). Consistent with CBT-I studies also measuring durability, improvements were mostly maintained for up to a year post treatment with some regression. Additionally, studies have included participants with insomnia along with multiple comorbid medical conditions and have found that CBT-I is efficacious for participants with breast cancer (Ma et al., 2021), Alzheimer's disease (Siengsukon, Nelson, et al., 2020), Parkinson's disease (Lebrun et al., 2020), multiple sclerosis (Siengsukon, Alshehri, et al., 2020), heart failure (Redeker et al., 2020), and chronic obstructive pulmonary disease (Kapella et al., 2011). These studies found that CBT-I treatment outcomes were comparable to those observed in participants with uncomplicated, or primary insomnia (Muench et al., 2022). However, it is again unclear how many sessions are needed to reach these observed outcomes, as the number of sessions vary widely across studies. For example, in the review by Zhou and colleagues (2020), the thirteen included studies on CBT-I and medical comorbidities, session numbers ranged from three to twelve, and with chronic pain, the fourteen studies

included in a systematic review the sessions ranged in number from four to ten (Selvanathan et al., 2021).

Overall, the efficacy of this intervention seems very consistent across studies regardless of physical or psychiatric comorbidity, and are also consistent in observing lasting, though decreased, effectiveness for up to one year after treatment ends. This robust accumulation of evidence on the efficacy of CBT-I in addressing insomnia led to the recommendation that it be considered the preferred, first-line treatment for Insomnia Disorder (Qaseem et al., 2016).

Taken together, the current literature strongly supports the effectiveness of CBT-I across a range of populations, including those with comorbid medical conditions. However, the wide variability in treatment length and the lack of clarity regarding optimal dosing limits the scalability of CBT-I and hinders its integration into population-level strategies. This is especially unclear when considering patients with combinations of comorbidity presentations or particularly burdensome conditions. Therefore, there is a critical need to determine whether different comorbidity profiles warrant different treatment intensities. Addressing these gaps is essential for enhancing the efficiency, personalization, and long-term impact of CBT-I in real-world settings.

Efficacy and Dosage of CBT-I with Comorbid Sleep Disorders

When it comes to CBT-I in samples with ID and another comorbid sleep disorder, the results are more complex. It does seem that individuals with insomnia and sleep apnea (both treated and untreated) do benefit consistently from CBT-I (Ong et al., 2020). However, a review of studies cites differences in session numbers (between four and nine), and in one study testing a group delivery of CBT-I, an additional four to six

individual sessions were needed after the group concluded (Sweetman et al., 2023). Therefore, it is unclear whether the typical average of four to six sessions of CBT-I is enough to be effective with this population due to their comorbid sleep apnea.

There are also concerns that CBT-I may not be as effective with individuals with ID and a comorbid circadian rhythm disorder. A review of CBT-I with shift workers revealed moderate changes to the ISI but that improvements were not clinically significant, causing researchers to suggest that modifications may be necessary for this population (Reynolds et al., 2023). Researchers have also suggested that interventions that manipulate biological circadian rhythms may be useful in addition to CBT-I for achieving positive outcomes for some individuals, though they recommend that CBT-I should remain the primary approach (Baglioni et al., 2020). Additionally, researchers are now suggesting that there may be different phenotypes of insomnia, and that those with objectively short sleep durations have outcomes that are significantly different from those with normal sleep durations. That is, individuals with insomnia with short sleep durations have a 30% lower response to CBT-I and a 20% lower remission rate (He et al., 2023).

In summary, while CBT-I remains a first-line treatment for insomnia, its effectiveness across subtypes of comorbid sleep disorders – including sleep apnea, circadian rhythm disorders, and biological phenotypes of insomnia – is not yet fully understood. These gaps point to a need for dose optimization, protocol adaptation, and phenotype-informed approaches in future CBT-I research and clinical implementation.

Mode of Delivery and Efficacy

A review of studies utilizing digital delivery versus face-to-face treatment found that face-to-face intervention had a larger effect, but that both delivery methods were found to be efficacious (Carlbring et al., 2018). Van Straten and colleagues (2018) stated in their review that self-guided style interventions (which included book, audio, or internet delivery) did prove to be effective, although less effective as compared to four or more face-to-face sessions with a provider, including group or individual delivery. They expand on this by saying that because of the lower cost and increased accessibility of these interventions, they may be valuable as a first step approach, with a recommendation that a face-to-face option be available should participants not see improvement. However, Edinger and colleagues (2021) stated they were unable to make specific practice recommendations regarding mode of delivery due to low sample sizes and insufficient research. In a systematic review on group CBT-I, Koffel and colleagues (2015) found that CBT-I remains efficacious when delivered in a group format. They also suggest that group settings may be beneficial in accommodating higher volumes of individuals with ID than individual therapy and that participants appreciated the social support they experienced in a group setting (Koffel et al., 2015).

A better understanding of the uptake of CBT-I from participant perspectives can assist in clarifying these recommendations by exploring facilitators and barriers to self-guided implementation of the intervention, providing the justification for **Study 3**. Additionally, a more nuanced understanding of treatment trajectory based on complexity of ID presentation can help inform the most optimal triage of patients (**Study 2**), ensuring that more independent modes of delivery are also utilized appropriately.

Challenges in Identifying and Accessing Trained CBT-I Providers

Despite having an intervention for ID that is relatively well researched and considered to be effective, there are significant challenges when considering access to this intervention. Researchers have investigated access to CBT-I in the community with some concerning takeaways. The issue of access is relevant at several points of contact including screening for insomnia, identifying a trained provider, referral to appropriate care, and means to engage with and complete the intervention.

Primary care providers familiar with CBT-I have identified locating trained clinicians for referral as a primary barrier to care (Ulmer et al., 2017; Vargas et al., 2023). This difficulty is rooted in a severe workforce shortage. As of 2016, there were fewer than one thousand board-certified providers in Behavioral Sleep Medicine (BSM) globally (Thomas et al., 2016). Historically, CBT-I has only been available by trained BSM providers in specialized clinics, which are not universally available (Manber & Simpson, 2016). This scarcity creates a profound access barrier, particularly in rural or underserved regions.

While organizations like the Society of Behavioral Sleep Medicine (SBSM) have been established to oversee certification and specialized training, much of this effort has focused on in-depth, multi-session clinical expertise. However, the high prevalence of insomnia in primary care, where up to 50% of patients report sleep disturbances, suggests a need to expand the scope of who can deliver first-line interventions (Vargas et al., 2023). Increasing baseline sleep knowledge among a broader range of health disciplines, including social workers, nurses, and physician assistants, is a logical next step for increasing CBT-I utilization (Espie et al., 2025).

The rise of telehealth and digital delivery following the COVID-19 pandemic has significantly changed the landscape of BSM, potentially mitigating geographic barriers and decreasing rates of attrition (Fleddermann et al., 2024; Xin et al., 2022). However, it remains unclear whether the availability of trained providers has grown sufficiently in the decade since the Thomas et al. (2016) study. Furthermore, the literature remains sparse regarding how many of these providers accept insurance, a factor that significantly impacts access for middle- and low-income Americans (Natsky et al., 2020). A reevaluation of the current research landscape is therefore critical to identify which components of access are being addressed and where systemic neglect persists **(Study 1)**.

Researchers have found that when it comes to participation in CBT-I specifically, individuals often must be willing and able to pay out of pocket for sessions with a trained provider (Natsky et al., 2020). On the other hand, having in network insurance coverage for a CBT-I provider can significantly increase the likelihood of participants beginning treatment (Chernyak et al., 2024). In a review of adherence to telehealth psychotherapy, researchers found that those with government issued insurance (like Medicaid or Medicare) were actually more likely to continue in treatment than those without (Hellstern & Robinson, 2023). When insurance does cover CBT-I and it is accessible to patients, researchers have found that there are still some individuals who do not complete treatment. However, Karlin and colleagues (2024) found that almost 70% of participants in an effectiveness trial completed the intervention when their treatment was covered by insurance, and there were significant reductions on the ISI for all participants, even for those who did not complete treatment. Despite this finding, it is

unclear how many of the available CBT-I trained providers accept insurance, as literature in this area is sparse. Future studies of available providers should also include access in terms of insurance utilization, as this would significantly impact middle- and low-income Americans with ID.

Challenges in Implementation of CBT-I

Once individuals have connected with and begun CBT-I, there are continued barriers to sustained engagement. Researchers have found that up to 40% of CBT-I participants end treatment prematurely (Koffel et al., 2018; Roberts & Ulmer, 2024). Generally, individuals with lower SES experience more frequent discontinuation of treatment for any mental health intervention (Pitkin et al., 2011). The reasons for this are often rooted in structural inequalities, like insurance and cost barriers, access to consistent transportation, child-care difficulties, and less flexible work schedules (Cooper & Conklin, 2015). In their study evaluating CBT-I attendance in a low-income, rural sample, Cui and Fiske (2020) found that rates of attendance were low, with only 24.1% of participants attending all sessions. They hypothesize that this may be due to the clinic's location and participants' lack of reliable transportation

The shift toward digital and self-guided accommodation strategies, that are intended to increase reach, has revealed a significant digital adherence gap. A comprehensive meta-analysis (Takano et al., 2026) found that while 83.8% of patients completed individual therapy, completion rates dropped to 58.4% for fully automated digital platforms. While Knutzen et al. (2024) established that electronic delivery can be clinically equivalent to in-person care for those who finish it, the high dropout rates suggest that digital availability does not guarantee actual access for all populations.

This gap in adherence is particularly relevant for those facing environmental disruptions. Current research suggests that socioeconomic stressors and household dynamics, such as multi-purpose bedrooms or caregiver responsibilities, influence how individuals engage with treatment (Cheng et al., 2023). Without understanding these subjective experiences and interpretative processes, the field risks developing interventions that are theoretically sound but fail to resonate with the environmental realities of patients. This lack of qualitative data regarding the reasons behind treatment adherence challenges provides the empirical justification for **Study 3**, which explores the lived experience of implementing CBT-I at home.

Suggestions for Overcoming Barriers to Access

Researchers have offered several suggestions for improving access to CBT-I, especially in the context of not having enough trained providers to meet demand. These suggestions include self-guided digital delivery methods, CBT-I workshops, and group therapy.

As discussed above, self-guided approaches have not been as effective as face-to-face interventions, but improvements in insomnia symptoms are still observed, suggesting they could be a good option for some individuals (van Straten et al., 2018). A more recent review of studies comparing electronic delivery of CBT-I to in-person CBT-I found that this gap in efficacy has narrowed but that the majority of the studies (73%) offered collaboration with a trained therapist in addition to self-guided delivery (Knutzen et al., 2024). This is consistent with participants' feedback that treatment delivered by digital, asynchronous means should still have a way to tailor treatment to the individual in order to be successful (Cheng et al., 2023). It has also been observed

that some individuals do not prefer a digital delivery of CBT-I. For example, participants in one study felt that the personal delivery of CBT-I was beneficial and they were unsure if they would have engaged with a self-guided approach, reporting this recommendation may have dissuaded them from participating altogether (Koffel et al., 2020).

Group delivery of CBT-I is another common recommendation to overcome challenges to access, as enrolling participants in group has the potential to reach more individuals in a shorter amount of dedicated time for the provider (Koffel et al., 2015). Additionally, Cheung and colleagues (2019) suggest that group CBT-I can be effective in a primary care or community setting as well, and that these familiar venues present an opportunity to improve access to the intervention. Answering their call for additional research to clarify the appropriate dose and delivery of the intervention, Okun and Glidewell (2023) investigated the delivery of CBT-I in one 4-hour session with a workshop style format held in a community setting, a public library. They found significant improvements in ISI scores and a reduction of sleep-aid use one month after the workshop (Okun & Glidewell, 2023). Researchers have suggested that group delivery of CBT-I can be more cost-effective than traditional multi-session delivery (Okun & Glidewell, 2023; Swift et al., 2012). While this is certainly true for those paying for services out-of-pocket, it remains unclear if health insurance plans, especially Medicaid and Medicare, are willing to cover these costs.

Another potential pathway to improve access to CBT-I is telehealth. Although telehealth still requires synchronous interaction between providers and patients, access may be improved for patients in rural areas and those with limited access to transportation (Butzner & Cuffee, 2021). The COVID-19 pandemic may have increased

the number of individuals suffering from ID (Cheshmehzangi et al., 2022), but it may have also broadened access by normalizing interventions like CBT-I being provided by way of telehealth and without losing efficacy observed in face-to-face trials (Scott et al., 2023). In their review of telehealth delivery of psychotherapy interventions, Hellstern and colleagues (2023) found that individuals receiving care via telehealth were more likely to persist in treatment than those attending in-person sessions, with the in-person only group being 4 times more likely to end early. As such telehealth delivery may support retention in the intervention, lending support to investigating how many sessions are necessary in this delivery format for reaching clinically meaningful outcomes.

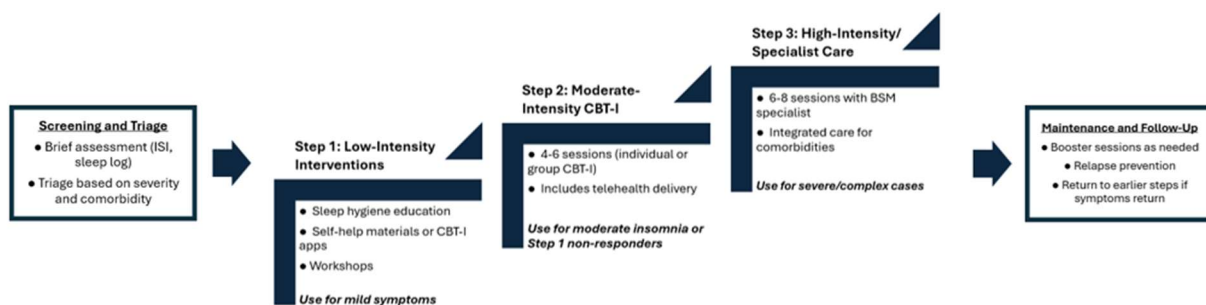
Stepped-Care Model

Though there is certainly a place for self-guided CBT-I for improving access to the intervention, overall efficacy is lower and attrition rates are higher than with therapist led CBT-I (Takano et al., 2026; van Straten et al., 2018). This suggests that many individuals need a higher level of care and must see a trained BSM provider before ID remits (Simon et al., 2023). Due to a lack of available CBT-I providers, researchers have suggested trying to close the gap by better understanding how to apply a Stepped-Care Model to the management of ID in the community (Espie, 2009; Vincent & Walsh, 2013). Application of the Stepped-Care Model would mean that the intensity of treatment for ID is considered on a continuum, typically based on severity of symptoms, barriers to treatment, and complexity of sleep presentation. Researchers have found that when a self-guided first step is framed as a primer, or a normal step in a continuum, attrition rates are comparable to face-to-face treatment (Wong et al., 2021). The

continuum of services considers self-guided deliveries at the start of the continuum (Step 1), group deliveries and intervention by providers with lower expertise in the middle (Step 2), and individual meetings with providers with high expertise, like a BSM provider (Step 3), as a last resort (Espie, 2009; Manber et al., 2015; Okun & Glidewell, 2023; Roberts & Ulmer, 2024). Please see Figure 1.1, which visualizes the Stepped-Care Model for treating insomnia.

Figure 1.1

Stepped-Care Model for Insomnia: A Tiered Approach to CBT-I Delivery



Researchers have suggested that one reason an individual might be better served by a BSM provider would be to assess comorbidities that may be impacting participants, as digital deliveries especially are not equipped to do this type of full assessment (Simon et al., 2023). Additionally, there still seem to be barriers to engagement with digital, self-guided CBT-I for individuals who are low-income that are not well understood (Cheng et al., 2019). Dr. Manber and colleagues (2015) identified that one of the biggest barriers to implementing Stepped-Care CBT-I is the need to better understand individual characteristics that warrant certain treatment levels and making sure intervention at a lower level will not discourage further treatment seeking at higher intensity. They went on to develop and test a triage checklist with higher levels of care recommended for participants with 1) use of sleep medication more than 4 times

weekly, 2) extremely variable sleep schedules, which may indicate a circadian rhythm disorder, 3) “severe psychopathology,” which they define as a mental health condition that must be addressed concurrently or it would have a negative impact on CBT-I adherence 4) short sleep durations, reported as less than 4.5 hours nightly, and 5) high levels of daytime sleepiness, sometimes an indication of another sleep disorder (Manber et al., 2024, 2025).

A self-guided approach may be a good first step, or primer, to CBT-I for many insomnia sufferers, especially when there is an option for a higher intensity intervention if unsuccessful. If treated as a primer, this may also allow those with financial and/or insurance barriers to shorten the length of treatment sessions, thus lessening the overall cost of treatment, though this hypothesis requires specific attention in future studies. A better understanding of the experience of implementing CBT-I independently after receiving the education on the intervention can help researchers and providers to design self-guided approaches more effectively and better inform who will be a good fit for this type of modality, a gap that **Study 3** seeks to fill. However, clinicians and researchers should use caution in recommending less intensive intervention modalities, like digital delivery or workshops, without additional support for individuals that may have a more complex sleep presentation, including comorbidities (Simon, 2023). In addition, there appear to be barriers for individuals with lower SES that are presently not well understood. By not appropriately assessing optimal treatment delivery, especially for those in poverty, clinicians and researchers run the risk of producing disparate outcomes in a population already at greater risk of sleep disorders and health consequences (Chen-Edinboro et al., 2015; Papadopoulos & Sosso, 2023).

Application of Theory in the Literature

Discussion of theory in CBT-I research remains limited. Researchers have criticized this limitation, highlighting that a lack of theoretical guidance compromises the effectiveness of interventions (Matthews et al., 2013; Mead & Irish, 2020). While well-established biological and behavioral models, such as the two-process model of sleep regulation (Borbély, 1982; Borbély et al., 2016) and the 3P model of insomnia (Spielman et al., 1987), have provided a rigorous foundation for treatment, they are inherently focused on individual-level mechanisms. Perlis and colleagues (2011) suggest that this lack of diverse theoretical orientation may be related to early assumptions regarding insomnia itself. Until the late 90s, and even among some practitioners today, insomnia was understood as a symptom of another mental health disorder, rather than a standalone condition. They go on to argue that this may have had the unfortunate consequence of discouraging the development of more comprehensive models of insomnia and CBT-I (Perlis et al., 2011).

One particularly undertheorized aspect is the influence of environmental and socio-ecological factors on CBT-I implementation and outcomes (Grandner, 2019). To move beyond individualistic orientations, scholars have increasingly pointed toward the Socio-Ecological Model (SEM), which is uniquely beneficial for understanding how sleep disparities are maintained across multiple levels of influence (Bronfenbrenner, 1974; Grandner, 2019). These levels range from physical space and neighborhood factors to institutional policies, expanding the focus from psychosocial mechanisms alone (Carnethon et al., 2016; Patel et al., 2010).

Similarly, from a public health perspective, the Theory of Access to Care (TAC; Penchansky & Thomas, 1981) offers a comprehensive, multidimensional framework for evaluating the interface between health systems and patients. By identifying five key dimensions – availability, accessibility, accommodation, affordability, and acceptability – TAC ensures that access is treated as a nuanced phenomenon rather than a binary outcome. While these frameworks are rarely named in empirical studies testing CBT-I, their application is essential for identifying the structural, economic, and logistical barriers that hinder equitable treatment reach. Availability of providers has been established as a limiting factor to individuals receiving the intervention (Vargas, 2023). Accessibility has been limited in the past by geographical distance and transportation issues (Thomas et al., 2016). Accommodation is being explored by studies adapting traditional face-to-face CBT-I to less intensive modalities as outlined by the Stepped-Care Model (Manber et al., 2023). Affordability and the cost of CBT-I can be prohibitive for many insomnia sufferers, but the scope of this problem is not well defined in the existing literature (Natsky et al., 2020). Acceptability acknowledges that individuals' beliefs and attitudes can influence their willingness to engage with CBT-I. Yet researchers have found that when patients are presented with a choice, they tend to prefer psychological interventions for insomnia due to negative feelings about sleep aids (Swierzbiolek et al., 2024). The overall research agenda on access to CBT-I could benefit from the structure and framework that this theory can provide and may create clearer targets for future inquiry in this area.

Gaps in the Literature

Throughout this review of the literature, several gaps are observed and discussed. Despite a robust evidence base supporting CBT-I efficacy, several critical gaps remain, especially related to access and implementation. The full landscape of access, especially the ability to engage in treatment for ID, remains largely unclear.

Limited Understanding of the Access and Implementation Landscape

While studies have addressed various barriers to CBT-I (Cheng et al., 2023; Koffel et al., 2018), and reviews have outlined specific challenges, like provider availability (Vargas, 2023; Thomas et al., 2016), the field lacks a cohesive, systematic mapping of how barriers align with established access frameworks. Current research trends suggest a significant shift toward digital and remote delivery (Xin et al., 2022), yet it is unclear how these advancements prioritize or neglect the structural barriers of affordability and geographic accessibility for marginalized populations (Scott et al., 2023). Without a quantitative and thematic evaluation of the existing literature, the field risks continuing an implementation agenda optimized for logistical convenience rather than systemic equity. There is a pressing need for research that categorizes the scientific landscape through the access dimensions understood by TAC (Penchansky & Thomas, 1981) and SEM levels (Bronfenbrenner, 1974; Grandner, 2019). This understanding can provide a roadmap for future research on true sleep health equity.

Lack of Theoretical Diversity

Current CBT-I research is characterized by a significant lack of theoretical diversity, with a persistent reliance on biological and behavioral models that utilize a micro-level understanding of insomnia. However, healthy sleep is not equally accessible

to all people and the impact of the environment on sleep disproportionately impacts those in poverty (Carnethon et al., 2016; Johnson et al., 2019), evidence that sleep is not simply a micro-level phenomenon. Ignoring the impact of the environment consequently blames individuals for their sleep problem, even when significant environmental factors and structural barriers impede sleep. This perspective runs the risk of further alienating individuals from treatment by not accounting for these barriers. Therefore, the lens that biological and behavioral models provide has the potential to be overly reductionist and represent a privileged way of understanding sleep behavior. Environmental and structural inequalities must be considered in conjunction with these models. Failure to do so may result in an incomplete picture of sleep behaviors, one that ignores the impacts of adversity and systemic discrimination. Additionally, continued micro-level bias prioritizes the refinement of the intervention for those already within the healthcare system while structurally neglecting the foundational barriers of affordability and geographic accessibility. The SEM (Bronfenbrenner, 1974; Grandner, 2019) provides a necessary framework to distinguish between the individual, institutional, and structural drivers impacting care.

Additionally, the TAC (Penchasky & Thomas, 1981) and the Stepped-Care Model (Espie, 2009; Manber et al., 2023; Vincent & Walsh, 2013) have utility in improving the collective understanding of access to CBT-I. Researchers have utilized TAC as a framework with which to understand the barriers that influence individuals' ability to connect with necessary healthcare services in order to better address them (Levesque et al., 2013; National Academies of Sciences, Engineering, and Medicine, 2018). This

TAC framework is a useful way to break down the complexity of access into smaller parts that can be more easily investigated in research.

Limited Understanding of The Optimal Dose of CBT-I

While CBT-I is widely recognized as an effective and durable treatment for ID, including among individuals with comorbid psychiatric, medical, and sleep disorders (Hertenstein, 2022; Ong et al., 2020; Zhou et al., 2020), there remains a significant gap in understanding the optimal dosage needed to achieve clinically meaningful outcomes across diverse and comorbid populations. Most existing dosage recommendations are based on early studies that excluded individuals with complex comorbidities and may not reflect real-world clinical settings (Edinger et al., 2007; Muench, 2022). Additionally, the number of CBT-I sessions varies widely across studies, ranging from 1 to 12, making it difficult to determine whether certain subgroups require more intensive treatment (Hertenstein, 2022; Sweetman et al., 2023; Zhou et al., 2020). This variability limits the integration of CBT-I into scalable care models, like Stepped-Care, and hinders efforts to tailor treatment for individuals with different comorbidity profiles or socioeconomic barriers. Future research must focus on identifying dose-response relationships across diverse populations to enhance personalization, improve adherence, and maximize treatment outcomes in routine practice.

Limited Understanding of Barriers in Implementing CBT-I

While self-guided CBT-I approaches have shown efficacy, they consistently underperform compared to synchronous, provider-led sessions, though the reasons for this discrepancy remain unclear (Takano et al., 2026; van Straten et al., 2018). Current research has largely ignored the lived experiences and meaning-making processes of

individuals engaging with self-guided CBT-I. This represents a critical gap in our understanding. The TAC suggests that acceptability, how patients perceive and make meaning of treatment options, significantly influences engagement and outcomes (Rauwerda et al., 2026). This meaning-making process is particularly important in understanding why some individuals struggle with self-guided approaches despite their apparent accessibility and affordability (Cheng et al., 2023). Without understanding the subjective experiences and interpretative processes involved, we risk developing interventions that appear theoretically sound but fail to resonate with patients' lived realities. While self-guided CBT-I serves as a promising and cost-effective entry point, its success for diverse populations may depend on active clinical assistance. Without intentional support to normalize and encourage progression through the Stepped-Care Model, individuals who face initial implementation challenges may prematurely disengage from the treatment continuum. Understanding participants' challenges with implementing self-guided CBT-I is crucial for refining Stepped-Care Models and determining when more intensive support is necessary (Manber et al., 2015), thus ensuring the appropriate use of this modality.

Research Questions and Methodologies

The following three research studies work in tandem to address the identified gaps in the literature with an overarching theme of equitable access to care. This three-pronged mixed-methods dissertation is designed to comprehensively evaluate the accessibility and real-world implementation of CBT-I. Grounded in the Stepped-Care Model, the Socio-Ecological Model (SEM), and the Theory of Access to Care (TAC), these studies work in tandem to address gaps in both the clinical and public health

delivery of CBT-I, with an emphasis on populations experiencing comorbidities or service inequities.

This dissertation follows a macro-to-micro progression. **Study 1** establishes the foundational landscape by identifying which systemic layers and access dimensions are currently neglected in the broader scientific discourse. **Study 2** then tests these theoretical gaps within a real-world clinical environment, quantifying treatment trajectories and optimal doses for complex and socioeconomically diverse patients. Finally, **Study 3** provides an essential qualitative context, uncovering the subjective environmental and psychological barriers that quantitative models cannot capture alone. Collectively, this dissertation offers an evaluation of CBT-I as an intervention that is both a clinical tool and a social justice imperative.

Together, these studies investigate different aspects of access to and implementation of CBT-I, moving beyond isolated measures of efficacy and even effectiveness to consider who benefits, who has access, and what the experience is like for those attempting to implement it in daily life. This comprehensive approach supports the development of tailored, equitable, and scalable CBT-I interventions, particularly for populations at risk of being underserved or undertreated. A summary of each study and important components are listed in Table 1.1.

Table 1.1

Dissertation Study Components

	Study 1	Study 2	Study 3
Method	Bibliometric Thematic Analysis	Quantitative – Hierarchical linear modeling (HLM)	Qualitative – Interpretative Phenomenology

Research Questions	(1) How has the landscape of CBT-I access research evolved since 2010 when analyzed through the Theory of Access to Care (TAC) and the Socio-Ecological Model (SEM)?	(1) What is the effect of CBT-I on ISI scores throughout the course of treatment?	How do participants in the Cognitive Behavioral Therapy for Insomnia 4-hour workshop experience the implementation of CBT-I protocol at home, including both the factors that facilitate successful integration and the challenges that arise in practice?
	(2) Which dimensions of access (TAC) and levels of the SEM are most/least represented in current literature?	(2) Do comorbidity categories (sleep disorder, medical disorder, psychiatric disorder, or combination groups) moderate the effect of CBT-I over the course of treatment?	
		(3) What is the dose of CBT-I needed to achieve a clinical response ($ISI \Delta \geq -6$ points) or diagnostic remission ($ISI \leq 10$)?	
		(4) Does the optimal dose of CBT-I vary among comorbidity groups?	
Primary Theories	Socio-Ecological Model	Stepped-Care Model	Stepped-Care Model
	Theory of Access to Care	Socio-Ecological Model	Socio-Ecological Model Theory of Access to Care

Study 1

Study 1 is entitled, *A bibliometric and thematic analysis of cognitive behavioral therapy for insomnia access and implementation (2010–2026)*. The purpose of this study was to provide a systematic mapping of the literature through the lens of equitable access, which remains a critical gap. This study fills that gap by providing a bibliometric and thematic analysis (Gutiérrez-Salcedo et al., 2018). of CBT-I access and implementation research from 2010 to 2026. This sixteen-year window captured the evolution of behavioral sleep medicine, from establishing a professional society (McCrae et al., 2010; Taylor et al., 2010), to mandates of CBT-I as the first line for

treatment of insomnia in 2016 (Qaseem, 2016), to a post-COVID surge in digital delivery (Xin et al., 2022), and continued efforts to improve access. This timeframe allowed for a rigorous evaluation of how the field is moving toward true sleep equity.

This study employed a systematic search of literature across PubMed, PsycINFO, and CINAHL to locate research on CBT-I access and implementation, and adhered to PRISMA guidelines (Rethlefsen et al., 2021). It categorized 554 relevant articles by their TAC primary and secondary dimensions and SEM level to create a thematic heat map (or evidence map; Li et al., 2025) of available research. The results revealed a field in a state of rapid, yet asymmetrical, maturation. While research output on access and implementation of CBT-I increased nearly ninefold, growth was concentrated at the micro-level, targeting individual perceptions and logistical delivery (*Acceptability* and *Accommodation*). A profound lack of research was observed at the policy level regarding *Affordability* and geographic *Accessibility*, and only 4.3% of research focused on marginalized groups such as low-SES or rural communities.

The gaps identified in this thematic mapping review provide the empirical justification for the subsequent studies in this dissertation. Despite the saturation of Individual-Acceptability research, studies involving rigorous, longitudinal data in real-world samples remain limited (Crowther et al., 2023), providing justification for the treatment dose focus in **Study 2**. Furthermore, the limited evidence regarding environmental and meso-level factors underscores the necessity of **Study 3**.

This study infuses a social work perspective into a field dominated by disciplines that often neglect systemic factors in favor of individual efficacy (Wolfson & Germain, 2019). By highlighting how the current implementation agenda defaults to privileged

sleep environments, this research reframes access as a social justice issue, advocating for structural changes in insurance reimbursement and workforce distribution.

Study 2

Study 2 is entitled, *Cognitive Behavioral Therapy for Insomnia in clinical settings: A longitudinal dose-response study of comorbidities*. The purpose of this study was to evaluate the dose-response relationship of CBT-I across diverse clinical and socioeconomic profiles in a real-world clinical setting. By moving beyond fixed-session protocols, this research sought to identify how patient complexity dictates the optimal dose required for meaningful recovery. This study was guided by the Stepped-Care Model, which emphasizes matching intervention intensity to patient need (Espie, 2009). Researchers have hypothesized that individuals with certain comorbidities may require higher levels of treatment intensity but stress the importance of more research (Manber et al., 2024; Simon et al., 2023).

This study utilized a longitudinal observational design with secondary data from a telehealth-based insomnia clinic (N = 320). Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002) was used to capture within-person trajectories on the Insomnia Severity Index (ISI; Morin, 1993) while accounting for nested structures within individuals and clinicians. Success was measured through both a 6-point reduction on the ISI (Clinical Response, CR; Qin et al., 2024) and a post-treatment ISI score of ten or less (Diagnostic Remission, DR; Morin et al., 2011). The study identified a paradox, where patients with all 3 comorbidity types – sleep, medical, and psychiatric – improved at the steepest rates but were 30% less likely to achieve remission within standard timeframes compared to those with insomnia only. While the complex group often

achieved initial response (CR) in 7 sessions, they required 13 sessions for remission (DR). Additionally, a significant success gap was observed, with insurance-paying patients demonstrating lower response and remission rates than self-pay patients.

These findings demonstrate that standard 4-to-6 session protocols are often insufficient for the complex, underserved populations social workers frequently serve. By quantifying the higher treatment volume required for complex cases, this research provides the empirical basis for advocating for insurance parity and the efficient, equitable allocation of specialized resources through Stepped-Care Models, enhancing the understanding of how to deliver CBT-I more efficiently and equitably.

Study 3

The third and final study is entitled, *Successes and struggles with self-guided CBT-I: A phenomenological study of patient experiences*. The purpose of this study was to investigate how individuals navigate CBT-I protocols independently following a brief workshop, representing the first tier in a Stepped-Care framework (Manber et al., 2015; Okun & Glidewell, 2023). While quantitative data identifies who is more likely to drop out of self-guided care (Cheng et al., 2019), this research explored the *why* behind those challenges, specifically focusing on how the environment influences adherence.

Using Interpretative Phenomenological Analysis (IPA; Smith et al., 2022), semi-structured interviews were conducted with nine participants who had recently attended a 4-hour instructional workshop. This idiographic approach allowed for an in-depth examination of the meaning-making and interpretative processes involved in implementing behavioral sleep changes at home. The study identified a significant negotiation between CBT-I protocols and the environmental and social realities of the

household. Primary barriers included environmental mismatches, such as attempting stimulus control in small homes with active children or multi-purpose bedrooms. Participants also described a high cognitive burden, described in the results as the anxiety of accuracy, where the fear of failing the protocol created counterproductive performance stress. These findings suggest that for some, the home environment is fundamentally incompatible with the assumptions of the CBT-I protocol, and that implementation as usual may not fully account for these barriers. Participants described having a hard time without explicit professional guidance to help them modify the intervention based on their specific needs.

This study centered the voices of those attempting to implement self-guided CBT-I and explored what this experience was like for them. By highlighting how environmental stressors, like crowded housing and caregiver responsibilities, impede standard protocols, this research advocates for an environment-informed social work perspective. Understanding these successes and struggles allows for the development of more equitable and flexible protocols that accommodate the real-world contexts of complex households.

Conclusion

Collectively, the three studies in this dissertation offer a multi-dimensional exploration of access to CBT-I, responding to key gaps in evidence and public health implementation. By integrating quantitative and qualitative methodologies, these studies address the impact of CBT-I across diverse comorbidity groups but also the structural and experiential realities that shape an individual's ability to engage with treatment.

The importance of this research lies in its potential to move the field of behavioral sleep medicine toward structural justice. While clinical efficacy is well-established, it is insufficient if the gold standard of care remains a luxury inaccessible to those most burdened by sleep disparities. By presenting the collective findings from a thematic mapping of the field, a longitudinal analysis of CBT-I with real-world patients with clinical complexity, and an interpretative study of lived experience, this dissertation lays the groundwork for more equitable and scalable models of insomnia care. Ultimately, this work can support advocacy efforts to ensure treatment is determined by patient need rather than socioeconomic status or geographic location, ensuring that restorative sleep becomes an attainable reality for all. Future policy, research, and practice efforts can build on this foundation to close the access gap and ensure that effective sleep treatments are available, affordable, and acceptable for all populations, especially those most at risk of being left behind.

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CHAPTER 2: STUDY 1

A BIBLIOMETRIC AND THEMATIC ANALYSIS OF COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA ACCESS AND IMPLEMENTATION RESEARCH (2010– 2026)

Restorative sleep is a fundamental pillar of health, facilitating essential biological healing and psychological regulation (Hirshkowitz et al., 2015). When sleep is compromised, the consequences are compounding, increasing the risk for cardiovascular disease, stroke, and the exacerbation of debilitating mental health conditions such as mood and anxiety disorders (Freeman et al., 2020; Grandner et al., 2023; Hoevenaar-Blom et al., 2011). In the United States alone, chronic sleep problems affect over 70 million individuals (Medic et al., 2017), with approximately 30% of adults experiencing insomnia at some point in their lives (Holder & Narula, 2022).

Despite the prevalence of these disturbances, the burden of insomnia is not distributed equally. Research consistently demonstrates that lower socioeconomic status (SES) is associated with shorter sleep duration and poorer sleep quality (Saini et al., 2021). Furthermore, environmental irritants and neighborhood factors, including noise, light, temperature, and not feeling safe (Johnson et al., 2018), predict a significantly higher risk for shorter and lower-quality sleep. These disparities highlight that sleep is not merely an individual biological process but is deeply embedded within a socio-ecological context (Grandner, 2019).

To address insomnia as a public health crisis, major medical and psychological governing bodies have issued explicit mandates. The American College of Physicians (ACP; Qaseem et al., 2016) and the World Sleep Society (WSS; Morin et al., 2023) identify multicomponent Cognitive Behavioral Therapy for Insomnia (CBT-I) as the first-line treatment for chronic insomnia disorder. This "gold standard" recommendation applies to all adults, regardless of comorbid psychiatric or medical conditions (Morin et al., 2023). However, a stark efficacy-to-implementation gap persists. While CBT-I is the gold standard of insomnia care, it is accessed by only a small minority of those who need it, typically those who can afford to pay out of pocket (Natsky et al., 2020; Sweetman et al., 2025).

Recent large-scale analyses of primary care records in England reveal that only 1.7% of patients with insomnia receive a referral for CBT-I (Waterman et al., 2025). In the United States, this gap is even more pronounced within major systems like the Veterans Health Administration, where as few as 0.2% of eligible patients accessed recommended behavioral care (Pfeiffer et al., 2023). In practice, sleep medications remain the dominant therapeutic modality despite the clear clinical superiority and patient preference for behavioral interventions (Baglioni et al., 2020; Sun et al., 2021; Swierzbiolek et al., 2024). Key reasons for this include limited provider awareness of CBT-I (Sun et al., 2021) and limited CBT-I clinicians to refer patients to (Thomas et al., 2016; Vargas, 2023).

The root of this implementation crisis lies in a long-standing professional bottleneck, with the prevalence of insomnia outpacing the supply of providers (Goldschmied & Gehrman, 2025). To provide a comprehensive longitudinal mapping of

this crisis, this analysis reviews the literature beginning in 2010. In 2010, the Society of Behavioral Sleep Medicine (SBSM) was established to further professionalize the field of Behavioral Sleep Medicine (BSM), an important step for widespread acceptance and dissemination of CBT-I. However, a consensus vote by BSM professionals at the time (McCrae et al., 2010; Taylor et al., 2010) established the "Gold Standard," which included the type of providers they felt should deliver interventions, putting an emphasis on BSM certifications to ensure treatment fidelity. While successful in proving BSM as a rigorous science, this vote may have set the stage for the current availability crisis the field is facing today.

Six years later, the 2016 ACP mandated CBT-I as the first line of treatment for insomnia, and a fierce debate has emerged regarding the expansion of this workforce. On one extreme, proponents argue that CBT-I is a clinical competency that can be delivered by a wide range of licensed providers, including social workers and nurses, to meet population demand (Espie, 2025). Conversely, others argue that the evidence for non-specialist delivery is limited, and that diluting the provider pool risks compromising treatment outcomes (McCrae et al., 2025). This tension between *availability* (expanding the workforce) and *acceptability* (maintaining specialist standards) defines the modern landscape of insomnia care.

The shift toward innovative delivery models intensified with the COVID-19 pandemic and the subsequent telehealth surge (Cheng et al., 2022; Owens et al., 2021). Consistent with this trend, a primary area of growth in CBT-I has been in digital delivery (Xin et al., 2022). While rigorous equivalence testing has established that electronically delivered CBT-I can produce outcomes effectively the same as in-person

treatment (Knutzen et al., 2024), digital tools are not a universal solution. Concerns remain regarding the lack of "Gold Standard" (face-to-face) comparison groups in digital trials (Grolig et al., 2025), a limited understanding of the treatment fidelity of digital applications (Kakazu et al., 2025; Yu et al., 2019), and significantly lower treatment completion rates in fully automated programs (58.4%) compared to in-person formats (83.8%) (Takano et al., 2025).

To systematically evaluate the evolution of these barriers and solutions, two complimentary frameworks are applied. The Theory of Access to Care (TAC) outlines the interface between health systems and patients through five dimensions (Penchansky & Thomas, 1981). Applying this framework to CBT-I reveals critical challenges, including a shortage of trained providers (Germain et al., 2024) – *Availability* – and geographical, transportation, and telehealth barriers (Cui & Fiske, 2020; Thomas et al., 2016) – *Accessibility*. While the field is exploring less intensive modalities via the stepped-care model (Manber et al., 2023) – *Accommodation* – the financial burden of care remains poorly defined (Natsky et al., 2020) – *Affordability* – and individual beliefs and cultural considerations continue to dictate treatment engagement (Pchelina et al., 2023) – *Acceptability*.

To understand where these dimensions manifest, the Socio-Ecological Model (SEM) situates these factors across multiple levels of influence. While originally conceptualized by Bronfenbrenner (1974), this study utilizes Grandner's (2019) sleep-specific framework to categorize research across three targeted levels: Individual (patient-level dynamics and outcomes), Organizational (healthcare systems and clinical environments), and Policy (societal mandates and clinical governance). This

streamlined conceptualization is particularly suited for implementation research, as it distinguishes between the individual, institutional, and structural drivers of care. By locating TAC dimensions within these SEM levels, this study provides the lenses necessary to map the thematic distribution of research and identify which systemic layers are being addressed and which remain neglected.

Current Study

There is a pressing need to move beyond narrative summaries toward a quantitative mapping of the literature. Scholars are increasingly adopting bibliometric techniques to provide a systematic and quantitative categorization of academic literature (Casadei et al., 2023). By utilizing statistical analyses of published work, bibliometrics allows for a rigorous assessment of research trends and the underlying patterns that define a field's development (Gutiérrez-Salcedo et al., 2018). This quantitative methodology is critical for identifying how a research area matures and where significant gaps in the scientific landscape persist. While previous bibliometric work has identified a global increase in CBT-I publications (Xin et al., 2022) and explored specific areas like cancer-related insomnia (Chen et al., 2025), a systematic mapping of the literature through the lens of equitable access remains a critical gap. This study aims to fill that gap by providing a bibliometric and thematic analysis of CBT-I access and implementation research from 2010 to 2026. This sixteen-year window captures the pre-guideline baseline, the 2016 policy pivot, and the post-COVID digital surge, allowing for a rigorous evaluation of how the field is, or is not, moving toward true sleep equity.

Research Questions

By utilizing the Theory of Access to Care (Penchansky & Thomas, 1981) and the Socio-Ecological Model (Bronfenbrenner, 1974; Grandner, 2019) as guiding theoretical frameworks, this study will analyze existing scientific research to identify where the field has succeeded, and which dimensions of access are the least represented in current literature. This study is guided by the following research questions:

1. How has the landscape of CBT-I access research evolved since 2010 when analyzed through the Theory of Access to Care (TAC) and the Socio-Ecological Model (SEM)?
2. Which dimensions of access (TAC) and levels of the SEM are most/least represented in current literature?

Methods

To achieve a systematic and reproducible mapping of the CBT-I access landscape, this study employed a bibliometric and thematic workflow. This process involved a structured search strategy, a rigorous two-phase screening process, and a novel dual-framework coding scheme.

Search Strategy and PRISMA Protocol

A structured search was developed in consultation with an evidence synthesis librarian, adapting the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines (Rethlefsen et al., 2021) for transparent reporting of search and selection. Three primary databases were selected to capture the multidisciplinary nature of the field: PubMed from the National Center for Biotechnology Information (NCBI) for biomedical and clinical research, PsycINFO from

EBSCO (behavioral and psychological), and CINAHL from EBSCO (nursing and allied health).

The search strategy was operationalized using a multi-dimensional Boolean approach (Alharbi & Stevenson, 2020). This approach utilizes logical operators, specifically *OR* to broaden the search within a single dimension (e.g., "Cost" OR "Insurance") and *AND* to ensure the intersection of the two core frameworks (e.g., "CBT-I" AND "Affordability"), ensuring that each dimension of the TAC was represented by both broad primary keywords and specific technical descriptors (see Table 2.1). Date limits were applied from January 1, 2010 to the date of the search, February 16, 2026. The final search expression can be found in Appendix A.

Table 2.1

Multi-Dimensional Boolean Search Strategy

Access Dimension	Primary Keywords	Secondary/Technical Keywords
Affordability	Cost, Price, Insurance coverage, Out-of-pocket	Reimbursement rates, Medicaid, Medicare, Private pay, Self-pay, Payment parity, Financial barriers, Socioeconomic status (SES)
Availability	Provider density, Specialist shortage, Workforce	Waitlists, Training programs, Non-physician providers, Clinical Social Workers, Primary care integration, Workforce development
Accessibility	Geospatial distribution, Rural health, Telehealth	Geospatial distribution, GIS mapping, Travel burden, Distance to care, Telehealth, Telemedicine, Remote delivery, State licensure, Interstate compacts

Access Dimension	Primary Keywords	Secondary/Technical Keywords
Accommodation	Treatment format, Protocol complexity, Modification	Brief behavioral treatment (BBTI), Digital CBT-I (dCBT-I), Group therapy, Home implementation, Self-guided, Stepped-care model, Modification
Acceptability & Language	Treatment preferences, Adherence, Beliefs, Attitudes, Language	Patient expectations, Provider perceptions, Patient perceptions, Qualitative, Lived experience, Attrition, Cultural adaptation, Language, Linguistic diversity, LEP, Translation, Interpreter, Language concordance, Bilingual, Cross-cultural communication

The initial database search was supplemented by forward and backward citation chasing using the CitationChaser tool (Haddaway et al., 2022). This allowed for the identification of foundational papers and the most recent 2025–2026 publications that may not yet have been fully indexed with metadata.

Data Extraction and Cleaning

Zotero was used to manage, identify, and merge duplicate records. Metadata were then exported from Zotero in a .csv format and converted to Excel for a structured database for thematic mapping and statistical synthesis. Data cleaning and analyses were performed using R (Version 4.5.2; R Core Team, 2025). In addition to standard metadata, custom fields were extracted for each record: Target Population, Treatment Modality, and Study Type.

Inclusion and Exclusion Criteria

Articles were screened for inclusion based on their relevance to the implementation of, or access to, Cognitive Behavioral Therapy for Insomnia (CBT-I).

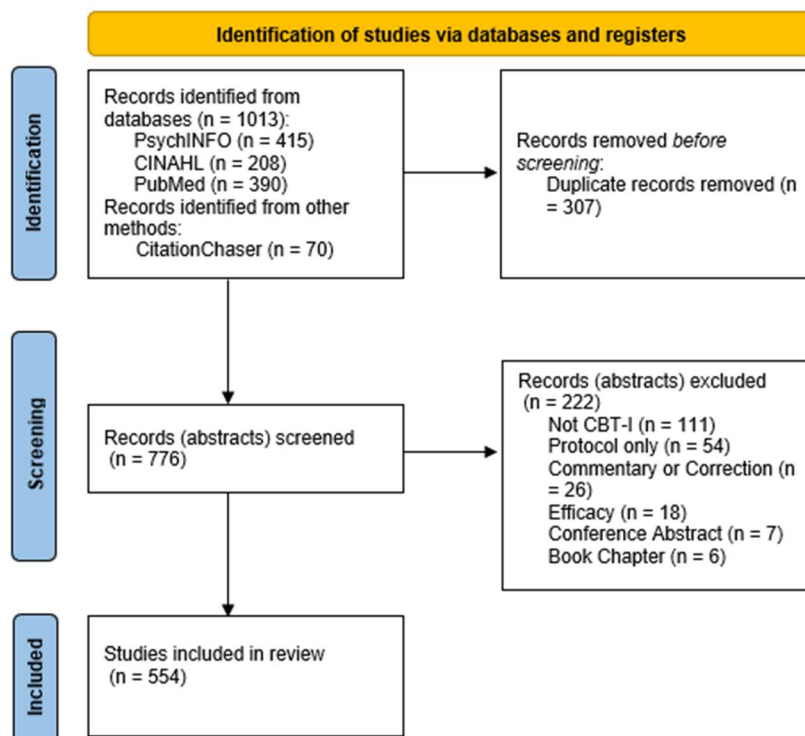
Studies were included if they explicitly addressed CBT-I or its brief variants (e.g., BBTI) and focused on at least one dimension of the Theory of Access to Care (TAC). Review articles were included to capture the evolution of expert consensus.

Studies were excluded if they focused solely on prevalence/epidemiology without a treatment component; focused strictly on efficacy (unless the study involved digital delivery or intentionally diverse/comorbid populations); or were limited to study protocols, commentaries, or instrument validation without clinical implementation data.

The resulting literature was documented in Figure 2.1 following the PRISMA 2020 standard (Page et al., 2021) resulting in a final analytical sample of N=554 articles.

Figure 2.1

PRISMA Flow Diagram



The Coding Phase: A Dual-Framework Approach

The core of the thematic analysis involved a manual coding of all 776 reviewed article abstracts, ending in a sample of 554 relevant articles. Each article was analyzed through two theoretical lenses, TAC and SEM. Primary coding was based on abstract review, with full-paper review conducted when the abstract provided insufficient detail regarding the research's implementation context.

Theory of Access to Care (TAC) Dimensions

Consistent with the multidimensional framework of access to care (Penchansky & Thomas, 1981), articles were categorized by their primary and secondary access focus using the following dimensions:

- **Acceptability:** Focused on the fit between the intervention and the participants, including patient and provider perceptions, applied unmodified treatment to different groups (like comorbidities), treatment satisfaction, treatment outcomes, cultural appropriateness, and willingness to engage in CBT-I. This category was modified to include language.
- **Accommodation:** Included research on the logistical organization of treatment, such as delivery modalities (e.g., digital, group, shortened or modified for population), appointment flexibility, and how the treatment was packaged to fit the participant's life.
- **Availability:** Focused on the existence and volume of resources, including the number of trained CBT-I providers, the presence of specialized sleep clinics, workforce training in CBT-I, and the adequacy of the workforce to meet population demand.

- **Affordability:** Focused on the economic costs of care, including out-of-pocket expenses for patients, insurance reimbursement rates, and the broader financial sustainability of implementing CBT-I programs.
- **Accessibility:** Included research on geographic and physical barriers, such as travel distance to clinics, transportation requirements, and the spatial distribution of care relative to the patient's location; also included telehealth delivery and reach.

To capture the multi-dimensional nature of access barriers, each study was coded for a Primary TAC Dimension and, where applicable, a Secondary TAC Dimension. The Primary Dimension represents the central access barrier or solution addressed (e.g., the development of a digital platform was coded as "Accommodation"). If a study explicitly addressed a secondary intersection, such as adapting that digital platform specifically for diverse populations, a Secondary Dimension of "Acceptability" was assigned. This dual-coding approach facilitates a more granular analysis, identifying not only which individual dimensions are neglected but also where the intersections between dimensions remain under-researched.

Socio-Ecological Model (SEM) Levels

Consistent with the conceptualization by Grandner (2019), which includes only 3 levels, articles were further categorized by their socio-ecological level of influence:

- **Individual:** Focused on patient-level factors, interpersonal dynamics, and clinical outcomes.
- **Organizational:** Included research within healthcare systems, universities, workplaces, professional training programs, and neighborhood-level factors.

- **Policy:** Focused on the societal level, including policy advocacy, global mandates (e.g., WSS, ACP), national treatment recommendations, and professional position statements regarding clinical governance.

Justification for the Integrated Framework

By locating TAC Dimensions within SEM Levels, this study creates a multidimensional map of the literature. While the TAC classifies the *nature* of the access barrier, the SEM identifies the *location* of the intervention or research. This integrated framework offers higher precision than a narrative review, providing a clear path for future research by highlighting which systemic layers (e.g., Policy) are failing to address specific access dimensions (e.g., Affordability).

Data Analysis and Synthesis

The analysis followed a quantitative thematic mapping approach, where the manually coded dimensions (TAC and SEM) were synthesized to identify research trends and gaps. All statistical analyses and data visualizations were conducted using R (Version 4.5.2; R Core Team, 2025). To ensure a reproducible and rigorous analysis, the tidyverse suite of packages (Wickham et al., 2019) was utilized for data cleaning, string standardization, and the transformation of the categorical coding into a consolidated analytical dataset. Descriptive statistics were generated to evaluate performance metrics, specifically the annual scientific production and the distribution of research across target populations and study types.

To visualize the landscape of the field, cross-tabulations between the TAC dimensions and SEM levels were generated using ggplot2. This included the development of a thematic heatmap (or evidence map; Li et al., 2025) to identify

saturation points, where research is heavily concentrated, and areas where access barriers remain under-researched. By utilizing a manual coding process integrated with R-based visualization, this study provides a high-precision map of the current CBT-I access literature that traditional automated bibliometric software might overlook.

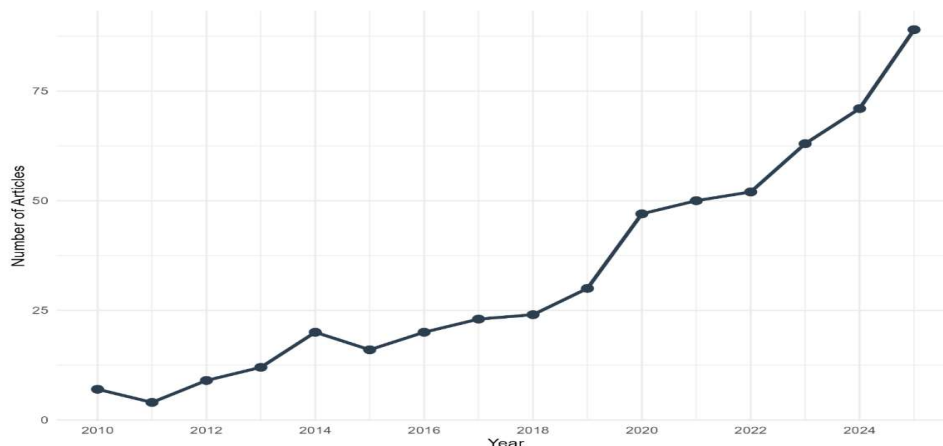
Results

Study Selection and Publication Trend

The systematic search across PubMed, PsycINFO, and CINAHL yielded a final sample of 554 peer-reviewed articles meeting the inclusion criteria (see Figure 2.1 for PRISMA flow diagram). A full list of included articles with thematic codes can be found in Appendix B. The included studies spanned from 2010 to early 2026, demonstrating a significant and accelerating interest in CBT-I access and implementation. While the first five years of the study period (2010–2014) averaged only 10.4 publications per year, the most recent full year of data (2025) reached a peak of 89 publications, representing a nearly ninefold increase in annual research output over 15 years. Figure 2.2 shows a steady increase in articles on CBT-I with an access or implementation component.

Figure 2.2

CBT-I Access Publication Trends (2010 – 2025)



Note. n = 537.

Study Characteristics

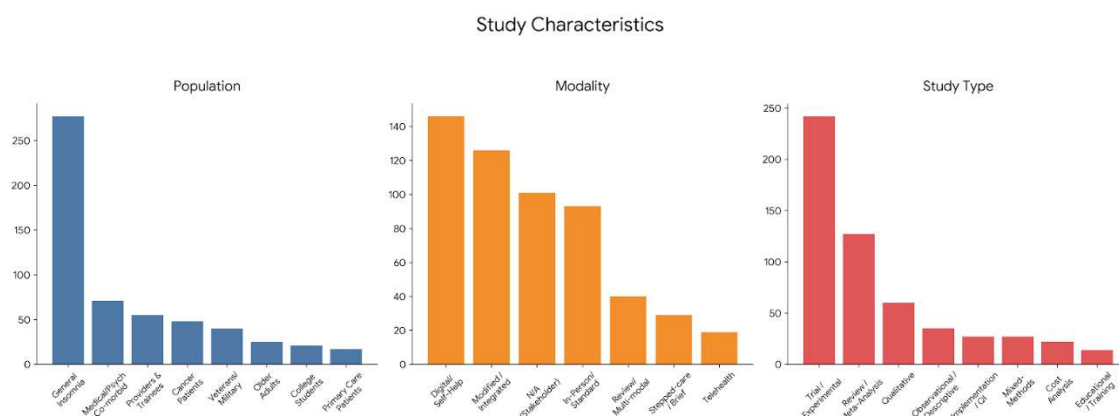
The demographic and methodological landscape of the included literature is summarized in Figure 2.3. Research was primarily centered on General Insomnia populations (n = 277; 50.0%), followed by individuals with medical or psychiatric comorbidities (n = 71; 12.8%) and studies focused on providers and trainees (n = 55; 9.9%). In contrast, clinical groups such as older adults (n = 25; 4.5%), college students (n = 21; 3.8%), and primary care patients (n = 17; 3.1%), were significantly less represented. Notably, there was a profound scarcity of research focusing on populations traditionally marginalized by the healthcare system, with only a small minority of studies explicitly focused on low-SES groups, rural communities, or racially diverse populations. Specifically, only 24 studies (4.3%) focused on race, geography, or income as a primary population characteristic, with specific groups like Black women, rural residents, and low-income community members appearing in fewer than 5 studies each.

Regarding treatment delivery, Digital and Self-Help modalities were the most frequent (n = 146; 26.4%), followed by modified or integrated CBT-I protocols (n = 126; 22.7%) and stakeholder-focused research (n = 101; 18.2%). While standard in-person delivery accounted for 16.8% of the sample (n = 93), newer remote formats like telehealth remained a small discrete category (n = 19; 3.4%). Methodologically, the field was dominated by Trial and Experimental designs (n = 242; 43.7%) and evidence syntheses (n = 127; 22.9%). Qualitative (n = 60; 10.8%) and mixed-methods approaches (n = 27; 4.9%) were utilized less frequently, and research focusing on the

economic sustainability of access, specifically Cost Analysis, represented only 4.0% of the total sample (n = 22).

Figure 2.3

Breakdown of Study Characteristics



Breakdown of Articles by Access Dimension

The thematic analysis of access dimensions exhibited a clear lack of balance, revealing a heavy skew toward patient outcomes and intervention delivery. As shown in Table 2.2, *Acceptability* (n = 277; 50.0%) and *Accommodation* (n = 153; 27.6%) accounted for over three quarters of the entire 15-year research sample. In contrast, dimensions traditionally associated with structural health equity, *Affordability* (n = 27; 4.9%) and *Accessibility* (n = 22; 4.0%), were the least represented. *Availability*, the amount of providers or programs, was the primary focus of 75 studies (13.5%). Table 2.2 provides a breakdown of these percentages by access dimension.

Table 2.2

Distribution of Included Studies by TAC Dimension

TAC Dimension	Total (n)	Percentage (%)
Acceptability	277	50.0%
Accommodation	153	27.6%
Availability	75	13.5%
Affordability	27	4.9%
Accessibility	22	4.0%

Note. N = 554.

Overlap in Access Dimensions

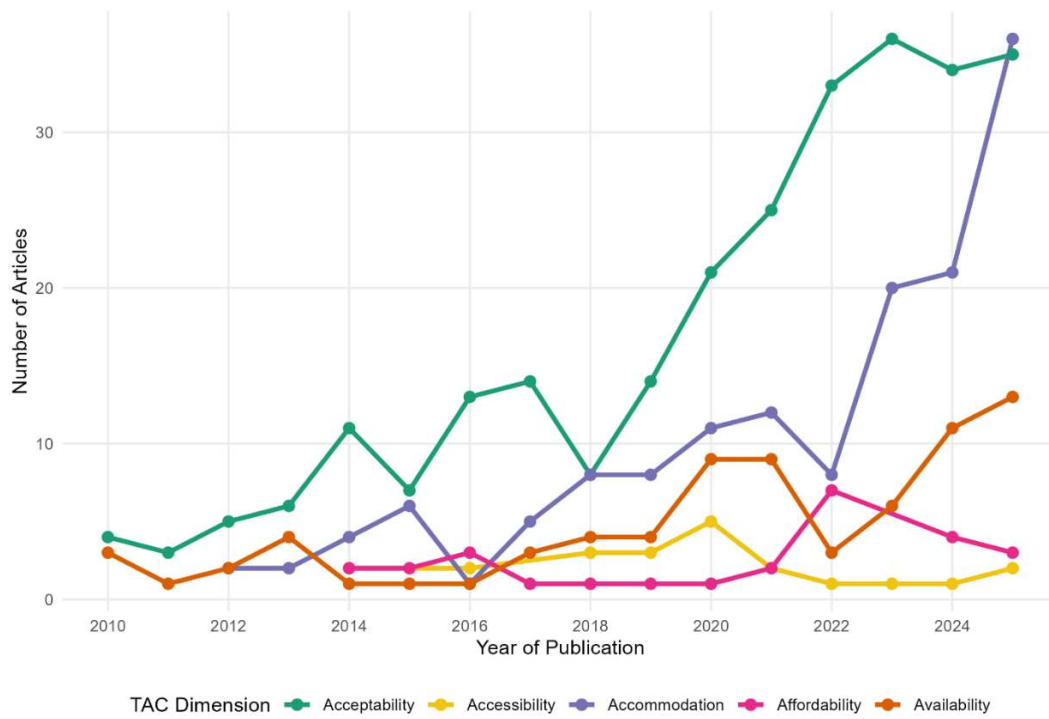
Of the 554 included articles, nearly half (n = 263; 47.5%) were identified as multidimensional, meaning they addressed at least two distinct TAC dimensions. The strongest relationship in the literature set is between *Acceptability* and *Accommodation*, with nearly 25% of the total sample (n = 136) focusing on this specific intersection. An example of how these dimensions overlap would be a study testing the *Acceptability* of digital CBT-I (*Accommodation*) for people with depression (e.g., Bai et al., 2024). Other co-occurrences were found between *Availability* and *Acceptability* (n = 38; 6.9%), reflecting research that addresses both the presence of CBT-I providers and the patient's willingness to engage with them. Notable examples include Bini et al. (2025) and Germain et al. (2024). Conversely, there was very little overlap between *Affordability* and any other dimension (n = 7; 1.3%), reinforcing the absence of economic barriers from the broader implementation discourse, with some important exceptions (Dietch, 2024; Vohra et al., 2025).

Publication Trend by Access Dimensions

While research related to access and implementation of CBT-I has greatly increased over the past decade (from 7 studies annually in 2010 to 89 in 2025), the growth is almost entirely driven by dimensions of *Acceptability* and *Accommodation* (see Figure 2.4). The increase in research on *Acceptability* represented effectiveness studies in real-world samples and testing the intervention without modifications in diverse comorbidity groups. Notably, the focus on *Accommodation* (logistical fit) saw a distinct upward trajectory beginning in 2020 ($n = 11$), more than tripling to 36 annual publications by 2025. This trend aligns with the increased investigation of digital CBT-I platforms and self-guided delivery models during this period. In contrast, research focused on *Affordability* remained limited; despite the field's overall expansion, annual publications primarily addressing the financial costs of care never reached double digits in any year of the 15-year sample. These trends suggest that while the field has worked to scale the logistical delivery of CBT-I, research addressing the economic and structural barriers to treatment has not kept pace with the overall volume of literature.

Figure 2.4

CBT-I Access Trends by TAC Primary Dimension (2010 – 2025)



Note. n = 537.

Breakdown of Articles by Socio-Ecological Level

The application of the SEM revealed that CBT-I access research remains overwhelmingly focused on the micro-level. As depicted in Table 2.3, over half of included studies (n = 306, 55.2%) targeted the Individual level, focusing on patient-specific outcomes, adherence, and personal beliefs. The Organizational level (n = 130, 23.5%) addressed how clinics and healthcare systems integrate CBT-I (e.g., Karlin et al., 2024). The Policy level (n = 118, 21.3%) was the least represented, typically appearing in the form of clinical guidelines and treatment recommendations (Edinger, 2021; Muench, 2022; Scott et al., 2025), rather than active implementation strategies for

marginalized populations, with some notable exceptions (Davidson, 2025; Schotland, 2024; Vargas, 2023).

Table 2.3
Distribution of Included Studies by SEM Level

SEM Level	Count (n)	Percentage (%)
Individual	306	55.2%
Organizational	130	23.5%
Policy	118	21.3%

Note. N = 554.

Breakdown of Articles by Integrated Framework: TAC and SEM Overlap

The primary finding of this thematic analysis is the concentrated saturation of research at the intersection of Individual-level SEM and Acceptability-focused TAC (see Figures 2.5 and 2.6).

Figure 2.5

*Heatmap of Research Concentration:
TAC Dimensions Across SEM Levels*

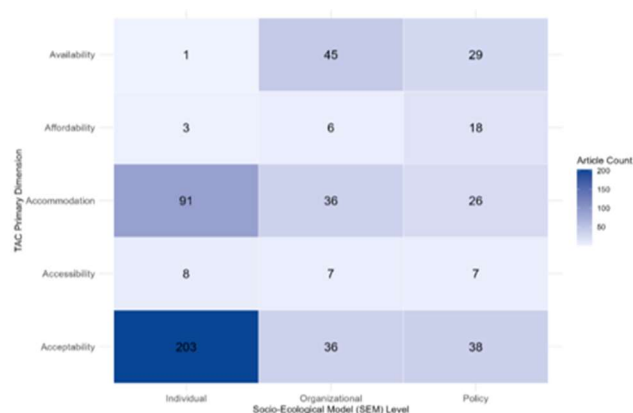
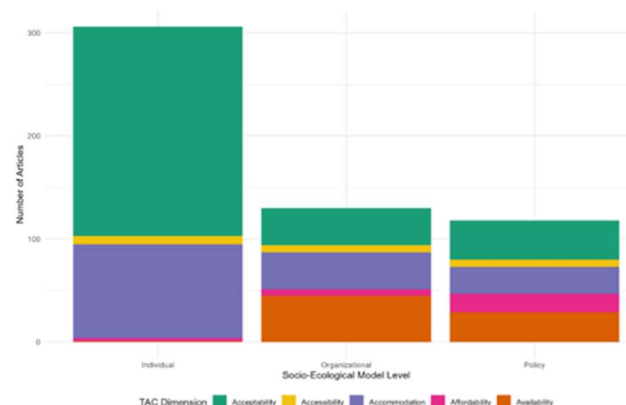


Figure 2.6

*Matrix Bar Plot of Research Concentration:
TAC Dimensions Across SEM Levels*



As shown in Figures 2.5 and 2.6, research is heavily skewed toward individual perceptions/outcomes for *Acceptability* ($n = 203$, 36.6%) and *Accommodation* ($n = 91$, 16.4%). There was only 1 study of individual experiences of provider *Availability* ($n = 1$; 0.2%) (e.g., Bai & Yin, 2024), who studied the outcome of nurse-led CBT-I. Studies on *Affordability* at the Individual level ($n = 3$; 0.5%) (Hollenbeak et al., 2024; McCrae et al., 2014; Savard et al., 2021), and *Accessibility* ($n = 8$; 1.4%) (e.g., Cheung et al., 2014; Laurel Franklin et al., 2018; Moloney et al., 2020) are extremely limited.

There is less representation of CBT-I access literature overall on Organizational SEM levels. The intersection of *Affordability* ($n = 6$; 1.1%) and *Accessibility* ($n = 7$; 1.3%) is especially low at the Organizational level. Some notable examples of *Affordability* at the organizational level include research on improving insomnia symptoms of hospital employees by offering a free sleep intervention (Smith & Wallace, 2016) and examining workplace productivity by offering digital CBT-I interventions to employees (Kjørstad et al., 2022; Zettor et al., 2025). All 7 studies on *Accessibility* at the organizational level focused on Telehealth delivery of CBT-I and how healthcare

systems like the Veterans Health Administration (Arizmendi et al., 2023) and cancer centers (McCarthy et al., 2018) can better reach rural populations.

While 21% (n = 118) of included studies are at the Policy level, the majority of these are focused on *Acceptability* (n = 38; 6.9%) and *Accommodation* (n = 26; 4.7%), like clinical guidelines for treatment recommendations (Muench et al., 2022; Scott et al., 2025) or *Availability* (n = 29; 5.2%), often mandates for training providers (Boerner et al., 2014; Taylor et al., 2021; Wolfson & Germain, 2019; Zhou et al., 2020). Policy-level *Accessibility* (n = 7), addressing who can get to care from a societal level, remains a major gap at only 1.3%, with some notable exceptions (e.g., Thomas et al., 2016; Vohra et al., 2025). Studies on Policy-level Affordability (n = 18; 3.2%) analyzed the economic impact of CBT-I from a societal, public health, or policy-making perspective, most often focusing on cost-effectiveness (e.g., Baka et al., 2022; Natsky et al., 2020; Tsiachristas et al., 2018; You et al., 2022), with some studies on healthcare resource utilization (e.g., Forma et al., 2022), and some tying economic evaluations as a means of advocating for greater reach (Jacobsen et al., 2019; Wickwire et al., 2015).

Discussion

The present bibliometric and thematic analysis of 554 articles reveals a field in a state of rapid, yet unequal, maturation. While the volume of CBT-I access and implementation research has seen a nearly ninefold increase since 2010, this growth has been primarily concentrated at the individual level of influence. This targeted Micro-focus has facilitated significant clinical advancements, including the robust validation of modified protocols for complex comorbid populations and the rapid scaling of digital delivery systems that have modernized the patient experience. However, this thematic

concentration creates a Micro-level bias that prioritizes the refinement of the intervention for those already within the healthcare system, while structurally neglecting the foundational barriers of affordability and geographic accessibility that define the experience of marginalized populations.

Digital Delivery and The Equity Gap

A primary finding of this study is the distinct upward trajectory of research focused on *Accommodation*, specifically the surge in digital and self-guided CBT-I following 2020. While proponents of digital health often argue that technology improves access by removing the need for in-person visits, the data suggest a more complicated reality, where technological reach is often hindered by individual-level barriers to engagement (Blom et al., 2016).

Researchers are increasingly utilizing these models to bypass limited specialist *Availability*, yet the field rarely evaluates whether this digital pivot successfully serves the populations it intends to reach, such as rural or low-SES communities (Schotland et al., 2024). Furthermore, the stagnation of *Affordability* research indicates that reach is being defined by logistical convenience rather than economic justice.

As the field pivots toward app-based and automated platforms to solve specialist shortages, it risks reinforcing existing sleep health disparities if it does not simultaneously address the hidden costs of care, like stable internet connection, a reliable phone, and the cost of the applications themselves. Despite the increase in delivery formats, there remains limited information about whether these changes accomplish the goal of increasing access for target groups like low-SES populations. Although there are notable exceptions (Chow et al., 2019), most research has yet to

include follow-up studies on the actual use of digital delivery by the marginalized groups they claim to target. By focusing on how the intervention is packaged rather than how it is funded or utilized by those with the least resources, scholars continue to default to patients with sufficient resources (Schotland et al., 2024).

The Socio-Ecological Access Desert

When viewed through the integrated TAC-SEM framework, the literature exhibits a profound Access Desert at the intersection of Policy-level influence and structural access dimensions (*Affordability* and *Accessibility*). Over half of the research (55.2%) remains focused at the Individual level, targeting patient-specific outcomes and personal beliefs. While individual-level efficacy is vital, it is insufficient for achieving population-level sleep equity.

The finding that Policy-level Accessibility accounts for only 1.3% of the literature is particularly striking. This suggests that the Policy level of the SEM (Grandner, 2019) is largely utilized for issuing top-down clinical guidelines (*Acceptability* or *Accommodation*) or training providers (*Availability*) rather than addressing the structural barriers of care distribution. For CBT-I to become a standard of care for low-SES and rural populations, the research must move beyond individual adherence toward policy-level advocacy, including insurance reimbursements.

In terms of *Affordability*, while existing research has focused on the broad return on investment of CBT-I (Wickwire et al., 2015), there is a critical disconnect between societal cost-savings and clinician-level reimbursement rates, which have not kept pace with provider fees (Schotland et al., 2024). This insurance reimbursement problem is reflected in healthcare utilization, with researchers finding that even within covered

populations like Medicare beneficiaries, only a small fraction (16.4%) received CBT-I (Wickwire et al., 2020). When reimbursement rates do not match necessary fees for services, providers are often disincentivized from accepting insurance, creating an artificial ceiling on treatment Availability. Future research must therefore move toward evaluating the economic sustainability of these specific payment models to ensure that first-line recommendations do not remain structurally inaccessible to low-SES and rural populations.

Limited Representation of Marginalized Populations

The most concerning finding for the pursuit of sleep equity is the profound scarcity of research focusing on populations traditionally marginalized by the healthcare system. While "General Insomnia" served as the default population for 50% of the sample, only 4.3% of all studies focused on race, geography (rurality), or socioeconomic status as a primary characteristic. This lack of focus suggests a systemic omission. When research defaults to a neutral population without accounting for the environmental irritants, neighborhood noise, or financial stress associated with low-SES environments, it implicitly assumes a privileged sleep environment (Billings et al., 2020; Grandner, 2019). This is not merely a scientific gap; it is a social justice issue. By failing to study the implementation of CBT-I in the contexts where sleep is most vulnerable, the field inadvertently develops interventions that are functionally inaccessible to those who need them most.

Limitations

Several limitations must be noted. First, the search was limited to English-indexed databases and likely excludes "gray literature" or community-based reports that

may address affordability without reaching academic publication. The categorization of a "Primary TAC Dimension" required interpretive judgment. While many studies are multidimensional, selecting a primary code may oversimplify complex access barriers. Finally, this review focused on the presence of research rather than the quality of outcomes; a high volume of studies in the "Individual-Acceptability" category does not guarantee those studies successfully solved the access issues they addressed.

Additionally, this review did not systematically address the interpersonal level of SEM, where some exciting research is emerging. There is a promising trend toward dyadic and partner-assisted interventions (Ellis et al., 2023; Lalor et al., 2026; Song et al., 2024). By including partners or family caregivers, researchers are beginning to address the interpersonal, offering a way to mitigate environmental disruptions in low-SES households. Future research should explore how these interpersonal supports can be leveraged specifically in rural or isolated environments where traditional specialist availability remains low.

Recommendations for Future Research

The data from this 15-year analysis show that while the field has moved into translation (via digital and integrated delivery), it has not yet reached structural justice. Future research must prioritize economic and affordability questions, searching for a better understanding regarding the cost of treatment and reimbursement outcomes.

Furthermore, research must move beyond the assumption that digital and telehealth delivery automatically equates to increased *Accessibility* for rural and underserved populations. Future studies should investigate the dissemination of CBT-I applications and telehealth platforms within rural healthcare ecosystems. It remains

unclear whether rural healthcare workers are recommending these digital tools or actively utilizing telehealth to provide behavioral sleep medicine within their specific clinical contexts. Investigating the provider-to-patient pipeline in rural areas is essential to determine if these technological solutions are being implemented by frontline workers or if they remain siloed within academic and urban centers.

Conclusion

This 15-year thematic analysis of 554 articles demonstrates that while the research landscape for CBT-I access and implementation has expanded nearly ninefold, this growth has been fundamentally asymmetrical. The field has successfully navigated a technological pivot toward digital and self-guided delivery (*Accommodation*), yet it remains conceptually tethered to the individual level of the socio-ecological model. The persistent Access Deserts identified at the intersection of Policy-level influence and structural dimensions, especially *Affordability* and *Accessibility*, suggest that the current implementation agenda is optimized for logistical convenience rather than systemic equity.

To move beyond this, future research must evolve from evaluating the feasibility of new delivery formats to investigating implementation, the actual dissemination and utilization of these tools within rural and low-SES healthcare ecosystems. Scholars and policymakers must prioritize economic transparency, workforce distribution, and the mitigation of environmental sleep disruptors to ensure that the "Gold Standard" of insomnia treatment does not remain a luxury. By transitioning the research agenda from implementation convenience to structural justice, the field can finally fulfill the promise of

a paradigm shift that makes restorative sleep an attainable reality for all populations, regardless of geography or socioeconomic status.

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CHAPTER 3: STUDY 2

COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA IN CLINICAL SETTINGS: A LONGITUDINAL DOSE-RESPONSE STUDY OF COMORBIDITIES

In the United States, over 70 million individuals are affected by chronic sleep problems (Medic et al., 2017). Insomnia Disorder (ID) is a primary driver of this crisis, with estimates suggesting up to 30% of healthy adults experience insomnia symptoms at some point in their lives (Holder & Narula, 2022; Morin & Jarrin, 2022). ID is characterized by a persistent inability to sleep effectively over a period of at least three months, with problems falling asleep and staying asleep despite ample opportunity (American Psychiatric Association, 2022). A lack of restorative sleep contributes to compounding negative effects on physical health, including increased risks for hypertension and cardiovascular disease (Grandner et al., 2023; Hoevenaar-Blom et al., 2011), while also exacerbating mental health conditions like mood and anxiety disorders (Freeman et al., 2020). While Cognitive Behavioral Therapy for Insomnia (CBT-I) is the established first-line treatment for ID (Morin et al., 2023), current research is often limited by a reliance on controlled clinical trials that exclude the complex, comorbid, and underserved populations most frequently encountered in real-world clinical practice (Alcántara et al., 2021; Crowther et al., 2023).

This gap is particularly evident in our understanding of the optimal dose, the number of sessions required to achieve a clinically meaningful response, and how this requirement may shift for individuals with co-occurring medical, psychiatric, or other

sleep disorders (Howard et al., 1986; Knutzen et al., 2024). Utilizing a longitudinal dose-response analysis within a telehealth-based clinic, the current study examines the trajectories of symptom change to determine how comorbidity profiles moderate treatment outcomes. By defining success through both clinical response (≥ 6 -point reduction on the Insomnia Severity Index (Qin et al., 2024) and diagnostic remission (a final score of ≤ 10), this research seeks to provide the empirical data necessary to refine Stepped-Care models and improve equitable access to effective insomnia treatment.

Literature Review

Insomnia and Clinical Complexity

ID often exists in a bidirectional relationship with medical and psychiatric outcomes, frequently co-occurring with other conditions as either a direct consequence of or a contributing factor to additional health problems (Mookerjee et al., 2023; Sivertsen et al., 2021). Historically, insomnia was often classified as a "secondary" disorder, essentially treating it as a symptom of another condition rather than a standalone diagnosis. In the early 2000s, a shift occurred toward understanding ID as its own disorder, though it continued to be categorized as "primary" or "secondary" due to the frequency of co-occurrence (Billiard & Bentley, 2004; Paul et al., 2022). For this reason, researchers have emphasized that there are substantial individual differences in symptoms associated with ID, particularly when clinical complexity is present (Benjamins et al., 2017). Within the context of the current study, clinical complexity is defined as the presence of one or more co-occurring medical, psychiatric, or other sleep-related disorders (Rai, 2023). Identifying these overlaps is vital, as a better

understanding of how clinical complexity impacts CBT-I outcomes is a necessary step to aid practitioners in designing treatment for these patients.

CBT-I and the Real-World Evidence Gap

The American College of Physicians and the World Sleep Society recommend the use of CBT-I as the first-line treatment for ID (Morin et al., 2023; Qaseem et al., 2016). While CBT-I is a well-established, efficacious intervention, current literature is plagued by several limitations, most notably a reliance on controlled clinical trials with relatively homogeneous, white, and well-educated samples. One study found that less than 7% of randomized controlled trials (RCTs) for behavioral sleep interventions targeted underserved adult populations, such as veterans, women, racial/ethnic minorities, and those with low socioeconomic or disability status (Alcántara et al., 2021). Additionally, studies often exclude individuals with clinical complexity, which limits the generalizability of findings to real-world clinical settings (Crowther et al., 2023), despite high symptom variability in individuals with ID (Benjamins et al., 2017). Furthermore, while the rise of telehealth has improved access and attrition by removing barriers like limited transportation and childcare, there is still a limited understanding of how CBT-I performs in these naturalistic, virtual environments, especially for complex patient populations (Hellstern & Robinson, 2023). In a field dominated by RCTs (Xin et al., 2022), there is a critical need for real-world longitudinal data to ensure the intervention meets the needs of diverse groups and to assess the durability of treatment impacts among those with comorbidities.

Dose-Response Trajectories Across Comorbidity Groups

The question of optimal dose, defined by the specific number of sessions or treatment duration required for clinically meaningful improvement (Howard et al., 1986), remains a subject of persistent debate in CBT-I research. While traditional recommendations of a four-session dose stem from seminal, highly controlled studies (Edinger et al., 2007), researchers note a significant disconnect between these controlled procedures and how CBT-I is delivered in typical practice today (Muench et al., 2022). A significant gap exists in understanding the dose-response relationship in real-world settings, with researchers explicitly calling for more data on the number of sessions needed to achieve sustained health outcomes, particularly among patients with comorbid conditions whose treatment trajectories remain poorly understood (Cheng et al., 2019; del Giudice et al., 2025).

Although CBT-I demonstrates robust effectiveness across samples with psychiatric comorbidities (Garland et al., 2018; Grierson et al., 2020) and various medical comorbidities (Lebrun et al., 2020; Ma et al., 2021; Rauwerda et al., 2026; Redeker et al., 2020; Siengsukon et al., 2020), session counts in these trials range widely from one to twelve, resulting in an unclear understanding of the optimal duration of treatment for patients with clinical complexity (Hertenstein et al., 2022; Selvanathan et al., 2021; Zhou et al., 2020). Emerging evidence suggests that for older adults with multiple comorbidities, the relationship between treatment adherence and sleep outcomes may be moderated by the complexity of the patient's presentation, potentially indicating a "threshold" effect where standard doses yield limited utility regardless of adherence (Ludwin et al., 2018, p. 492).

The effectiveness of CBT-I across comorbid sleep disorders, like sleep apnea and circadian rhythm disorders, is similarly complex. While individuals with ID and sleep apnea consistently benefit from CBT-I (Ong et al., 2020), differences in session numbers range between four and nine (Sweetman et al., 2023). Similarly, shift workers may experience moderate changes that are not always clinically significant, suggesting that circadian rhythm interventions may be necessary alongside CBT-I (Baglioni et al., 2020; Reynolds et al., 2023). It remains unclear if specific comorbidity profiles require a higher treatment intensity or necessitate more extended engagement to reach symptom resolution (Paul et al., 2022). Clarifying dose-response patterns across comorbidity profiles is essential for informed clinical decision-making and the efficient allocation of limited behavioral sleep medicine resources.

Stepped-Care Model

The current study is guided by the Stepped-Care Model, which contextualizes dose-response relationships by emphasizing the matching of intervention intensity to patient need along a continuum to more efficiently manage limited resources (Espie, 2009; Vincent & Walsh, 2013). In this framework, low-intensity interventions, like self-help materials or brief workshops, serve as the first step for those with milder symptoms (Manber et al., 2015; Okun & Glidewell, 2023). Research in specialized medical settings, such as oncology, has demonstrated that these less intensive versions of CBT-I can be non-inferior to professionally administered versions, even when accessed by patients with high clinical complexity (Savard et al., 2021). While these initial steps are effective for many, high-intensity individual care involving six to eight sessions are typically reserved for severe or complex cases (Manber et al., 2015, 2025; Simon et al.,

2023). Recent evaluations suggest that outcomes can be further optimized by tailoring initial treatment intensity based on baseline symptom severity and clinical complexity rather than requiring all patients to start at the lowest dose (Garland, 2021; Savard et al., 2021). However, to implement such models, researchers must first understand the longitudinal trajectories of different patient groups.

The Current Study

To provide a comprehensive evaluation of treatment utility, the current study utilizes the Insomnia Severity Index (ISI; Morin, 1993) to define both clinical response and diagnostic remission. Clinical response is defined as a reduction of six points or more, representing a meaningful change in symptoms (Qin et al., 2024), while diagnostic remission is defined as a post-treatment ISI score of ten or less (Morin et al., 2011). By using a dose-response longitudinal analysis, this research aims to determine if medical, sleep, or psychiatric comorbidities necessitate a higher treatment volume to achieve these benchmarks.

The primary aim of this study is to examine the trajectories of change in ISI scores throughout a course of telehealth-based CBT-I, with the hypothesis that ISI scores will significantly decrease over treatment and that the number of sessions will serve as a significant predictor of improvement. Secondly, the study aims to determine if comorbidity categories moderate this trajectory, with the hypothesis that different categories will show differential rates of change. Finally, the study seeks to test whether the optimal dose varies across comorbidity groups, hypothesizing that individuals with more comorbidities may require a greater number of sessions to achieve meaningful improvement compared to those with more straightforward insomnia presentations.

Methods

Study design and rationale

This study employed a longitudinal observational design to examine changes in insomnia severity over the course of CBT-I. A longitudinal approach was essential to evaluate individual treatment trajectories at the individual level and identify the optimal dose (number of sessions) required for clinically meaningful improvement. By capturing within-person trajectories, this design revealed how and when improvements occurred during the course of treatment (Singer & Willett, 2003).

Data were analyzed using Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002), also known as multilevel modeling. HLM is the gold standard for repeated measures data, as it accounts for the nested structure of sessions (Level 1) within individual patients (Level 2). To control for variance in treatment delivery, the model utilized a structure that accounted for the nesting of patients within clinicians, crossing a random effect for patient with a random effect for clinician (Level 3). This framework is particularly robust for clinical data because it allows for a varying number of sessions per patient and effectively handles missing data through Restricted Maximum Likelihood (REML) Estimation (Raudenbush & Bryk, 2002).

Data and Sample

Secondary data were obtained from The Insomnia Clinic, a fully remote clinic in Colorado serving individuals with ID via telehealth delivery. Patients primarily received CBT-I, specifically a combination of stimulus control, sleep restriction, and cognitive reappraisal (Perlis et al., 2005). Additionally, other conditions contributing to the insomnia presentation (e.g., circadian rhythm or mental health comorbidities) were

addressed as needed. The final sample included all patients, aged 18 or older, who received CBT-I and provided at least one follow-up ISI assessment ($N = 320$). For clinical transparency, preliminary pre- and post-treatment analyses were reported for the full sample with available final data ($N = 392$). Data spanned from 2021 to 2025, capturing a shift in late 2023 from an exclusively self-pay model to the inclusion of Medicaid and primary Medicare, which broadened the socioeconomic diversity of the dataset.

Ethics

This study was approved by the Colorado State University Institutional Review Board (IRB #7078). As this study utilized secondary de-identified data, a waiver of informed consent was granted. However, all patients included in the dataset had previously signed a consent to treatment at the clinic, which included an agreement allowing their de-identified data to be used for research purposes.

Power Analysis

An a priori power analysis was conducted using the *simr* package in R (Green & MacLeod, 2016) to determine the sample size required to detect significant effects in an HLM framework. Results suggested that a sample size of 180 participants with an average of 5 repeated measures would provide 80–85% power to detect a small-to-moderate interaction effect ($f^2 = 0.08$) and >90% power to detect the main effects of time. The final longitudinal sample of $N = 320$ (with an average of 8.65 sessions) significantly exceeded this requirement, providing exceptional power (>99%) to detect the 3-way interactions between time and comorbidity status.

Measures

Level 1 Predictors (Within-Person)

Time (Dose). Dose was represented by the successive treatment session number. For the longitudinal sample, the dose ranged from 2–27 sessions with an average of 8.65 (SD = 4.30).

Workshop Attendance. A binary variable (0 = No, 1 = Yes) indicated if the patient attended the 4-hour foundational psychoeducational workshop prior to or during treatment.

Treatment Conditions. Binary covariates were coded per session (0 = No, 1 = Yes) if a patient received additional interventions that session, including: stress management, circadian rhythm interventions, sleep apnea support, sleep medication tapering, and adjunctive CBT for comorbid mental health conditions.

Level 2 Moderators (Between-Person)

The primary moderators were three time-invariant, binary comorbidity categories (0 = No, 1 = Yes) coded by the clinician at the initial intake appointment:

Comorbid Sleep Disorder: (e.g., Sleep Apnea, Restless Leg Syndrome)

Comorbid Medical Disorder (e.g., Chronic Pain, Parkinson's Disease)

Comorbid Psychiatric Disorder (e.g., Anxiety, Depression, PTSD.)

To determine clinical complexity, a three-way interaction term (Time x Sleep x Medical x Psychiatric) was entered into the model. This allowed for the evaluation of specific comorbidity combinations (e.g., Sleep + Psychiatric) and how they moderated the dose-response trajectory.

Level 2 Covariates

To account for stable differences between participants, several Level 2 covariates were included:

Sociodemographics. Sociodemographic factors included age ($M = 54.43$, $SD = 16.08$), gender (59.1% women), ethnicity (87.2% White), and categorical variables for education, employment, relationship status, living arrangement, and household income.

Socioeconomics. Payment method (dichotomized as Insurance vs. Self-pay) and Total Spend, representing the total value of clinical services received (including session costs, workshop fees, and premium diagnostics like actigraphy).

Baseline Clinical Status. These variables controlled for different starting points and included the initial ISI score ($M = 18.97$, $SD = 4.69$), duration of sleep problem (57.2% 10+ years), and hypnotic (sleep medication) dependence (40.3% yes).

Primary Outcome Measure

The primary outcome was the Insomnia Severity Index composite score (ISI; Morin, 1993). The ISI is a 7-item self-report questionnaire assessing insomnia symptom severity, with higher scores representing higher insomnia severity (0 – 28). The ISI was administered at every treatment session, providing the repeated-measures data necessary for growth modeling (Karlin et al., 2024).

Treatment utility was evaluated using a dual-threshold success metric:

1. Clinical Response (CR): A reduction of 6 points or more on the ISI, representing a meaningful change in symptom burden (Qin et al., 2024).
2. Diagnostic Remission (DR): A post-treatment ISI score of 10 or less, consistent with the parameters set by Morin et al. (2011).

This approach ensures that patients with lower baseline severity who achieve remission (DR) are recognized even if they do not meet the magnitude required for a clinical response (CR).

Data Analysis Plan

To test the primary research questions, a series of growth curve models were estimated using Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002). HLM was selected for its ability to model individual change over time while accounting for the non-independence of repeated measures (sessions) nested within individuals. To account for therapist effects, a three-level nesting structure was initially considered (Sessions within Patients within Clinicians). Due to the distribution of cases across five clinicians, clinicians were treated as a grouping factor in the random effects structure (Patient.ID:Clinician) to control for variance in treatment delivery.

Prior to interpreting fixed effects, the Intraclass Correlation Coefficient (ICC) was evaluated to determine the proportion of variance in insomnia severity existing between patients compared to within-patient change. An ICC of 0.65 was observed, indicating that 65% of the variance in ISI scores was attributable to stable differences between individuals (and their clinicians), which strongly justified the use of a multilevel framework (Raudenbush & Bryk, 2002).

Linear and Non-Linear Growth. The functional form of the dose-response curve was evaluated by comparing a linear growth model against a quadratic (non-linear) model. While both were considered to identify potential symptom plateaus, the linear model was retained for the final analysis as it provided a parsimonious fit for the

observed treatment trajectories. The primary dose variable was treated as a continuous measure of successive treatment sessions.

Conditional Models (Moderation). The final Conditional Model integrated Level-1 and Level-2 predictors to explain the variability in trajectories. Level-1 predictors (Dose, workshop attendance, and treatment conditions) controlled for within-person session effects, while Level-2 predictors (Comorbidities, Sociodemographics, Socioeconomics, and Baseline status), tested for interaction effects on the treatment slope. This stage evaluated whether clinical complexity (the presence of one or multiple comorbidities) moderated the rate of change.

Model building followed a purposeful selection process, beginning with a maximal model including all theoretically relevant covariates. A backward elimination strategy was then employed, where variables were removed if their exclusion resulted in a lower Akaike Information Criterion (AIC) value, indicating a more parsimonious fit without a significant loss of information (Burnham & Anderson, 2004; Hosmer Jr et al., 2013).

Missing Data

Missing data were handled via Restricted Maximum Likelihood (REML) Estimation. Based on the clinical nature of the data, missingness was assumed to be Missing At Random (MAR), a condition well-managed by the HLM framework. REML is particularly advantageous for multilevel modeling as it produces more unbiased estimates of variance components compared to standard maximum likelihood (Finch et al., 2019). Furthermore, the inclusion of relevant covariates (e.g., baseline ISI, comorbidity status, and total treatment sessions) strengthens the MAR assumption and improves the precision of the estimates (Enders, 2022; Little & Rubin, 2019).

Results

Sample Characteristics

The final analysis included 392 patients who provided at least a baseline and one subsequent ISI. To evaluate longitudinal dose-response trajectories, the sample was refined to the longitudinal subset (N = 320) consisting of patients with at least one mid-treatment follow-up. As shown in Table 3.1, patients in this subset were primarily White (87.2%) and female (59.1%). The majority of the sample (57.2%) reported chronic insomnia lasting over ten years. Clinical complexity was high, with 84.7% presenting with a comorbid sleep disorder and 47.2% with a comorbid psychiatric disorder. Patients in the longitudinal model attended an average of 8.65 sessions (SD = 4.3), providing 1,551 total data points for analysis. While the session numbers ranged from 2 to 27, the upper range represents a small subset of outliers; 92.5% of the sample (n = 296) completed treatment within 15 sessions. Only 24 patients (7.5%) required extended care exceeding 15 sessions.

Table 3.1

Baseline Characteristics and Demographics

Variable	Longitudinal Subset (N = 320)
Age (Mean, SD)	54.43 (16.08)
Pre-ISI Score (Mean, SD)	18.97 (4.69)
Duration of Sleep Problem	
0-1 year	10.0% (n = 32)
1-10 years	32.8% (n = 105)
10+ years	57.2% (n = 183)
Hypnotic-Dependent (Yes)	40.3% (n = 129)
Comorbid Sleep (Yes)	84.7% (n = 271)
Comorbid Psychiatric (Yes)	47.2% (n = 151)
Comorbid Medical (Yes)	23.8% (n = 76)
Payment Type	

Self-Pay	60.6% (n = 194)
Insurance: Medicaid	14.1% (n = 45)
Insurance: Medicare	25.3% (n = 81)
Gender	
Woman	59.1% (n = 189)
Man	40.0% (n = 128)
Trans or Non-Binary / Unknown	0.9% (n = 3)
Race and Ethnicity	
White	87.2% (n = 279)
Hispanic	4.7% (n = 15)
African American	1.9% (n = 6)
Asian / Pacific Islander	1.6% (n = 5)
Multi-Racial	3.1% (n = 10)
Unknown / Not Reported	1.6% (n = 5)
Education	
High School / GED	9.1% (n = 29)
Associate / Some College	22.5% (n = 72)
Bachelor's Degree	12.2% (n = 39)
Graduate Degree (Masters/Doc)	36.6% (n = 117)
Unknown / Other	19.7% (n = 63)
Employment Status	
Full Time	36.9% (n = 118)
Part Time	12.8% (n = 41)
Retired	36.2% (n = 116)
Unemployed	11.9% (n = 38)
Unknown	2.2% (n = 7)
Household Income	
Over 100k	35.9% (n = 115)
\$80,001-\$100,000	9.4% (n = 30)
\$60,001-\$80,000	7.8% (n = 25)
Under \$60,000	19.7% (n = 63)
Unknown	27.2% (n = 87)
Relationship Status	
Partnered (Married or Live-In)	71.9% (n = 230)
Single, Divorced, Separated	22.8% (n = 73)
Widowed	4.1% (n = 13)
Unknown	1.2% (n = 4)
Living Arrangement	
With Spouse/Partner (only)	53.1% (n = 170)
With Partner and Children	19.4% (n = 62)
Living Alone	15.6% (n = 50)
Other Shared (Family/Friends)	1.2% (n = 36)
Unknown	0.6% (n = 2)

Overall Treatment Efficacy (Pre-Post Analysis)

A paired-samples t-test on the full pre-post sample ($N = 392$) indicated a statistically significant and clinically meaningful decrease in ISI scores from pre-treatment ($M = 18.61$, $SD = 4.92$) to post-treatment ($M = 11.77$, $SD = 6.50$), $t(391) = 22.30$, $p < .001$. The mean reduction of 7.18 points exceeds the 6-point threshold for Clinical Response (Qin et al., 2024). While the group who completed treatment (as defined by the clinician's assessment of the patient reaching their treatment goals) achieved the most robust outcomes ($M_{\text{change}} = 8.87$), even those who terminated early showed significant improvement ($M_{\text{change}} = 5.28$), suggesting that a partial dose of CBT-I still yields benefit.

Hierarchical Linear Modeling (HLM)

Fixed Effects: Baseline Severity and Socioeconomics

The final conditional model (Table 3.2) accounted for 73.5% of the total variance in insomnia severity (Conditional $R^2 = 0.74$). The model intercept was 12.10 ($p < .001$), representing the predicted baseline severity for a Young Adult (18–30) with no comorbidities. Comorbid medical conditions ($\beta = 7.00$, $p = .009$) and comorbid sleep disorders ($\beta = 2.99$, $p = .033$) were the primary clinical drivers of higher baseline severity. Notably, unemployment remained a significant predictor of higher baseline severity ($\beta = 1.59$, $p = .049$), even when controlling for all other baseline covariates in the model, including comorbid sleep, medical, and psychiatric disorders, hypnotic medication dependence, age, gender, education, and payment method.

Table 3.2*Fixed Effects*

<i>Predictors</i>	Insomnia Severity Index (ISI)		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	12.10	8.85 – 15.36	<0.001*
Follow-up	-0.06	-0.62 – 0.51	0.845
Comorbid Sleep Disorder	2.99	0.24 – 5.75	0.033*
Comorbid Medical	7.00	1.76 – 12.24	0.009*
Comorbid Psychiatric	-0.42	-4.24 – 3.39	0.828
Adult (Ages: 31 – 64)	0.73	-1.37 – 2.83	0.497
Older Adult (Aged 65+)	0.90	-1.31 – 3.11	0.424
Unemployed	1.59	0.01 – 3.18	0.048*
High School	1.64	-0.06 – 3.34	0.059
Completed Treatment	-1.40	-2.42 – -0.37	0.008*
Workshop Attendance	-2.67	-3.71 – -1.62	<0.001*
Total Spend	0.00	0.00 – 0.00	0.009*
Treatment Condition: Stress Management	-1.46	-2.06 – -0.86	<0.001*
Treatment Condition: Sleep Apnea	0.90	0.22 – 1.58	0.009*
Treatment Condition: Sleep Aid Taper	-0.86	-1.50 – -0.21	0.009*
Comorbid Sleep Disorder x Comorbid Medical	-6.63	-12.44 – -0.83	0.025*
Comorbid Sleep Disorder x Comorbid Psychiatric	1.57	-2.53 – 5.67	0.452
Comorbid Medical x Comorbid Psychiatric	-0.94	-9.02 – 7.14	0.820
Comorbid Sleep Disorder x Comorbid Medical x Comorbid Psychiatric	3.20	-5.56 – 11.96	0.474

Follow-up x Comorbid Sleep Disorder	-0.45	-1.05 – 0.16	0.145
Follow-up x Comorbid Medical	-0.52	-1.61 – 0.56	0.345
Follow-up x Comorbid Psychiatric	-0.27	-1.05 – 0.51	0.492
Follow-up x Comorbid Sleep Disorder x Comorbid Medical	0.15	-1.06 – 1.36	0.809
Follow-up x Comorbid Sleep Disorder x Comorbid Psychiatric	0.22	-0.62 – 1.06	0.607
Follow-up x Comorbid Medical x Comorbid Psychiatric	0.01	-1.62 – 1.64	0.991
Follow-up x Comorbid Sleep Disorder x Comorbid Medical x Comorbid Psychiatric	0.03	-1.71 – 1.79	0.974

Random Effects

σ^2	11.70
T00 Patient.ID:Clinician	21.02
T11 Patient.ID:Clinician.FU	0.51
ρ_{01} Patient.ID:Clinician	-0.57
ICC	0.65
N _{Patient.ID}	309
N _{Clinician}	5
Observations	1551
Marginal R ² / Conditional R ²	0.235 / 0.735

Note. * = p<0.05

Random Effects and Model Variance

As stated above, the Intraclass Correlation Coefficient (ICC) was 0.65, confirming that 65% of the variance in insomnia severity was attributable to stable differences between patients nested within clinicians. The random effects structure revealed significant variation in intercepts ($T_{00} = 21.02$), indicating that patients entered treatment at vastly different levels of severity. Furthermore, the variance component for the

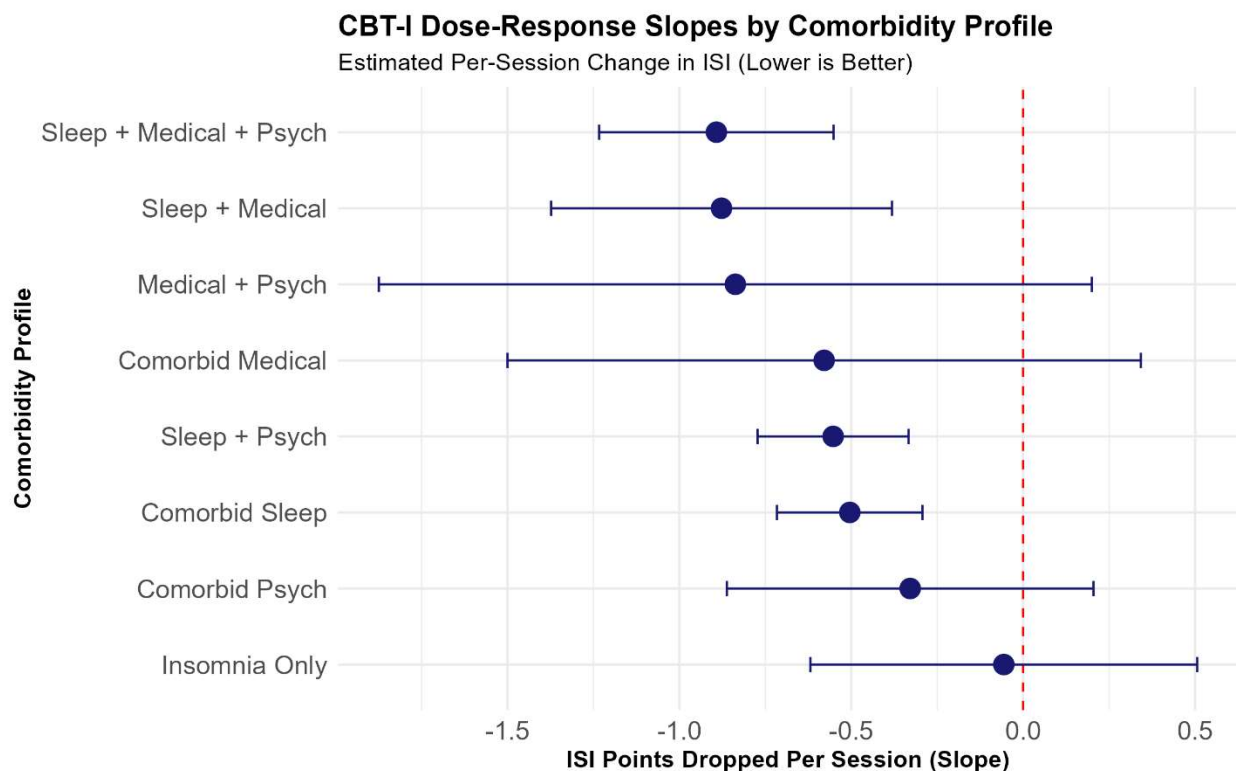
treatment slope ($\tau_{11} = 0.51$) confirmed that the rate of improvement (dose-response) varied significantly across the sample. A negative correlation between intercepts and slopes ($\rho = -0.57$) suggests that patients starting with higher severity generally demonstrated steeper rates of improvement.

The Complexity Paradox: Response vs. Remission

The main effect of session count for the reference group (no comorbidities) was not statistically significant ($\beta = -0.06$, $p = .846$). However, significant interaction effects revealed that treatment response was highly dependent on clinical complexity. As illustrated in Figure 3.1, treatment slopes steepened as comorbidity burden increased.

Figure 3.1

CBT-I Dose-Response Slopes by Comorbidity Profile



Note. Estimated per session change in ISI (lower is better).

As illustrated in Table 3.3, the Insomnia Only group achieved the highest rate of DR (71.43%) despite having the shallowest slope ($b = -0.06$). Conversely, the most complex group (Sleep + Medical + Psychiatric) demonstrated the steepest rate of improvement ($b = -0.89$), achieving the greatest absolute symptom reduction ($M = -8.71$). However, due to high baseline severity ($M = 21.14$), this group was significantly less likely to achieve DR (43.24%) compared to groups with less clinical complexity. This highlights a complexity paradox, where patients with clinical complexity improve the most in terms of total points, but are the least likely to reach sub-clinical insomnia within standard treatment timeframes.

Table 3.3

Clinical Complexity Profiles and ISI Outcomes

Comorbid Sleep	Comorbid Medical	Comorbid Psych	n	Pre-ISI (M)	Post-ISI (M)	Mean Change	Clinical Response (ISI drop ≥ 6)	Diagnostic Remission (ISI ≤ 10)
No	No	No	22	17.05	9.19	-7.86	76.19%	71.43%
Yes	No	No	113	17.84	11.56	-6.28	58.18%	44.55%
No	Yes	No	6	18.33	13	-5.33	50.00%	33.33%
No	No	Yes	16	19.31	11.19	-8.12	68.75%	50.00%
Yes	Yes	No	28	18.14	10.93	-7.21	59.26%	44.44%
Yes	No	Yes	93	19.98	12.63	-7.35	61.29%	40.86%
No	Yes	Yes	5	20.20	11.60	-8.6	60.00%	40.00%
Yes	Yes	Yes	37	21.14	12.43	-8.71	64.86%	43.24%

Note. Longitudinal Subset, N = 320.

Determination of Optimal Dose

To translate these trajectories into clinical practice, the optimal dose was calculated (see Table 3.4). For the most complex patients (all 3 comorbidities), CR was achieved within 7 sessions, but DR required 13 sessions. For patients with Sleep and Psychiatric comorbidities, the optimal dose for CR was approximately 11 sessions (18 sessions for DR).

Notably, for the Insomnia Only group, the dose for CR is listed as >20 sessions because these patients start so close to the remission cutoff that they reach DR in 4 sessions, long before they could ever achieve a 6-point drop.

Table 3.4

Predicted Treatment Dose Requirements by Comorbidity Profile

Clinical Profile	Slope (<i>b</i>)	Dose for Clinical Response ($\Delta\text{ISI} \geq 6$)	Dose for Diagnostic Remission ($\text{ISI} \leq 10$)
Insomnia Only	-0.06	> 20 Sessions*	4 Sessions
Comorbid Sleep	-0.50	12 Sessions*	8 Sessions
Comorbid Medical	-0.58	11 Sessions	14 Sessions
Comorbid Psych	-0.33	18 Sessions*	15 Sessions
Sleep + Medical	-0.88	7 Sessions	8 Sessions
Sleep + Psych	-0.56	11 Sessions	18 Sessions

Clinical Profile	Slope (<i>b</i>)	Dose for Clinical Response ($\Delta ISI \geq 6$)	Dose for Diagnostic Remission ($ISI \leq 10$)
Medical + Psych	-0.84	7 Sessions	12 Sessions
Sleep + Med + Psych	-0.89	7 Sessions	13 Sessions

**Note: These groups achieve remission without requiring a 6-point reduction.*

Socioeconomic Success Gap

A significant success gap was observed based on payment method. While 65.5% of self-pay patients achieved CR, only 51.3% of insurance-paying patients reached the same threshold. This disparity persisted when evaluating DR, though the gap for Medicaid patients narrowed (41.7% reached DR), only 36.3% of Medicare patients achieved DR compared to 47.8% of self-pay patients. This disparity extended to treatment dose, with self-pay patients attending more sessions ($M = 8.43$) than insurance patients ($M = 6.88$).

Discussion

The present study utilized a longitudinal, real-world dataset to evaluate the dose-response relationship of CBT-I across diverse clinical and socioeconomic profiles. By employing Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002), this research moved beyond the one-size-fits-all approach of standard 4-to-6 session protocols, identifying how patient clinical complexity dictates the optimal dose required for recovery. These findings offer a critical counterpoint to highly controlled RCTs, demonstrating that while CBT-I is exceptionally effective in routine care, the speed of

that effectiveness is heavily moderated by the patient's baseline severity and clinical complexity.

Summary of Key Findings

The Complexity Paradox: Response vs. Remission

A primary finding of this study is the emergence of a complexity paradox. As hypothesized, clinical complexity significantly moderated the treatment trajectory. Patients presenting with the highest level of complexity (Sleep + Medical + Psychiatric) demonstrated the steepest rates of improvement ($\beta = -0.89$) and the greatest absolute reduction in symptoms ($M = -8.71$). However, this group was nearly 30% less likely to achieve diagnostic remission ($ISI \leq 10$) compared to those with insomnia only.

These findings suggest that while CBT-I is a robust and effective intervention for complex patients, these individuals face a higher recovery ceiling. Because they start with significantly higher baseline severity, the standard dose of 4–6 sessions (Edinger et al., 2007) is often insufficient to achieve sub-clinical insomnia. As indicated in Table 3.4, while a patient with higher clinical complexity may show a significant treatment response in 7 sessions, they may require 13 or more sessions to achieve full remission. This aligns with the threshold effect suggested by Ludwin et al. (2018), where standard doses may yield limited utility for those with high clinical burden. Conversely, the Insomnia Only group remitted more quickly, reaching DR in as few as 4 sessions despite showing smaller absolute point drops.

For clinical context, a 6-point reduction on the ISI (Clinical Response) represents the Minimally Clinically Important Difference (MCID). This is the threshold at which the reduction in symptoms translates into a noticeable improvement in a patient's daily

functioning and quality of life (Sedaghat, 2019). Thus, even when complex patients do not reach full remission, the impact of the partial recovery afforded by CBT-I remains profound.

The Socioeconomic Success Gap

A striking finding is the success gap observed between self-pay and insurance-paying (Medicaid/Medicare) patients. Despite the clinical effectiveness of the intervention, insurance patients were 13% to 25% less likely to achieve a robust clinical response. This disparity might be partially attributed to a lower cumulative dose, as self-pay patients attended significantly more sessions ($M = 8.43$) than insurance patients ($M = 6.88$). It may also reflect a behavioral economics effect, where out-of-pocket costs create a psychological drive toward higher adherence (Yates, 1994), or hidden barriers to CBT-I implementation that are more pronounced for insurance-paying patients (Simon et al., 2025). More research is needed to determine the cause of this observed disparity in outcomes.

Medicare Specific Findings

The findings regarding Medicare patients warrant specific attention, as they demonstrated the lowest success rates in both response and remission. The reasons underlying this observation are not clear, though may be partially explained by age-related physiological changes in sleep architecture, the structural organization of sleep stages. As humans age, sleep naturally becomes more fragmented and includes less slow-wave sleep (Li et al., 2022). It is unclear if older adult Medicare patients require higher doses of CBT-I to overcome psychological shifts, or if they require additional interventions to achieve remission. This finding also raises questions about potential

access barriers for older adults, such as digital literacy in a telehealth environment or the compounding effect of long-term chronic medical conditions.

Clinical Implications

Researchers have called for the adoption of more precise clinical workflows to tailor treatment delivery, and that these should be based on empirical data rather than rigid, predetermined protocols (Sweetman et al., 2025). These findings suggest that clinicians should move away from fixed-session protocols and instead use comorbidity profiles to set expectations. A critical take away for clinicians is the recognition that while a patient may have achieved significant clinical response, this initial progress should not be mistaken for treatment completion. Rather, a continued course of CBT-I may be necessary to bridge the gap between symptom reduction and full diagnostic remission.

Stepped-Care Model

These findings provide additional evidence for moving toward a Stepped-Care Model (Espie, 2009; Manber et al., 2015), where treatment intensity is tailored to baseline complexity (Garland, 2021; Savard et al., 2021). Lower-complexity patients could be efficiently triaged to brief workshops or digital tools (Morin et al., 2025; Okun & Glidewell, 2023), freeing up clinician time for when high-dose resources are needed for complex cases. However, for patients with high clinical complexity, if started on a lower intensity step, care should be taken to provide support and encouragement to persist to a higher step when necessary (Manber et al., 2015).

Policy Implications

As insomnia research continues to evolve to better understand dose-response relationships, insurance reimbursement must keep up with these changes. Advocacy is needed to ensure that appropriate doses of treatment are reimbursed, ensuring that patients with high clinical complexity receive the number of sessions necessary for diagnostic remission.

Limitations

This study is limited by its reliance on secondary, observational data, which introduces potential self-selection bias. While the HLM model revealed clear trajectories, the use of a linear assumption may obscure more complex patterns, like patients improving rapidly and then plateauing. Additionally, comorbidity indicators were binary (Yes/No), limiting nuanced inferences about the severity and type of condition (e.g. Sleep Apnea vs. RLS). Future research should examine the severity of comorbid conditions (e.g., mild vs. treatment-resistant depression) and the types of comorbid conditions within these binary categories as a more granular moderator of the treatment slope.

A limitation of the current study is the small sample size within specific comorbidity subgroups, most notably the Medical + Psychiatric ($n = 5$) and Medical Only ($n = 6$) profiles. While the HLM framework is robust to unbalanced group sizes and utilizes partial pooling to stabilize estimates for smaller clusters (Raudenbush & Bryk, 2002), the reduced n in these specific groups results in wider confidence intervals and decreased precision. Consequently, the dose-response trajectories for these clinical profiles should be interpreted as preliminary. While they provide valuable initial

evidence, these findings require replication in larger, more diverse clinical samples to confirm their generalizability.

Consistent with real-world studies and clinical practice, patients included in this study were frequently receiving additional interventions, like general CBT for depression or anxiety. When they received these additional interventions at the clinic, the model accounted for their inclusion. However, the results do not account for additional treatment patients may have received outside of the clinic

Finally, as the sample was primarily White (87.2%), the optimal dose derived here may not accurately reflect the needs of more diverse populations who are most burdened by sleep disparities. Future research must examine these complexity profiles within more racially and ethnically diverse cohorts to ensure treatment models are truly equitable.

Conclusion

This study contributes to a more equitable and efficient delivery of CBT-I by demonstrating that one size does not fit all in behavioral sleep medicine. By identifying the specific session doses required for remission across different comorbidity profiles, this research provides additional nuance for the Stepped-Care Model that prioritizes resources for the most complex patients.

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CHAPTER 4: STUDY 3

SUCSESSES AND STRUGGLES WITH SELF-GUIDED CBT-I: A PHENOMENOLOGICAL STUDY OF PATIENT EXPERIENCES

Purpose of the Study

While multicomponent Cognitive Behavioral Therapy for Insomnia (CBT-I) is the gold-standard treatment for Insomnia Disorder (ID) (Morin et al., 2023), its efficacy in real-world settings is often hindered by significant implementation barriers (Cheng et al., 2023). The cost of CBT-I is often high (Natsky et al., 2020) and trained providers can be difficult to find (Thomas et al., 2016). To address these barriers, clinicians may utilize a Stepped-Care Model, a clinical framework that emphasizes triaging individuals based on symptom severity and service needs. This model typically positions low-intensity, self-guided approaches – such as digital apps, self-help books, or brief workshops – at the start of the treatment continuum (Chevalier et al., 2023; Espie, 2009; Okun & Glidewell, 2023). This framework allows clinics with limited providers to treat a higher volume of patients (Manber et al., 2015).

While the Stepped-Care Model is designed to increase treatment accessibility, lower-intensity modalities are subject to higher attrition rates. A comprehensive meta-analysis found that while 83.8% of patients completed face-to-face CBT-I, completion rates dropped to 58.4% for self-guided modalities (Takano et al., 2026). Additionally, higher rates of premature discontinuation have been observed among individuals facing poverty-related stressors, such as less flexible work schedules and childcare (Cooper &

Conklin, 2015). This creates a risk that vulnerable populations may drop out of the healthcare system before reaching more intensive levels of care when they are needed (Cheng et al., 2019). Furthermore, the effectiveness of these early steps may be hindered by a lack of insight into how environmental and social stressors influence a participant's ability to adhere to the protocol (Hughes, 2024).

Therefore, the aim of this study is to investigate how individuals navigate CBT-I protocols at home following a brief workshop, representing the first tier in a Stepped-Care framework. By exploring the lived experiences of participants through Interpretative Phenomenological Analysis (IPA; Smith et al. 2022), this study seeks to identify challenges with self-guided implementation and determine what support is needed to promote engagement through the first step of the Stepped-Care Model. Understanding these challenges ensures that the first step does not inadvertently lead to treatment alienation and informs the design of more equitable and accessible interventions. This study is guided by the following research question: How do participants in the Cognitive Behavioral Therapy for Insomnia 4-hour workshop experience the implementation of CBT-I protocol at home, including both the factors that facilitate successful integration and the challenges that arise in practice?

Literature Review

Stepped-Care Model and Workshop Format

The Stepped-Care Model positions low-intensity, self-guided approaches at the start of the treatment continuum to scale reach and judiciously use clinician time (Espie, 2009; Manber et al., 2015). Researchers have suggested that a psychoeducational workshop may serve as an effective primer for beginning treatment (Okun & Glidewell,

2023) or as a standalone intervention (Chevalier et al., 2023; Kawakatsu et al., 2024). Some researchers have found that when treating a workshop as the first step in the Stepped-Care Model (a primer), attrition rates are comparable to face-to-face treatment (Wong et al., 2021). While these lower-intensity options may be preferred and effective for some, there is a concern that if these steps are insufficient, they may unintentionally alienate patients who would likely benefit from subsequent one-on-one treatment (Manber et al., 2015). Participants often report a preference for guidance from trained professionals to improve adherence and some feel that digital or brief platforms lack the human element necessary to address clinical complexities (Cheng et al., 2023; Simon et al., 2025). While quantitative data can identify for whom the first step is or is not effective (Manber et al., 2025), there is a dearth of research exploring the actual lived experience of implementing this first step independently.

CBT-I Implementation Barriers

Traditional theories of insomnia, while foundational for the development of CBT-I, largely limit their focus to individual level factors (Borbély, 1982; Spielman et al., 1987), failing to account for the structural and environmental factors that dictate whether a behavioral intervention can be maintained. The Socio-Ecological Model (SEM; Bronfenbrenner, 1974) complements these frameworks by examining how the microsystem of individual behaviors, the mesosystem of the home environment, and the macrosystem of broader systemic factors collectively influence treatment implementation.(Grandner, 2019).

The presence of a bed partner, for example, can serve as both a source of support and a source of friction. While shared beds can enhance emotional intimacy,

co-sleeping dynamics can also exacerbate sleep disturbances, particularly when one partner has a sleep disorder (Andersen et al., 2025). Even when co-sleeping disrupts sleep quality, many people describe it as a necessary family practice of intimacy and comfort (Richter et al., 2016). The complexities of co-sleeping also extend to CBT-I, and researchers have begun to argue for the inclusion of partners in implementation efforts (Ellis et al., 2023; Lalor et al., 2026). Additionally, co-sleeping with pets, reported by nearly half of U.S. adults, is associated with poorer sleep quality and greater insomnia severity, particularly for dog owners (Chin et al., 2024). Despite these disruptions, participants often maintain these arrangements for emotional comfort (Zarhin et al., 2022).

Beyond relationship dynamics, the physical home environment represents a crucial yet often understated factor for healthy sleep, and may influence treatment adherence (Grandner, 2019). Many participants endure suboptimal sleep environments where environmental disruptions, such as crowded or multi-purpose living spaces, make protocols, like stimulus control, difficult to follow (Shaffer et al., 2024). Physical factors like environmental noise and the lack of private space are significant barriers. For instance, a bedroom that is not completely quiet is significantly associated with increased insomnia severity (Desaulniers et al., 2018). Research indicates that individuals with lower income may be more vulnerable to these noise-related disruptions, highlighting how socioeconomic status can fundamentally alter the implementation context (Park et al., 2018).

These physical constraints are often compounded by competing caregiving responsibilities, which represent a major hurdle to behavioral change. Parenting,

particularly for mothers, is a high-risk period for the development of insomnia symptoms (Urfer-Maurer et al., 2017), yet standard interventions rarely account for the necessary nocturnal disruptions inherent in caregiving. While some adapted protocols for families have shown feasibility (Schlarb et al., 2020), there remains limited research on how to apply standard CBT-I in home environments that are not conducive to strict adherence. By centering these social and environmental realities, it becomes clear that for many, adherence is not a matter of motivation, but a reflection of a behavioral plan that has not yet accounted for the reality of every household.

The Need for Qualitative Inquiry in Behavioral Sleep Medicine

Recent qualitative work has begun to highlight the importance of meaning-making and the role of clinical complexity in sleep health. For example, phenomenological approaches have been used to explore how veterans with serious mental illness perceive the consequences of ID and how it interacts with their comorbid recovery (Klingaman et al., 2025), while other qualitative studies have found that chronic pain patients value the personalized nature of face-to-face treatment despite the challenges of the protocol (Koffel et al., 2020).

Although these inquiries have furthered the understanding of participant perceptions, more research is needed to understand the lived experience of attempting to implement CBT-I independently, typically the first step in the Stepped-Care Model. There is a call to investigate how the physical and social environment, such as household composition and physical space, impacts the ability to adhere to behavioral sleep protocols (Cheng et al., 2023).

Methods

Study Design and Rationale

This study utilized qualitative, phenomenological design, Interpretative Phenomenological Analysis (IPA). IPA was selected because it is uniquely suited to explore how individuals make sense of major life experiences (Smith et al., 2022), in this case, the implementation of a behavioral sleep protocol within the context of their own environment. IPA allows for an in-depth investigation of the barriers to adherence through the "double-hermeneutic" process: the researcher attempting to make sense of the participant making sense of their experience (Smith, 2019). Consistent with other research in this field (Klingaman et al., 2025; Koffel et al., 2020), the idiographic focus of IPA ensures that the research captures the nuances of implementation that are often lost in larger, population-level datasets.

Researcher Positionality and Bias

In IPA, the researcher is viewed as an active participant in the analytic process. Therefore, a transparent overview of my positionality is essential for establishing the credibility of the findings (Smith et al., 2022). I am a Licensed Clinical Social Worker (LCSW) with specialized training in CBT-I. I also maintain a professional relationship with The Insomnia Clinic, from which participants were recruited. While my clinical background provided a useful understanding of the technical aspects of CBT-I, it also introduced a potential bias in seeing these accounts through a clinician's lens, that might instinctively prioritize treatment fidelity and symptomatic improvement over the participant's subjective experience. To manage potential bias, I did not provide clinical services to any of the study participants.

Additionally, this research was conducted in partial fulfillment of my doctoral dissertation. This context introduces a specific academic bias, as there is an inherent professional pressure to identify significant findings or clear themes to satisfy program requirements. To mitigate these clinical and academic biases, I remained mindful that my professional definition of treatment success might differ from the participants' lived realities. I utilized a reflexive journal to document my reactions and clinical assumptions. This practice allowed me to bracket my clinical expectations and ensure that my interpretations were grounded in the participants' own words (Richards & Morse, 2012). My primary goal was not to assess whether participants implemented the protocol correctly (per a clinician's view), but to understand the meaning they made of the intervention within the context of their unique points of view.

Trustworthiness and Rigor

To ensure rigor, this study adhered to Lincoln and Guba's (1985) criteria for trustworthiness: credibility, transferability, dependability, and confirmability. These criteria were particularly important given my dual role as an LCSW and the sole researcher responsible for all data collection and analysis.

Credibility was enhanced through the practice of bracketing, wherein I consciously documented and attempted to set aside clinical assumptions about the correct application of CBT-I to remain open to the participants' actual experiences (Richards & Morse, 2012). Furthermore, I conducted all interviews and performed all coding to maintain a deep, consistent engagement with the data. To safeguard against individual bias, I engaged in regular consultation and peer debriefing with Dr. Robert Glidewell, an expert in BSM and a contributor to this work. Dependability was

maintained through a detailed audit trail of all analytic steps. This included maintaining a reflexive journal, preserving initial coding notes, and documenting the iterative process used to develop the final Group Experiential Themes (GETs). Confirmability was established by ensuring that all interpretations could be traced back directly to participant transcripts. Themes were further refined through ongoing consultation with my dissertation committee, who provided an external check on the logic and consistency of the analytic process. Finally, transferability is supported by providing sufficient contextual detail and direct participant quotes to allow readers to determine the applicability of these findings to other clinical or social contexts (Geertz, 2008; Lincoln & Guba, 1985).

Participants

Participants were recruited via purposive sampling from The Insomnia Clinic, a private practice clinic in Colorado specializing in behavioral sleep medicine (BSM). The clinic offers a four-hour CBT-I workshop designed to increase treatment accessibility and serve as an onboarding tool for the Stepped-Care Model. To capture the specific phenomenon of independent implementation, the sampling strategy targeted individuals who had completed the workshop but had not yet transitioned to one-on-one specialist sessions.

The final sample consisted of nine adults (mean age 54; 55.5% female) with chronic insomnia (average duration 15 years). In alignment with IPA methodology, the focus was on the quality and depth of individual accounts rather than achieving thematic saturation (Pietkiewicz & Smith, 2014). A sample of nine is considered robust for IPA,

as it provides enough diversity to identify shared patterns while remaining small enough to honor the idiographic (case-by-case) depth required (Smith et al., 2022).

Ethics

This study was approved by the Colorado State University Institutional Review Board (IRB #7309). Participants provided informed consent and completed an optional demographic survey via Qualtrics prior to their interviews. At the start of each interview, the researcher reviewed the consent form, emphasizing the voluntary nature of participation and the right to withdraw at any time. Participants were compensated with a \$50 gift card for their time and contribution.

Data Collection

Data were collected through semi-structured, one-on-one interviews conducted virtually via Google Meet. Interviews lasting 60-75 minutes took place two to four weeks following the workshop, allowing participants time to attempt the integration of CBT-I strategies into their home environments but before a follow-up appointment. With participant consent, eight of the nine interviews were audio and video recorded and subsequently transcribed verbatim. One participant declined the request for recording but consented to the generation of a real-time transcript; in this instance, the researcher utilized the platform's transcription feature and detailed field notes to ensure the participant's account was captured accurately. The final transcripts were reviewed by the researcher for accuracy and used as the primary data source for the IPA.

The interview guide (Appendix A) was designed to elicit detailed, chronological accounts of the participants' experiences. Questions focused on the first few nights and the subsequent weeks, probing for both successful integrations and the navigation of

challenges. Specific attention was paid to how environmental stressors, such as caregiving responsibilities or physical space limitations, interfaced with the protocol.

Data Analysis

The data analysis for this study followed the iterative, bottom-up process characteristic of IPA, moving systematically from each participant's account to the shared aspects (Smith et al., 2022). The software Delve (delvetool.com, 2025) was utilized for data management and coding. The process began with a rigorous case-by-case analysis, during which each transcript was read and re-read for complete immersion. During this stage, initial exploratory notes were made, focusing on descriptive, linguistic, and conceptual observations to capture the complexity of the participant's voice. These exploratory notes were then transformed into "experiential statements," (Smith et al., 2022) which are concise phrases designed to capture the psychological essence and core meaning of the participant's account.

Following the construction of these statements, the analysis moved toward identifying Personal Experiential Themes (PETs; Smith et al., 2022) for each participant. By clustering experiential statements into PETs, the researcher ensured that each case was treated on its own terms, honoring the individuality and unique meaning-making process of each participant before attempting any cross-case comparison. Additionally, to maintain an idiographic focus (Eatough & Smith, 2017) throughout the analytic process, narrative summaries were constructed for each participant. These summaries served to ground the subsequent thematic development in the unique context of each individual's lived experience. Once this idiographic analysis was completed for all nine participants, a cross-case analysis was conducted to identify connections between

PETs, leading to the development of Group Experiential Themes (GETs; Smith et al., 2022). This final stage of analysis did not seek to establish a group norm or average; rather, it aimed to highlight both the shared features and the unique variations of the implementation experience across the cohort, resulting in a rich, multi-layered interpretation of the phenomenon. To protect participant confidentiality while maintaining the idiographic detail, all participants were assigned pseudonyms. Salient quotes were selected for the final report based on their ability to most accurately evoke the essence of the group themes while remaining grounded in the individual's specific context (Larkin & Thompson, 2011).

Results

The final sample consisted of nine participants who completed the 4-hour CBT-I workshop and were in the process of attempting independent implementation. The participants were predominantly female (55.5%) with an average age of 54 years (range 34 to 73). Participants were asked to share their race; seven participants identified as White, one identified as Mexican American, and one identified as Hispanic. On average, participants had been living with chronic insomnia for 15 years (range 6 months to 38 years), illustrating a significant burden of chronic sleep disturbance. Eight out of the nine participants were currently using prescribed sleep medication, and all wanted to discontinue use. While all participants entered the study with a shared goal of improving their sleep without increased pharmacological reliance, their social and environmental contexts varied significantly, ranging from acute caregiver stress to household-level environmental barriers. The following profiles provide the idiographic context for each participant before the cross-case thematic analysis is presented.

Participant Profiles

Before presenting the Group Experiential Themes, it is essential to ground the findings in the unique contexts of the nine individuals who participated in this study. Table 4.1 provides an overview of the participants' backgrounds with insomnia and their lived experiences with independent CBT-I implementation, stories that led to the development of this study's Personal Experiential Themes (PETs).

Table 4.1

Participant Overview and Context

Participant	Age	Race / Ethnicity	Gender	Insomnia Duration	Environmental and Social Context	Personal Experiential Themes (PETs)
Ricardo	40	Hispanic	Male	8 years	Temporary bed-separation from spouse; renegotiated childcare to prioritizing protocol implementation	"Participating in my own rescue" Relief with science-based plan and help from professionals
Ricardo's experience summary: Ricardo's experience is defined by a shift from "good sleeper" to insomnia that seemingly "came out of nowhere" and continued to worsen over time. He attributes his insomnia to a history of trauma and racing thoughts, though he sought therapy for these underlying issues. The sleep disturbance persisted. Initially frustrated by the lack of insurance coverage for behavioral sleep medicine, he eventually accepted the cost of treatment and found the clinic. He describes feeling relief in having a science-based intervention and a plan. For Ricardo, the workshop provided a sense of comfort and direction, allowing him to "participate in his own rescue." While he has successfully integrated CBT-I into his routine, he views 1:1 care as a necessary next step to safely taper off sleep medications.						
Jenny	40	White	Female	22 years	Bedroom as multi-purpose space; shared home with spouse and young children.	Insomnia as a normalized identity Moving from "complacency" to "accountability"
Jenny's experience summary: After two decades of normalizing insomnia as a core part of her identity, the workshop prompted a shift toward accountability. She moved from a state of complacency to an active acknowledgment that better sleep required significant, lifelong behavioral changes. She looks forward to 1:1 care to help her taper off sleep medication and manage racing thoughts that often contribute to her insomnia.						
Juan	34	Mexican American	Male	2 years	Shared home with spouse ("good sleeper"); high self-efficacy within medical systems; supportive physical space	Disheartened by slow progress Persevering despite skepticism Fear of persistent daytime impairment
Juan's experience summary: Juan's journey through the healthcare system in search of better sleep was a series of trials, from repairing a deviated septum to attempting CPAP therapy, before being referred for behavioral treatment of insomnia. He entered the workshop with high hopes, but after three weeks of strict adherence with minimal improvement, his optimism turned to skepticism. Juan's account is marked by						

frustration and a feeling of helplessness; he feels he has "done everything right" but remains among the "two out of 10" for whom the treatment seemingly "fails." This has caused him to become concerned that even additional 1:1 appointments may "not work" for him.

Nancy	73	White	Female	5 years	Shared home with spouse (bedpartner, also implementing CBT-I); previous unsuccessful digital CBT-I attempt	Discomfort as "part of the process" Individual care as an essential anchor for adherence
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Nancy's experience summary: Nancy attributes her insomnia to the natural progression of aging. Having previously attempted digital CBT-I without success, she entered the clinic specifically seeking the "rigorous" accountability of individualized care. Despite finding the post-workshop implementation "rocky" and "ugly," Nancy persists with a pragmatic mindset, viewing her daytime fatigue as an inevitable "part of the process." Her upcoming 1:1 appointment serves as a vital anchor that prevents her from giving up on the protocol.

Mary	73	White	Female	15 years	Acute caregiver stress; transient housing (CO/AZ) due to husband's cancer treatment	Implementation amidst "chaos" Feeling like a "flakey" candidate due to life stressors Cognitive burden of competing priorities / need for repetition
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Mary's experience summary: Mary's insomnia began during a seven-year course of hormonal therapy following breast cancer. Her implementation of CBT-I has been hindered by acute life stressors, including her husband's recent cancer diagnosis and the tension of shared living spaces during his treatment. She describes a relationship with her husband that was rocky before this major stressor began. Mary's narrative is one of being "all over the place," feeling like a "bad candidate" because she could not prioritize the protocol over her caregiving responsibilities. She expresses a need for a "refresher" and 1:1 guidance to adapt CBT-I to her reportedly "chaotic" life circumstances.

Melissa	48	White	Female	38 years	Active family home; husband (bedpartner with possible OSA) and 14yo son; supportive physical space	Negotiating clinical rules vs. family rituals Sadness over lost habits and spaces that provided comfort Seeking technical assurance regarding correct implementation
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Melissa's experience summary: Melissa's insomnia spans 38 years, beginning in childhood and worsened by the demands of parental caregiving. Now that her children are mostly grown, she is prioritizing her own sleep health. While she left the workshop feeling hopeful, the

reality of implementation forced her to negotiate the rigid rules of stimulus control and the emotional needs of her and her family. She expressed sadness at the loss of shared wind-down routines with her son and husband, which necessitated a family meeting to establish new boundaries within the home. Although she is ultimately pleased by her early success and improved sleep since the workshop, she is looking forward to 1:1 sessions as a vital space where she can seek guidance on loosening restrictions and reclaiming the enjoyment of her bedroom space.

James	61	White	Male	15 years	Shared home with spouse; Comfortable living space supported implementation	Identifies as "rule-follower" who prefers to have a plan Urgency to improve sleep and discontinue sleep medication due to family history of Alzheimer's Disease Necessity of professional affirmation
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James's experience summary: James identifies as a "rule follower" who feels a profound sense of urgency to fix his sleep and taper off sleep medication to prevent future cognitive decline, a fear rooted in his family history of Alzheimer's. While he finds the workshop instructions clear, he has not yet benefited from implementation, has a very short sleep window, and ultimately wants to know how long to persist until changing something or discontinuing sleep restriction. He seeks 1:1 care for professional affirmation that he is performing the protocol correctly and permission to eventually taper off his medications.

Lisa	54	White	Female	32 years	Small home; separate bedrooms (spouse snoring); adult children in shared living space; large dogs in bed	"Skeptical of me" / concerned about ability to follow through with CBT-I recommendations Environmental mismatch as barriers Seeking modification for unchangeable barriers
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Lisa's experience summary: Lisa's insomnia began with the birth of her children 32 years ago. Her experience is dominated by environmental barriers, specifically the noise and space constraints of living in a small home with adult children who remain active late into the night. Lisa has delayed starting the CBT-I protocols, building them up in her mind as a hurdle comparable to "quitting smoking." She views her physical home environment as fundamentally incompatible with the intervention, seeking 1:1 sessions to help her "modify what she is unable to change."

Dave	70	White	Male	6 months	Living alone; recent bereavement; supportive physical space; cat in bed	Fear of medication dependency
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Preference for a professional "stamp of approval"

Dave's experience summary: Dave had previously experienced episodic insomnia during travel, but a longer episode was recently triggered by grief due to the death of a family member and resulting "emotional pain." His primary motivator for CBT-I was a fear of dependency on sleep medication, the solution his doctor recommended. While he has found some aspects of the protocol helpful so far, he viewed the workshop as a preliminary orientation and felt unequipped to navigate the "chaotic" implementation phase without a professional's stamp of approval.

Thematic Findings Overview

The following sections present the phenomenon , organized into four Group Experiential Themes (GETs). These themes represent the shared psychological and environmental essence of the participants' journeys toward implementing CBT-I independently. While the individual experiences summarized above highlight the unique social and environmental contexts of each participant, the GETs, displayed in Table 4.2, illustrate the universal patterns of meaning-making, friction, and adaptation that occurred across the cohort.

Table 4.2

Group Experiential Themes and Supporting Sub-themes

Group Experiential Theme (GET)	Supporting Subthemes	Contributing Participants
1. Claiming agency	• Normalized identity to a treatable condition • "Participating in my own rescue" • Urgency to Avoid Health Consequences	Ricardo, Jenny, Juan, Melissa, James, Dave

2. Negotiating the household	• Negotiation of family rituals • Physical constraints & environmental barriers • The shared bed	Ricardo, Jenny, Nancy, Mary, Melissa, Lisa
3. The burden of the independent step	• The anxiety of accuracy • Hypervigilance & performance stress • Disheartened skepticism	Juan, Nancy, Mary, Melissa, James, Dave
4. Seeking professional affirmation	• The workshop as orientation • The professional "stamp of approval" • Managing comorbidities • Sleep medication tapering	Ricardo, Jenny, Juan, Nancy, Melissa, James, Lisa, Dave

The analysis begins with the internal shift toward personal responsibility (GET 1: Claiming Agency), followed by physical and social negotiations within the household (GET 2: Negotiating the Household). It then explores the technical and psychological burdens of the independent implementation phase (GET 3: The Burden of the Independent Step) and concludes with the participants' conceptualization of individual care as a necessary clinical anchor (GET 4: Seeking Professional Affirmation). Together, these themes provide insight into the lived reality of implementing the independent first step of a Stepped-Care Model for insomnia.

Group Experiential Theme 1: Claiming Agency

This theme captured the profound internal shift participants experienced as they transitioned from states of normalization, desperation, or passive reliance on medication toward an active role in their own treatment. For many, the workshop served as a pivotal moment that transformed "desperate" energy into a structured, behavioral path forward.

From Normalized Identity to a Treatable Condition. Before engaging with CBT-I, several participants had integrated insomnia into their sense of self. Jenny, who had struggled for 22 years, described how she had "normalized" her poor sleep to the point of "complacency." She reported, *"I mean, I think sometimes because I've had insomnia for so long, it's like there's kind of this feeling of like nothing I do is going to make a difference. Like, it's just kind of how I always am."* Similarly, Melissa had lived with insomnia for nearly four decades, accepting it as a "baseline reality." James described the fear that there might be something wrong with him, stating, *"There's this*

sense, is there anything out there that's ever going to cure this? Is it in my physical makeup? My chemical makeup?"

This stood in sharp contrast to Ricardo, who described the loss of his identity as a good sleeper. He recalled, *"I used to sleep so good,"* and noted that *"sleep is one of those things you kind of take for granted... until you don't get it."*

For these participants, the workshop provided the first cognitive shift, the realization that insomnia was not an immutable part of their identity but a treatable condition that could be addressed through behavioral change. Melissa stated, *"So then I felt really hopeful after the workshop because I thought, Oh my gosh, here's something new that I haven't tried."*

"Participating in My Own Rescue." A central element of claiming agency was the transition from acceptance of insomnia or passive treatment with medication, to active behavioral accountability. Ricardo captured this sentiment most poignantly, stating that the CBT-I strategies allowed him to *"participate in my own rescue."* This sense of empowerment was echoed by James, who reported that the thing he was the most excited about was *"having a plan"* and went on to say, *"I would say I'm a pretty consistent rule follower. So once I'm given a set of guidelines, I generally try to follow them pretty closely."* The shift moved participants toward a sense of responsibility and agency that they previously did not know was possible. Jenny noted that while there was *"no easy fix,"* she felt she had to take accountability if she wanted things to get better.

The Urgency to Avoid Health Consequences. For some, the drive to claim agency was fueled by an acute fear of the long-term physical and mental consequences

of sleep deprivation and sleep medication use. James and Ricardo both identified family histories of Alzheimer's as a primary catalyst for their engagement with the protocol. This created a sense of "*urgency*" that moved the intervention from a lifestyle adjustment to a vital protective measure. James expressed an urgent need to improve his sleep to protect his future health, saying, "So again, I'm kind of desperate and willing to try anything if it'll get me to where I need to be." Ricardo noted that, "*Well, I did notice like a cognitive decline, like just not thinking as sharp*" and went on to say, "*So these kind of things kind of freaked me out a little bit*" and motivated him to find a non-medication solution immediately.

However, this urgency functioned as a double-edged sword. While it provided the initial energy needed to seek help, it also led some participants to a state of counterproductive hypervigilance during independent implementation. Dave described seeking alternatives specifically to feel "*less desperate*," but without professional reassurance, that desperation manifested as performance anxiety. He stated, "*I felt like a trapped animal, you know, because I felt miserable, but I wasn't going to sleep.*" James illustrated this nuance; his extreme urgency to fix the problem caused him to monitor the protocol so rigidly that the implementation itself became a new source of stress. He described, "*I've tried everything else, so I'm kind of relying on this to take me where I need to go. But the longer I go without seven days of hitting that mark, it becomes a little more frustrating.*" In these cases, the intense effort to sleep appeared to threaten to perpetuate the very autonomic arousal participants were trying to escape.

Group Experiential Theme 2: Negotiating the Household

This theme addressed the physical and social reality of implementing CBT-I within the context of a shared life. While the workshop provided the behavioral rules for sleep, those rules often collided with the social rhythms and physical constraints of the participants' homes. Implementation was not just a personal challenge, but a negotiation with the people with whom and spaces in which they lived.

Negotiation of Family Rituals. Implementing stimulus control and sleep restriction often required participants to dismantle long-standing family traditions. Melissa described that in order to follow the rules, she had to initiate a family meeting to explain why these rituals had to stop, highlighting how the protocol can disrupt the established rhythms of family life. She reported:

“Well, just, I realized as I was going home from the workshop that I was going to have to really talk with my husband about it because it's actually going to impact him. Like, you know, it's not actually just me. It was going to impact our normal routine and um it also impacts my son” (Melissa).

She described how her husband and 14-year-old son would typically read and wind down together in the big bed, and went on to speak about the emotional cost of these changes, particularly the loss of her family's wind-down routine. She recounted, *“that's the hard part is like, I miss that time, you know? And that was my favorite time of day.”* Similarly, Jenny had to negotiate her use of the bedroom as an “all-purpose room” where she previously spent time with her children, worked, and even used exercise equipment. She noted that moving her activities elsewhere felt like she was having to *“give something up”* to protect the space for sleep.

Physical Constraints and Environmental Barriers. The physical layout of the home sometimes served as a primary barrier to successful implementation. Lisa faced a significant environmental mismatch, living in a small home where her adult children occupied the only shared living space late into the night; she felt she had nowhere to go when the protocol required her to get out of bed. She described the shared living area as a *"kid zone"* where her sons would be *"gaming or watching TV until two in the morning."* This structural barrier created a sense of her feeling overwhelmed, leading to avoidance of the strategies. She went as far as to say, *"I don't see a future in this house where I'm going to get good quality sleep because it's just too small and there's too much going on."* Mary experienced a different kind of mismatch, the *"chaos"* of moving between states while caring for her husband's health meant she was often in cramped spaces, such as a trailer, where the separate rooms required for stimulus control simply did not exist. She described, *"It's like a three room trailer, you know, so it's pretty tight. Um, but I can stay up later and watch TV and put it in my hearing aids. So, I can do that there."* But in terms of getting up and going somewhere in the middle of the night she expressed, *"there's just not room"* for stimulus control.

The Shared Bed. Most participants made the decision to implement CBT-I while continuing to share a bed with their partner. Nancy found strength in the fact that her husband was also implementing CBT-I, noting that it was easier because *"we're doing it together."* She reported, *"Mostly our schedules have jelled. I mean, he's allowed a little more sleep than I am, but we go to sleep at the same time,"* which she reported she prefers. Conversely, Mary noted that her *"tense"* relationship with her husband acted as a stressor that made it harder to focus on the sleep plan. She reported they have

essentially separated and have been living in different states with short visits to see each other, though since his cancer diagnosis they are spending more time together. She reported he was staying with her the first week of CBT-I, which she described was really challenging. She said, *"I feel terrible for having those feelings, but he and I are... you know, there's always tension in the home. And so that was a hard, uh, specific problem in trying to relax enough to go to bed."*

Additionally, the physical presence of others, including pets, presented practical hurdles. Lisa, who no longer shares a bed with her husband due to his sleep apnea, mentioned sleeping with "large dogs in bed" as a barrier she wasn't ready to change, but wishes she had not started. She reported, *"I just have to deal with it until they're not around anymore and not allow any new dogs on the bed."* adding, *"I do sleep a lot better when I'm traveling."* Conversely, Dave mentioned the comfort and preference of having his cat in bed, even if it potentially interfered with the strict rules of stimulus control.

Ricardo decided on separate sleeping arrangements so his wife could manage childcare while he addressed his insomnia. He reported, *"If the baby [3-year-old] comes in in the middle of the night or wakes us up in the middle of the night, I was having a hard time going back to sleep."* He described feeling grateful for his wife's support and stated the bed-separation is not his preference and he is hoping it is a temporary situation. Similarly, Jenny described trying to modify the habit of her 4- and 6-year-olds climbing into her and her partner's shared bed when unable to sleep, but stated, *"I mean, kids... My kids are not very supportive of CBT, they're children."*

Group Experiential Theme 3: The Burden of the Independent Step

This theme explored the technical and psychological challenges participants faced during the self-guided phase of treatment. Within the Stepped-Care framework, the workshop provided the foundation, but as the participants put the protocol into place for a few weeks on their own, they experienced obstacles. As Nancy shared, *“It’s one thing to put all this information into your head and it’s another thing to live it.”*

The Anxiety of Accuracy. For many, the primary technical challenge was not the logic of CBT-I, but the precision they felt was required by sleep diaries and prescribed sleep windows. For example, participants reported experiencing anxiety about accuracy that seemed rooted in a fear of undermining the treatment through incorrect data and implementation. Melissa described the difficulty of recording fragmented sleep, noting *“It’s been most challenging when I’m trying to calculate my percentage of time asleep while I’m in bed because there have just been a couple nights where I just have genuinely not known how to”* due to a feeling of being *“in and out of sleep.”* Similarly, Dave felt a sense of hesitation regarding his time-in-bed prescriptions, unsure of when to extend his window or how to shift his schedule if the initial plan was not working. Without a professional to normalize these estimations or encourage a best guess, the cognitive load of the treatment increased. This technical uncertainty seemed to create a barrier where participants felt they could not move forward effectively without a clinician to validate their data.

Hypervigilance and Performance Stress. The technical demands of the protocol often merged with a deeper performance anxiety. For participants like James, the desperation to fix the problem led to a state of high arousal that was likely

counterproductive to sleep. This performance stress was characterized by a rigid adherence to the rules and a fear of making a mistake that might jeopardize the protocol's effectiveness. Participants expressed a strong desire for reassurance, often choosing to keep a failing schedule exactly as it was rather than attempting to modify it themselves, fearing that any unauthorized change would be "*wrong*." Lisa described a fear of even beginning CBT-I by herself because of the short sleep window, reporting, "*The strict window of like you just give yourself that, you know, 30 extra minutes and six and a half [hours]. I was like that was... it was actually scary. Like, it actually scared me. I was like there's no way. Like there's no way.*"

Disheartened Skepticism. When the independent step did not yield immediate or clear results, participants' interpretations of that struggle varied. For Juan, the lack of improvement after three weeks of diligent effort led to a sense of disheartened skepticism. Rather than viewing the struggle as a clinical sign to move to the next step (1:1 sessions), he felt a sense of defeat, interpreting the lack of results as a sign that the treatment, and perhaps any future one-on-one care, might not work for him. He reported, "*In my mind, I was like, it should have worked by now or there should have been some improvement.*" and "*When you hear like, you know, CBT-I I think works for like 80% of patients or something, like you're just like damn it, like why am I those two out of 10? You know? Am I the 20 percent?*" Mary echoed this sense of being an outlier, describing herself as a "*flakey candidate*" because life stressors made it difficult to keep up with the rigorous demands of CBT-I.

This sense of defeat stood in sharp contrast to Nancy, who viewed her initial struggle as "*part of the process*" and very much looked forward to moving on to face-to-

face sessions. Nancy's pragmatic endurance allowed her to persist through "ugly" daytime symptoms, as she believed the discomfort was a necessary stage of the intervention.

Group Experiential Theme 4: Seeking Professional Affirmation

This final theme captured the participants' conceptualization of the workshop as a preliminary stage of care rather than possibly a standalone solution. Across the cohort, there was a consistent perception of face-to-face sessions as a safety net, a necessary space where the general rules of the workshop could be authorized, tailored, and safely managed by an expert. Importantly, despite difficulties with self-implementation, Mary expressed *"It's not something I want to give up trying though."* Ricardo captured the sentiment perfectly when he said:

"I think a lot of people would experience this; it's a bit of relief psychologically. Like, you have a plan, you have a professional, you have help, you have a strategy – and I think that alleviates some of that anxiety. You're not just kind of out there at sea, you kind of got some direction."

The Workshop as Orientation. Despite the depth of the four-hour instructional session, many participants viewed the workshop primarily as a foundational orientation. Dave and Lisa both shared that while they felt the information was helpful, they were both largely waiting for individual appointments before fully committing themselves to the more rigorous aspects of the protocol. The orientation phase established the logic of CBT-I, yet the transition to independent implementation was seen as largely suspended until real or personalized treatment could begin in a one-on-one setting.

The Professional "Stamp of Approval." A prominent subtheme was the desire for a professional to authorize modifications to the protocol. Participants like James, Melissa, and Dave expressed hesitation to adjust their sleep windows or stimulus control strategies without technical assurance. As Dave explained, *"I feel like I'm doing some sort of a home hack job on the CBTI."* This need for a "stamp of approval" seemed rooted in a fear that any self-directed change might compromise the treatment's efficacy. Melissa and Juan had already sought out confirmation that they were implementing the rules correctly, while James and Dave expressed wanting professional permission during their face-to-face appointments before altering their schedules, even though the times did not seem to be working for them. As stated previously, Lisa was unsure if she should even begin based on the barriers she knew she would face in her home environment, and wanted to confirm in her one-on-one session before starting. She stated, *"If I can't do CBT the way that they spelled out with the you know, no TV, only time in your room is when you're asleep, that kind of thing... Like am I a lost cause?"*

Managing Comorbidities. The complexity of the participants' lived experiences often extended beyond insomnia, and many sought one-on-one care specifically to address comorbid psychological and physical health issues that interfaced with their sleep. Juan's narrative was heavily influenced by a sense of defeat that seemed linked to underlying depressive symptoms and continued questions about sleep apnea. With his deviated septum repair he had hoped to improve his breathing and quality of sleep, but this did not feel any different. Dave's implementation was complicated by recent bereavement and the initiation of an SSRI mid-treatment, while others struggled to

balance CBT-I with anxiety, racing thoughts, or the management of CPAP for sleep apnea. Mary reported noticing when trying to sleep, *“Oh my gosh, my body is so tight right now... And I was aware of that. That could be something that is preventing me from falling asleep without me even realizing it.”* These participants described that the general advice of the workshop could not sufficiently account for the particular nuance of their health profiles. They viewed the face-to-face safety net as the only space where these overlapping conditions could be integrated into a cohesive treatment plan.

Sleep Medication Tapering. Because eight out of the nine participants utilized sleep medication, the desire to discontinue pharmacological reliance emerged as both a primary motivator and a significant barrier. Dave decided to try and go without after his sleep improved slightly with CBT-I and described the following experience;

“After the workshop, I was still taking Ambien. That's when I experimented with not taking the Ambien, I was awake till 5:30 in the morning. I went ahead and took Ambien, and I slept for two hours, got up. That day was miserable.”

The workshop's instruction to remain on current medications while starting behavioral strategies created confusion for some, including James, who felt an urgent need to taper immediately. Ricardo and Jenny viewed the one-on-one setting as a vital step to the medication tapering process, expressing that they did not feel safe or capable of navigating this without clinical guidance. For these participants, the individual appointment was not just for additional support with the CBT-I protocol, it was a necessary medical anchor for safely transitioning away from chemical dependency.

Discussion

Overview of Findings

The central contribution of this study is to give substance to the implementation barriers observed with self-guided CBT-I, often the first step in the Stepped-Care Model. This is the space where clinical instructions meet the reality of the home environment. While the workshop fostered a profound shift in self-efficacy and realistic sleep expectations, participants faced structural and psychological barriers that rendered the independent step insufficient for many.

The Socio-Ecological Reality of Sleep

A primary finding is that CBT-I implementation is not merely an individual behavioral task, but a mesosystem negotiation. These findings illustrate that the rules of CBT-I often collide with the social and physical realities of the household. Participants described the emotional cost of disrupting family rituals to follow stimulus control, supporting the argument that sleep is a collective family practice, rather than purely individual one (Richter et al., 2016). Additionally, this supports the recent findings of Lalor et al. (2026), who found that participants prefer and find it beneficial when partners get involved in insomnia treatment. When the home environment is characterized by crowded or multi-purpose spaces, the strict behavioral requirements of CBT-I may become more challenging to follow. This aligns with research suggesting that physical factors, such as noise and lack of private space, are significant risk factors for insomnia severity (Desaulniers et al., 2018). For participants living in small or "chaotic" households, the environment may be incompatible with standard stimulus control, possibly providing a partial explanation for the higher attrition rates observed in self-

guided formats (Takano et al., 2026), as the intervention makes assumptions about the capabilities of participants' physical space that is not always true.

Implications for the Stepped-Care Model

While the Stepped-Care Model is designed to maximize efficiency by starting with low-intensity interventions (Espie, 2009), current frameworks often operate under the assumption that a self-guided first step is a benign entry point for all patients. However, these findings suggest that for some individuals, particularly those with high clinical complexity or significant environmental barriers, an unsuccessful or unsupported first step is not a neutral experience; it is an alienating one. This supports the growing consensus among researchers that low-intensity steps must be accompanied by proactive monitoring to ensure patients do not drop out of the care continuum prematurely (Ho et al., 2020; Siengsukon et al., 2021).

Limitations

As is standard with IPA, the small sample size was intended to provide idiographic depth rather than statistical generalizability (Smith et al., 2022). While the experiences of these nine individuals offer rich insight into the phenomenon of independent implementation, their perspectives may not represent the broader population of insomnia patients. Additionally, the specific clinical context of this study likely influenced participant perceptions. Because the workshop is often framed as an onboarding step within a clinic that offers one-on-one care, participants' tendency to view the workshop as a preliminary orientation may have been influenced by the clinic's own presentation of the individual sessions as the ultimate therapeutic goal.

Steps were taken to mitigate recall bias by interviewing participants within two to four weeks of the workshop. This window ensured that participants had sufficient time to attempt the protocol in their home environment while the details of their lived experience remained fresh. Additionally, this timeframe provided an important look into a critical period for attrition, the first few weeks of treatment. However, a significant limitation of this timeframe is that behavioral changes in CBT-I often require more than a few weeks to yield clinically significant results, even with strict adherence. Consequently, the "disheartened" sentiments expressed by some participants may reflect the timing of the interviews during the most difficult phase of behavioral adjustment, rather than the ultimate outcome of the intervention. Finally, as the sole interpreter of the data, my own clinical background served as both a tool for understanding and a potential source of bias. While reflexivity and peer debriefing were utilized to ensure the analysis remained grounded in the participants' accounts, the findings remain an interpretive product of the interaction between the researcher and the data.

Future Directions and Clinical Recommendations

Based on these findings, the development and evaluation of a Socio-Ecologically Adapted CBT-I is recommended. This approach would move beyond a one-size-fits-all Stepped-Care Model to acknowledge that the success of a low-intensity first step is largely dependent on the participant's social and physical environment.

Triage for Clinical Complexity

To prevent treatment alienation, clinicians must refine the triage process for low-intensity interventions. Participants with several previous intervention attempts or those with high medication-related fears may benefit from skipping the independent

implementation phase entirely or, at minimum, receiving a booster call within the first week of treatment. Such an adaptation would provide the technical assurance and professional affirmation that these participants identified as essential. Alternatively, as practiced in the current clinical model, it is vital to reiterate during the workshop that the session serves as an onboarding to treatment. Explicitly framing the workshop as a foundational skill-building phase, while positioning the subsequent one-on-one sessions as the space to apply those skills to specific needs and comorbidities, may help manage expectations and maintain engagement through the independent step, as it did for several participants.

Integrating Environmental Modification

Clinicians should treat the theme of Negotiating the Household not as a secondary logistical issue, but as a core clinical task. This involves proactively helping patients troubleshoot structural barriers, such as shared living spaces or caregiver responsibilities, before these obstacles lead to treatment dropout. This is especially critical given that low-income individuals, who are disproportionately affected by sleep disturbances (Papadopoulos & Sosso, 2023), are more frequently referred to self-guided or brief approaches due to cost. If researchers and clinicians can better account for these meso-systemic challenges in future iterations of the intervention, the field can move toward more equitable outcomes.

Advancing Mixed-Methods Research

Finally, future research should employ mixed-methods designs to quantify the prevalence of the specific structural and social barriers identified in this study. While this phenomenological account has detailed the *why* and *how* of implementation challenges,

larger-scale quantitative research is needed to correlate barriers like shared bedrooms, lack of separate spaces for stimulus control, and caregiver stress with clinical outcomes. By integrating these socio-ecological variables into larger clinical trials, the field of sleep medicine can move away from reductionist behavioral models and toward a more comprehensive understanding of how social determinants of health dictate the success of insomnia treatment.

Conclusion

This study provides a crucial phenomenological window into the lived reality of CBT-I implementation, centering the participant's voice in a field often dominated by quantitative outcomes. A better understanding of the participant's perspective is imperative to inform clinical improvements and refine the triage process within Stepped-Care Models. While brief, low-intensity formats provide a necessary foundation of knowledge, the difficulties of implementation are rarely due to a lack of motivation. Instead, they are deeply rooted in unaddressed structural barriers and the psychological burden of attempting to self-modify a complex behavioral plan in isolation.

Despite these challenges, the implementation process fostered a profound shift in participants' self-efficacy and the development of more realistic sleep expectations. However, for individuals with high clinical complexity, such as long-term sedative use or significant psychiatric and medical comorbidities, low-intensity options may be insufficient to ensure successful behavioral integration. To achieve truly equitable sleep health outcomes, the field must address the social and structural determinants of health that dictate whether a science-based plan can survive the reality of the household. We

must ensure that the first step of care is a bridge to success, rather than a barrier that leaves the most vulnerable patients feeling disheartened and defeated.

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CHAPTER 5

CONCLUSION

Substantial advancements have been made in establishing Cognitive Behavioral Therapy for Insomnia (CBT-I) as the gold standard treatment for Insomnia Disorder (Morin et al., 2023; Qaseem, 2016). However, despite robust evidence supporting its efficacy, a significant implementation gap remains. The transition from clinical gold standard to equitable public health reach has been slow and inconsistent (Sweetman et al., 2025). This dissertation has explored the systemic, clinical, and environmental variables that contribute to this persistent challenge by examining how access is conceptualized within the research literature, the dose-response requirements for complex clinical populations, and the lived experiences of individuals implementing behavioral protocols independently following a brief workshop.

The three studies in this dissertation work in tandem to address identified gaps in the literature under the overarching theme of equitable access to care. Grounded in the Stepped-Care Model (Espie, 2009), the Socio-Ecological Model (SEM; Bronfenbrenner, 1974; Grandner, 2019) and the Theory of Access to Care (TAC; Penchansky & Thomas, 1981), these studies moved beyond isolated measures of efficacy to consider who benefits, who has access, and how the intervention is experienced in daily life.

Study 1 established the foundational landscape of literature through a bibliometric and thematic analysis of 554 articles (Gutiérrez-Salcedo et al., 2018). It identified that while research on CBT-I access and implementation has increased ninefold since 2010,

growth is concentrated at the micro-level, primarily regarding individual *Acceptability* (36.6%) and *Accommodation* (16.4%), while policy-level factors like *Affordability* (3.2%) and *Accessibility* (1.3%) remain profoundly neglected. **Study 2** explored the impact of CBT-I within a real-world clinical environment (N = 320) using Hierarchical Linear Modeling (Raudenbush & Bryk, 2002). Findings revealed a complexity paradox, in which patients with multiple comorbidities showed the steepest rates of improvement but required significantly higher doses (up to 13 sessions) to reach diagnostic remission compared to standard 4-to-6 session protocols established previously (Edinger et al., 2007). **Study 3** provided essential qualitative context through Interpretative Phenomenological Analysis (IPA; Smith et al., 2022) of nine participants. It uncovered how relationships and environmental realities – such as crowded housing, caregiving responsibilities, and the presence of bed partners – can either facilitate or obstruct the independent implementation of CBT-I protocols at home. Together, these studies offer an evaluation of CBT-I as both a clinical tool and a social justice imperative, supporting the development of tailored, equitable, and scalable interventions for underserved populations.

In identifying real world effects and implementation challenges, this dissertation has outlined several critical gaps in the existing research. Primary among them is a historical reliance on a narrow theoretical framework that decontextualizes the individual from their socio-ecological surroundings (Grandner, 2019). Quantitative efficacy trials currently outweigh qualitative and implementation research, and the homogenous research participant – often reflecting high-SES and low-comorbidity profiles – takes precedence over those with complex clinical presentations. Taken together, the three

studies presented in Chapters Two through Four highlight the highly contextualized nature of insomnia care and reinforce the necessity of considering the environment alongside biological sleep regulation. Consequently, there is an opportunity for a social-work-informed approach to sleep health equity, resulting in several implications for theory, policy, practice, and research.

Implications for Theory

The historical application of micro-level theoretical frameworks, such as the two-process model of sleep regulation (Borbély, 1982; Borbély et al., 2016) and the 3P model of insomnia (Spielman et al., 1987), has provided a rigorous foundation for treatment. However, these models were developed with the implicit assumption that a patient possesses the individual agency and environmental stability required to make behavioral changes. A continued reliance on these theories alone has led to a reductionist view of insomnia that assumes a privileged sleep environment, one characterized by privacy, quiet, safety, and adequate space. By integrating alternative theoretical approaches, specifically the SEM (Bronfenbrenner, 1974; Grandner, 2019) and the TAC (Penchansky & Thomas, 1981), this dissertation argues that sleep health is not merely a biological process but a socio-ecological one.

Study 1 illustrates the consequences of theoretical narrowness, revealing that research remains heavily concentrated at the individual level, while only 4.5% of the literature specifically addresses the macro-level factors of affordability and geographic accessibility. In **Study 2**, the finding that 65.5% of self-pay patients achieved a meaningful clinical response (Qin et al., 2024), while only 51.3% of insurance-paying (Medicaid and Medicare) patients reached the same threshold, revealed a disparity in

treatment outcome based on payment method, which often serves as a proxy for income. This demonstrates the importance of focusing on system-level barriers to treatment to better understand the reasons for this disparity. **Study 3** demonstrates the utility of an ecologically focused perspective by highlighting how family dynamics and household space influence the independent implementation of CBT-I. When the protocol is fundamentally altered by environmental barriers, it suggests that our theoretical understanding of adherence must evolve to include the environmental and social realities of the individual. This is especially important for low-SES groups, who often experience disproportionate burdens due to environmental factors (Papadopoulos & Sosso, 2023; Park et al., 2018), an understudied aspect of this phenomenon that will be explored further below.

Implications for Policy

Current policy mandates often fail to achieve sleep equity due to a disproportionate focus on clinical guidelines and treatment recommendations, with insufficient emphasis on advocacy for structural change. **Study 1** highlighted a profound lack of research regarding affordability and geographic accessibility, suggesting that policy-level priorities must shift toward the mapping of access deserts to identify where care is most needed (Vargas et al., 2023). Specifically, the finding that only seven articles in the 15-year sample addressed *Accessibility* at the policy level reveals a significant research gap that currently limits the ability to advocate for broader reach. Without a rigorous evidence base for how marginalized populations physically and digitally access care, policy initiatives will likely continue to favor logistical convenience over systemic justice.

Study 2 offers empirical evidence for the potential benefit of insurance parity and flexible treatment visit amounts. By quantifying that patients with high clinical complexity require an average of 13 sessions for remission compared to the standard 4-to-6 (Edinger et al., 2007), this research demonstrates the real-world impact of CBT-I for comorbid populations and supports a shift away from one-size-fits-all session limits. Caps on treatment visits imposed by insurance companies create a structural barrier for the very patients who demonstrate the steepest rates of improvement but require a longer duration to achieve full remission (Lazar et al., 2018). Policy focused on the expansion of insurance coverage and payment parity would not only improve affordability for a more diverse range of patients, but would also allow for more precise, long-term care that matches the actual recovery trajectories of the most complex individuals.

Implications for Practice

Social workers comprise the largest segment of clinical mental health providers (NASW, 2024), yet the profession remains substantially underrepresented in behavioral sleep research. Given the general absence of socio-ecological and systems perspectives in the literature, contributions from the social work perspective are essential to move the field toward equitable implementation.

This dissertation holds implications for clinical practice from several angles. **Study 2** cautions practitioners against the rigid application of abbreviated protocols and encourages a shift in therapist assumptions regarding the timeline for improvement. Findings from this study suggest that slow progress may not indicate a lack of efficacy but rather suggest that a higher treatment volume may be needed, especially for

patients with complex comorbidities. This is a critical finding that can directly inform how clinics develop more effective treatment plans for complex cases. Furthermore, the dose-response data suggest a path for the practical application of the Stepped-Care Model. By triaging patients based on clinical complexity, practitioners may better determine who can benefit from low-intensity starts and for whom high-intensity resources should be reserved. While these findings should be further explored with rigorous experimental designs, they offer a preliminary framework for setting more accurate recovery expectations.

Study 3 describes qualitative barriers to independent implementation, such as attempting stimulus control in multi-purpose or crowded bedrooms. In a practice context, these results highlight the importance of environmentally informed modifications. Through applying social work's person-in-environment perspective (Karls & Wandrei, 1992), social work practitioners are well positioned to shift away from rigid adherence to standard treatment metrics to assisting clients in negotiating the environmental and social realities of their households.

From an organizational perspective, clinics could benefit from structuring lower-intensity options (like workshops or digital self-guided tools) with a clear, scheduled pathway for guidance (Okun & Glidewell, 2023). This could include using brief interventions as a primer followed by a scheduled check-in within 1–2 weeks to provide the technical support that **Study 3** participants identified as necessary. This is consistent with previous research suggesting it is imperative that clinicians actively support patients and promote continued engagement through the Stepped-Care Model, normalizing the need for transition through the stages as a standard part of the

therapeutic process (Manber et al., 2015). Continued support for studies using real-world samples within these Stepped-Care structures is vital to ensure that treatment models do not inadvertently become lesser care for underserved populations.

Implications for Research

The findings presented here suggest several pathways for future inquiry to address gaps regarding affordability, accessibility, and the structural drivers of care. By moving beyond individual-level efficacy, researchers can begin to evaluate the systemic variables that dictate the success with which this gold-standard intervention can be successfully disseminated to the public. Specifically, future research must investigate the mechanisms of dissemination, moving from the efficacy of controlled trials to the implementation science of real-world practice. This involves a focus on the dimensions of access, specifically *Affordability* and *Accessibility*, identified as gaps in **Study 1**, in order to move beyond asking "Does CBT-I work?" to asking "For whom is it accessible?" and "What systemic structures facilitate or block that access?"

Informed by the findings of **Study 2**, research should also prioritize precision-dosing studies for complex populations. Rather than continuing to test 4-to-6 session protocols in homogeneous samples, future inquiry should utilize adaptive treatment designs that account for the longer treatment courses required by comorbid patients. Furthermore, building on the environmental barriers identified in **Study 3**, there is a need for environmentally informed implementation research. This means evaluating how behavioral protocols can be modified for individuals living in crowded or high-stress environments without compromising treatment integrity.

Integrating the TAC-SEM Framework

When viewed through the integrated TAC-SEM framework, **Study 1** reveals a profound lack of research at the intersection of Policy-level influence and structural access dimensions. While over half of the research (55.2%) is focused on Individual-level factors, achieving population-level sleep equity requires moving toward policy-level advocacy. To bridge the gap between individual adherence and systemic reach, an important avenue is the systematic mapping of the actual clinical landscape to determine where trained providers are located, whether rural populations can physically access them, and whether services are affordable for those on fixed or low incomes. This assessment is a prerequisite for any effective strategy targeting rural communities, including the expansion of telehealth and Stepped-Care Models as outlined in national plans (Sweetman et al., 2025).

Building on the qualitative findings of **Study 3**, future research should also explore how environmental barriers in households influence the perceived utility and implementation of behavioral protocols. While participants in **Study 3** reported significant challenges, such as the anxiety of accuracy and physical space constraints, these findings do not suggest that the first step of the Stepped-Care Model is inherently flawed, although further research is needed to continue to understand best practices. Rather, they point toward the need for research on specific modifications, such as environment-informed self-guided protocols and more frequent follow-up support, to improve the efficacy of these first-step approaches. By investigating how these modifications facilitate better access and outcomes, future research can ensure that the

initial tier of care serves as a bridge to success rather than a point of treatment alienation.

Economic Sustainability and Insurance Utilization

In terms of *Affordability*, there is a critical disconnect between societal cost-savings and clinician-level reimbursement rates (Schotland et al., 2024). Findings from **Study 1** revealed that research on affordability, especially as it related to insurance coverage, is especially sparse. Schotland and colleagues (2024) outlined this problem during a stakeholder summit with BSM researchers and issued a call for researchers to continue to better define this problem and advocate for insurance payor policy change. When reimbursement does not match the necessary fees for service, providers are disincentivized from accepting insurance, creating an artificial ceiling on treatment availability for Medicare and Medicaid beneficiaries. This systemic barrier was reflected in the **Study 2** findings, where insurance-paying patients attended less sessions and reached remission at lower rates than self-pay patients. More research is needed to better understand the mechanisms behind this finding. Additionally, to answer this call future research should include a deeper evaluation of clinic-level reimbursement rates across Medicaid, Medicare, and commercial insurance as compared to private-pay rates to determine economic sustainability at an organizational level. Additionally, **Study 1** identified a need for research exploring the individual perspective of those with government-issued insurance, including waitlist durations and the actual percentage of beneficiaries able to successfully access BSM services.

Investigating the Digital and Rural Divide

Research must move beyond the assumption that digital delivery automatically equates to increased *Accessibility*. While digital CBT-I is often championed as a cost-effective solution to affordability barriers, **Study 1** revealed a critical evidence gap, finding only 4.3% of the 554 reviewed articles explicitly focused on marginalized groups, such as rural or low-SES populations. Additionally, despite a surge in digital delivery research claiming to increase geographic access (Xin et al., 2022), user assessment of location to confirm this assertion is extremely rare (Chow et al., 2019). This lack of demographic and geographic data makes it difficult to ascertain whether digital tools are truly reaching these populations or if they are simply being utilized by the same high-resource populations served by traditional clinics.

Consequently, one area of future inquiry is to investigate implementation within rural healthcare systems. For example, it is necessary to determine if rural primary care clinics are actively recommending these digital tools and if patients in those regions are utilizing them at rates comparable to their urban counterparts. By analyzing utilization data through the lenses of location and socioeconomic status, two dimensions found to be neglected in **Study 1**, future research can ensure that technological solutions bridge the existing equity gap rather than inadvertently widening it.

Conclusion

This dissertation has sought to contribute to an understanding of CBT-I access and implementation barriers by addressing a research body that has historically been disconnected from the social and environmental contexts of sleep. By identifying and exploring several critical gaps, this work has applied conceptual, quantitative, and

qualitative approaches to support a future in which individuals can not only access the care they need but be successful in that care regardless of their environment.

Study 1 establishes the foundational landscape and the need for a social work perspective to address research gaps in policy and structural access. **Study 2** quantifies the treatment trajectories of patients with clinical complexity, suggesting the necessity of dose optimization to ensure patients with comorbidities achieve remission. Finally, **Study 3** centers the lived experiences of those attempting to implement behavioral change independently and in complex environments, revealing contextual barriers that can shape treatment outcomes and attrition. Together, these studies highlight the critical importance of looking at different levels of influence, such as through the SEM (Bronfenbrenner, 1974) and person-in-environment perspective (Karls & Wandrei, 1992), to identify barriers to implementation that are often ignored by individual-level theories. By integrating these frameworks, future research can better capture the multi-layered barriers encountered by individuals with low SES and complex clinical profiles, leading to the design of more truly accessible interventions. The literature has historically overlooked the environmental and systemic dimensions of treatment implementation, the very areas where the social work perspective, with its fundamental values and system-level frameworks, is uniquely positioned to lead. Embracing this approach offers the potential to resolve a stagnating public health crisis by transforming restorative sleep into an attainable reality for all populations. Ultimately, improving access to CBT-I is a vital pathway for enhancing quality of life and preventing the long-term medical consequences of untreated insomnia, providing a roadmap for a delivery framework that reflects the true diversity of the people it serves.

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STUDY 1: APPENDIX A

FINAL SEARCH EXPRESSION

EBSCO Databases: PsycInfo and CINAHL

XB ("CBT-I" OR "Cognitive Behavioral Therapy for Insomnia" OR "Behavioral Sleep Medicine" OR "BSM") AND XB ("Affordability" OR "Cost" OR "Price" OR "Out-of-pocket" OR "Insurance coverage" OR "Reimbursement rates" OR "Medicaid" OR "Medicare" OR "Private pay" OR "Financial barriers" OR "Socioeconomic status" OR "SES" OR "Payment parity" OR "Third-party payer")

OR

XB ("CBT-I" OR "Cognitive Behavioral Therapy for Insomnia" OR "Behavioral Sleep Medicine" OR "BSM") AND XB ("Availability" OR "Provider density" OR "Specialist shortage" OR "Workforce" OR "Waitlists" OR "Training programs" OR "Non-physician providers" OR "Clinical Social Workers" OR "Social Work" OR "Stepped-care model" OR "Primary care integration" OR "Task-shifting" OR "Workforce development")

OR

XB ("CBT-I" OR "Cognitive Behavioral Therapy for Insomnia" OR "Behavioral Sleep Medicine" OR "BSM") AND XB ("Accessibility" OR "Geospatial distribution" OR "GIS mapping" OR "Rural health" OR "Travel burden" OR "Distance to care" OR "Telehealth" OR "Telemedicine" OR "Digital health" OR "Remote delivery" OR "State licensure" OR "Interstate compacts" OR "Social Vulnerability Index" OR "SVI" OR "PSYPACT" OR "IMLC" OR "Licensure portability")

OR

XB ("CBT-I" OR "Cognitive Behavioral Therapy for Insomnia" OR "Behavioral Sleep Medicine" OR "BSM") AND XB ("Accommodation" OR "Treatment format" OR "Brief behavioral treatment" OR "BBTI" OR "Digital CBT-I" OR "dCBT-I" OR "Group therapy" OR "Clinic hours" OR "Time constraints" OR "Protocol complexity" OR "Home implementation" OR "Adherence" OR "Attrition" OR "Dropout rates" OR "Treatment engagement" OR "Patient burden")

OR

XB ("CBT-I" OR "Cognitive Behavioral Therapy for Insomnia" OR "Behavioral Sleep Medicine" OR "BSM") AND XB ("Acceptability" OR "Treatment preferences" OR "Beliefs" OR "Attitudes" OR "Stigma" OR "Patient expectations" OR "Physician perceptions" OR "Social marketing" OR "Guideline adherence" OR "Lived experience" OR "Qualitative" OR "Cultural adaptation" OR "Culturally responsive" OR "Buy-in" OR "Patient-centered care" OR "Language" OR "Linguistic diversity" OR "Limited English

Proficiency" OR "LEP" OR "Non-English speaking" OR "Translation" OR "Interpreter"
OR "Language concordance" OR "Bilingual" OR "Cross-cultural communication")

PubMed

("CBT-I"[tiab] OR "Cognitive Behavioral Therapy for Insomnia"[tiab] OR "Behavioral Sleep Medicine"[tiab] OR "BSM"[tiab]) AND ("Affordability"[tiab] OR "Cost"[tiab] OR "Price"[tiab] OR "Out-of-pocket"[tiab] OR "Insurance coverage"[tiab] OR "Reimbursement rates"[tiab] OR "Medicaid"[tiab] OR "Medicare"[tiab] OR "Private pay"[tiab] OR "Financial barriers"[tiab] OR "Socioeconomic status"[tiab] OR "SES"[tiab] OR "Payment parity"[tiab] OR "Third-party payer"[tiab]) OR

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STUDY 1: APPENDIX B

FINAL SEARCH RESULTS (ARTICLES)

Pub Year	Authors	Title	Source	DOI	Language	TAC.Primary	TAC.Secondary	SEM.Level	Population	Modality	Study Type
2010	Doraj, Diana C.; Taylor, Daniel J.; Birmaher, Adam O.; Rosenblat, Leon D.	The future of behavioral sleep medicine: A report on the presentations given at the Ponte Vedra Behavioral Sleep Medicine Consensus Conference, March 27-29, 2009.	Behavioral Sleep Medicine	10.1089/15402001003622792	English	Availability			General BSM Field	N/A - discussion of CBT-I generally	Consensus Conference Report / Policy Synthesis
2010	Garrison, Rocky; Libby, Louis	Cognitive-behavioral therapy of insomnia: A clinical case series study of patients with co-morbid disorders and using hypnotic medications.	Behaviour Research and Therapy	10.1016/j.brat.2009.12.004	English	Acceptability		Individual	Adults with insomnia currently using sleep medication	In-person CBT-I, 8 sessions	Case-Series (Intervent-Treat)
2010	McCrae, Christina S.; Taylor, Daniel J.; Smith, Michael T.; Perlis, Michael L.	The future of behavioral sleep medicine: A report on consensus votes at the Ponte Vedra Behavioral Sleep Medicine Consensus Conference, March 27-29, 2009.	Behavioral Sleep Medicine	10.1089/15402001003622776	English	Availability		Policy	Adults with insomnia currently using sleep medication	N/A - setting professional standards for CBT-I	Consensus Conference / Policy Statement
2010	Phyllis, Maria; Whittinger, Naureen; Coventry, Shirley; Idanashin, Helen; Brown, June	Brief CBT-I for insomnia comorbid with social phobia: A case study.	Behavioural and Cognitive Psychotherapy	10.1017/S153456809990488	English	Acceptability		Individual	Individual with sleep problem comorbid to social phobia	In-person CBT-I, 5 sessions	Case report, 9 month follow-up
2010	Tang, Nicole K. Y.	Thérapie comportementale et cognitive de l'insomnie.	Journal de Thérapie Comportementale et Cognitive	10.1016/j.jocp.2010.09.017	French	Acceptability		Individual	General insomnia	Review including multi-modal CBT-I	Review - historical review
2010	Tassi, P.; Thibault-Stoll, A.; Chasagnon, S.; Bly, S.; Palfau, C.	Psycho-educational CBT insomnia workshops for the general public: An audit of access and clinical outcomes.	Journal of Public Mental Health	10.5040/jpmh.2010.0159	English	Availability		Organizational	General public (open, can self-select)	In-person one-day workshop on CBT	Community Pilot / Pre-Post Follow-up
2010	Taylor, Daniel J.; Perlis, Michael L.; McCrae, Christina S.; Smith, Michael T.	Insomnia treatment: Interdisciplinary collaboration and conceptual integration.	The Journal of Individual Psychology	10.5040/jinh.2010.0159	English	Acceptability		Individual	General adults	In-person, integrative CBT-I	Review - Theoretical Synthesis
2011	Andrusak, Frank	Testing two types of self-help CBT-I for insomnia in older adults with arthritis or coronary artery disease.	Rehabilitation Psychology	10.1037/a0025577	English	Acceptability	Accommodation	Individual	Older adults with insomnia and comorbid arthritis or Coronary Artery Disease	Self-guided CBT-I (either book version or enhanced multimedia version)	RCT, 1 year follow-up
2011	Kapella, Mary C.; Hendigen, James L.; Perlis, Michael L.; Shaver, Joan L.; Larson, Janet L.; Law, Julie A.; Corley, David W.	Treating primary insomnia: Clinical effectiveness and predictors of outcomes on sleep, daytime function and health-related quality of life.	Journal of Clinical Psychology in Medical Settings	10.1007/s10880-011-9250-7	English	Acceptability		Individual	Adults with insomnia	In-person CBT-I	Prospective Clinical Cohort, 6-Month Follow-Up
2011	Rybarczyk, Bruce; Mack, Laurie; Harris, Jennifer Huang; Stepaniak, Edward	Sleep: The new frontier for ABCT.	the Behavior Therapist		English	Availability		Policy	Licensed Psychologists / Clinicians	Provider Training in CBT-I	Presidential Address / Policy Commentary
2011	Van Houdenhove, L.; Buysse, B.; Gubris, L.; Van den Bergh, O.	Cognitive behavioral therapy for insomnia comorbid with COPD is feasible with preliminary evidence of positive sleep and fatigue effects	International Journal of Chronic Obstructive Pulmonary Disease	10.2147/COPD.S24858	English	Acceptability		Individual	Patients with COPD	In-Person CBT-I, 6 Sessions	Post RCT / Feasibility
2012	Epstein, Dana R.; Babcock-Pardale, Judith L.; Haynes, Patricia L.; Herb, Christine A.	Clinical management of insomnia with Brief Behavioral Treatment (BBT).	Behavioral Sleep Medicine	10.1089/15402002.2011.607200	English	Accommodation		Organizational	General insomnia	BBT, 4 sessions (2 in-person, 2 can be phone)	BBT Clinical Guide and Treatment rationale
2012	Kraus, Stefanie S.; Rabin, Laura A.	Adherence to cognitive behavioral therapy for insomnia (CBT-I) among women following primary breast cancer treatment: A pilot study.	Behavioral Sleep Medicine	10.1089/15402002.2012.666220	English	Acceptability		Individual	Breast cancer survivors with insomnia	In-person CBT-I, 6 sessions	Pilot Study, Adherence Analysis
2012	Mamber, Rachel; Carney, Colleen E.; Edinger, Jack D.; Epstein, Dana R.; Friedman, Leah; Haynes, Patricia L.; Karlin, Bradley E.; Pigeon, Wilfred R.; Sletten, Allison T.; Trickett, Mickey	Initial evaluation of an internet intervention to improve the sleep of cancer survivors with insomnia.	Psycho-Oncology	10.1002/pon.1989	English	Accommodation	Acceptability	Individual	Cancer survivors with insomnia	Digital CBT-I, SHUT-I	Pilot RCT
2012	Matthews, Elyn E.; Schimmg, Sarah J.; Cook, Paul F.	Sleep America: Managing the crisis of adult chronic insomnia and associated conditions.	Journal of Affective Disorders	10.1016/j.jad.2011.05.014	English	Acceptability		Policy	U.S. General population	Public Health Campaign on insomnia and treatment	Review - SR and policy proposal
2012	Berger, Ann M.; Aloia, Mark S.; McKersie, Paul	Insomnia treatment acceptability and preferences of male Iraq and Afghanistan combat veterans and their healthcare providers	Journal of Rehabilitation Research and Development	10.1888/jrrd.2011.08.0114	English	Acceptability		Individual	Male Iraq and Afghanistan combat veterans (many with TBI) and their healthcare providers	N/A - inquired about preference for in-person or remote delivery of CBT-I and other interventions	Qualitative
2012	Middlemass, Jr., Davy; Zwick, Cavanagh; Katz, Linshan; Connor, Morgan; Kevin, Lawson; Shauri, Sirwardena, A. Niroshan	Integrating online communities and social networks with computerized treatment for insomnia: a qualitative study.	British Journal of General Practice	10.3398/bjgp.12065921	English	Acceptability	Accommodation	Organizational	Primary care patients and providers	Digital CBT-I	Qualitative
2012	Peachey, John T.; Zelman, Diane C.	Chronic low-back pain and insomnia: understanding the experience and attributions made by out-patients about sleeplessness, pain and their interaction.			English	Acceptability		Individual	Pain clinic outpatients with chronic low back pain and insomnia	Proposed CBT-I plus pain protocol	Qualitative
2012	Ritterband, Lee M.; Bailey, Elaine T.; Thomsdike, Frances P.; Lord, Holly R.; Farrell, Camahan, Leah; Baum, Lara D.	Comparisons of short-term efficacy between individual and group cognitive behavioral therapy for primary insomnia.	Sleep and Biological Rhythms	10.1111/sbr.12019	English	Accommodation		Organizational	Individuals with insomnia	In-person Group CBT-I vs in-person individual CBT-I	Randomized Comparative Efficacy Trial
2012	Tissot, Wendy M.; Germain, Anne; Buysse, Daniel J.	Adherence to cognitive behavioral therapy for insomnia: A systematic review.	Sleep Medicine Reviews	10.1016/j.smrv.2013.01.001	English	Acceptability		Policy	Adults with insomnia	General CBT-I	Review - SR
2013	Andrews, Laura Keri; Cook, Jessica; Houtz, Kelley; Eliahu, Rose; Levine, Rosalie; Nancy S. Arnett, J. Todd; Cuddihy, Leisha; Swanson, Leslie M.; Pickett, Scott; Atkins, James; Chen, Ronald D.	Lessons learned from the national dissemination of cognitive behavioral therapy for insomnia in the Veterans Health Administration: Impact of training on therapists' self-efficacy and attitudes. The future of cognitive behavioral therapy for insomnia: What important research remains to be done?	Sleep Medicine Clinics	10.1016/j.smcl.2013.05.003	English	Availability		Organizational	VA Clinicians	CBT-I Provider training	Program Evaluation / Dissemination Study
2013	Botheilus, Kristoffer; Kyll, Kiki; Espie, Colin A.; Broman, Jan-Erik	The future of cognitive behavioral therapy for insomnia: What important research remains to be done?	Journal of Clinical Psychology	10.1002/jcop.21948	English	Acceptability	Availability	Policy	Behavioral Sleep Medicine researchers	N/A - Recommendations for research on different CBT-I deliveries	Research proposal
2013	Botheilus, Kristoffer; Kyll, Kiki; Espie, Colin A.; Broman, Jan-Erik	A randomized clinical trial of Cognitive-behavioral therapy for insomnia in a college student population.	Sleep Medicine Reviews	10.1016/j.smrv.2013.01.001	English	Acceptability		Individual	College students with insomnia	In-person CBT-I, 6 sessions	RCT
2013	Carver, Patricia A.; Oyer, Kathleen A.; Mikan, Sabrina Q.	Randomized controlled trial of telephone-delivered cognitive behavioral therapy for chronic insomnia.	Sleep: Journal of Sleep and Sleep Disorders Research	10.5665/sleep.2448	English	Accommodation		Individual	Adults with insomnia	Telephone (phone) CBT-I, 8 sessions	RCT, Parallel trial
2013	Felds, Barry G.; Schutte-Rodin, Sharon; Perlis, Michael L.; Myers, Megan	Predictors of improvement in subjective sleep quality reported by older adults following group-based cognitive behavior therapy for sleep maintenance and early morning awakening insomnia.	Sleep Medicine	10.1016/j.smrv.2013.05.008	English	Acceptability	Accommodation	Individual	Older adults with sleep maintenance insomnia	In-person Group CBT-I, 4 weeks	Predictor Analysis; Pre-post
2013	Karlin, Bradley E.; Trickett, Mickey; Taylor, C. Barr; Glimmon, Julie; Mamber, Rachel	Sleep disturbance, chronic stress, and depression in hospice nurses: testing the feasibility of an intervention	Oncology Nursing Forum	10.1188/03.ONF.E368-E375	English	Acceptability	Accommodation	Organizational	Hospice nurses	In-person Group CBT-I at workplace, 2 sessions	Feasibility, Pre-post
2013	Lovalto, Nicole; Luck, Leon; Wright, Helen; Kennaway, David J.	"To eat a bucket of nails if you told me it would help me sleep": Perceptions of insomnia and its treatment in patients with stable heart failure.	Heart & Lung	10.1016/j.hrtlung.2013.05.003	English	Acceptability		Individual	Patients with heart failure	In-person Group CBT-I at workplace, 2 sessions	Qualitative
2013	Mamber, Rachel; Trickett, Mickey; Baskin, Wendy; Sletten, Allison T.; Taylor, C. Barr; Glimmon, Julie; Karlin, Bradley E.	Weekly brief phone support in self-help cognitive behavioral therapy for insomnia disorder: Relevance to adherence and efficacy.	Behaviour Research and Therapy	10.1016/j.brat.2014.10.002	English	Accommodation	Acceptability	Individual	Chinese adults with insomnia	Digital CBT-I with weekly phone support (15 min), 6 weeks	RCT
2013	Matthews, Elyn E.; Arnett, J. Todd; McCarthy, Michaela S.; Cuddihy, Leisha J.; Aloia, Mark S.	Cognitive behavioral therapy for insomnia with veterans: Evaluation of effectiveness and correlates of treatment outcomes.	Behaviour Research and Therapy	10.1016/j.brat.2013.11.006	English	Acceptability		Organizational	Veterans at the VA	In-person CBT-I	Process-Outcome Analysis (therapist ratings of patient adherence and patient ratings of therapeutic alliance)

	Vitiello, Michael V.; McCurry, Susan M.; Rytarski, Bruce D.	Web- vs telehealth-based delivery of cognitive behavioral therapy for insomnia: A randomized controlled trial.	Sleep Medicine	10.1016/j.sleep.2013.10.013	English	Accommodation	Individual	Adults with insomnia	Telehealth CBT-i vs digital CBT-i	RCT	
2013	Yamadera, Wataru; Sato, Miki; Harada, Daisuke; Iwashita, Masayuki; Aoki, Ryo; Obuchi, Katia; Ozone, Motohiro; Itoh, Hiroshi; Nakayama, Kazuhiko	Insomnia patients' help-seeking experiences.	Behavioral Sleep Medicine	10.1080/15402002.2013.764529	English	Accessibility	Affordability	Individual	Adults with insomnia in Australia	N/A - perspectives of individuals trying to get connected with CBT-i	Qualitative
2013	Zimmerman, Marian Rose	Evaluating the effects of a group cognitive behavioral therapy for veterans with posttraumatic stress disorder and insomnia: A pilot study.	Neuropsychiatric Disease and Treatment		English	Accessibility	Accommodation	Individual	Veterans with insomnia, nightmares and PTSD	In-person Group CBT-i and IRT	Pilot RCT
2014	Boerner, Katelynn E.; Coulombe, J. Aimee; Corkum, Penny	Sleeping well with cancer: A systematic review of cognitive behavioral therapy for insomnia in cancer patients.	Neuropsychiatric Disease and Treatment		English	Acceptability	Policy	Individual	Cancer patients and survivors	Review including multi-modal CBT-i	Review - SR
2014	Bonin, Eva-Maria; Beecham, Jennifer; Swift, Naomi; Rakundalia, Shristi; Brown, June S. L.	Psycho-educational CBT-insomnia workshops in the community. A cost-effectiveness analysis alongside a randomised controlled trial.	Behaviour Research and Therapy	10.1016/j.brat.2014.01.005	English	Affordability	Policy	Individual	Adults with insomnia	Community-based workshop on CBT-i	Economic evaluation of RCT
2014	Byars, Kelly; Simon, Stacey	Feasibility and preliminary real-world promise of a manualized group-based cognitive behavioral therapy for insomnia protocol for veterans.	Military Medicine	10.7205/MILMED-D-13-00455	English	Acceptability	Accommodation	Individual	Veterans with comorbid medical and psychiatric diagnoses	In-person Group CBT-i	Feasibility, Pre-post
2014	Cheung, Janet M. Y.; Bartlett, Delwyn J.; Armour, Carol L.; Glesler, Nicholas; Saint, Bandana	Treatment of insomnia in veterans with trauma-related disorders: A brief group cognitive-behavioral intervention.	Clinical Practice in Pediatric Psychology	10.1037/cpp0000068	English	Acceptability	Accommodation	Individual	Veterans with insomnia and PTSD	In-person Group CBT-i, 4 sessions	RCT
2014	Cholekin, Tatjana; Langguth, Berthold; Geisker, Peter; Wetter, Thomas C.; Eichhammer, Peter	Practice patterns and insomnia treatment outcomes from an evidence-based pediatric behavioral sleep medicine clinic.	Clinical Practice in Pediatric Psychology	10.1037/cpp0000068	English	Acceptability	Organizational	Individual	Children with insomnia	Pediatric CBT-i	Clinical Effectiveness; Practice-Based Analysis
2014	Dickenson, Suzanne S.; Connors, Laurie M.; Fayad, Alameer, Dean; Grace E.	Cognitive behavioral therapy for insomnia outcomes in women after primary breast cancer treatment: A randomized controlled trial.	Oncology Nursing Forum	10.1188/14.ONF.41-03AP	English	Acceptability	Availability	Individual	Breast cancer survivors with insomnia	In-person (nurse delivered) CBT-i	RCT; Longitudinal 6 month follow-up
2014	Garland, Sheila N.; Johnson, Brian A.; Savard, Joseph; Gehman, Philip; Perlis, Michael; Carlson, Linda; Campbell, Tavis	Evaluation of a brief treatment program of cognitive behavior therapy for insomnia in older adults.	Sleep: Journal of Sleep and Sleep Disorders Research	10.5665/sleep.3320	English	Acceptability	Accommodation	Individual	Older adults with sleep maintenance insomnia	In-person Group CBT-i, 4 Weeks	RCT
2014	Garland, Sheila N.; Carlson, Linda E.; Stephens, Aissa J.; Arnte, Michael C.; Samuels, Charles; Campbell, Tavis S.	Delivering a brief insomnia intervention to depressed VA primary care patients.	Cognitive and Behavioral Practice	10.1016/j.cbpra.2013.10.007	English	Accommodation	Acceptability	Organizational	Veterans with insomnia and depression	In-person CBT-i integrated into primary care, 4 sessions (15-45 minutes)	Case study; Feasibility
2014	Ho, Fiona Yan-Yee; Chung, Ka-Fai; Yeung, Wing-Fai; Ng, Tommy Ho-Yee; Cheng, Sammy Kin-Wing	Fourteen-day inpatient cognitive behavioural therapy for insomnia: A logical and useful extension of the stepped-care approach for the treatment of insomnia.	Psychotherapy and Psychosomatics	10.1159/000360706	English	Accommodation	Individual	Individual	Patients with high insomnia severity, sleep medication dependence	Inpatient 14-day CBT-i	Program development; feasibility study
2014	Holmgvist, M.; Vincent, N.; Walsh, K.	Cognitive-behavioral therapy for chronic insomnia	Current Treatment Options in Neurology	10.1007/s11940-014-0321-6	English	Acceptability	Policy	Individual	General insomnia population	Review including multi-modal CBT-i	Review - Clinical guidelines
2014	Hood, Heather K.; Rogojanski, Jenny; Moss, Taryn G.	Sleep-wake disturbances in cancer patients: narrative review of literature focusing on improving quality of life outcomes	Nature and Science of Sleep	10.2147/NS.S34846	English	Acceptability	Organizational	Individual	Cancer patients and survivors	Review including multi-modal CBT-i	Review - narrative review with recommendations for cancer centers
2014	Koffel, Erin; Farrell-Camahan, Leah	A pilot randomized controlled trial of the effects of cognitive-behavioral therapy for insomnia on sleep and daytime functioning in college students	Behavior Therapy	10.1016/j.beth.2013.12.010	English	Acceptability	Individual	Individual	College students	In-person CBT-i, 6 sessions	Pilot RCT
2014	Lovalto, Nicole; Lack, Leon; Wright, Helen; Kennaway, David J.	Mindfulness-based stress reduction compared with cognitive behavioral therapy for the treatment of insomnia comorbid with cancer: a randomized, partially blinded, noninferiority trial.	Journal of Clinical Oncology	10.1200/JCO.2012.47.7265	English	Acceptability	Individual	Individual	Cancer patients with insomnia	In-person Group CBT-i vs MBSR	Randomized Noninferiority Trial
2014	Mack, Laurin J.	Self-help cognitive-behavioral therapy for insomnia: A meta-analysis of randomized controlled trials.	Sleep Medicine Reviews	10.1016/j.smrv.2014.06.010	English	Accommodation	Policy	Individual	General insomnia	Digital CBT-i vs in-person CBT-i	Review - Meta-Analysis
2014	Matthews, Elynn E.; Berger, Ann M.; Schmiege, Sarah J.; Cook, Paul F.; McCarthy, Michaela S.; Moore, Camille M.; Ains, Mark S.	Effects of two-session group cognitive behavioral therapy for psychophysiological insomnia: A preliminary study.	Sleep and Biological Rhythms	10.1111/sbr.12125	English	Accommodation	Individual	Individual	Adults with insomnia in Japan	In-person brief Group CBT-i, 2 sessions	Open Trial; Long term follow-up (6 months)
2014	McCabe, Christina S.; Brannan, Adam D.; Williams, Jacob M.; Roth, Alicia J.; Mosti, Caterina	A meta-analysis of group cognitive behavioral therapy for insomnia.	Sleep Medicine Reviews	10.1016/j.smrv.2014.05.001	English	Accommodation	Policy	Individual	General insomnia	Group CBT-i	Review - Meta-Analysis
2014	Pigeon, Wilfred R.; Funderburk, Jennifer	Treating acute insomnia: A randomized controlled trial of a "single-shot" of cognitive behavioral therapy for insomnia.	Sleep: Journal of Sleep and Sleep Disorders Research		English	Accommodation	Acceptability	Individual	Adults with acute insomnia (less than 3 months)	In-person single session (60-70 minutes) CBT-i	RCT
2014	Taylor, Daniel J.; Zimmerman, Marian R.; Gardner, Christie E.; Williams, Jacob M.; Olesar, Emily A.; Tatum, John L.; Brannan, Adam D.; Francis, Jade M.; Rubano, Camilo	Effects of cognitive behavioral therapy in patients with depressive disorder and comorbid insomnia: A propensity score-matched outcome study.	Behaviour Research and Therapy	10.1016/j.brat.2015.07.056	English	Acceptability	Individual	Individual	Patients with insomnia and depression	In-person CBT-i weekly, 6 weeks	Prospective Parallel-Group Design
2014	Trockel, Mickey; Karlin, Bradley E.; Taylor, C. Barr; Member, Rachel	Cost-effectiveness of cognitive behavioral therapy for insomnia comorbid with depression: Analysis of a randomized controlled trial.	Psychiatry and Clinical Neurosciences	10.1111/pcn.12237	English	Affordability	Policy	Individual	Patients with insomnia and depression in Japan	In-person CBT-i, 4 weekly sessions	Economic evaluation of RCT
2014	Ustinov, Yuri	Cognitive-behavioral treatment of insomnia and depression in adolescents: A pilot randomized trial.	Behaviour Research and Therapy	10.1016/j.brat.2015.04.009	English	Acceptability	Accommodation	Individual	Adolescents and young adults with insomnia and depression	In-person CBT-i combined with CBT for depression, 10 weeks	RCT
2015	Babson, Kimberly A.; Pano, Danielle E.; Baldini, Lisa; Vandrey, Ryan; Bonn-Miller, Marcel O.	National evaluation of the effectiveness of cognitive behavioral therapy for insomnia among older versus younger veterans.	International Journal of Geriatric Psychiatry	10.1002/gps.4143	English	Acceptability	Availability	Organizational	Veterans - comparing older vs younger	In-person CBT-i (delivered by different disciplines - nurses, Swers, etc.)	Effectiveness Study; Program Evaluation
2015	Casault, Lucie; Savard, Josée; Ivers, Hans; Savard, Marie-Hélène	The role of perceived partner alliance on the efficacy of CBT-i: Preliminary findings from the Partner Alliance in Insomnia Research Study (PAIRS).	Behavioral Sleep Medicine	10.1080/15402002.2013.838768	English	Acceptability	Individual	Individual	Adults with insomnia with co-sleeping partners	In-person CBT-i	Qualitative
2015	Clarke, Greg; McGlinchey, Eleanor L.; Hein, Kerrie; Oulton, Christina M.; Dickerson, John F.; Leo, Michael C.; Harvey, Allison O.	A step towards stepped care: Delivery of CBT-i with reduced clinician time.	Sleep Medicine Reviews	10.1016/j.smrv.2014.09.003	English	Availability	Accessibility	Policy	General insomnia	Review including multi-modal CBT-i	Review - editorial and synthesis of research
2015	Davy, Zowie; Middeldorp, Jo; Sriwardena, Aloysius N.	Patients' and clinicians' experiences and perceptions of the primary care management of insomnia: Qualitative study.	Health Expectations: An International Journal of Public Participation in Health Care & Health Policy	10.1111/hex.12119	English	Acceptability	Organizational	Individual	Adults and providers in primary care	Sleep hygiene vs CBT-i vs sleep med management	Qualitative
2015	Ellis, Jason G.; Cushing, Toby; Germain, Anne	A randomized-controlled trial of an early minimal cognitive-behavioral therapy for insomnia comorbid with cancer.	Behaviour Research and Therapy	10.1016/j.brat.2015.02.003	English	Accommodation	Acceptability	Individual	Patients with acute insomnia (less than 6 months) and cancer	Self-guided CBT-i (booklet) with 3 phone consultations	RCT; Longitudinal follow-up (6 months)
2015	Ellis, Jason G.; Deary, Vincent; Trowel, Wendy M.	Group cognitive-behavioral therapy for insomnia: A meta-analysis.	Anales de Psicología		English	Accommodation	Policy	Individual	General insomnia	Group CBT-i	Review - Meta-Analysis

2015	Harada, Daisuke; Yamadera, Wataru; Sato, Miki; Iwashita, Masayuki; Aoki, Ryo; Obuchi, Kaika; Ozono, Motahiko; Itoh, Hiroshi; Nakayama, Kazuhiko	Feasibility and Efficacy of a Self-Management Intervention for Insomnia in Stable Heart Failure	Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcam.5082	English	Acceptability	Accommodation	Individual	Patients with heart failure	Self-guided CBT-I	Pilot RCT
2015	Ho, Fiona Yan-Yee; Chung, Ka-Fai; Yeung, Wing-Fai; Ng, Tommy H.; Kwan, Ka-Shing; Yung, Kam-Ping; Cheng, Sammy K.	Mobile App-Delivered Cognitive Behavioral Therapy for Insomnia: Feasibility and Initial Efficacy Among Veterans With Cannabis Use Disorders	JMIR research protocols	10.2196/resprot.3852	English	Acceptability	Accommodation	Individual	Veterans with insomnia and cannabis use disorder	Digital CBT-I; CBT-I Coach	Case study; Pilot; Feasibility
2015	Hsu, Hui-Min; Chou, Kuei-Ru; Lin, Kuan-Chia; Chan, Kuan-Yu; Su, Shu-Fang; Chung, Hsin-Huey	Development and initial feasibility testing of brief cognitive-behavioral therapy for insomnia in adolescents with comorbid conditions	Clinical Practice in Pediatric Psychology	10.1037/cpp0000140	English	Acceptability		Individual	Adolescents with comorbid medical and psychiatric disorders	In-person CBT-I, 4 sessions	Feasibility and acceptability pilot
2015	Karlin, Bradley E.; Trötschel, Mickey; Spira, Adam P.; Taylor, C. Barr; Mamber, Rachel	Cost-effectiveness of group and internet cognitive behavioral therapy for insomnia in adolescents: Results from a randomized controlled trial	Sleep: Journal of Sleep and Sleep Disorders Research	10.5665/sleep.6024	English	Affordability		Policy	Adolescents in the Netherlands	In-person Group CBT-I (both 6 weekly sessions and 2-mo follow-up booster session)	Economic evaluation of RCT
2015	Koffel, Erin A.; Koffel, Jonathan B.; Gehman, Philip R.	The experience of chronic insomnia in Chinese adults: A study using focus groups and insomnia experience diaries	Behavioral Sleep Medicine	10.1080/15402002.2015.1017087	English	Acceptability	Accommodation	Individual	Chinese adults with insomnia	N/A - Inquiring about CBT-I and cultural adaptations	Qualitative - Grounded theory
2015	Mamber, Rachel; Simpson, Norah S.; Bootzin, Richard R.	Feasibility of group cognitive-behavioral treatment of insomnia delivered by clinical video telehealth	Telemedicine and e-Health	10.1089/tmj.2016.0032	English	Accessibility		Organizational	Veterans at the VA	Digital CBT-I	Effectiveness; program evaluation
2015	Nuayon-Bravo, Beatriz; Piñero-Martínez, Ignacio; Hidalgo, Jesús López-Torres; Andrés-Pérez, Fernando; Rabanales-Sotos, Joseba	Internet-based cognitive behavioral therapy for insomnia: A health economic evaluation	Sleep: Journal of Sleep and Sleep Disorders Research	10.5665/sleep.8152	English	Affordability		Organizational	Teachers with insomnia symptoms	Digital CBT-I	Economic evaluation; RCT
2015	Radeker, Nancy S.; Jeon, Sanghoon; Andrews, Laura; Cline, John; Jacoby, Daniel; Motsonin, Valid	The pros and cons of getting Engaged in an online social community embedded within digital cognitive behavioral therapy for insomnia: Survey among users	Journal of Medical Internet Research	10.2196/jmir.5654	English	Acceptability	Accommodation	Individual	General insomnia; users of Sleepio chat	Digital CBT-I; Sleepio	Qualitative - survey, thematic analysis
2015	Watanabe, Norio; Furukawa, Toshiaki A.; Shimodera, Shingo; Katsuki, Fujika; Fujita, Hirokazu; Sasaki, Megumi; Sado, Mitsuhiro; Perlis, Michael L.	Effects of armodafinil and cognitive behavior therapy for insomnia on sleep continuity and daytime sleepiness in cancer survivors	Sleep Medicine	10.1016/j.sleep.2015.12.010	English	Acceptability	Accommodation	Individual	Cancer survivors with insomnia	In-person CBT-I with or without Armodafinil	RCT
2015	Wickwire, Emerson M.; Shaya, Fadia T.; Schaaf, Steven M.	Integrative review and development of algorithm for the treatment of insomnia in the geriatric population			English	Acceptability		Policy	Older adults with insomnia	Review including multi-modal CBT-I and BBTI	Review - Lit review with treatment recommendations
2016	Blom, Kerstin; Jermelov, Susanna; Lindfors, Niko; Kallio, Viktor	Improving the sleep of children's hospital employees through an email-based sleep wellness program	Clinical Practice in Pediatric Psychology	10.1037/cpp0000152	English	Affordability		Organizational	Employees at a children's hospital	Emailled CBT-I; Sleep Smart, 8 weeks	Program evaluation; pre-post
2016	Braun, Michelle; Fuchs, Erika; MacDonald, Roderick; Nelson, Victoria A.; Koffel, Erin; Olson, Carin M.; Khawaja, Inayat; Diem, Susan J.; Carfale, Maureen; Wille, Timothy J.; Quatlet, Jeannine; Butler, Mary Kane; Robert L. Coulson, Neil S.; Smedley, Richard; Bostock, Sophie; Kyle, Simon D.; Ostalov, Rosie; Luk, Annemarie L.; Haines, Peter; Espie, Colin A.; Chuz, Claudia G.	Guided online or face-to-face cognitive behavioral treatment for insomnia: A randomized wait-list controlled trial	Sleep: Journal of Sleep and Sleep Disorders Research	10.5665/sleep.5344	English	Accommodation		Individual	General insomnia	In-person CBT-I vs digital CBT-I	RCT
2016	Culver, Najwa C.; Song, Yeonsu; Kate McGowan, Sarah; Fung, Constance H.; Mitchell, Michael N.; Rodriguez, Juan Carlos; Dolzerezewski, Joseph M.; Josephson, Karen R.; Joudjian, Stella; Washington, Donna L.; Yano, Elizabeth M.; Schweizer, C. Amanda; Alessi, Cathy A.; Martin, Jennifer L.	Does treating insomnia add to the efficacy of cognitive restructuring for generalized anxiety disorder?			English	Acceptability		Individual	Patients with insomnia and anxiety	In-person CBT-I with CBT for anxiety, 4 weeks CBT-I (as part of 8 week treatment course)	Single-subject design, multiple baseline
2016		Facilitating and hindering factors in Internet-delivered treatment for insomnia and depression	Internet Interventions	10.1016/j.invent.2016.03.004	English	Acceptability		Individual	Patients with insomnia and depression	Digital CBT-I	Qualitative
2016		Acceptability of Medication and Nonmedication Treatment for Insomnia Among Female Veterans: Effects of Age, Insomnia Severity, and Psychiatric Symptoms	Clinical Therapeutics	10.1016/j.clinthera.2016.09.019	English	Acceptability		Individual	Female veterans	N/A - Inquired about preference of behavioral intervention vs sleep meds for insomnia	Survey; cross-sectional
2016	De Bruin, Eduard J.; van Steensel, Francisca J. A.; Meijer, Anne Marie Dean, Grace	Pre-sleep thoughts and dysfunctional beliefs in subjects of insomnia with or without depression: Implications for cognitive behavior therapy for insomnia in Indian context	Indian Journal of Psychiatry	10.4103/0019-5645.174385	English	Acceptability	Accommodation	Individual	Indian adults with insomnia and depression	N/A - assessing appropriateness of CBT-I	Cross-sectional
2016		Randomized Controlled Pilot Trial of Behavioral Insomnia Treatment for Chronic Migraine With Comorbid Insomnia	Headache: The Journal of Head & Face Pain	10.1111/head.12760	English	Acceptability		Individual	Patients with insomnia and chronic migraines	In-person CBT-I, three 30-minute biweekly sessions	RCT
2016	D'Urso, Christine	2016 - Telephone-based CBT reduced insomnia severity more than menopause education in menopausal women	ACP Journal Club	10.7326/ACJP.2016.165-6-030	English	Acceptability	Accommodation	Individual	Perimenopausal women	Phone CBT-I (20- to 30-minute), 8 weeks	RCT
2016	Garland, Sheila N.; Roscoe, Joseph A.; Heckler, Charles E.; Barila, Holly; Gehman, Philip; Findley, James C.; Peoples, Anita R.; Morrow, Gary R.; Kamen, Charles; Perlis, Michael L.	Treating Insomnia in Lung Cancer Survivors: Instrumentation Is An Ongoing Challenge...28th Annual Scientific Session, June 2-6, 2017, Baltimore, Maryland	Nursing Research	10.1097/NNR.0000000000000152	English	Availability	Acceptability	Organizational	Lung cancer survivors	Group and phone BBTI delivered by graduate nursing students	Pilot RCT
2016	Gehman, Philip; Shah, Mauli T.; Miles, Ashley; Kuna, Samuel; Godeski, Linda	Mobile phone-delivered cognitive behavioral therapy for insomnia: A randomized waitlist controlled trial	Journal of Medical Internet Research	10.2196/jmir.6524	English	Accommodation		Individual	People with mild insomnia in the Netherlands	Digital CBT-I; Sleepcare	RCT
2016	Gupta, Ravi	Internet and in-person cognitive behavioral therapy for insomnia in military personnel: A randomized clinical trial	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zsw075	English	Accommodation		Organizational	Active duty army personnel	In-person CBT-I vs digital CBT-I	RCT
2016	Kaufman, Robert P.; McCurry, S. M.	How does cognitive behavioral therapy for insomnia work? An investigation of cognitive processes and time in bed as outcomes and mediators in a sample with insomnia and depressive symptomatology	International Journal of Cognitive Therapy	10.1521/ijct.2017.10.4.304	English	Acceptability		Individual	Patients with insomnia and depression	Group CBT-I	RCT
2016	Lance, Jaap van Straten, Annemake; Morina, Neelmedini; Kallio, Viktor; Kampfhuis, Jan H.	Restoring effective sleep tranquility (REST): A feasibility and pilot study	The British Journal of Occupational Therapy	10.1177/0308022617691538	English	Availability	Accommodation	Organizational	Veterans with service connected injuries, current students	REST: In-person Group CBT-I (7 sessions) and eight 1:1 sessions delivered by occupational therapists plus treatment for pain and nightmares	Feasibility and Pilot study

2016	Paleo, Tonya M.; Bromberg, Maggie H.; Beaulieu-Erickson, Sarah; Law, Emily F.; Durkin, Lindsay; Noel, Melanie; Chen, Maida	An algorithmic approach to the management of insomnia in patients with schizophrenia.	Annals of Clinical Psychiatry	10.1016/j.acp.2016.03.001	English	Acceptability	Policy	Patients with sleep problems and schizophrenia	N/A - recommended steps for treatment (including CBT-I)	Review - SR with treatment recommendations	
2016	Qaseem, Amir; Kansagara, Devan; Forcine, Mary Ann; Cooke, Molly; Denberg, Thomas D.	Testing a low-intensity and accessible Cognitive Behavioral Therapy for Insomnia (CBT-I) intervention in individuals newly diagnosed with cancer.	Journal of Clinical Oncology	10.1200/JCO.2016.34.1111	English	Acceptability	Accommodation	Individual	Patients with newly diagnosed cancer	Digital CBT-I; SHUT; supplemented with clinician support	Feasibility and efficacy trial
2016	Smith, Kevin C.; Wallace, Dustin P.	Group cognitive-behavioral therapy in insomnia: A cross-sectional case-controlled study.	Neuropsychiatric Disease and Treatment	10.2147/NDT.S140610	English	Acceptability	Individual	Individual	Patients with insomnia and chronic Zolpidem use	Group CBT-I plus medication taper	Comparative clinical trial
2016	Smitherman, Todd A.; Walters, A. Brooke; Davis, Rachel E.; Ambrose, Carrie E.; Roland, Malcolm; Houke, Timothy T.; Reins, Jeanetta C.	The cost of insomnia and the benefit of increased access to evidence-based treatment: Cognitive behavioral therapy for insomnia.	Sleep Medicine Clinics	10.1016/j.smcl.2016.10.011	English	Affordability	Policy	Policy	General insomnia	Review with recommendation for stepped-care CBT-I	Review - Economic Rationale
2016	Thorn, Hanne; Ebert, David Daniel; Lohr, Dirk; Nobis, Stephanie; Burdick, Claudia; Barking, Matthias; Smit, Filip; Riper, Helsen	Sleep the night before and after a treatment session: A critical ingredient for treatment adherence?	Journal of Consulting and Clinical Psychology	10.1037/ccp000184	English	Acceptability	Individual	Individual	General insomnia	Standard CBT-I	RCT
2016	Thomas, A.; Grandner, M.; Nowakowski, S.; Nersis, O.; Corbitt, C.; & Purita, M. L.	Adapted delivery of cognitive-behavioral treatment for insomnia in adolescent and young adult cancer survivors: A pilot study.	Behavioral Sleep Medicine	10.1080/15402002.2015.1126597	English	Acceptability	Accessibility	Individual	Adolescent and young adult cancer survivors	In-person CBT-I vs telehealth CBT-I	Pilot study
2016	Yung, Kam-Ping; Chung, Ka-Fai; Ho, Fiona Yan-Yee; Young, Wing-Fai; Ng, Tommy Ho-Yee	Effect of a web-based cognitive behavior therapy for insomnia intervention with 1-year follow-up: A randomized clinical trial.	JAMA Psychiatry	10.1001/jamapsychiatry.2016.3249	English	Accommodation	Individual	Individual	General chronic insomnia	Digital CBT-I; SHUT	RCT; Longitudinal follow-up (1 year)
2017	Agnew, Amma A.	Mobile Phone Interventions for Sleep Disorders and Sleep Quality: Systematic Review	JMIR mHealth and uHealth	10.2196/mhealth.7244	English	Accommodation	Policy	Policy	General insomnia	Digital CBT-I	Review - SR
2017	Baron, Kelly Glazer; Hooker, Stephanie A.	A Smartphone App for Adolescents With Sleep Disturbance: Development of the Sleep Ninja	JMIR mental health	10.2196/mental.7814	English	Acceptability	Accommodation	Individual	Adolescents	Digital CBT-I; Sleep Ninja	Qualitative - input on app development
2017	Blom, Kerstin; Jernelov, Susanna; Ruck, Christian; Lindfors, Niko; Kado, Victor	[The Effects of Mobile Social Networking Service-Based Cognitive Behavior Therapy on Insomnia in Nurses]	Journal of Korean Academy of Nursing	10.4040/jkan.2017.47.4.478	Korean	Accommodation	Acceptability	Organizational	Nurses in Korea working rotating shifts in a hospital	Digital CBT-I, 6 weekly modules	Quasi-experimental; Pre-Post with Control Group
2017	Chan, Charles West; Stacey, Douglas; Nick	What Are Effective Psychological Interventions for Veterans With Sleep Disturbances? A Rapid Evidence Assessment.	Military Medicine	10.7205/MILMED-D-16-00010	English	Acceptability	Policy	Policy	Veterans with sleep problems	Review with comparison of general CBT-I vs additional PTSD or alternative therapies	Review - SR
2017	Cole, Katherine; Tabbani, Karim; Bovin, Diane B.; Joffe, Ritha	Insomnia Treatment Preferences During Pregnancy.	JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing	10.1016/j.jogn.2017.01.005	English	Acceptability	Individual	Individual	Pregnant women	N/A - inquiring about treatment preference for insomnia	Cross sectional, survey
2017	Dolan, Emily A.; Soehner, Adriane M.; Morin, Charles H.; Belanger, Lynne; Walker, Matthew; Haney, Allison G.	Commenting and Persisting With a Web-Based Cognitive Behavioral Intervention for Insomnia: A Qualitative Study of Treatment Components.	Journal of Medical Internet Research	10.2196/jmir.5639	English	Acceptability	Individual	Individual	Patients with insomnia and depression	Digital CBT-I alongside traditional treatment for depression	Qualitative - grounded theory
2017	Eakman, Aaron M.; Schmid, Ariane A.; Henry, Kimberly L.; Rolfe, Natalie R.; Schell, Catherine; Port, Christine E.; Burns, Joshua E.	Factors that shape preference for acupuncture or cognitive behavioral therapy for the treatment of insomnia in cancer patients	Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-018-4086-4	English	Acceptability	Individual	Individual	Cancer survivors	Unknown	Qualitative
2017	Hirsch, Corine M. G.; Lando, Jaap; Griffioen-Both, Famke; Spruit, Sander; Fribanis, Siska; Neerincx, Mark A.; Beun, Robbert Jan; Brinkman, Willem-Paul	Impact of group treatment for insomnia on daytime symptomatology: Analyses from a randomized controlled trial in primary care	International Journal of Nursing Studies	10.1016/j.ijnurstu.2018.05.002	English	Availability	Accommodation	Organizational	Primary care patients	Group CBT-I; Nurse-led	RCT
2017	Kim, Ji Eun; Kim, Suk Sun	Patients' experiences of motivation, change, and challenges in group treatment for insomnia in primary care: a focus group study	BMC family practice	10.1186/s12875-018-0798-2	English	Acceptability	Accommodation	Individual	Primary care patients	Group CBT-I; Nurse-led	Qualitative
2017	Huo, Hongjing; Ji, Yulin; Xu, You; Tang, Guangzheng; Yu, Zhengfu; Xu, Lianlin; Shen, Chanchun; Wang, Wei	Apport de la pleine conscience dans les thérapies cognitives et comportementales de l'insomnie.	L'Encéphale: Revue de psychiatrie clinique biologique et thérapeutique	10.1016/j.encep.2016.12.001	French	Accommodation	Individual	Individual	Adults with chronic insomnia	In-person CBT-I vs In-person CBT-I combined with mindfulness, 5 sessions	RCT
2017	Nord, Clarke; Anika; Tiffors, Maria; Jansson-Fridmark, Markus; Hoxland, Fredrik; Engstrom, Ingemar	Feasibility of a telemedicine-delivered cognitive behavioral therapy for insomnia in rural breast cancer survivors.	Oncology Nursing Forum	10.1188/18.ONF.607-618	English	Accessibility	Accommodation	Organizational	Rural breast cancer survivors	Telehealth; Nurse-led	Quasiperimental feasibility pilot trial
2017	Parsons, Elizabeth C.; Hutton, Elizabeth A.; Besta, Lauren A.; Au, David H.; Young, Bessie A.; Chang, Michael F.; Paken, Brian N.	Pilot study comparing telephone to in-person delivery of cognitive-behavioral therapy for trauma-related insomnia for rural veterans.	Journal of Telemedicine and Telecare	10.1177/1357633X17732386	English	Accessibility	Accommodation	Individual	Rural Veterans with PTSD	Telehealth (phone)	Pilot feasibility
2017	Pheips, Andrea J.; Varker, Tracey; Metcalf, Olivia; Dell, Lisa	Cognitive mechanisms of sleep outcomes in a randomized clinical trial of internet-based cognitive behavioral therapy for insomnia.	Sleep Medicine	10.1016/j.sleep.2017.11.1140	English	Accommodation	Individual	Individual	Individuals with insomnia	Digital CBT-I; SHUT	RCT
2017	Rae, Melissa J.; Jung, Mo'ra; Cunningham, David	CBT-I and HT-I group therapy for adults with insomnia in comparison to those with insomnia and comorbid depression-A pilot study.	Neuropsychiatric Disease and Treatment	10.2147/NDT.S164899	English	Accommodation	Individual	Individual	Individuals with insomnia, some with depression	Combined CBT-I and Hypnotherapy	Effectiveness
2017	Reynolds, Sarah A.; Ebben, Matthew R.	Program evaluation of group-based cognitive behavioral therapy for insomnia: A focus on treatment adherence and outcomes in older adults with co-morbidities.	Clinical Gerontologist: The Journal of Aging and Mental Health	10.1080/073171715.2017.1309190	English	Acceptability	Accommodation	Individual	Older adults with comorbidities	Group CBT-I	Program evaluation
2017	Riemann, D.; Baglioni, C.; Bassetti, C.L.; Bjorvatn, B.; Grawe, L. D.; Ellis, J.; Espe, C.A.; Garcia-Boregano, D.; Gjerstad, M.D.; Gongalves, M.; Hertenstein, E.; Jansson-Fridmark, M.; Jurem, P.; Leger, D.; Nissen, C.; Papanicolaou, J.; Papanicolaou, D.; Verbraeken, J.; (-) Spiegelhalter, K.	Treating insomnia in patients with comorbid psychiatric disorders: A focused review.	Canadian Psychology / Psychologie canadienne	10.1037/cap0000141	English	Availability	Acceptability	Policy	Psychiatric Comorbidities	Review including multi-modal CBT-I	Review
2017	Ritterband, Lee M.; Thorndike, Frances P.; Ingorsoll, Karen S.; Lind, Holly R.; Gonder-Frederick, Linda; Frederick, Christina; Quigg, Mark S.; Cohn, Wendy F.; Morin, Charles H.	Effects of integrated telehealth-delivered cognitive-behavioral therapy for depression and insomnia in rural older adults.	Cognitive and Behavioral Practice	10.1016/j.cbpra.2017.09.005	English	Accommodation	Accessibility	Organizational	General adults	Digital CBT-I; Sleepio	Program Review
2017	Sandlund, Christina; Hetta, Jekke; Nilsson, Gunnar; Ekstedt, Mirjam; Westman, Jeanette	Effects of integrated telehealth-delivered cognitive-behavioral therapy for depression and insomnia in rural older adults.	Journal of Psychotherapy Integration	10.1037/rep0000121	English	Accessibility	Accommodation	Organizational	Rural middle-aged and older adults with insomnia and depression	Telehealth; 10 sessions of CBT-O + CBT-I or usual care (UC)	RCT

2017	Sedov, Ivan D.; Goodman, Sherry L.; Tomfuhr-Madsen, Lianne M.	Treating insomnia in depression: Insomnia-related factors predict long-term depression trajectories.	Journal of Consulting and Clinical Psychology	10.1037/ccp0000282	English	Acceptability	Individual	Adults with insomnia and depression on antidepressants	7 sessions of CBT-I	RCT	
2017	Shin, Jong Cheol; Kim, Julia; Origby-Tousaint, Diana	Cognitive behavior therapy for older adults with insomnia and depression: A randomized controlled trial in community mental health services.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zsy104	English	Accommodation	Individual	Older adults with insomnia and depression in Australia	Group standard CBT-I OR group CBT-I plus positive mood strategies (CBT-I+, advanced)	RCT	
2017	Taylor, Daniel J.; Peterson, Alan L.; Puukasma, Kristi E.; Young, McCallaghan, Stacey; Nicholson, Karin; Hincz, Jim; and the STRONG STAR Consortium	A randomized controlled pilot study of CBT-I Coach: Feasibility, acceptability, and potential impact of a mobile phone application for patients in cognitive behavioral therapy for insomnia.	Health Informatics Journal	10.1177/1460455216656472	English	Accommodation	Acceptability	Individual	Adults with insomnia	Digital CBT-I; CBT-I Coach	RCT pilot
2017	Werner-Seidler, Aliza; O'Dea, Bridianne; Shand, Fiona; Johnston, Lara; Foyne, Anna; Fogarty, Andrea S.; Christensen, Helen	Cognitive Behavioural Therapy for Insomnia (CBT-I) to treat depression: A systematic review.	Journal of Psychosomatic Research	10.1016/j.psychres.2017.12.012	English	Acceptability	Individual	Adults with insomnia and depression	Review including multi-modal CBT-I	Review - SR	
2017	Zhou, Eric S.; Vrooman, Lynda M.; Manley, Peter E.; Crabtree, Vickie M.; Rackebliss, Christopher J. R.; Bai, Asimov; Lauren D.; Krysl, Andrew; Edinger, Jack O.; Buysse, Daniel J.; Mander, Rachel	Increasing access to and utilization of cognitive behavioral therapy for insomnia (CBT-I): a narrative review. Internet-Delivered Cognitive-Behavioral Therapy for Insomnia in Breast Cancer Survivors: A Randomized Controlled Trial.	JGIM: Journal of General Internal Medicine	10.1007/s11606-018-4390-1	English	Availability	Acceptability	Policy	Individuals with insomnia in primary care/healthcare systems	Review including multi-modal CBT-I	Review
2018	Beil, Asimov; Lauren D.; Krysl, Andrew; Edinger, Jack O.; Buysse, Daniel J.; Mander, Rachel	Internet-Delivered Cognitive-Behavioral Therapy for Insomnia in Breast Cancer Survivors: A Randomized Controlled Trial.	JNCI: Journal of the National Cancer Institute	10.1093/jnci/kjy293	English	Accommodation	Accessibility	Organizational	Danish breast cancer survivors	Digital CBT-I	RCT
2018	Befing, Yanni; Wang, Jian; Li, Quli; Wu, Enlai; Yu, Zhidai; Feng, Yunshu; Wu, Yuting	Hybrid Cognitive-Behavioral Therapy Intervention for Adolescents With Co-Occurring Migraine and Insomnia: A Single-Arm Pilot Trial.	Headache: The Journal of Head & Face Pain	10.1111/head.13355	English	Accommodation	Individual	Adolescents with insomnia and pain	Combined CBT-I for insomnia and pain	Pilot / Feasibility	
2018	Cheung, Janet M Y.; Bartlett, Doreen J.; Armour, Carol L.; Saint, Bandana; Laba, Tracey-Lee	Culturally Adapted CBT for Chinese Insomnia Patients: A One-Arm Pilot Trial.	International Journal of Behavioral Medicine	10.1007/s12529-017-9710-z	English	Acceptability	Accommodation	Organizational	Chinese adults with insomnia	Mixed (In-Person Group/Individual)	Pilot / Feasibility
2018	Cheung, Janet M Y.; Jarlin, Denise C.; Ballot, Orlane; Bhanani, Annika A.; Morin, Charles M.	Recent Advancements in Treating Sleep Disorders in Co-Occurring PTSD.	Current Psychiatry Reports	10.1007/s11920-018-0915-9	English	Acceptability	Availability	Policy	Veterans with PTSD and OSA	Review including multi-modal CBT-I	Review
2018	Chow, Philip I.; Ingersoll, Karen S.; Thorndike, Frances P.; Lord, Holly R.; Gonder-Frederick, Linda; Mori, Charles M.; Rittenband, Lee M.	Insomnia treatment response as a function of objectively measured sleep duration	Sleep Medicine	10.1016/j.sleep.2019.01.016	English	Acceptability	Accommodation	Individual	Individuals with insomnia with short sleep duration	CBT-I vs CBT-I + Med	RCT
2018	Cokoren, Peter J.; Shiao, Laura D.; Sgropny, Carl; McCarthy, Michael J.; Goldstein, Elizabeth A.; Norman, Sonya B.	Long-Term Effects of an Unguided Online Cognitive Behavioral Therapy for Chronic Insomnia	Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.7580	English	Accommodation	Acceptability	Individual	General adult in Norway	Digital CBT-I	Longitudinal / Follow-up
2018	Cowie, Jennifer; Bower, Joanne L.; Gonzalez, Rogelio; Altano, Candice A.	Treatment Preferences for Internet-Based Cognitive Behavioral Therapy for Insomnia in Japan: Online Survey	JMIR formative research	10.2196/12635	English	Acceptability	Accommodation	Individual	General adults in Japan	Digital vs in-person CBT-I	Cross-Sectional / Survey
2018	Cunningham, Justyn E.A.; Shapiro, Colin M.	Digital cognitive behavioral therapy for insomnia - The first Georgian version. Can we use it in practice?	Internet Interventions	10.1016/j.invent.2019.100244	English	Availability	Accommodation	Organizational	General adults in Georgia (country)	Digital CBT-I	Pilot / Feasibility
2018	Garland, Sheila N.; Eriksen, Whitney; Song, Sarah; Dearing, Joshua; Barg, Frances K.; Oehlman, Philip; Mao, Jun J.	A Practical Application Primer on Cognitive Behavioral Therapy for Insomnia for Medical Residents	MedEdPORTAL: The Journal of Teaching and Learning Resources	10.1576/mep.2374-8265.19862	English	Availability	Organizational	Organizational	Medical Residents	Provider training	Educational / Program Eval
2018	Garland, Sheila N.; Vargas, Ivan; Grandner, Michael A.; Perlis, Michael L.	Perceptions of physicians in Saudi Arabia on the use of international clinical guidelines for managing primary insomnia	POs One	10.1371/journal.pone.0220960	English	Acceptability	Availability	Policy	Perspectives of physicians in Saudi Arabia	General CBT-I	Qualitative
2018	Koffel, Eric; Kuhn, Eric; Petsouli, Napoléon; Erbes, Christopher R.; Anders, Samantha; Hoffman, Julia E.; Ruess, Josef I.; Polunsky, Melissa A.	French Language Online Cognitive Behavioral Therapy for Insomnia Disorder: A Randomized Controlled Trial	Frontiers in Neurology	10.3389/fneur.2019.01273	English	Accommodation	Availability	Organizational	French-speaking Adults	Digital CBT-I	RCT
2018	Koffel, Eric; Kuhn, Eric; Petsouli, Napoléon; Erbes, Christopher R.; Anders, Samantha; Hoffman, Julia E.; Ruess, Josef I.; Polunsky, Melissa A.	Hypnotic discontinuation using a blinded (masked) tapering approach: A case series.	Frontiers in Psychiatry	10.3389/fpsy.2019.00717	English	Accommodation	Individual	Individual	Adults with insomnia on sleep medications	CBT-I plus blinded taper of sleep meds	Pilot / Feasibility
2018	Laurel Franklin, C.; Walton, Jessica L.; Raines, Amanda M.; Chambliss, Jessica L.; Corrigan, Sheila A.; Ciccardini, Lisa-Ann J.; Peterson, Nancy J.; Thompson, Karin E.	Efficacy of digital CBT for insomnia to reduce depression across demographic groups: A randomized trial.	Psychological Medicine	10.1017/S0033291718001113	English	Accessibility	Accommodation	Individual	Diverse Demographic Sample	Digital CBT-I	RCT
2018	Law, Emily F.; Wan Tham, See; Aaron, Rachel V.; Dudeney, Joanne; Palermo, Tonya M.	Depression prevention via digital cognitive behavioral therapy for insomnia: A randomized controlled trial.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zsy150	English	Accessibility	Accommodation	Individual	Individuals with insomnia	Digital CBT-I	RCT, Longitudinal
2018	Ludwin, Brian M.; Bamonti, Patricia; Mulligan, Elizabeth A.	Smartphone apps for insomnia: Examining existing apps' usability and adherence to evidence-based principles for insomnia management.	Translational Behavioral Medicine	10.1093/tbm/tyy014	English	Accommodation	Availability	Organizational	N/A - CBT-I Apps	Digital CBT-I	Market Scan / Content Analysis
2018	McCarthy, Michael S.; Matthews, Elyse E.; Battaglia, Catherine; Week, Paula M.	Effects of cognitive behavioral therapy for insomnia on sleep-related cognitions among patients with stable heart failure.	Behavioral Sleep Medicine	10.1080/15402002.2017.1357120	English	Acceptability	Accommodation	Individual	Patients with chronic heart failure (HF)	Group CBT-I	RCT
2018	Sadler, Paul; McLaren, Suzanne; Klein, Britt; Harvey, Jack; Jenkins, Megan	The role of economic analyses in promoting adoption of behavioral and psychosocial interventions in clinical settings.	Health Psychology	10.1037/hea0000774	English	Affordability	Policy	Policy	N/A - Health systems	Integrated behavioral health (including CBT-I)	Strategic report
2018	Sandlund, Christina; Hetta, Jerker; Nilsson, Gunnar H.; Ekstedt, Merjam; Westman, Jeanette	Clinician perceptions related to the use of the CBT-I Coach mobile app.	Behavioral Sleep Medicine	10.1080/15402002.2017.1403328	English	Acceptability	Accommodation	Organizational	VA Clinicians	Digital CBT-I; CBT-I Coach	Survey
2018	Sandlund, Christina; Kane, Kimberly; Ekstedt, Merjam; Westman, Jeanette	Couples' treatment preferences for insomnia experienced during pregnancy.	Families, Systems, & Health	10.1037/fsh0000391	English	Acceptability	Individual	Individual	Pregnant Women & Partners	In-person CBT-I	Cross-Sectional / Survey
2018	Schlarb, Angelika Anika; Faber, Jasmin; Hautzinger, Martin	Insomnia, cognitive impairment, and decision-making among patients with heart failure: A randomized study of brief behavioral treatment for insomnia.	Individual	Individual	English	Accommodation	Individual	Individual	Patients with heart failure (HF)	In-person BBT-I	Pilot / Feasibility
2018	Scogin, Forrest; Lichstein, Kenneth; D'Aquino, Elizabeth A.; Woosley, Julia; Thomas, S. Justin; LaRocca, Michael A.; Byers, Haley D.; Mieskowski, Lisa; Parker, Christina Pierpaoli; Yang, Xin; Parton, Jason; McFadden, Anna; Gower, James D.	The short-term efficacy of an unguided Internet-based cognitive-behavioral therapy for insomnia: A randomized controlled trial with a six-month nonrandomized follow-up.	Behavioral Sleep Medicine	10.1080/15402002.2017.1301941	English	Accommodation	Individual	Individual	General adults in Norway	Digital CBT-I; SHUT-I	RCT
2018	Tsachritsas, Apostolos; Wafa, Fatiha; Freeman, Daniel; Luengo-Fernandez, Ramon	Treating insomnia improves depression, maladaptive thinking, and hyperarousal in postmenopausal women: Comparing cognitive-behavioral therapy for insomnia (CBT), sleep restriction therapy, and sleep hygiene education.	Sleep Medicine	10.1016/j.sleep.2018.11.019	English	Acceptability	Individual	Individual	Postmenopausal women with insomnia	In-person CBT-I or SRT only	RCT

2018	Van Huffel, H.; Rey, M.; Lambert, I.; Da Fonseca, D.; Bar-Pitault, F.	Short and long-term effects of unguided internet-based cognitive behavioral therapy for chronic insomnia in morning and evening persons: A post-hoc analysis.	Chronobiology International	10.1080/07420528.2019.1647435	English	Acceptability	Accommodation	Individual	Individuals with insomnia with different chronotypes (morningness and eveningness)	Digital CBT-I	RCT / Post-hoc
2018	Zachariae, Robert; Arndt, Ali; Damholdt, Malene F.; Clausen, Cecilie D R; Dahlgard, Jesper; Lord, Holly; Thorndike, Frances P; Rittlerband, Lee M	Social support, insomnia, and adherence to cognitive behavioral therapy for insomnia after cancer treatment.	Behavioral Sleep Medicine	10.1080/15402002.2016.1276019	English	Acceptability		Individual	Cancer survivors	In-person CBT-I plus Armodafinil	RCT / Post-hoc
2019	Arora, Harish; Lewin, Daniel; Chiu, Gabriela; Bines, Jennifer; Goldberg, Elizabeth; Kattman, Rebecca; Power, Melissa C.; Mauro, Lauren A.; Kogan, Mikhail	Cognitive behavioral treatments for insomnia and pain in adults with comorbid chronic insomnia and fibromyalgia: clinical outcomes from the SPIN randomized controlled trial.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/tsy234	English	Acceptability		Individual	Patients with comorbid insomnia and fibromyalgia	In-person CBT-I vs CBT for pain	RCT
2019	Barbuscait, Catherine	Cognitive and behavioral therapy for insomnia increases the use of continuous positive airway pressure therapy in obstructive sleep apnea participants with comorbid insomnia: A randomized clinical trial.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/tsy178	English	Acceptability		Individual	Patients with sleep apnea	In-person CBT-I, 4 sessions	RCT
2019	Chakravorty, Subhajt; Oslin, David W.; Kranzer, Henry R.; Morales, Knashawn H.; Perlis, Michael L.; Arnedt, J. Todd; Findley, James C.	Online delivery of cognitive behavioral therapy-insomnia: Considerations and controversies.	Sleep Medicine Clinics	10.1016/j.smcc.2019.02.001	English	Accommodation		Policy	General insomnia	Digital CBT-I	Review
2019	Cheng, Philip; Kalmbach, David A.; Tallent, Gabriel; Joseph, Christine L. M.; Espe, Colin A.; Drake, Christopher L.	Patient perceptions of treatment delivery platforms for cognitive behavioral therapy for insomnia.	Behavioral Sleep Medicine	10.1080/15402002.2017.1293539	English	Acceptability	Accommodation	Individual	Patients with insomnia in Australia	Digital vs in-person CBT-I	Qualitative
2019	Cheng, Philip; Luk, Annemarie L.; Feldman-Couture, Cynthia; Peterson, Edward; Joseph, Christine L. M.; Tallent, Gabriel; Tran, Kleudreh Michelle; Ahmedani, Brian K.; Roehrs, Timothy; Roth, Thomas; Drake, Christopher L.	Cognitive processes mediate the effects of insomnia treatment: Evidence from a randomized wait-list controlled trial.	Sleep Medicine	10.1016/j.sleep.2018.09.029	English	Accommodation		Individual	General insomnia	Digital vs in-person CBT-I	RCT / Secondary Analysis
2019	Chenya, Yelena	The impact of sleep disturbances after mild traumatic brain injury (MTBI): A needs assessment and program development study.			English	Availability	Acceptability	Organizational	TBI providers	Educational Toolkit (includes CBT-I)	Mixed-Methods; Needs Assessment
2019	Cheng, Janet M. Y.; Bartlett, Delwyn J.; Armour, Carol L.; Luba, Tracey-Lea; Sakai, Bandana	A Feasibility Study of Group-Delivered Behavioral Interventions for Insomnia Among Breast Cancer Survivors: Comparing Cognitive Behavioral Therapy for Insomnia and a Mind-Body Intervention.	Journal of Alternative & Complementary Medicine	10.1089/jacm.2019.0038	English	Acceptability	Accommodation	Individual	Breast Cancer Survivors	In-person, group CBT-I plus mind-body intervention	Mixed-Methods; Pilot study
2019	Chow, Philip L.; Gonzalez, Brian D.; Ingersoll, Karen S.; Thorndike, Frances P.; Shuttler, Kelly M.; Camacho, Fabian; Perlis, Michael L.; Rittlerband, Lee M.	Cognitive Behavioral Therapy for Insomnia in Alcohol-Dependent Veterans: A Randomized, Controlled Pilot Study.	Alcoholism: Clinical & Experimental Research	10.1111/acer.14030	English	Acceptability		Individual	Veterans with alcohol dependence	In-person CBT-I, 8 weeks	RCT
2019	Dobia, Ali; Ryan, Kathy; Abutaleb, Mohammed; Edwards, Alexander	Cognitive Behavioural Therapy for Insomnia Monotherapy in Patients with Medical or Psychiatric Comorbidities: a Meta-Analysis of Randomized Controlled Trials	The Psychiatric Quarterly	10.1007/s11260-020-09820-8	English	Acceptability		Policy	People with insomnia and comorbidities (medical and psychiatric)	Review including multi-modal CBT-I	Review - Meta-Analysis
2019	Drenop, Michelle L.; Ahmed-Jauregui, Samina	Economic evaluation of cognitive behavioural therapy for insomnia (CBT-I) for improving health outcomes in adult populations: A systematic review [Insomnia comorbid to Parkinson's disease Part II: Therapeutic approaches]	Sleep Medicine Reviews	10.1016/j.smrv.2020.101351	English	Affordability		Policy	General adults	Review including multi-modal CBT-I	Review - SR
2019	Fung, Constance H.; Martin, Jennifer L.; Alessi, Cathy; Doroszewski, Joseph M.; Cook, Ian A.; Moore, Allison; Grimberg, Austin; Zekler, Michelle; Kewlin, Lita	Assessing Breast Cancer Survivors' Perceptions of Using Voice-Activated Technology to Address Insomnia: Feasibility Study Featuring Focus Groups and In-Depth Interviews	JMIR cancer	10.2196/15859	English	Accommodation		Individual	Breast cancer survivors	Digital CBT-I; Amazon Alexa	Mixed-Methods
2019	Hagstun, Susanne; Vidaa, Øystein; Nordgreen, Tine; Smith, Otto R. F.; Pallesen, Ståle; Hauk, Odd E.; Bjorvatn, Bjørn; Thorndike, Frances P.; Rittlerband, Lee M.; Sivertsen, Berge	Cognitive behavioural therapy interventions for insomnia among shift workers: RCT in an occupational health setting	International Archives of Occupational and Environmental Health	10.1007/s00420-019-01504-6	English	Acceptability		Individual	Shift workers	Group CBT-I or self-help CBT-I	RCT
2019	Jacobsen, Paul B.; Prasad, Ravi; Villari, Jennifer; Lee, Chuan-Mei; Rochlin, Danielle; Scheuter, Claudia; Kaplan, Robert M.; Freedland, Kenneth E.; Mamber, Rachel; Kanaan, Jubran; Wilson, Dawn K.	Provider perspectives of implementation of an evidence-based insomnia treatment in Veterans Affairs (VA) primary care: barriers, existing strategies, and future directions	Implementation Science Communications	10.1186/s43058-020-00096-4	English	Availability		Organizational	VA Providers	In-person, system wide use of CBT-I	Qualitative
2019	Kalmbach, David A.; Cheng, Philip; Arnedt, J. Todd; Anderson, Jason R.; Roth, Thomas; Feldman-Couture, Cynthia; Williams, Reg A.; Drake, Christopher L.	Evaluating the Feasibility and Acceptability of Internet-Based Cognitive Behavioral Therapy for Insomnia in Rural Women	Women's Health Reports	10.1089/whr.2020.0053	English	Accessibility	Acceptability	Individual	Rural (Appalachian) Women	Digital CBT-I; SHUTi	Mixed-Methods
2019	Kamen, Charles; Garland, Sheila N.; Heckler, Charles E.; Peoples, Anita R.; Klackner, Ian R.; Cole, Calvin L.; Perlis, Michael L.; Morrow, Gary R.; Mustian, Karen M.; Roscoe, Joseph A.	The effects of app-delivered cognitive behavioral therapy for insomnia (CBT-i) on sleep quality, dysfunctional beliefs, and sleep hygiene.	Psi Chi Journal of Psychological Research	10.24838/2325-7342.JN25.3.224	English	Accommodation		Individual	General insomnia	Digital CBT-I; CBT-i Coach	Effectiveness
2019	Lancee, J. J.; Elting, M.; van der Zwerde, T.; van Dal, L.; van Straten, A.; Kamphuis, J. H.	Mobile app use for insomnia self-management in urban community-dwelling older Korean adults: Retrospective intervention study.	JMIR mHealth and uHealth	10.2196/17755	English	Accommodation		Individual	Older Adults in South Korea	Digital CBT-I; MIND MORE	Pilot / Feasibility
2019	Lien, Mats; Bredell, Einar; Sivertsen, Berge; Kallestad, Håvard; Pallesen, Ståle; Smith, Otto R. F.; Faaland, Patrick; Rittlerband, Lee M.; Thorndike, Frances P.; Vidaa, Øystein	Is digital cognitive behavioural therapy for insomnia effective in treating sub-threshold insomnia: A pilot RCT.	Sleep Medicine	10.1016/j.sleep.2019.10.007	English	Acceptability		Individual	Women with sub-threshold insomnia	Digital CBT-I	RCT
2019	Lopez, Rigbi; Evangelista, Elisa; Baraona, Lucile; Chenini, Sofiene; Bosco, Adriana; Billiard, Michel; Bonte, Anne-Dominique; Bézat, Séverine; Jausse, Isabelle; Daoulliers, Yves	Exploring the meaning of cognitive behavioral therapy for insomnia for patients with chronic pain.	Pain Medicine	10.1093/pm/pnz144	English	Acceptability		Individual	Veterans with insomnia and chronic pain	In-person CBT-I	Qualitative

2019	McCrae, Christina S.; Williams, Jacob; Roditi, Daniela; Anderson, Ryan; Mundt, Jennifer M.; Miller, Mary Beth; Curtis, Ashley F.; Wakenberg, Lori B.; Staud, Roland; Berry, Richard B.; Robinson, Michael E.	Systematic review of telehealth interventions for the treatment of sleep problems in children and adolescents.	Journal of Behavioral Education	10.1007/s10864-020-00964-8	English	Accessibility	Organizational	Children and adolescents with developmental disabilities	Telehealth and digital CBT-I	Review - SR	
2019	Miller, Katherine E.; Kuhn, Eric; Owen, Jason E.; Taylor, Katherine; Yu, Jessica S.; Weiss, Brandon J.; Crowley, III J.; Trociet, Mickey	Predictors of treatment attendance and adherence to treatment recommendations among individuals receiving Cognitive Behavioral Therapy for Insomnia.	Cognitive Behaviour Therapy	10.1080/16506073.2019.1586992	English	Acceptability	Individual	General insomnia, psychiatric comorbidity	In-person CBT-I	Clinical Trial	
2019	Okajima, N.; MalasMhla, N.; Shagidze, S.; Tsereteli, A.; Aravada, B.; Chikhladze, N.; de Weerd, A.; Van Straten, A.	Brief behavioral treatment for insomnia vs. cognitive behavioral therapy for insomnia: Results of a randomized noninferiority clinical trial among veterans.	Behavior Therapy	10.1016/j.beth.2020.02.002	English	Accommodation	Individual	Veterans with insomnia	In-person CBT-I vs in-person BBTI (plus phone sessions)	RCT / Non-inferiority	
2019	Radecker, Nancy S.; Jean, Sanghoon; Andrews, Laura; Cline, John; Mohsenin, Valid; Jacoby, Daniel	A pilot randomized controlled trial of cognitive-behavioral therapy for insomnia in adolescents with persistent postconcussion symptoms.	The Journal of Head Trauma Rehabilitation	10.1097/HTR.0000000000000504	English	Acceptability	Individual	Adolescents post-concussion	In-person CBT-I	Pilot RCT	
2019	Rochefort, Amelie; Jarin, Denise C.; Belanger, Lynda; Hens, Hans; Morin, Charles M.	Combined program of cognitive-behavioral therapy for insomnia and medication tapering in cancer patients: A clinic-based pilot study.	Behavioral Sleep Medicine	10.1080/15402002.2019.1597718	English	Acceptability	Individual	Cancer patients in Korea (active treatment vs off treatment)	Group CBT-I plus sleep med tapering	Retrospective / Archival	
2019	Sato, Daijuke; Sutoh, Chihiko; Seki, Yoichi; Nagai, Eishi; Shimizu, Eiji	Telemedicine and the management of insomnia.	Sleep Medicine Clinics	10.1016/j.smcc.2020.05.004	English	Accessibility	Accommodation	Policy	General insomnia	Telehealth and digital CBT-I	Review
2019	Sedov, Ivan; Madsen, Joshua W.; Goodman, Sheryl H.; Tomfohr-Madsen, Lianne M.	A randomized controlled trial of CBT-I and PAP for obstructive sleep apnea and comorbid insomnia: Main outcomes from the MATRICS study.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zsaa041	English	Acceptability	Individual	COMISA	In-person CBT-I, 4 sessions	RCT	
2019	Sweetman, Alexander; Lack, Leon; Catchside, Peter O.; Antic, Nick A.; Smith, Simon; Choi-Coetzer, Ching U.; Douglas, James; O'grady, Amanda; Dunn, Nicola; Robinson, Ian; Paul, Denzil; Williamson, Paul; McEvoy, R. Doue	Reducing coronary heart disease risk through treatment of insomnia using web-based cognitive behavioral therapy for insomnia: A methodological approach.	Behavioral Sleep Medicine	10.1080/15402002.2019.1584896	English	Acceptability	Accommodation	Individual	Older adults with coronary heart disease (CHD)	Digital CBT-I	Pilot RCT
2019	Vedaa, Øystein; Haglund, Susanne; Kallstedt, Håvard; Pallesen, Sidsle; Smith, Otto R. F.; Thordike, Frances P.; Rittnerband, Lee M.; Silversen, Berge	Internet-based cognitive behavioral therapy for insomnia in Appalachian women: A pilot study.	Behavioral Sleep Medicine	10.1080/15402002.2019.1661249	English	Accessibility	Acceptability	Individual	Rural (Appalachian) Women	Digital CBT-I; SHUTi	Mixed-Methods
2019	Wolfsen, Megan; German, Anne	Group-based cognitive behavioral therapy program for improving poor sleep quality and quality of life in people with epilepsy: A pilot study.	Epilepsy & Behavior	10.1016/j.yebeh.2019.106884	English	Acceptability	Individual	Clinic patients with insomnia and epilepsy	Group CBT-I, 4 sessions	Pilot RCT	
2019	Yu, Jessica S.; Kuhn, Eric; Miller, Katherine E.; Taylor, Katherine	A randomized controlled trial of digital cognitive behavioral therapy for insomnia in pregnant women.	Sleep Medicine	10.1016/j.sleep.2020.03.016	English	Accommodation	Individual	Perinatal women (3rd trimester and postpartum)	Digital CBT-I	RCT	
2020	Appelbaum, Allison J.; Busa, Kariz Hoyt; Michael A.; Shaffer, Kelly; Garland, Sheila; Mao, Jun J.	Internetbasierte kognitive Verhaltenstherapie der Insomnie und Alpträumsörung.	Der Nervenarzt	10.1007/s00115-019-00803-0	German	Accommodation	Individual	Adults with insomnia	Digital CBT-I	Review	
2020	Aron, Hannah; Scott, Remie; Greenberg, Daniel; Kaltman, Rebecca; Lieberman, Daniel; Lewin, Daniel	Changes in dysfunctional beliefs about sleep after cognitive behavioral therapy for insomnia: A systematic literature review and meta-analysis.	Sleep Medicine Reviews	10.1016/j.smrv.2019.101230	English	Acceptability	Policy	General adults	Review including multi-modal CBT-I	Review - SR and Meta-Analysis	
2020	Baglioni, Chiara; Ahrens, Eleamarie; Bjorvatn, Bjorn; Blom, Kerstin; Borbély, Kristoffer; Devoto, Alessandra; Espie, Colin A.; Figue, Lukas; Gavriloff, Dimitri; Toulaki, Hiron; Hoffmeier, Andrea; Hlasek, Brigitte; Holzinger, Brigitte; Jämsfeldt, Heli; Jemeliov, Susanna; Johann, Anna F.; Lombardo, Caterina; Nissen, Christoph; Palaghi, Laura; Petters, Geert; Peris, Michael L.; Posner, Dorit; Schlarb, Angelika; Spiegelhalter, Kai; Wichniak, Adam; Riemann, Dieter	The European Academy for Cognitive Behavioural Therapy for Insomnia: An initiative of the European Insomnia Network to promote implementation and dissemination of treatment.	Journal of Sleep Research	10.1111/jsr.12967	English	Availability	Policy	Healthcare professionals	Stepped-care model	Task force initiative	
2020	Bramoweth, Adam D.; Lechner, Lisa G.; Youk, Ada O.; German, Anne; Chienman, Matthew J.	Cognitive behaviour therapy for insomnia and depression: Qualitative reflections from older adults who participated in a randomised controlled trial.	Aging & Mental Health	10.1080/13607963.2019.1571013	English	Acceptability	Accommodation	Individual	Older adults with insomnia and depression	Group CBT-I	Qualitative
2020	Bremer, Vincent; Chow, Philip T.; Furk, Burkhardt; Thordike, Frances P.; Rittnerband, Lee M	Valutazione e trattamento dell'insonnia nella pratica clinica e ai tempi di COVID-19 in Italia: Raccomandazioni del panel di esperti e della task-force integrata di cinque società scientifiche.	Rivista di Psichiatria		Italian	Acceptability	Policy	Italian General Population	General CBT-I	Review - clinical practice guideline	
2020	Cheng, Philip; Kaimbach, David A.; Castelan, Andrea Cuamatzi; Munagan, Nimalan; Drake, Christopher L.	Self-guided online cognitive behavioural therapy for insomnia: A naturalistic evaluation in patients with potential psychiatric comorbidities.	Journal of Affective Disorders	10.1016/j.jad.2020.01.143	English	Acceptability	Individual	General community, possible psychiatric comorbidities	Digital CBT-I	Pre-Post; Naturalistic Observational	
2020	Chung, Kyungmi; Kim, Seoyoung; Lee, Eun; Park, Jin Young	Efficacy of a theory-based cognitive behavioral technique app-based intervention for patients with insomnia: Randomized controlled trial.	Journal of Medical Internet Research		English	Accommodation	Individual	General insomnia	Digital CBT-I; theory of planned behavior based	RCT	
2020	Crawford, Megan R.; Luik, Annemarie L.; Espie, Colin A.; Taylor, Hannah L.; Burgess, Helen J.; Jones, Alex L.; Ong, Jason C.	Internet-based cognitive-behavioral therapy for insomnia in adults with asthma: A pilot study.	Behavioral Sleep Medicine	10.1080/15402002.2018.1518229	English	Acceptability	Individual	Adults with asthma	Digital CBT-I; SHUTi	Pilot / Feasibility	
2020	Cui, Ruiteng; Fiske, Amy	Block the light and sleep well: Evening blue light filtration as a part of cognitive behavioral therapy for insomnia.	Chronobiology International	10.1080/07420528.2019.1692859	English	Accommodation	Individual	General insomnia	Group CBT-I	RCT	
2020	Darden, Michael; Espie, Colin A.; Carl, Jenna R.; Henry, Alexander L.; Kanady, Jennifer C.; Krystal, Andrew O.; Miller, Christopher B.	Efficacy of digital cognitive behavioural therapy for insomnia: A meta-analysis of randomised controlled trials.	Sleep Medicine	10.1016/j.sleep.2020.08.020	English	Accommodation	Accessibility	Policy	General adults	Digital CBT-I	Review - SR and Meta-Analysis
2020	Denis, Dan; Elsay, Thalia C.; Rijdsdijk, Fruhling; Zavos, Helena M. S.; Keers, Robert; Espie, Colin A.; Luik, Annemarie L.; Badini, Isabella; Derveux, Sarah; Hodsdottir, John; Grestov, Alice M.	Digital Cognitive Behavioral Therapy for Insomnia in Women With Chronic Migraines.	Headache: The Journal of Head & Face Pain	10.1111/head.13777	English	Acceptability	Individual	Women with insomnia and chronic migraines	Digital CBT-I	Proof-of-Concept / Multiple Baseline	

2020	Dogheide, Julie A.	Feasibility and acceptability of cognitive behavioral therapy for insomnia (CBT-I) or acupuncture for insomnia and related distress among cancer caregivers.	Palliative & Supportive Care	10.1017/S1478951520001017	English	Acceptability	Individual	Cancer caregivers	In-person CBT-I, 8 sessions	Pilot RCT / Feasibility	
2020	Felder, Jennifer N.; Epel, Elissa S.; Neuhaus, John; Krystal, Andrew D.; Prather, Aric A.	Internet-delivered insomnia intervention improves sleep and quality of life for adolescent and young adult cancer survivors.	Pediatric Blood & Cancer	10.1002/pbc.28506	English	Accommodation	Individual	Adolescent and young adult cancer survivors	Digital CBT-I	Pilot / Clinical Trial	
	Folmer, Robert L.; Smith, Connor J.; Boudreau, Ellis A.; Hickok, Alex W.; Totten, Annette M.; Kaul, Bhavika; Stepnowsky, Carl J.; Whoolley, Mary A.; Sarmiento, Kathleen F.	Efficacy of Digital Cognitive Behavioral Therapy for the Treatment of Insomnia Symptoms Among Pregnant Women: A Randomized Clinical Trial.	JAMA Psychiatry	10.1001/jamapsychiatry.2019.4491	English	Acceptability	Individual	Perinatal	Digital CBT-I	RCT	
2020	Frause, Lukas; Duss, Simone B.; Gieselmann, Annika; Penzel, Thomas; Wetter, Thomas C.; Polmächer, Thomas	Depression prevention in digital cognitive behavioral therapy for insomnia: Is rumination a mediator?	Journal of Affective Disorders	10.1016/j.jad.2020.03.184	English	Acceptability	Individual	General population	Digital CBT-I	RCT	
2020	Gomes, Ana Allen	Insomnia Overview: Epidemiology, Pathophysiology, Diagnosis and Monitoring, and Nonpharmacologic Therapy.	American Journal of Managed Care	10.37765/ajmc.2020.42769	English	Availability	Acceptability	Policy	Vulnerable groups (veterans, menopause, elderly) with insomnia	Digital CBT-I and in-person CBT-I	Review - Narrative review
2020	Grierson, A. B.; Hobbs, M. J.; Mason, E. C.	Effects of a Tailored Brief Behavioral Therapy Application on Insomnia Severity and Social Disabilities Among Workers With Insomnia in Japan: A Randomized Clinical Trial.	JAMA Network Open	10.1001/jamanetworkopen.2020.2775	English	Accommodation	Affordability	Organizational	Workers in Japan	Digital tailored BBT or digital standard BBT	RCT
2020	Hsieh, Caleb; Rezaei, Talayah; Zeider, Michelle R.	Developing a Process for the Analysis of User Journeys and the Prediction of Dropout in Digital Health Interventions: Machine Learning Approach.	Journal of Medical Internet Research	10.2196/17738	English	Acceptability	Individual	Digital CBT-I app users	Digital CBT-I; SHUTi	Predictive Modeling / Machine Learning	
2020	Jankó, Karolina; Šmolek, Michal; Farková, Eva; Kospířová, Jana	Prevalence and management of sleep disorders in the Veterans Health Administration.	Sleep Medicine Reviews	10.1016/j.smrv.2020.101358	English	Accessibility	Availability	Policy	Veterans / VA users	Multi-modal: In-person, Telehealth, and Digital CBT-I	Health System Review of Services Utilized
2020	Järnfeldt, Håkan; Härmä, Mikko; Sallinen, Mikael; Viikela, Jussi; Paajanen, Teemu; Martimo, Karl-Pekka; Hublin, Christer	Comorbid Insomnia and Obstructive Sleep Apnea (COMISA): Current Concepts of Patient Management	International Journal of Environmental Research and Public Health	10.3390/ijerph18179248	English	Acceptability	Accommodation	Individual	COMISA	Multi-modal CBT-I combined with PAP	Review - State of the Art Review
2020	Javanheri, Sogit; Reid, Michelle; Drevup, Michelle; Mehra, Reena; Redline, Susan	How does cognitive behavioural therapy for insomnia work? A systematic review and meta-analysis of mediators of change	Clinical Psychology Review	10.1016/j.cpr.2021.102027	English	Acceptability	Individual	General adults with insomnia	CBT-I components (Stimulus Control, Sleep Restriction, Cognitive Therapy)	Review - Meta-Analysis	
2020	Jung, Ho-Jun; Yu, Eun-Seung; Kim, Jong-Hyun	Insomnia comorbid to Parkinson's disease Part II: Therapeutic approaches	Geriatric Et Psychologie Neuropsychiatrie Du Vieillessement	10.1684/prv.2021.0927	English	Acceptability	Individual	Individuals with Parkinson's Disease	General CBT-I	Review - clinical perspective and recommendations	
2020	Kalmbach, David A.; Cheng, Philip; O'Brien, Louise M.; Swansen, Leslie M.; Sangha, Roopina; Sen, Sirjan; Oulie, Constance; Oumutai-Castelan, Andrea; Henry, Alaudar L.; Roth, Thomas; Drake, Christopher L.	A controlled trial of Cognitive Behavioural Therapy-based strategies for insomnia among in-school adolescents in southern Nigeria	Child and Adolescent Psychiatry and Mental Health	10.1186/s13034-021-00406-1	English	Acceptability	Accommodation	Individual	Adolescents in Nigeria	Group CBT-I in school, weekly for 5 weeks	Pilot Controlled Trial
	Korfić, Eric; Amundson, Eric; Wisdom, Jennifer P.	A pilot feasibility trial of cognitive-behavioural therapy for insomnia in people with inflammatory bowel disease	BMJ open gastroenterology	10.1136/bmjgpo-2021-000805	English	Acceptability	Individual	Patients with Inflammatory Bowel Disease (IBD)	In-person CBT-I, 5 sessions	Pilot / Feasibility	
2020	Korfić, Eric; Hagedorn, Hildi	Cognitive behavioral therapy for insomnia in veterans with Gulf War illness: Results from a randomized controlled trial	Life Sciences	10.1016/j.lfs.2021.119147	English	Accessibility	Acceptability	Individual	Veterans with Gulf War Illness	Phone CBT-I, 8 weekly sessions	RCT with 6 month followup
2020	Lebrun, Cindy; Galy-Nugent, Marie-Christine; Bayard, Sophie	Can an E-Mail-Delivered CBT for Insomnia Validated in the West Be Effective in the East? A Randomized Controlled Trial	International Journal of Environmental Research and Public Health	10.3390/ijerph19010186	English	Accommodation	Acceptability	Individual	College students in Japan	Email-delivered CBT-I, REFRESH	RCT
2020	Leonard, Julia A.; Duncan, Angela B.	A Transdiagnostic Self-management Web-Based App for Sleep Disturbance in Adolescents and Young Adults: Feasibility and Acceptability Study	JMR formative research	10.2196/25392	English	Accommodation	Acceptability	Individual	Adolescents and young adults	Digital CBT-I based (but modified) app; DOZE Digital CBT-I	Pilot / Feasibility
2020	Luytser, Faith S.; Ritterband, Lee M.; Sereika, Susan H.; Buysse, Daniel J.; Wenzel, Sally E.; Strle, Patrick J.	Feasibility of a video-based cognitive behavioral therapy for insomnia in French adult cancer outpatients: results from the Sleep-4-All-3 study	Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-021-06151-7	English	Acceptability	Individual	Cancer patients in France	DOZE Digital CBT-I	Mixed-Methods	
2020	Majid, Nikfar Rqab; Broström, Anders; Ulander, Martin; Lin, Chung-Ying; Griffiths, Mark D.; Imani, Vahid; Ahorsu, Daniel Kwasi; Ohayon, Maurice M.; Pakizour, Amir H.	The Implementation and Effectiveness of Digital Cognitive Behavioral Therapy for Insomnia in Primary Care: A Pilot Study	Implementation Research and Practice	10.1177/26334895211053659	English	Availability	Accessibility	Organizational	Veterans in primary care	Digital CBT-I with a clinic "coach" for support	Implementation Trial
2020	McLay, Laurie; Sutherland, Dean; Machalick, Wendy; Sigurdson, Jeff	Experience of treatment and adherence to cognitive behavioral therapy for insomnia for patients with depression: An interview study.	Behavioral Sleep Medicine	10.1080/15402002.2020.1788033	English	Acceptability	Individual	Patients with depression and insomnia	In-person CBT-I, 6 sessions	Qualitative	
2020	Moloney, Mainrad E.; Martinez, Ashley L.; Badour, Christal L.; Moga, Daniela C.	Efficacy of a stepped care approach to deliver cognitive-behavioral therapy for insomnia in cancer patients: A noninferiority randomized controlled trial.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zbab196	English	Accommodation	Organizational	Patients with cancer	In-person Standard CBT-I (6 sessions) vs Stepped CBT-I (low symptoms digital CBT-I first, high symptoms 6 standard sessions), 3 optional booster sessions for both groups as needed	RCT; Non-inferiority	
2020	Moloney, Mainrad Eastin; Dunfee, Madeline; Runkel, Matthew; Schoenberg, Nancy	Cultural adaptations of psychological interventions for prevalent sleep disorders and sleep disturbances: A systematic review of randomized controlled trials in the United States.	Sleep Medicine Reviews	10.1016/j.smrv.2021.101455	English	Acceptability	Accommodation	Policy	Underserved minority groups with sleep disorders	In-person CBT-I workshop (half day) OR digital CBT-I	Review - SR and Meta-Analysis
2020	Natasy, Andrea N.; Vakulin, Andrew; Chai-Coetzer, Cheng L.; Lack, Leon; McEvoy, R. D.; Lovato, Nicolas; Sweetman, Alexander; Gordon, Christopher J.; Adams, Robert J.; Kaewwade, Bilingsley	Low-intensity cognitive behavioral therapy for insomnia as the entry of the stepped-care model in the community: A randomized controlled trial.	Behavioral Sleep Medicine	10.1080/15402002.2020.1764000	English	Accommodation	Individual	General adults in Hong Kong	In-person CBT-I workshop (half day) OR digital CBT-I	RCT	
2020	Ock, Shin; Demers, Lindsay; McDougall, Julie C.	"Sign me up, I'm ready!": Helping patients prescribed sleeping medication Engage with cognitive behavioral therapy for insomnia (CBT-I).	Behavioral Sleep Medicine	10.1080/15402002.2020.1828085	English	Acceptability	Accessibility	Individual	"High risk," CBT-I naïve patients (using sleeping medication, older adults, women, and patients with chronic pain)	Multi-modal, asked about preferences	Qualitative
2020	Okajima, Isao; Aketani, Joo; Kaijima, Ryo; Ishii, Miho; Murakami, Hiroto; Yamaguchi, Mineko	The effect of sleep-wake intradividual variability in digital cognitive behavioral therapy for insomnia: A mediation analysis of a large-scale RCT.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zbab118	English	Acceptability	Accommodation	Individual	General adults with insomnia	Digital CBT-I	RCT / Mediation Analysis

2020	Ong, Jason C.; Crawford, Megan R.; Dawson, Spencer C.; Fagg, Louis F.; Turner, Arlene D.; Wyatt, James K.; Crisostomo, Maria I.; Chhangani, Bantu S.; Kushida, Clete A.; Edinger, Jack D.; Abbott, Sabra H.; Mulkani, Roneli G.; Atarlan, Hrayr P.; Zee, Phyllis C.	Mode of delivery of Cognitive Behavioral Therapy for Insomnia: A randomized controlled non-inferiority trial of digital and face-to-face therapy.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/znab185	English	Accommodation	Acceptability	Policy	Adults with insomnia, Norway Public Health	Digital CBT-I vs in-person CBT-I	RCT / Non-inferiority
2020	Paardekooper, Diana; Thoyre, Zoe; Miller, Laurie; Nilgözü, Amin; Gascoigne, Michael B	Feasibility of a preventive intervention for insomnia in women with breast cancer receiving chemotherapy.	Behavioral Sleep Medicine	10.1080/15402002.2019.1707203	English	Acceptability		Individual	Breast cancer patients WITHOUT insomnia	Self-guided CBT-I booklet	Pilot / Feasibility
2020	Palagini, Laura; Manni, Raffaella; Aguglia, Eugenio; Amore, Mario; Bugnoli, Roberto; Grandi, Paolo; Grassi, Luigi; Mancuso, Claudio; Pizzi, Giuseppe; Minervino, Antonino; Nobili, Lino; Blesso, Giovanni	"Thinking about thinking" in insomnia disorder: The effect of cognitive-behavioral therapy for insomnia on sleep-related metacognition.	Frontiers in Psychology	10.3389/fpsyg.2021.705112	English	Acceptability		Individual	General adults with insomnia	In-person group CBT-I	Clinical Trial (pre/post)
2020	Romiszewski, Stephanie; May, Felix; Homan, Elizabeth Jane; Norris, Ben; Miles, Michelle A.; Zeman, Adam	Acceptability, feasibility, and usability of a manualized cognitive behavioural programme for treatment of insomnia in children who sustained traumatic brain injury: A service providers' perspective.	Neuropsychological Rehabilitation	10.1080/09602011.2020.1717969	English	Availability	Acceptability	Organizational	Clinicians treating children and TBIs	Manualized CBT-I modified for children with TBI	Qualitative and survey of clinicians
2020	Sadler, Paul; McLaren, Suzanne; Klein, Britt; Jenkins, Megan	Digital cognitive behavioral therapy for insomnia promotes later health resilience during the coronavirus disease 19 (COVID-19) pandemic.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/znab258	English	Acceptability		Policy	Historical insomnia	Digital CBT-I	Longitudinal Follow-up of RCT (4 years later)
2020	Soh, Hui Ling; Ho, Roger C.; Ho, Cyrus S.; Tam, Wilson W.	A feasibility and acceptability study of cognitive behavioural therapy for insomnia in adolescents with traumatic brain injury: A-B with follow up design, randomized baseline, and replication across participants.	Neuropsychological Rehabilitation	10.1080/09602011.2019.1889404	English	Acceptability		Individual	Adolescents with TBI	In-person CBT-I, 4 weeks	Single-Case Series
2020	Thakral, Manu; Von Korf, Michael; McCurry, Susan M.; Morin, Charles M.; Vitiello, Michael V.	Randomized controlled trial of an integrated approach to treating insomnia and improving the use of positive airway pressure therapy in veterans with comorbid insomnia disorder and obstructive sleep apnea.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/znab235	English	Accommodation	Availability	Individual	Veterans with COMISA	In-person CBT-I with PAP adherence, 5-weekly sessions; delivered by a "sleep coach"	RCT / 6 month follow-up
2020	Tomfohr-Madsen, Lianne; Madsen, Joshua W.; Bonneville, Dominique; Wian, Shane; Poudrie, Vickie; Barlow, Karen M.; Yeates, Keith Owen; Brooks, Brian L.	Multi-stakeholder perspectives on managing insomnia in cancer survivors: Recommendations to reduce barriers and translate patient-centered research into practice.	Journal of Cancer Survivorship	10.1007/s11764-021-01801-1	English	Availability		Organizational	Oncology stakeholders (patient advocates, clinicians, and cancer survivors)	General CBT-I	Qualitative and survey
2020	Wickens, Emerson M.; Albrecht, Jennifer B.; Dorosh, Jennifer S.; Parmasawathy, Sarani; Cohen, Jacob P.; Capaldi, Vincent F.; Johnson, Abree M.; Vadlamani, Aparna; Scharf, Steven M.	An investigation and replication of sleep-related cognitions, acceptance and behaviours as predictors of short- and long-term outcome in cognitive behavioural therapy for insomnia.	Journal of Sleep Research	10.1111/jsr.13376	English	Acceptability		Individual	General adults with insomnia	Standard CBT-I	RCT Secondary Analysis
2020	Zhou, Eric S.; Mazzenga, Marcelia; Gordinio, Monica L.; Meltzer, Lisa J.; Long, Kristin A.	Living with persistent insomnia after cancer: A qualitative analysis of impact and management.	British Journal of Health Psychology	10.1111/bjhp.12446	English	Availability	Acceptability	Organizational	Cancer survivors with persistent insomnia	N/A - Inquiring about how they would want their sleep problem to be managed within cancer center	Qualitative
2020	Zhou, Eric S.; Rockliff, Christopher J.	Perceived stress, subjective, and objective symptoms of disturbed sleep in men and women with stable heart failure.	Behavioral Sleep Medicine	10.1080/15402002.2020.1762961	English	Acceptability		Individual	Patients with heart failure (HF)	Standard CBT-I?	Baseline analysis of RCT data
2020	Zhou, Fu-Chun; Yang, Yuan; Wang, Yuan-Yuan; Rao, Wen-Wang; Zhang, Shu-Fang; Zeng, Liang-Nan; Zeng, Wei; Ng, Chee H.; Ungvari, Gabor S.; Zhang, Ling; Xiang, Yu-Tao	Does adjunctive digital CBT for insomnia improve clinical outcomes in an improving access to psychological therapies service?	Behaviour Research and Therapy	10.1016/j.brat.2021.103922	English	Acceptability	Accessibility	Organizational	Patients with other psychiatric disorders in a general mental health clinic	Digital CBT-I; Sleepio in addition to routine mental health treatment	Propensity Score Matched Control Stud
2021	Aj, Melissa; Gordon, Christopher; Stratton, Elizabeth; Calvo, Rafael A.; Bartlett, Olatayo; Grunstein, Ronald; Glozier, Nick	Video cognitive-behavioral therapy for insomnia in cancer patients: A cost-effective alternative.	Psycho-Oncology	10.1002/pon.5532	English	Affordability		Individual	Breast cancer patients	In-person (professionally based) CBT-I vs digital CBT-I	Cost-effectiveness Analysis
2021	Alcantara, Carmela; Giorgio Cosenza, Luciana; McCullough, Elliot; Vogt, Tiffany; Falzon, Andrea L.; Perez Boria, Irene	Developing and testing a web-based provider training for cognitive behavioral therapy of insomnia.	Military Medicine	10.1093/milmed/uaab359	English	Availability		Policy	Healthcare providers (CBT-I naïve)	Web-based provider training; CBTweb.org	RCT
2021	Alexis, Cathy A.; Fung, Constance H.; Doliszewski, Joseph M.; Fiorentino, Lavinia; Shepowsky, Carl; Rodriguez Tapia, Juan C.; Song, Yeonsu; Zeldner, Michelle R.; Josephson, Karen; Mitchell, Michael N.; Joudjian, Stella; Martin, Jennifer L.	Feasibility and preliminary efficacy of an internet-delivered intervention for insomnia in individuals with mild cognitive impairment.	Journal of Alzheimer's Disease	10.3233/JAD-210657	English	Accommodation	Acceptability	Individual	Older adults with cognitive impairment	Digital CBT-I; SHUTi OASIS	Single-Arm Pilot Study; Qualitative + Quantitative
2021	Arnold, J. Todd; Conroy, Deirdre A.; Monney, Ann; Fung, Allison; Sen, Ananda; Eisenberg, Daniel	Telehealth-delivered CBT-I programme enhanced by acceptance and commitment therapy for insomnia and hypnotic dependence: A pilot randomized controlled trial.	Journal of Sleep Research	10.1111/jsr.13199	English	Accommodation	Acceptability	Individual	Adults with chronic insomnia and sleep med dependence	Telehealth CBT-I combined with ACT	Pilot RCT / 6 month follow up
2021	Baltesio, Andrea; Bacaro, Valeria; Vacca, Mariacristina; Chirico, Andrea; Lucidi, Fabio; Riemann, Dieter; Baglioni, Chiara; Lombardo, Caterina	Telemedicine versus face-to-face delivery of cognitive behavioral therapy for insomnia: A randomized controlled noninferiority trial.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/znab136	English	Accessibility		Organizational	Adults with chronic insomnia	Telehealth CBT-I vs in-person CBT-I, both 6 sessions	RCT / Non-inferiority
2021	Biom, Kerstin; Hentati Isacson, Nik; Forsell, Erik; Roslin, Ann; Krappsten, Martin; Jernelöv, Susanna; Kaldo, Viktor	Does the implementing of the CBT-I mobile application improve sleep quality in adults?			English	Accommodation		Individual	Adults with acute insomnia (less than 30 days)	Digital CBT-I	Pilot study; pre-post
2021	Boivin, Diane; Charle, Odile; Fasse, Léonor; Jourdain, Jonathan; Pallabicki, Gloria; Lamore, Kristopher; Ninot, Grégory; Ouedraoui-Ninot, Estelle; Gossy, Sébastien; Albige, Laurence; Delaloge, Suzette; Maksa, David; Planchard, David; Savard, Josée; Dauche, Sarah	Does cognitive behaviour therapy for insomnia reduce repetitive negative thinking and sleep-related worry beliefs? A systematic review and meta-analysis.	Sleep Medicine Reviews	10.1016/j.smrv.2020.101378	English	Acceptability		Individual	Individuals with insomnia and negative thoughts	Standard CBT-I	Review - SR and Meta-Analysis
2021	Bradley, Joanne	A micro-randomized trial to improve college students' wake time regularity.			English	Accommodation		Individual	College students	Text reminders; modified CBT-I to only consistent wake times	Micro-randomized trial; feasibility

2021	Burrock, Claudia; Lohr, Dirk; Smk, Filip; Horvath, Hanne; Berking, Matthias; Spiegelhalter, Kai; Rippe, Heleen; Ebert, David Daniel	Sleep disturbances following traumatic brain injury: Lived experiences and the use of psychological interventions.		English	Acceptability	Accommodation	Individual	Individuals with TBI	General CBT-I, sometimes adapted for TBI	Qualitative - IPA	
2021	Byrd, Beverly	Telehealth cognitive behavioral therapy for insomnia in children with autism spectrum disorder: A pilot examining feasibility, satisfaction, and preliminary findings.	Autism: The International Journal of Research & Practice	10.1177/1362361320949078	English	Acceptability	Accessibility	Individual	Children with insomnia and Autism	Telehealth CBT-I, 8 sessions	Single-Arm Pilot Study
2021	Camona, Nicole E.; Uoyatynsky, Aleksandra; Kutana, Samira; Corum, Penny; Henderson, Joanne; McShane, Kelly; Shapiro, Colin; Sidani, Souraya; Strinson, Jennifer; Carney, Colleen E.	Feasibility and Treatment Effect of a Web-Based Cognitive Behavioral Therapy for Insomnia Program in Individuals with Multiple Sclerosis: A Pilot Randomized Controlled Trial.	International Journal of MS Care	10.7224/1537-2073.2019-122	English	Acceptability	Accessibility	Individual	Patients with chronic insomnia and MS	Digital CBT-I vs digital CBT-I with support phone calls (both 6 weeks)	RCT
2021	Chang, Yu-Ping; Pereira, Terrika; Salinas, Alexander; Or, Hui Ying; Morales, Marlene; Li, My Lan	Effects of an email delivered cognitive behavioral therapy for insomnia in college students.	Perspectives in Psychiatric Care	10.1111/ppc.12736	English	Accommodation		Individual	College students with insomnia	Email delivered CBT-I	Two group pre-post design
2021	Chao, Linda L.; Kanady, Jennifer C.; Crocker, Nicole; Straus, Laura D.; Hawn, Jennifer; Metzler, Thomas J.; Maquie, Shira; Neylan, Thomas C.	Assessing the feasibility and acceptability of a cluster-randomized study of cognitive behavioral therapy for chronic insomnia in a primary care setting.	BMC Family Practice	10.1186/s12875-021-01429-5	English	Availability		Organizational	Adult primary care patients in Spain	In-person, nurse led CBT-I, integrated into primary care setting	Mixed-methods - Feasibility and thematic analysis
2021	Chapoutot, Mälinke; Peter-Denex, Laura; Schoendorf, Benjamin; Fakre, Thierry; Bashaji, Hisham; Putala, Benjamin	Sleep Apnea and Insomnia: Emerging Evidence for Effective Clinical Management.	CHEST	10.1016/j.chest.2020.12.002	English	Acceptability		Policy	COMISA	General CBT-I with PAP	Review - Clinical review and treatment recommendations
2021	Cheng, Philip; Cassment, Melynda D.; Kalmbach, David A.; Castellan, Andrea Cuamatzi; Drake, Christopher L.	Guided Internet-Based Cognitive Behavioral Therapy for Insomnia: Health-Economic Evaluation From the Societal and Public Health Care Perspective Alongside a Randomized Controlled Trial.	Journal of Medical Internet Research	10.2196/25609	English	Affordability		Organizational	Teachers with work-related rumination	Digital CBT-I	Economic evaluation of RCT
2021	Drasneau, Christopher W.	Framework for the Design Engineering and Clinical Implementation and Evaluation of mHealth Apps for Sleep Disturbance: Systematic Review.	Journal of Medical Internet Research	10.2196/24607	English	Accommodation		Policy	General insomnia	Digital CBT-I	Review - SR
2021	Dyrberg, Henry; Just, Anette; Kragh, Mette	[Sleep disorders in patients with a neurocognitive disorder]	L'Encéphale	10.1016/j.encep.2021.08.014	French	Acceptability		Policy	Patients with insomnia and neurocognitive disorders	General CBT-I	Review - comprehensive treatment guidelines
2021	Edinger, Jack D.; Arnett, J. Todd; Bertisch, Suzanne M.; Carney, Colleen E.; Harrington, John J.; Lichstein, Kenneth L.; Sateia, Michael J.; Trösel, Wendy M.; Zhou, Eric S.; Kazmi, Uzma; Heald, Jonathan L.; Martin, Jennifer L.	Development and acceptability of a decision aid for chronic insomnia considering discontinuation of benzodiazepine hypnotics	Neuropsychopharmacology Reports	10.1002/np2.12219	English	Acceptability	Accommodation	Organizational	Patients with insomnia on sleep medications and their providers	Development of decision aid for CBT-I and med tapering	Mixed-Methods; survey
2021	Edinger, Jack D.; Arnett, J. Todd; Bertisch, Suzanne M.; Carney, Colleen E.; Harrington, John J.; Lichstein, Kenneth L.; Sateia, Michael J.; Trösel, Wendy M.; Zhou, Eric S.; Kazmi, Uzma; Heald, Jonathan L.; Martin, Jennifer L.	Insomnia Treatment Preferences Among Primary Care Patients	Clinical Therapeutics	10.1016/j.clinthera.2022.03.002	English	Acceptability		Individual	Adults in primary care	N/A - inquiring about preference of behavior intervention vs meds	Cross sectional
2021	Epgejl, Dineyael R.; Bello-Awusah, Tolulope; Omiyibodeun, Oluyinka; Ani, Cornelius	Internet-delivered Cognitive Behavioral Therapy for insomnia in youth with autism spectrum disorder: A pilot study	Internet Interventions	10.1016/j.invent.2022.100548	English	Acceptability	Accommodation	Individual	Adolescents with Autism	Digital CBT-I	Mixed methods Pilot
2021	Gaffey, Allison E.; Jeon, Sangchoon; Conlay, Samantha; Jacoby, Daniel; Ash, Garrett L.; Yaggi, Henry K.; O'Connell, Meghan; Linsky, Sarah J.; Redaker, Nancy S.	Therapy for insomnia with chronic obstructive pulmonary disease: a randomized trial of components	Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.10210	English	Acceptability		Individual	Patients with insomnia and COPO	In-person CBT-I, 6 weeks	RCT
2021	Gutierrez, Andrea; Strozzi, Marco; Scarpallino, Alessandro; Saliba, Andrea; Leitner, Caterina; D'Este, Giada; Mombelli, Samantha; Ferini-Strambi, Luigi; Gastromono, Vincenza	Secondary psychiatric care patients' experiences of internet CBT for insomnia - a qualitative study	BMC psychology	10.1186/s40359-022-00943-0	English	Acceptability		Individual	Outpatients in psychiatry in Sweden	Digital CBT-I	Qualitative - content analysis
2021	Garland, Sheila N.; Trevino, Kelly; Liu, Kevin T.; Gelfman, Philip; Spigol, Eugenio; MacLeod, Jodi; Walker, Denise A. H.; Gladis, Betsy; Sedulski, Christina; Bare, Frances K.; Mao, Jun J.	The Survivorship Sleep Program (SSP): A synchronous, virtual cognitive behavioral therapy for insomnia pilot program among cancer survivors	Cancer	10.1002/ncr.34966	English	Acceptability	Accommodation	Organizational	Cancer survivors with insomnia	Digital CBT-I adapted for cancer survivors; Survivorship Sleep Program (SSP)	Pilot RCT
2021	Hermes, Eric D. A.; Rosenheck, Robert A.; Burnone, Laura; Dante, Greg; Lukens, Carrie; Martino, Steve	Referral process to further evaluate poor sleep in breast cancer survivors	Cancer Medicine	10.1002/cam4.4578	English	Acceptability	Accessibility	Organizational	Breast cancer survivors	N/A - sleep specialist referral experience (including CBT-I)	Mixed methods - referral tracking and qual interviews
2021	Kallstedt, Hilward; Scott, Ian; Vedaa, Øystein; Lydersen, Stian; Vethe, Daniel; Morken, Gunnar; Stiles, Tone Charles; Sverresen, Berge; Langsrud, Knut	How Does E-mail-Delivered Cognitive Behavioral Therapy Work for Young Adults (18-28 Years) with Insomnia? Mediators of Changes in Insomnia, Depression, Anxiety, and Stress	International Journal of Environmental Research and Public Health	10.3390/ijerph19084423	English	Acceptability	Accommodation	Individual	Young adults/college students	Email delivered CBT-I	RCT
2021	Koffel, Eric; Branson, Mariah; Amundson, Eric; Wisdom, Jennifer P.	Development and acceptability of a mobile health application integrated with the electronic health record for treatment of chronic insomnia disorder	Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.10218	English	Availability	Accommodation	Organizational	Patients in primary care with insomnia	Digital CBT-I integrated into electronic health record	Pilot implementation
2021	Lah, Sunilca; Phillips, Natalie L.; Palermo, Tonya M.; Bartlett, Delaney; Epps, Adrienne; Teng, Arthur; Brookes, Naomi; Parry, Louise; Naismith, Sharon L.	Barriers and facilitators to implementing a stepped care cognitive-behavioral therapy for insomnia in cancer patients: a qualitative study	Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-022-07094-3	English	Availability	Acceptability	Organizational	Clinicians physicians, nurses, radiation therapists, psychologists, healthcare administration, and cancer patients	N/A - inquiring about integrating stepped-care CBT-I into cancer care hospitals	Qualitative
2021	Latham, Melissa D.	Efficacy of a digital cognitive behavioral therapy for insomnia in people with low back pain: a feasibility randomized co-twin and singleton-controlled trial	Pilot and Feasibility Studies	10.1186/s40814-022-01087-2	English	Acceptability		Individual	Patients with insomnia and chronic low back pain	Digital CBT-I; Sleepio (6 sessions)	RCT; feasibility
2021	Lebrun, Cindy; Gelly-Nageot, Marie-Christine; Bayard, Sophie	Veterans' experiences with and perspectives on insomnia treatment: A qualitative study.	Psychological Services	10.1037/psr0000494	English	Acceptability		Individual	Veterans with comorbidities (PTSD, chronic pain, etc)	N/A - inquired about preference of CBT-I vs BBT	Qualitative - content analysis
2021	Marion, Louis-Philippe; Ivers, Hans; Savard, Josée	Self-efficacy in insomnia symptom management after digital CBT-I mediates insomnia severity during the COVID-19 pandemic.	Behavioral Sleep Medicine	10.1080/15402002.2021.1976760	English	Acceptability		Individual	General adults	Digital CBT-I	Longitudinal follow-up (4 years)

2021	Mattos, Meghan K.; Manning, Carol A.; Quigg, Mark; Davis, Eric M.; Barnes, Laura; Solinger, Amy; Eckstein, Michelle; Ritterband, Lee M.	Cost-effectiveness of guided internet-delivered cognitive behavioral therapy in comparison with care-as-usual for patients with insomnia in general practice.	Behavioral Sleep Medicine	10.1080/15402002.2021.1901708	English	Affordability	Policy	Primary care patients	Digital CBT-I with i-Sleep vs in-person CBT-I	Cost-utility analysis; health-economic evaluation	
2021	McCrae, Christina S.; Chan, Wai Sze; Curtis, Ashley F.; Nair, Neetu; Denoch, Chelsea B.; Munoz, Melissa; Takamatsu, Stephanie; McLean, Debra; Davenport, Martina; Muckerman, Julie E.; Takahashi, Nicole; McCann, Dorian; McGowan, Kevin; Saitoh, Pradyep; Masarik, Micah O.	Approaches to the assessment of adherence to CBT-I, predictors of adherence, and the association of adherence to outcomes: A systematic review.	Sleep Medicine Reviews	10.1016/j.smrv.2022.101620	English	Acceptability	Individual	General adults with insomnia	General CBT-I broken into components	Review - SR	
2021	Meakim, Haley; Rehm, Imogen C.; Montfries, Melissa; Jung, Mook; Mufizer, Lisa J.; Jackson, Melinda L.	A qualitative examination of the usability of a digital cognitive behavioral therapy for insomnia program after stroke.	Brain Injury	10.1080/02690052.2022.2034182	English	Acceptability	Individual	Survivors of stroke with insomnia	Digital CBT-I; Sleepio	Qualitative - thematic analysis	
2021	Moore, Teleri; Phillips, Natalie; Palermo, Tonya; Loh, Sunicia	The effects of digital CBT-I on work productivity and activity levels and the mediational role of insomnia symptoms: Data from a randomized controlled trial with 6-month follow-up.	Behaviour Research and Therapy	10.1016/j.brat.2022.104083	English	Affordability	Organizational	General adults in the workforce	Digital CBT-I	RCT with work and work activity outcomes	
2021	Okajima, Iku; Tanizawa, Noriko; Harata, Megumi; Suh, Sooyeon; Yang, Chieh-Ming; Li, Shihay Kiu; Troceni, Mickey T.	Treatment fidelity in a randomized controlled trial of cognitive behavioral therapy for insomnia in heart failure.	Nursing Research	10.1097/NNR.0000000000000616	English	Acceptability	Accommodation	Organizational	Patients with stable heart failure	Group and 1:1 CBT-I Fidelity evaluation of RCT	
2021	Org, Jason C.; Crawford, Megan R.; Wallace, Douglas M.	Secondary psychiatric care patients' experiences of internet CBT for insomnia - a qualitative study.	BMC Psychology		English	Acceptability	Individual	Outpatients in psychiatry in Sweden	Digital CBT-I	Qualitative - content analysis	
2021	Parsons, Christine E.; Zachariae, Robert; Landberger, Christoffer; Young, Katherine S.	Using telehealth to deliver cognitive behavioral treatment of insomnia to a caregiver of a person with Alzheimer's disease.	Journal of Cognitive Psychotherapy	10.1891/JCPSY-O-20-00055	English	Acceptability	Accessibility	Organizational	Telehealth CBT-I, 4 sessions	Case study; implementation	
2021	Patterson, Alastair; Khundakar, Martina; Young, Anthony; Lion, Jonathan; Chakraborty, Samanthi; Rathbone, Adam; Pattison, Watson, Stuart; Donaldson, Tim; Anderson, Kirstie N.	Web-based provider training of cognitive behavioral therapy of insomnia: Engagement rates, knowledge acquisition, and provider acceptability.	Cognitive Behaviour Therapy	10.1080/16506073.2021.1996453	English	Availability	Policy	Healthcare providers	Online CBT-I training program; CBTweb.org	Implementation Science / Training Evaluation	
2021	Ragnoli, Beatrice; Pochetti, Patricia; Raj, Alberto; Malletta, Mario	Pilot randomized controlled trial of eHealth cognitive-behavioral therapy for insomnia among Spanish-speaking breast cancer survivors.	Journal of Behavioral Medicine	10.1007/s10885-022-00313-6	English	Acceptability	Individual	Spanish speaking breast cancer survivors in Puerto Rico	Spanish language Digital CBT-I, 6 weeks	Pilot RCT	
2021	Reynolds-Cowie, Paul; Fleming, Leanne	Effectiveness of cognitive-behavioral therapy for insomnia on emotional regulation and dysfunctional sleep beliefs among insomnia patients.	Iranian Journal of Psychiatry and Clinical Psychology	10.32598/ijpcp.28.2.1979.2	Persian	Acceptability	Individual	Insomnia patients in Iran	In-person standard CBT-I	Quasi-experimental with randomized assignment	
2021	Salween-Deremer, Jessica K.; Smith, Michael T.; Aschbrenner, Kelly A.; Haskett, Hannah G.; Speed, Brittany C.; Siegel, Corey A.	Comorbid insomnia and sleep apnea: Assessment and management approaches.	Sleep Medicine Clinics	10.1016/j.jsmc.2022.07.006	English	Acceptability	Organizational	COMISA	CBT-I integrated into sleep clinic with PAP therapy	Review - Clinical Guidelines for sleep clinics	
2021	Savard, Josée; Ivers, Hans; Morin, Charles M.; Lacroix, Guy	Comparative efficacy and acceptability of cognitive behavioral therapy delivery formats for insomnia in adults: A systematic review and network meta-analysis.	Sleep Medicine Reviews	10.1016/j.smrv.2022.101648	English	Accommodation	Policy	General insomnia	Comparison of 1:1, group, or digital delivery of CBT-I	Review - Meta-Analysis	
2021	Savard, Josée; Ivers, Hans; Savard, Marie-Hélène; Morin, Charles M.; Caplette-Gingras, Aurélie	Cost-effectiveness of internet-supported cognitive behavioral therapy for university students with anxiety symptoms: A Markov-model analysis.	PLoS ONE	10.1371/journal.pone.0268061	English	Affordability	Policy	College students in Hong Kong	Digital CBT-I	Cost-Effectiveness Analysis	
2021	Bouchard, Stéphanie; Lacroix, Guy; Siemakowski, Catherine F.; Smeets-Beck II, Eber; Dineup, Michelle	A pilot randomized controlled trial of the insomnia coach mobile app to assess its feasibility, acceptability, and potential efficacy.	Behavior Therapy	10.1016/j.beth.2021.11.003	English	Acceptability	Accommodation	Individual	Veterans with moderate insomnia	Digital CBT-I; Insomnia Coach	RCT
2021	Stott, Richard; Pimm, John; Emmsay, Richard; Miller, Christopher B.; Espie, Colin A.	Changes in sleep following internet-delivered cognitive-behavioral therapy for insomnia in women treated for breast cancer: A 3-year follow-up assessment.	Sleep Medicine	10.1016/j.sleep.2022.04.020	English	Acceptability	Individual	Breast cancer survivors	Digital CBT-I	Longitudinal follow-up (3 years)	
2021	Sun, Jiyi; McPhillips, Miranda V.; Chen, Ker Cheng; Zang, Yinyin; Li, Junmin; Qian, Jessica; Brewster, Olesia S.; Gouvarintsa, Natalia S.	Quelle est la place des professionnels de santé dans l'adhésion aux programmes thérapeutiques en ligne de l'insomnie ? Éléments de réflexion issus de l'étude Sleep-4-AI-1 et protocole de l'étude Sleep-4-AI-2-0.	Psycho-Oncologie	10.3166/psoc.2022-0179	French	Accommodation	Individual	Patients with cancer	Digital CBT-I	Feasibility trial	
2021	Taylor, Daniel J.; Dietrich, Jessica R.; Puukasma, Kristi; Cathoun, Casey D.; Milanak, Melissa E.; Wardle-Pinkston, Sophie; Rheingold, Alyssa A.; Ruggiero, Kenneth J.; Bunnell, Brian E.; Wikerson, Allison K.	Thematic trends and knowledge structure on cognitive behavior therapy for insomnia: A bibliometric and visualization analysis.	Frontiers in Psychiatry	10.3389/fpsyt.2022.940741	English	Accommodation	Accessibility	Policy	Research community	Review including multi-modal CBT-I	Bibliometric Analysis
2021	Torrens, Isabel; Esteva, Magdalena; Vicens, Catalina; Posa-Portell, Maria Rosa; Vidal-Thoms, Maria Clara; Vidal-Ribas, Cristina; Llorens-Montañez, Patricia; Torres-Solera, Elena	Exploring the relationship between working alliance and outcomes in cognitive behavioral therapy for insomnia disorder (CBT-I).			English	Acceptability	Individual	Perinatal women	In-person CBT-I	Secondary analysis of RCT	
2021	Vesterpaard, Cecilie L.; Vedaa, Øystein; Simpson, Melanie R.; Fauland, Patrick; Veith, Daniel; Kjerstad, Kalle; Langrud, Knut; Ritterband, Lee M.; Svendsen, Berge; Stiles, Tone C.; Scott, Jan; Kallestad, Håvard	Patient and provider experiences with CBT-I administered in-person or via telemedicine: A randomized non-inferiority trial.	Cogent Psychology	10.1080/23311908.2022.2038936	English	Acceptability	Accessibility	Organizational	Adults with insomnia	Telehealth CBT-I	Qualitative - thematic analysis
2021	Wong, Ka-Yan; Chung, Ka-Fai; Au, Chi-Hung	Treatment of insomnia within an interdisciplinary pain rehabilitation program: A randomized trial.	International Journal of Clinical and Health Psychology	10.1016/j.ijchp.2022.100295	English	Accommodation	Availability	Organizational	Patients with insomnia and chronic pain	Group CBT-I integrated into pain management clinic, 4 sessions	Pilot RCT
2022	Amidi, Ali; Buskirk, Cecile R.; Dornholt, Malene F.; Dahlgard, Asjoo; Tremblay, Frances P.; Ritterband, Lee; Zachariae, Robert	Lying awake in forensic hospitals: A multicenter, cross-sectional study on the prevalence of insomnia and contributing factors in forensic psychiatric patients.	Journal of Forensic Psychiatry & Psychology	10.1080/14789949.2022.2068451	English	Acceptability	Accommodation	Organizational	Psychiatric inpatients	N/A - needs assessment for CBT-I inpatient	Cross sectional
2022	Aoki, Yumi; Takekura, Yoshikazu; Suzuki, Masahiro; Okajima, Iku; Takekura, Masahiro; Shimura, Akio; Utsumi, Tomohiro; Kotori, Nozomu; Yamashita, Hidehisa; Kuriyama, Kenichi; Watanabe, Norio; Mishima, Kazuo	Cognitive-behavioral therapy for insomnia in older adults.	Cognitive and Behavioral Practice	10.1016/j.cbpra.2021.04.002	English	Acceptability	Accommodation	Individual	Older adults with comorbidities	Review including multi-modal CBT-I	Review - lit review

2022	Baka, Agri; van der Zweerde, Tarja; Lancel, Jaap; Bosmans, Judith E.; van Straten, Anemiek	Using network intervention analysis to explore associations between participant expectations of and difficulties with cognitive behavioural therapy for insomnia and clinical outcome: A proof of principle study.	Journal of Psychiatric Research	10.1016/j.jpsychires.2022.01.054	English	Accommodation	Acceptability	Individual	General insomnia	In-person CBT-I vs digital CBT-I	Network Intervention Analysis; RCT Secondary
2022	Bentley, Tanya O. K.; Castillo, Daisy; Sadeghi, Nini; Piber, Dominique; Caroli, Judith; Onstead, Richard; Irwin, Michael R.	Advancement in the contemporary clinical diagnosis and treatment strategies of insomnia disorder.	Sleep Medicine	10.1016/j.sleep.2022.02.018	English	Acceptability	Accommodation	Policy	General insomnia	Review including multi-modal CBT-I support	Review - Clinical review with treatment recommendations
2022	Blom, Kerstin	Treating insomnia with high risk of depression using therapist-guided digital cognitive, behavioral, and circadian rhythm support interventions to prevent worsening of depressive symptoms: A randomized controlled trial.	Psychotherapy and Psychosomatics	10.1159/000520282	English	Accommodation	Acceptability	Individual	Insomnia patients at risk for depression (by phenotype)	Digital CBT-I with circadian rhythm support	RCT, longitudinal follow-up (1 year)
2022	Boisson, D.; Charles, C.; Fasse, L.; Jouriac, J.; Pablidaki, O.; Guersou-Nicot, E.; Nicot, G.; Coulllet, A.; Le Prevost, J.-B.; Savard, J.; Dauchy, S.	Change in dysfunctional sleep-related beliefs is associated with changes in sleep and other health outcomes among older veterans with insomnia: Findings from a randomized controlled trial.	Annals of Behavioral Medicine	10.1093/abnm/kzab030	English	Acceptability		Individual	Veterans with insomnia	General CBT-I	Secondary analysis of RCT
2022	Brammeweth, Adam D.; Rodriguez, Keri L.; Klima, Gloria J.; Appel, Cathleen J.; Chinman, Matthew J.	Guided internet-based treatment for insomnia and depression.			English	Acceptability		Individual	Adults with insomnia and depression	Digital CBT-I vs Group CBT-I	Mixed-Methods - Noninferiority RCT, longitudinal follow-up (3 years) and qualitative RCT
2022	Cassidy-Eagle, Erin L.; Sieben, Allison; Chen, Hongtu; Kim, Hyun (Monica); Palest, Oana	A comparison of cognitive behavioral therapy for insomnia to standard of care in an outpatient substance use disorder clinic embedded within a therapeutic community: a RE-AM framework evaluation.	Trials	10.1186/s13063-022-08885-7	English	Accommodation	Acceptability	Organizational	Individuals in early SUD recovery in therapeutic communities	Group CBT-I integrated into recovery community	
2022	Chan, Ngan Yan; Lam, Siu Ping; Zhang, Jihui; Chan, Joey Wing-Yan; Yu, Mandy Man Wai; Suh, Sooyeon; Yang, Chien-Ming; Okajima, Isai; Li, Albert Martin; Wing, Yan Kwok; Li, Shirley Yin	Assessing Efficacy of Cognitive Behavioral Therapy for Insomnia in the Oncology Population.	Clinical Journal of Oncology Nursing	10.1188/22.CJON.389-405	English	Acceptability		Individual	Cancer patients and survivors	Review including multi-modal CBT-I	Review - lit review
2022	Cheng, Philip; Casement, Mayana D.; Kalmbach, David A.; Cusamatti Castellan, Andrea; Drake, Christopher L.	Efficacy of Email-Delivered Versus Face-to-Face Group Cognitive Behavioral Therapy for Insomnia in Youths: A Randomized Controlled Trial.	Journal of Adolescent Health	10.1016/j.jadhealth.2021.11.005	English	Accommodation		Individual	Young adults	Group CBT-I vs email delivery CBT-I	RCT, longitudinal follow up (8 months)
2022	Cramer, Julia R.; Fliege, Lindsay O.; Gaberman, Rachel B.	Costs associated with treatment of insomnia in Alzheimer's disease caregivers: a comparison of mindfulness meditation and cognitive behavioral therapy for insomnia.	BMC Health Services Research	10.1186/s12913-022-07619-w	English	Affordability		Policy	Alzheimer's caregivers	CBT-I vs Mindfulness (comparing costs)	Economic Analysis of RCT
2022	Forma, Felicia; Knight, Tyler G.; Thomke, Frances P.; Xiong, Xiaona; Bak, Rebecca Velaz; Fulton F.; Maricich, Yael A.; Malone, Daniel C.	Cost-effectiveness of telephone cognitive behavioral therapy for osteoarthritis-related insomnia.	Journal of the American Geriatrics Society	10.1111/jgs.17469	English	Affordability	Accommodation	Policy	Community-dwelling older adults with insomnia and osteoarthritis pain	Phone CBT-I, 6 sessions	Cost-Effectiveness Analysis
2022	Gao, Ya; Ge, Long; Liu, Ming; Niu, Mingming; Chen, Yamin; Sun, Yue; Chen, Ji; Yao, Liang; Wang, Qi; Li, Zhifan; Xu, Jiaqiao; Li, Muyang; Hou, Liangying; Shi, Jiyuan; Yang, Kelu; Cai, Yitong; Li, Lun; Zhang, Junhui; Tian, Jifeng	PEOPLE WITH IBD WANT TO TALK ABOUT SLEEP: RECOMMENDATIONS ON WHAT TO ASK AND HOW TO RESPOND TO SLEEP COMPLAINTS...2022 Crohn's & Colitis Congress (Virtual), January 20-22, 2022.	Inflammatory Bowel Diseases	10.1093/ibd/ibaa015.150	English	Acceptability		Individual	Patients with Inflammatory bowel diseases (IBD)	N/A - inquiring about treatment preferences for sleep problems	Qualitative - thematic analysis; surveys
2022	Giordano, Lisa; Jansson-Fröjmark, Markus; Nordenstam, Lisa; Andersson, Gerhard; Olsson, Nora Choque	Counselling for Chronic Insomnia in Swiss Pharmacies: A Survey Study Based on Case Vignettes	Pharmacy	10.3390/pharmacy1030105	English	Acceptability		Organizational	Pharmacists in Switzerland	N/A - inquiring about what they would recommend for insomnia	Survey with clinical vignettes
2022	Granberg, Rachel E.; Heyer, Arianna; Gehman, Philip R.; Ounier, Paul W.; Hoff, Nathan A.; Outh, Amanda; Kayser, Matthew S.; Kuna, Samuel; Frasso, Rosemary	Guided Internet-Based Cognitive Behavioral Therapy for Insomnia: Prognostic and Treatment-Predictive Factors	Diagnostics	10.3390/diagnostics13040781	English	Acceptability		Individual	Adults with insomnia	Digital CBT-I multi-component vs Digital CBT-I SRT only	Secondary analysis of RCT
2022	Hall, Danielle L.; Arditt Hall, Kimberly A.; Gorman, Mark J.; Commander, Amy; Goldstein, Michael R.; Cunningham, Tony J.; Weman, Sarah; Marach, Helen R.; Juhel, Brooke C.; Li, Raissa; Markowitz, Alexandros; Grandner, Michael; Park, Elise R.; Ho, Kevin K. N.; Simic, Milana; Polheine, Marina B.; Miller, Christopher B.; Ferreira, Manuela L.; Grunstein, Ronald R.; Hopper, John L.; Orsola, Juan R.; Ferreira, Paulo H.	Characteristics of Patients with Subjective Sleep Problems after Cognitive Behavioral Therapy for Insomnia: Secondary Analyses of a Randomized Controlled Trial	Sleep Science	10.1055/s-0043-1776881	English	Acceptability		Individual	Primary care patients with insomnia	Group CBT-I	Secondary analysis of RCT
2022	Kalmbach, David A.; Cheng, Philip; Reiff, Anthony N.; Seymour, Oracio M.; Rudolph, Melissa K.; Bacon, Luisa F.; Pitts, D'Angela S.; Wakh, Orlia; Drake, Christopher L.	Sleep Profiles of Caregivers for Persons Living with Dementia: A Qualitative Study	Western Journal of Nursing Research	10.1177/01939459231175242	English	Acceptability		Individual	Dementia caregivers	N/A - inquiring about experience with sleep and treatment preferences	Qualitative - thematic analysis
2022	Kalmbach, David A.; Cheng, Philip	Patients with IBD Want to Talk About Sleep and Treatments for Insomnia with Their Gastroenterologist	Digestive Diseases and Sciences	10.1007/s10620-023-07883-8	English	Acceptability		Organization	Patients with with IBD and insomnia	N/A - inquiring about integrating CBT-I into GI clinic	Mixed-Methods - survey
2022	Kalmbach, David A.; Cheng, Philip; Reiff, Anthony N.; Seymour, Oracio M.; Rudolph, Melissa K.; Bacon, Luisa F.; Pitts, D'Angela S.; Wakh, Orlia; Drake, Christopher L.	The Effects of Cognitive Behavioral Therapy for Insomnia on Multidimensional Perfectionism	Behavior Therapy	10.1016/j.beth.2022.10.001	English	Acceptability		Individual	Patients with insomnia and high perfectionism	Standard CBT-I	Secondary analysis of RCT
2022	Kapella, Mary; Steffen, Alana; Prasad, Bharati; Laghi, Franco; Vispute, Sachin; Kemner, Gretchen; Teixeira, Celso; Peters, Tara; Jun, Jeehye; Law, Julie; Carley, David	Mechanisms of Cognitive Behavioral Therapy and Light Therapy for Cancer-Related Insomnia: A Randomized Clinical Trial during Chemotherapy for Breast Cancer	Behavioral Sleep Medicine	10.1080/15402002.2022.2075364	English	Accommodation	Acceptability	Individual	Women with breast cancer receiving chemotherapy	CBT-I combined with light therapy	RCT
2022	Kjensstad, Kåre; Svendsen, Berge; Vedaa, Øystein; Langslet, Knut; Verhe, Daniel; Fasland, Patrick M.; Vestergaard, Cecilie L.; Lydersen, Stein; Smith, Otto R. F.; Scott, Ian; Kallestad, Howard	Experiences of group-based cognitive behavioural therapy for insomnia among patients with rheumatoid arthritis: a qualitative study	BMI open	10.1136/bmjopen-2022-066221	English	Acceptability		Individual	Patients with insomnia and rheumatoid arthritis	Group CBT-I	Qualitative
2022	Kuhn, Eric; Miller, Katherine E.; Puran, Delaraz; Wielgosz, Joseph; YorkWilliams, Sophie L.; Owen, Jason E.; Jaworski, Beth K.; Hallenbeck, Hajing Wu; McCaslin, Shannon E.; Taylor, Katherine L.	Effectiveness of one-week internet-delivered cognitive behavioral therapy for insomnia to prevent progression from acute to chronic insomnia: A two-arm, multi-center, randomized controlled trial	Psychiatry Research	10.1016/j.psychres.2023.115066	English	Accommodation		Individual	Acute insomnia (less than 3 months)	Digital CBT-I for only 1 week	RCT, longitudinal (12 weeks)

2022	Leerssen, Joanne; Lakbila-Kamal, Oti; Dekkers, Laura M. S.; Balaar, Savannah L. C.; Albers, Anne C. W.; Blanken, Tessa F.; Lances, Jaap; van der Lande, Glenn J. M.; Maksimovic, Teodora; Mastenbrook, Sophie E.; Raessen, Joyce E.; van de Ven, Sjoen; van der Zweerde, Tanja; Foster-Dingley, Jessica C.; Van Someren, Eus J. W.	A short add-on sleep intervention in the rehabilitation of individuals with acquired brain injury: A randomized controlled trial	NeuroRehabilitation	10.3233/NRE-230159	English	Accommodation	Availability	Organizational	Individuals with ABI in outpatient rehab	In-person CBT-I integrated into outpatient rehab	RCT
2022	Mellor, Alec; Kavalic, Eleri; Mascaro, Luis; Drummond, Sean P. A.	Development of a Novel Behavioral Sleep Medicine Education Workshop Designed to Increase Trainee Psychologists' Knowledge and Skills in Insomnia Management	Behavioral Sleep Medicine	10.1080/15402002.2022.2164766	English	Availability	Acceptability	Policy	Trainee psychologists	BSM education workshop	Educational intervention; Mixed-methods - pre/post assessment, 6 month follow up survey
2022	Mijster, Teus; Boersma, Gertha; Engelsberts, Jorien; Vrugtenhijl-Bethner, Lianne; Kaulen-du Voss, Marjol; de Vocht, Vivienne; Butten, Erik; Lances, Marika	Effect of Cognitive Behavioral Therapy for Insomnia on Alcohol Treatment Outcomes Among US Veterans: A Randomized Clinical Trial	JAMA psychiatry	10.1001/jamapsychiatry.2023.1971	English	Accommodation	Availability	Organizational	Veterans in early alcohol use disorder recovery	In-person CBT-I integrated into SUD care, 5 sessions	RCT
2022	Moderie, C.; Carrier, J.; Dang-Vu, T. T.	Development and Initial Evaluation of Web-Based Cognitive Behavioral Therapy for Insomnia in Rural Family Caregivers of People With Dementia (NiteCAPP): Mixed Methods Study	JMR aging	10.2196/45859	English	Accommodation	Accessibility	Organizational	Rural dementia caregivers	Digital CBT-I adapted for rural dementia caregivers; NiteCAPP CARES	Mixed-methods - Pilot study with qualitative input for app development
2022	Morgensthaler, Timothy L.; Kalla, Bhano Prakash; Anderson, Sandra E.; Wark, Adam; Clark, Patrick; Smith, Justin M.; Luedke, Tabitha C.; McCollay, Samantha; Phillips, Sarah A.; Harper, Sarah B.; Boudreau, Nancy B.; Monson, Amanda J.	Predictors of dropout in university students participating in an 8-week e-mail-based cognitive-behavioral therapy for insomnia intervention	Sleep & Breathing = Schlaf & Atmung	10.1007/s11325-022-02809-y	English	Acceptability	Accommodation	Individual	College students with insomnia in Hong Kong	Email delivered CBT-I, REFRESH	Secondary analysis (ROC) of RCT
2022	Muench, Alexandra; Vargas, Ivan; Grandner, Michael A.; Ellis, Jason G.; Posner, Doreen; Bastien, Celine H.; Drummond, Sean P.; Perlis, Michael L.	The Use of Evaluation Panels During the Development of a Digital Intervention for Veterans Based on Cognitive Behavioral Therapy for Insomnia: Qualitative Evaluation Study	JMR formative research	10.2196/40104	English	Accommodation	Availability	Organizational	Veterans and spouses of veterans	Digital CBT-I, PTBS	Qualitative - input on app development
2022	Nicolaisen Siden, Frej; Spak, Fredrik	Improving mental health and daytime function in adult insomnia patients predict cognitive behavioral therapy for insomnia effectiveness: A case-control study	Sleep Medicine: X	10.1016/j.sleepx.2023.100071	English	Acceptability		Individual	Adults with insomnia	In-person CBT-I, 6 weeks	Clinical trial
2022	Nicolaisen Siden, Frej; Spak, Fredrik	Can adding personalized rule-based feedback improve the therapeutic effect of self-help digital cognitive behavioral therapy for insomnia in young adults?	Sleep Medicine	10.1016/j.sleep.2023.04.012	English	Accommodation	Acceptability	Organizational	Young adults with insomnia	Email delivered CBT-I basic vs personalized Group CBT-I, 3 weeks	RCT
2022	O'Connell, Meghan; DeSanto Iemmo, Joanne; Limley, Sarah; Ison, Sangchoon; Conlay, Samantha; Gaiser, Edward; Radke, Nancy S.	Pilot feasibility and acceptability study evaluating use of group CBT-I in improving sleep and fatigue in older adults	Australasian Journal on Ageing	10.1111/ajag.12323	English	Acceptability		Individual	Older adults	Group CBT-I, 3 weeks	Pilot study; pre-post
2022	Oswald, Laura B.; Morales-Cruz, Jennifer; Eisai, Sarah L.; Del Rio, Jocelyn; Hoogland, Aasha I.; Ortiz-Rosado, Vanessa; Soto-Lopez, Grace; Rodriguez-Rivera, Edgar; Savard, José; Castro, Eida; Jim, Heather S. L.; Gonzalez, Brian D.	The clinical effects of digital cognitive behavioral therapy for insomnia in a heterogeneous study sample: Results from a randomized controlled trial	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/psad184	English	Acceptability	Accommodation	Individual	Primary care patients with insomnia in Germany (implied comorbidities)	Digital CBT-I, 8 weeks	RCT; longitudinal follow-up (8 and 12 months)
2022	Otte, Julie L.; Cheung, Yelena; Johns, Shelley A.; Jackson, Lea; Ludwig, Kandice K.; Dodson, Jill; Manchanda, Shalini; Bufkin, Elizabeth; Draucker, Claire	Disseminating sleep education to graduate psychology programs online: A knowledge translation study to improve the management of insomnia	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/psad189	English	Availability		Policy	Graduate psychology students	Online CBT-I training workshop, 6 hours	Non-randomized Waitlist Control; Longitudinal follow-up (12 months)
2022	Paul, Soumi; Vidushta, Karavadi; Thilagar, Sivasubha; Lakshmanan, Dinesh Kumar; Ravichandran, Gunja; Annachalam, Akirani	World Sleep Society International sleep medicine guidelines position statement endorsement of "Behavioral and Psychological Treatments for Chronic Insomnia Disorder in Adults: An American Academy of Sleep Medicine clinical practice guidelines"	Sleep Medicine	10.1016/j.sleep.2023.07.001	English	Acceptability	Availability	Policy	General insomnia	Review including multi-modal CBT-I	Review - Position statement with clinical practice guidelines
2022	Perez, Elbertmek; Donovan, Emily K.; Rybarczyk, Bruce D.; Olszewski, Joseph M.	Dysfunctional beliefs and attitudes about sleep (DBAS) mediate outcomes in dCBT-I on psychological distress, fatigue, and insomnia severity	Sleep Medicine	10.1016/j.sleep.2023.07.018	English	Acceptability		Individual	General adults	Digital CBT-I	Secondary analysis of RCT
2022	Robertson, Katherine Lois	Challenging beliefs for quality sleep: A systematic review of maladaptive sleep beliefs and treatment outcomes following cognitive behavioral therapy for insomnia	Sleep Medicine Reviews	10.1016/j.smrv.2023.101856	English	Acceptability		Individual	General insomnia	Standard CBT-I but comparing behavioral vs cognitive components	Review - SR
2022	Roth, Alicia J.; Curtis, Ashley F.; Rowe, Meredith A.; McCrae, Christina S.	Perspectives on increasing the impact and reach of CBT-I	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/psad188	English	Acceptability	Accommodation	Policy	General insomnia	Stepped-care CBT-I	Review - Clinical review and treatment recommendations
2022	Saltew-Dremer, Jessica; Jagielski, Christina; Smith, Michael; Skagit, Corey	Cognitive behavioural therapy for insomnia disorder: Extending the stepped care model	Journal of Sleep Research	10.1111/jsr.14018	English	Accommodation	Availability	Policy	General insomnia	Stepped-care CBT-I	Review - Position statement with clinical practice guidelines
2022	Savard, Josée; Pilon, Catherine; Gagnon, Marie-Pierre; Caplette-Gingras, Audie; Bélanger, Lynda; Morin, Charles H.	The intersection of insomnia disorder and major depressive disorder: A clinical perspective	Psychiatric Annals	10.3928/00485713-20231024-01	English	Acceptability	Accommodation	Individual	Patients with insomnia and depression	General CBT-I with rcts to integrate with depression management	Review - clinical synthesis and treatment recommendations
2022	Scott, Ian; Vedaa, Øystein; Svendsen, Børge; Langrud, Knut; Kallestad, Howard	Training of professionals in cognitive behavioural therapy for insomnia - A systematic review of peer-reviewed studies	Journal of Sleep Research	10.1111/jsr.14024	English	Availability	Accessibility	Policy	Possible CBT-I providers	Review including multi-modal CBT-I	Review - SR
2022	Smekja, Tom; Henry, Alexander L.; Wheatley, Catherine; Espie, Colin A.; Johansen-Berg, Heidi; Fleming, Mikalene K.	Mental health care providers' experiences utilizing cognitive behavioral therapy for insomnia to treat active-duty service members with PTSD and insomnia			English	Acceptability	Availability	Organizational	LCSWs and psychologists working in mental health clinic on active military base, treating clients with PTSD	In-person CBT-I	Qualitative - thematic analysis
2022	Song, Weonuk; Kelly, Monica R.; Fung, Constance H.; Olszewski, Joseph M.; Grinberg, Austin M.; Mitchell, Michael N.; Josephson, Karen; Martin, Jennifer L.; Alessi, Cathy A.	Examining whether changes in sleep habits predict long-term sustenance of treatment gains in individual remitted from insomnia after CBT-I	Behavioral Sleep Medicine	10.1080/15402002.2022.2124993	English	Acceptability		Individual	Adults with insomnia	In-person CBT-I, 4 sessions	Longitudinal follow-up (1 year)
2022	Spaul, Tracy J.; Hanks, Lisa; Turner, Gavin; Ouzle, Evelyn; Kaaronen, Alexandra; Buenaver, Luis; Smith, Michael T.; Antoine, Denis	Recommendations to bolster adherence in cognitive behavioral therapy for insomnia: A self-efficacy approach	Translational Behavioral Medicine	10.1093/tbm/bnct04	English	Acceptability		Individual	General insomnia	Standard CBT-I	Review - clinical recommendations to improve adherence

2022	Spiguel, Eugenia	Partner alliance to enhance efficacy and adherence of CBT-I	Sleep Medicine Clinics	10.1016/j.jmcc.2022.09.005	English	Accommodation	Acceptability	Individual	Adults with insomnia with a bed partner	Recommendation for partner-involved CBT-I	Review - Narrative review with treatment recommendations
2022	Stokes, Elizabeth A; Stott, Richard; Henry, Alasdair L; Espie, Colin A; Miller, Christopher B	Co-occurring insomnia and anxiety: A randomized controlled trial of internet cognitive behavioral therapy for insomnia versus internet cognitive behavioral therapy for anxiety	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/bsac205	English	Acceptability		Individual	Patients with insomnia and anxiety	Digital CBT-I	RCT
2022	Sweetman, Alexander; Lack, Leon; Crawford, Megan; Wallace, Douglas M.	Differences in treatment effects of cognitive-behavioral therapy for insomnia based on sleep reactivity: A preliminary study	Behavioral Sleep Medicine	10.1080/15402002.2022.2093880	English	Acceptability		Individual	General insomnia	In-person CBT-I, 4 sessions	Experimental
2022	Ukena, Ayaka; Tanizawa, Noriko; Harata, Megumi; Suh, Sooyeon; Yang, Chien-Ming; Li, Xin; Okajima, Iku	Group cognitive behavioural therapy for insomnia: Impact on psychiatric symptoms and insomnia severity in a psychiatric outpatient setting	Clinical Psychologist	10.1080/13284207.2022.2155034	English	Accommodation	Availability	Organizational	Psychiatric outpatients with insomnia	In-person Group CBT-I integrated into outpatient hospital setting, 4 sessions	Real world effectiveness; Intent to treat analysis
2022	Wilkinson, Allison K.; Wardle-Pinkston, Sophie; Dietch, Jessica R.; Pruksma, Kristi E.; Simmons, Richard Oliver; Bunnell, Brian E.; Taylor, Daniel J.	Acceptance and commitment therapy as an adjunct or alternative treatment to cognitive behavioral therapy for insomnia	Sleep Medicine Clinics	10.1016/j.jmcc.2022.09.003	English	Acceptability	Accommodation	Individual	General insomnia	CBT-I with ACT component	Review - Narrative review with treatment recommendations
2022	Xin, Qianqian; Poudel, Dhivendra; An, Kai; Yu, Youxian; Zheng, Shuangong; Chen, Lei; Zhang, Bin; Yin, Hongfei	Adapting brief behavioral treatment for insomnia for former national football league players: A pilot study	Behavioral Sleep Medicine	10.1080/15402002.2022.2082429	English	Accommodation	Acceptability	Individual	Retired football players	Phone BBTI	Single-arm clinical trial
2022	Yarabadi, Masomeh; Hafizi, Fariba; Makvandi, Behnam	Effectiveness of an app-based short intervention to improve sleep: Randomized controlled trial	JMIR Mental Health	10.2196/39052	English	Acceptability	Accommodation	Individual	General insomnia	Digital CBT-I; Refresh, 8 weeks	RCT; longitudinal follow-up (6 months)
2022	Yeung, Kai; Zhu, Weiwei; McCurry, Susan M.; Vohr, Kurt; Michael, Weidman; Robert, Morin; Charles, M.; Vitiello, Michael V.	Veteran acceptance of sleep health information technology: A mixed-method study	Journal of Technology in Behavioral Science	10.1007/s41347-022-00287-x	English	Accommodation	Accessibility	Organizational	Veterans at the VA	Use of technology for sleep management, including Digital CBT-I; CBT-I coach	Mixed-Methods - RCT data and qualitative interviews
2022	You, Joyce H. S.; Luk, Scotty W. C.; Chow, Dilys Y. W.; Jiang, Xinchang; Mak, Arthur D. P.; Mak, Winnie W. S.	Cognitive behavioral therapy for insomnia to reduce cannabis use: Results from a pilot randomized controlled trial	Drug and Alcohol Dependence	10.1016/j.drugalcdep.2022.109835	English	Accommodation	Acceptability	Individual	Regular cannabis users	Telhealth CBT-I modified for cannabis users	RCT; intervention development
2023	Aizemend, Brian J.; Gress-Smith, Jenna L.; Krieger, Christina; Waddell, Jack	PTSD, insomnia, and nightmares: A study of treatment preferences and the role of patient-provider trust			English	Acceptability		Individual	Adults with insomnia and PTSD	N/A - Inquired about treatment preference	Cross-sectional
2023	Arnott, J.; Todd, Conroy; Deldoro, A.; Stewart, Hayley; Yeagley, Emily; Bowyer, Gabrielle; Bohmet, Kipling M.; Iqbal, Mark A.	The influence of health perceptions, coping style, and decision-making in a brief behavioral treatment of insomnia among patients with heart failure			English	Accommodation	Acceptability	Individual	Patients with insomnia and heart failure		RCT
2023	Bachu, Anil; Yadav, Garima; Ansari, Malika; Kochhar, Hansini; Cabrera, Tiffany; Chopra, Amit	Insomnia in cancer survivors: A precision behavioral sleep medicine approach	European Psychologist	10.1027/1016-9040/a000506	English	Accommodation		Policy	Cancer survivors	Recommendation for modified CBT-I to fit needs of cancer survivors	Review - Narrative review with treatment recommendations
2023	Baglioni, Chiara; Espie, Colin A.; Albani, Elamiraj; Gavielf, Dimitri; Jernelov, Susanna; Holzinger, Brigitte; Schlarb, Angelika; Riemann, Dieter	Complementary and integrative health interventions for insomnia in veterans and military populations	Psychological Reports	10.1177/00332941211048473	English	Accommodation	Acceptability	Individual	Veterans with and without PTSD	Recommendation for CBT-I to be adapted to include forms of meditation	Review - brief review with recommendations
2023	Brewster, Glenn S.; Pierpaoli Parker, Christina; Epps, Fayton; Bonds Johnson, Kalisha; Yeager, Katherine A.	Is cognitive behavioral therapy for insomnia (CBTI) efficacious for treating insomnia symptoms in shift workers? A systematic review and meta-analysis	Sleep Medicine Reviews	10.1016/j.smrv.2022.101716	English	Accommodation	Acceptability	Individual	Shift workers	Review including multi-modal CBT-I	Review - SR and Meta-Analysis
2023	Chan, Christian S.; Wong, Christy Y. F.; Yu, Branda Y. M.; Hui, Victoria K. Y.; Ho, Fiona Y. Y.; Cuijpers, Pim	Improvement of insomnia symptoms following a single 4-hour CBT-I workshop	Behavioral Sleep Medicine	10.1080/15402002.2022.2036741	English	Accommodation	Availability	Organizational	General insomnia	Single-session CBT-I workshop (4 hours) delivered by a "health educator" and integrated into community	Pre/post
2023	Cheng, Philip; Kalmbach, David A.; Hsieh, Hsiang-Fang; Gochlan, Andrea Cuamatzi; Sagong, Chaewon; Drake, Christopher L.	Treating depression with a smartphone-delivered self-help cognitive behavioral therapy for insomnia: a parallel group randomized controlled trial	Psychological Medicine	10.1017/S0033291721003421	English	Acceptability	Accommodation	Individual	Adults with insomnia and depression	Digital CBT-I; proACT-S	RCT
2023	Cheng, Philip; Santarossa, Sara; Kalmbach, David; Sagong, Chaewon; Hu, Kirsten; Drake, Christopher	Adapting Group CBT-I for Telhealth-to-Home With Military Veterans in Primary Care	Journal of Primary Care & Community Health	10.1177/21501319221143722	English	Accessibility	Availability	Organizational	Veterans in primary care	Telhealth Group CBT-I	Pilot study; feasibility
2023	Cheung, Janet My; Menzel Schreie, Zoe; Ali, Melissa; Rahimi, Matthew; Salomon, Helina; Doggett, Brian; Glosier, Nicholas; Bartlett, Delwyn J.; Wong, Keith; Grunstein, Ronald R.; Gordon, Christopher J.	Subjective versus objective sleep outcomes in older adults with and without uncoupled sleep following online cognitive behavioural therapy for insomnia	Psychogeriatrics	10.1111/psyg.12931	English	Acceptability		Individual	Community-dwelling older adults with insomnia	Digital CBT-I, 4 weeks	Linear mixed model
2023	Chevalier, Lydia L.; Fine, Elizabeth; Sharma, Aditi; Zhou, Eric S.; Reckittis, Christopher J.	Improved resilience following digital cognitive behavioral therapy for insomnia protects against insomnia and depression one year later	Psychological Medicine	10.1017/S0033291722000472	English	Acceptability		Individual	General insomnia	Digital CT-I	RCT; longitudinal follow-up (1 year)
2023	Ciara, Maria Inês; Canavarro, Maria Cristina; Miller-Mendes, Mariana; Gomes, Ana Allen	Evaluating the Sleep Treatment Education Program (STEP-1): A single-session educational workshop addressing insomnia in cancer survivors	Journal of Psychosocial Oncology	10.1080/07347332.2022.2054750	English	Accommodation	Availability	Organizational	Cancer survivors	Single-session CBT-I workshop for cancer survivors and integrated into treatment, STEP-1	Pre/post
2023	Ellis, Jason Gordon; Meadows, Robert; Alfonso-Miller, Pamela; Baeten, Celyne H.	Digital Cognitive Behavioral Therapy for Insomnia Using a Smartphone Application in China: A Pilot Randomized Clinical Trial	JAMA Network Open	10.1001/jamanetworkopen.2023.4866	English	Acceptability	Accommodation	Individual	Chinese adults with insomnia	Digital CBT-I; Chinese version	RCT
2023	Espie, Colin A.; Henry, Alasdair L.	Initial treatment choices for long-term remission of chronic insomnia disorder in adults: a systematic review and network meta-analysis	Psychiatry and Clinical Neurosciences	10.1111/pcn.13730	English	Acceptability		Policy	Chronic insomnia (without sleep meds at baseline)	General CBT-I vs meds vs combo	Review - Meta-Analysis
2023	Faalstad, Patrick; Vedaa, Øystein; Langsund, Knut; Svendsen, Berge; Lydersen, Søren; Salavik, Simen Berg; Westergaard, Cecilie L.; Kjerstad, Kåre; Verhe, Daniël; Røtterstad, Lee M.; Harvey, Allison G.; Sjøvik, Tore C.; Scott, Jan; Kallestad, Håvard	Duration of insomnia and success expectancy predict treatment outcome of iCBT for insomnia	Frontiers in Sleep	10.3389/frsle.2024.1415077	English	Acceptability		Individual	Adults with chronic insomnia	Digital CBT-I	Secondary analysis of RCT
2023	Fritz, Katherine M.	Family Cancer Caregiver Use of and Benefit from an Internet-delivered Insomnia Intervention: Results from a Single-Group Feasibility Trial	Journal of Psychosocial Oncology Research and Practice	10.1097/orp.0000000000000129	English	Acceptability	Accommodation	Individual	Cancer caregivers	Digital CBT-I	Mixed Methods - Pilot feasibility; qualitative feedback
2023	Gumpert, Nicole B.; Gasperetti, Caitlin E.; Zieve, Garrett O.; Harvey, Allison G.	Evaluation of sleep and therapeutic education needs of military with PTSD	L'Encephale	10.1016/j.encep.2023.01.004	English	Acceptability		Individual	Veterans in France	N/A - Inquired about treatment preference	Qualitative

2023	Hardman, Jamie R.; Rees, Claire S.; Bonnar, Daniel; Rae, Malvica J.	Cognitive behavior therapy for insomnia in university students delivered via videoconferencing groups: A pilot study	Behavioral Sleep Medicine	10.1080/15402002.2024.2374258	English	Accommodation	Acceptability	Organizational	College students	Telehealth Group CBT-I modified for college students	Pilot study; pre-post; feasibility
2023	Hughes, Jaime H.	Caregiver Experiences With an Internet-Delivered Insomnia Intervention: SHUT-I-CARE Trial Primary Qualitative Analysis	Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine	10.1093/abm/kaae041	English	Acceptability	Accommodation	Individual	Caregivers	Digital CBT-I; SHUT-I-CARE	Qualitative
2023	Jerneld, Susanna; Blom, Kerstin	Telehealth cognitive behaviour therapy for the management of sleep disturbance in women with early breast cancer receiving chemotherapy: a feasibility study	Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-024-08554-8	English	Acceptability	Accessibility	Individual	Patients with early breast cancer receiving chemotherapy	Telehealth CBT-I, 4 sessions over 8 weeks	Single-arm feasibility trial
2023	Johann, Anna F.; Feige, Bernd; Hertenstein, Elisabeth; Nissen, Christoph; Benz, Foe; Steinmetz, Lisa; Baglioni, Chiara; Riemann, Dieter; Sothmann, Kai; Akram, Umair	Cognitive behavioural therapy for insomnia reduces actigraphy and diary measured sleep discrepancy for individuals with comorbid insomnia and major depressive disorder: A report from the TRIAD study	Sleep Medicine	10.1016/j.sleep.2023.12.014	English	Acceptability		Individual	Patients with insomnia and depression	In-person CBT-I, 7 sessions plus depression medication	Secondary analysis of RCT
2023	Kalitz, Jennifer; Robinson, Stephanie A.; Petrakis, Beth Ann; Neilly, Erin D.; Chamberlin, Elizabeth S.; Walker, Renda Soyken; Quigley, Karen S.	Telehealth group Cognitive-Behavioral Therapy for Insomnia (CBT-I) in primary brain tumor: Primary outcomes from a single-arm phase II feasibility and proof-of-concept trial	Neuro-Oncology	10.1093/neuonc/noad193	English	Acceptability	Accessibility	Organizational	Patients with primary brain tumor	Telehealth Group CBT-I, 6 sessions	Proof of concept trial; pre/post; longitudinal follow-up (3 months)
2023	Kutner, Yvonne; Whitehead, Lisa; Quigley, Eimear; Fu, Shih-Ching; Stanley, Mandy	Racial differences in treatment adherence and response to acupuncture and cognitive behavioral therapy for insomnia among Black and White cancer survivors	Cancer Medicine	10.1002/cam4.7344	English	Acceptability	Accommodation	Individual	Black cancer survivors	CBT-I vs Acupuncture	Secondary analysis of RCT
2023	Kyle, Simon D.; Sriwardena, A Niroshan; Espie, Colin A.; Yang, Yaling; Petrou, Stavros; Oghum, Emma; Begum, Nargis; Maurer, Leonie F.; Robinson, Barbara; Gardner, Caroline; Lee, Victoria; Armstrong, Stephanie; Purinton, Julie; Mort, Sam; Temple, Eleanor; Harris, Victoria; Yu, Li-Mei; Bower, Peter; Aweid, Paul	Effectiveness of a multi-component sleep-mood group intervention on improving insomnia in university students - a pilot randomized controlled trial	BMC psychology	10.1186/s40359-024-02057-1	English	Accommodation		Organizational	College students with insomnia and mood symptoms	In-person Group CBT-I modified for insomnia and mood treatment (added mindfulness and lifestyle modification); SMILE, 4 weekly 2 hour sessions	RCT
2023	Latocha, Kristine Marie; Lappentien, Katriine; Jernum, Poul; Christensen, Robin; Østergaard, Mikkel; Eidsen, Bente Appel	Let's talk about sleep health! within primary care: a qualitative study of patients' willingness to Engage in psychological interventions for insomnia	The British Journal of General Practice: The Journal of the Royal College of General Practitioners	10.3399/bjgp.2023.0310	English	Acceptability	Availability	Organizational	Adults with insomnia in Australia	N/A - Inquired about treatment preference and specific organizational pathway to behavioral treatment	Qualitative
2023	Lau, Patrick H.; Marway, Oskar S.; Carmona, Nicole E.; Lee, Jenny Y.	Clinical effectiveness of Internet-based cognitive behavioral therapy for insomnia in routine secondary care: results of a randomized controlled trial	Frontiers in Psychiatry	10.3389/fpsyt.2024.1305489	English	Accommodation		Individual	Patients in sleep centers with insomnia	Digital CBT-I	RCT
2023	Lee, Jenny Y.	Comparative feasibility and preliminary efficacy of CBT for insomnia among adults seeking and not seeking addiction treatment	Journal of Sleep Research	10.1111/jsr.13969	English	Acceptability		Individual	Patients with substance use disorders in and out of treatment centers	Standard CBT-I	Pilot feasibility trial
2023	Maccioni, Jordan; Bean, Helena R.; Diggins, Justine; Phanou, Maria; Alexander, Marilee; Lu, Qian; Stafford, Lesley; Francis, Prudence A.; Bai, Bei; Wiley, Joshua F.	Preventing postpartum insomnia: findings from a three-arm randomized-controlled trial of cognitive behavioral therapy for insomnia, a responsive bassinet, and sleep hygiene	Sleep	10.1093/sleep/zsae106	English	Acceptability		Individual	Pregnant women (26-32 weeks) who are first time mothers (don't have to have insomnia)	Standard CBT-I vs responsive bassinet	RCT, longitudinal follow-up (12 months)
2023	Manber, Rachel; Simpson, Norah; Gumpert, Nicole B.	Internet-based cognitive behavioural therapy for insomnia comorbid with chronic benign pain - A randomized controlled trial	Internet Interventions	10.1016/j.invent.2024.100781	English	Acceptability	Accommodation	Individual	Patients with insomnia and chronic pain	Digital CBT-I	RCT, longitudinal follow-up (6 months)
2023	Marillac, Sotheiros, Luisa; de Jesus Brandão, Beatriz; Paine, Rafaela Valente Nunes; Dias Carvalho, Lázaro; Menezes Paranhos, Rita de Cássia; Ribeiro Barboza, Paulo César; Queiroz-Vargas, Natali N.; Tamura, Eduardo Keli	Effect of high-risk sleep apnea on treatment-response to a tailored digital cognitive behavioral therapy for insomnia program: a quasi-experimental trial	Frontiers in Sleep	10.3389/fpsy.2024.1305488	English	Accommodation		Individual	Patients with insomnia and chronic pain	Digital CBT-I modified for COMSA, 5 sessions	Quasi-experimental trial
2023	Mason, Elizabeth C.; Orison, Ashlee B.; Sie, Amanda; Sharnock, Maria J.; Li, Ian; Chen, Aileen Z.; Newby, JRM.	A single-arm pilot study of a brief cognitive-behavioral therapy for insomnia intervention among Japanese occupational therapy and physical therapy university students with sleep disturbances	Frontiers in Sleep	10.3389/fpsy.2024.1307311	English	Accommodation	Acceptability	Organizational	Japanese college students	CBT-I based brief sleep education (90 minute workshop); SHUSH, individualized 15 minute follow-ups	Single-arm Pilot Study; Longitudinal follow-up (3 month)
2023	McCrae, Christina S.; Curtis, Ashley F.; Stearns, Melanie A.; Nair, Neetu; Doty, Morgan; Shankar, Joel I.; Beverdorf, David Q.; Cottle, Amelia; Rowe, Meredith A.	How do adolescents experience a newly developed Online Single Session Sleep Intervention? A Think-Aloud Study	Clinical Child Psychology and Psychiatry	10.1177/13591045231205475	English	Accommodation	Acceptability	Individual	Late adolescents (17-19)	Single-session digital CBT-I	Qualitative - thematic analysis and feedback on app-development
2023	Meakim, Haley; Metzger, Lisa J.; Rehm, Imogen C.; Junge, Moira F.; Morfies, Melissa; Kennedy, Gerard A.; Bucks, Romola S.; Oracio, Marilee; Jackson, Melinda L.	Multi-media field test: Sleep better with cognitive-behavioral therapy: Cbt-i coach provides support for insomnia.	Cognitive and Behavioral Practice	10.1016/j.cbpra.2024.11.004	English	Accommodation	Availability	Organizational	Veterans and active military	Digital CBT-I; CBT-I coach	Independent Expert Review / Multi-Media Field Test
2023	Meakim, Haley; Rehm, Imogen C.; Junge, Moira F.; Morfies, Melissa; Kennedy, Gerard A.; Bucks, Romola S.; Metzger, Lisa J.; Jackson, Melinda L.	Enhancing sleep and mood in depressed adolescents: A randomized trial on nurse-led digital cognitive behavioral therapy for insomnia.	Sleep Medicine	10.1016/j.sleep.2024.10.030	English	Availability	Acceptability	Individual	Adolescents and young adults with insomnia and depression	Digital CBT-I; Nurse-led	Parallel group RCT; Intention to treat analysis
2023	Miller, Mary Beth; Carpenter, Ryan W.; Freeman, Lindsey K.; Dunstiger, Shiraz; McDermott, John E.; Borsari, Brian; McCrae, Christina S.; Arnold, J. Todd; Korte, Paul; Merrill, Jennifer E.; Carey, Kate B.; Metrik, Jane	Telehealth-delivered cognitive behavioral therapy—a potential solution to improve sleep quality and normalize the salience network in fibromyalgia: A pilot randomized trial.	Brain Imaging and Behavior	10.1007/s11682-024-00825-3	English	Acceptability	Accessibility	Individual	Patients with insomnia and fibromyalgia	Telehealth CBT-I	RCT
2023	Morin, Charles H.; Bai, Bei; Borroni, Bjorn; Poyares, Dulce; Sothmann, Kai; Wang, Yun Kwok; Governing Council of the World Sleep Society	Cognitive behavioral therapy for insomnia to treat major depressive disorder with comorbid insomnia: A systematic review and meta-analysis.	Journal of Affective Disorders	10.1016/j.jad.2024.09.017	English	Acceptability		Individual	Patients with insomnia and depression	Review including multi-modal CBT-I	Review - SR and Meta-Analysis

2023	Mulder, Fanny; Löwinger, Dimitri; Jenkinson, Stephen P.; Kaiser, Estelle; Schart, Tamara; Wain, Michelle; Duss, Simone; Bassetti, Claudio; Heinzer, Raphael; Auer, Reto; Meyer-Massetti, Carla	Survey of resources in behavioral sleep medicine across the Department of Defense, Defense Health Agency.	Military Medicine	10.1093/milmed/uaa0409	English	Availability	Acceptability	Organizational	Providers in military treatment facilities (HTFs) treating active duty service members with insomnia	General CBT-I or BBTi	Qualitative
2023	Nam, Myojin; Chang, Jinyoung; Trockel, Mickey; Okajima, Ika; Yang, Chien-Ming Chan; Ngan Yin, Li; Shirley, Suk; Sooyeon	Cognitive behavioral therapy for insomnia self-management mobile apps: A review of efficacy and quality.	Journal of Clinical Psychology in Medical Settings	10.1007/s10890-023-09992-y	English	Accommodation	Acceptability	Policy	General adults	Digital CBT-I; all apps	Review - SR; efficacy and quality assessment of apps
2023	Nielson, Spencer A.; Perez, Eleonora; Soto, Pablo; Boyle, Julia T.; Dolzow, Joseph M.; Okun, Michelle L.; Oldewille, Robert N.	Efficacy of mobile app-based cognitive behavioral therapy for insomnia: Multicenter, single-blind randomized clinical trial.	Journal of Medical Internet Research	10.2196/50555	English	Accommodation	Acceptability	Organizational	General insomnia	Digital CBT-I; Somz	Multicenter RCT; longitudinal follow-up (3 months)
2023	Park, Kyungja; Kim, Goeun; Lee, Jyun; Suh, Sooyeon	Improving sleep in people with HIV and chronic pain: A pilot study of brief behavioral treatment for insomnia.	Behavioral Sleep Medicine	10.1080/15402002.2024.2396820	English	Accommodation	Acceptability	Individual	People with HIV and chronic pain	Phone BBTi	Pilot study; longitudinal follow-up (1 month) RCT
2023	Pichetina, Polina; Doss, Simone B.; Bernasconi, Corrado; Berger, Thomas; Krieger, Tobias; Bassetti, Claudio L. A.; Urech, Antoine	The effects of digital CBT intervention on attentional bias and sleep quality of poor sleepers with insomnia symptoms.	BMC Psychology	10.1186/s40359-024-02193-8	English	Acceptability	Accommodation	Individual	Chinese adults with insomnia	Digital CBT-I	RCT
2023	Pichetina, Polina; Doss, Simone B.; Bernasconi, Corrado; Berger, Thomas; Krieger, Tobias; Bassetti, Claudio L. A.; Urech, Antoine	Evaluating a mobile application based intervention for insomnia in college students: A preliminary study.	Journal of American College Health	10.1080/07448481.2024.2423225	English	Acceptability	Accommodation	Individual	College students with moderate (or more) insomnia symptoms	Digital CBT-I; CBT-I coach	RCT
2023	Pfeiffer, P. N.; Ganczy, D.; Zivin, K.; Gerlach, L.; Damschroder, L.; & Ulmer, C. S.	Digital cognitive behavioral therapy for insomnia for people with comorbid psychological distress: A large scale randomized controlled trial.	Sleep Medicine	10.1016/j.sleep.2024.06.026	English	Acceptability	Accommodation	Individual	Individuals with insomnia and anxiety or depression	Digital CBT-I	Large-scale RCT
2023	Pilon, Louise; Flakemolen, Nikita F.; van der Zips, Janna; Kozak, Roy P. C.; Bonters, Dirk	Sleep-specific outcomes attributable to digitally delivered cognitive behavioral therapy for insomnia in adults with insomnia and depressive symptoms.	Behavioral Sleep Medicine	10.1080/15402002.2023.2285799	English	Acceptability	Accommodation	Individual	Australian adults with insomnia and depressive symptoms	Digital CBT-I; SHUTi	Large-scale RCT; Longitudinal follow-up (28 months)
2023	Reynolds, Amy C.; Swedman, Alexander; Crowther, Megan E.; Patterson, Jessica L.; Scott, Hannah; Lechat, Bastien; Wanstall, Sean E.; Brown, Brandon W.; Lovato, Nicole; Adams, Robert J.; Eastwood, Peter R. Roberts; Sydneyjane, Ulmer; Christi S.	An evaluation of psychosocial sleep interventions for children with chronic health conditions: A systematic review.	Sleep Medicine Reviews	10.1016/j.smrv.2024.101962	English	Acceptability	Accommodation	Individual	Children with chronic health conditions	General CBT-I or parent assisted behavioral sleep interventions	Review - SR
2023	Rosenberg, Russell P.; Benca, Ruth; Doghrani, Paul; Roth, Thomas	Empowerment-based cognitive behavioral therapy for insomnia in persons with mild cognitive impairment: A sequential explanatory mixed method pilot study.	Journal of Sleep Research	10.1111/jsr.14131	English	Accommodation	Acceptability	Individual	Adults with insomnia and mild cognitive impairment	In-person Group and 1:1 CBT-I, 12 weeks	Mixed-method - pilot study and survey
2023	Ryan, Arthur Thomas; Brenner, Lisa Anne; Ulmer, Christi S.; Mackintosh, Margaret Anne; Greene, Carolyn J.	Developing a culturally tailored digital health intervention for insomnia in Black women.	Translational Behavioral Medicine	10.1093/tbm/iba056	English	Acceptability	Accommodation	Individual	Black women with insomnia	Digital CBT-I; SHUTi but culturally tailored to Black women	Qualitative - thematic analysis and feedback on app development
2023	Saidala, Kathryn S.; McGowan, Sarah Kate; Martin, Jennifer L.	Is cognitive behavioral therapy for insomnia more cost-effective? New perspective on economic evaluations: A systematic review and meta-analysis.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/zaa122	English	Affordability	Acceptability	Policy	Adults with insomnia	General CBT-I vs Digital CBT-I	Review - SR and Meta-Analysis; Economic evaluation
2023	Sahew-Deamer, Jessica K.; Godzik, Cassandra M.; Jagielski, Christina H.; Siegel, Corey A.; Smith, Michael T.	Costs and resource utilization of people with stable heart failure and insomnia: Evidence from a randomized trial of cognitive behavioral therapy for insomnia.	Behavioral Sleep Medicine	10.1080/15402002.2023.2241589	English	Affordability	Acceptability	Individual	Adults with insomnia and chronic heart failure	General CBT-I	Secondary analysis of RCT; economic analysis; longitudinal follow-up (1 year)
2023	Sahew-Deamer, Jessica K.; Godzik, Cassandra M.; Jagielski, Christina H.; Siegel, Corey A.; Smith, Michael T.	A retrospective cost-effectiveness analysis of different cognitive-behavioral therapy for insomnia intervention delivery approaches in adult cancer survivors.	Psycho-Oncology	10.1002/pon.6327	English	Affordability	Acceptability	Organizational	Cancer survivors with insomnia	Stepped-care CBT-I (group education followed by 1:1 sessions if needed)	Retrospective cost-effectiveness analysis
2023	Sandlund, Christina; Westman, Jeanette; Novelli-Clarke, Annika	Does format matter? A naturalistic study of digital and provider-led cognitive behavioral therapy for insomnia implemented in a healthcare system.	Behavioral Sleep Medicine	10.1080/15402002.2024.2385822	English	Accommodation	Availability	Organizational	Veterans at the VA	In-person CBT-I vs digital CBT-I with phone coaching	Observational comparative study
2023	Schnee, Steven E.	CBTweb implementation outcomes: 1-year follow up.	Behavioral Sleep Medicine	10.1080/15402002.2023.2241589	English	Availability	Acceptability	Policy	Potential CBT-I providers	Online Provider Training Platform; CBTweb.org	Implementation Science / Training Evaluation
2023	Schuffelen, Jennifer; Maurer, Leonie F.; Lorenz, Neut; Rötger, Alexander; Piotrowsky, Reinhard; Oestmann, Anika	A new insomnia treatment service: The benefits and challenges of establishing a trainee-led service.	BiPsych Bulletin	10.1159/bpb.2023.46	English	Availability	Acceptability	Organizational	Patients with chronic insomnia and psychiatric comorbidities in London	Group CBT-I; Trainee led	Implementation evaluation; pre/post
2023	Shin, Jung-Won; Kim, Seonyoung; Park, Bom; Shin, Yoon Jung; Park, Sunyoung	Veteran treatment completers' and facilitators' perceptions of cognitive behavioral therapy for insomnia and imagery rehearsal therapy for posttraumatic sleep disturbances.	Dreaming	10.1037/drm0000253	English	Acceptability	Accommodation	Individual	Australian veterans	Group CBT-I vs Group CBT-I plus IRT	Qualitative - thematic analysis
2023	Smyth, Aisling; Alam, Shehna; Pangel, Sabine	The feasibility of a sleep education program for informal dementia care dyads: A pilot randomized controlled trial.	Journal of the American Geriatrics Society	10.1111/jgs.18720	English	Accommodation	Acceptability	Individual	Patients with dementia and their family caregivers	In-person or telehealth Care2Sleep intervention (modified CBT-I to include light exposure, walking and dementia-specific information), 5-sessions	Pilot RCT; longitudinal follow-up (3 months)
2023	Spadola, Christine; Groten, Danielle B.; Littlewood, Kerry; Hilditch, Cassie; Burke, Shanna; Berntsch, Suzanne M.	An investigation of further strategies to optimize early treatment gains in brief therapies for insomnia.	Behavioral Sleep Medicine	10.1080/15402002.2023.2217311	English	Accommodation	Acceptability	Individual	General insomnia	Stepped-care CBT-I, 4 sessions but assessed improvements after 1 session	Pre/post
2023	Staples, Julie K.; Gibson, Courtney; Uddo, Madeline	Focus group study of heart failure nurses' perceptions of the feasibility of cognitive behavioral therapy for insomnia.	Nursing Research	10.1097/NNR.0000000000000706	English	Availability	Accommodation	Organizational	Outpatient nurses working with patients with heart failure	Inquiring about nurse-led CBT-I integrated into the clinic	Qualitative - thematic analysis
2023	Vargas, Ivan; Eglier, Mara; Walker, Jamie; Benitez, Dulce Diaz	Does a program-based cognitive behavioral therapy affect insomnia and depression in menopausal women? A randomized controlled trial.	Worldviews on Evidence-Based Nursing	10.1111/wvn.12707	English	Acceptability	Accommodation	Individual	Women in Egypt in menopause with insomnia and depression	1:1 CBT for insomnia and depression, 7 weeks	RCT
2023	Vollert, Bianca; Müller, Louise; Jacob, Corinna; Trockel, Mickey; Beintner, Iva	Telehealth delivery of adapted CBT-I for insomnia in chronic pain patients: A single arm feasibility study.	Frontiers in Psychology	10.3389/fpsyg.2023.1266368	English	Accommodation	Acceptability	Individual	Women with insomnia and chronic pain	Telehealth CBT-I modified for people with chronic pain, 6 sessions	Single-arm feasibility trial; pre/post
2023	Wade, Letitia M.	BiPc perspectives of behavioral sleep treatment: A mixed-methods examination of ways to better address sleep health disparities.	Behavioral Sleep Medicine	10.1080/15402002.2023.2217311	English	Acceptability	Accommodation	Policy	Black, Indigenous, Persons of Color (BIPOC), and other socioeconomically marginalized groups	N/A - inquired about treatment preferences and CBT-I specifically	Qualitative

2023	Wanberg, Lindsay J.; Thomas, S. Justin; Reid, Michelle; Ritzappel, Rebecca; von Ah, Tayla; Jones, Nicole; Bra, Laurie; Beldis, Ryan; Russchman, Michael; Edwards, Robert R.; Boyso, Daniel J.; Redline, Susan; Bertisch, Suzanne M.	"The worst thing is lying in bed thinking 'I want a cigarette'" a qualitative exploration of smoker's and ex-smoker's perceptions of sleep during a quit attempt and the use of cognitive behavioural therapy for insomnia to aid cessation.	PLoS ONE	10.1371/journal.pone.0299702	English	Acceptability		Individual	Smokers and ex-smokers	N/A - inquired about preference to use CBT-I while quitting	Qualitative
2023	Yang, Chen-Ming; Lu, Ya-Li; Lee, Hsin-Chien; Li, Shirley; Suh, Sooyeon; Okajima, Iku; Huang, Ya-Chuan	The role of rumination in the relationship between symptoms of insomnia and depression in adolescents.	Journal of Sleep Research	10.1111/jsr.13932	English	Acceptability	Accommodation	Individual	Adolescents (age 12-16) with depression	Digital CBT-I; Sleep Ninja	RCT
2023	Yang, Lulu; Zhang, Jihui; Luo, Xian; Yang, Yuan; Zhao, Yuhui; Feng, Fei; Liu, Shuai; Zhang, Chentel; Li, Zhe; Wang, Chao; Wang, Wei; Jiang, Fan; Zhang, Yunshu; Hu, Yaanyuan; Su, Changjun; Wu, Huijuan; Yu, Huan; Li, Shirley Xin; Wang, Yun Keok; Luo, Ying; Zhang, Bin	Changes in sleep effort mediate insomnia severity in older adults following online cognitive behavioural therapy.	Psychogeriatrics	10.1111/psyg.13074	English	Acceptability		Individual	Older adults	Digital CBT-I	Within-participant mediation analysis; Pre/post
2023	Zhang, Cheng Liu; Yuesun; Guo, Xiaoming; Liu, Yanan; Shen, Yane; Ma, Jing	An educational intervention to increase provider utilization of cognitive behavioral therapy for insomnia in a psychiatric practice.	Sleep Medicine	10.1016/j.sleep.2023.11.025	English	Availability		Organizational	Psychiatrists in private practice	Clinician education on CBT-I (voice-over PowerPoint)	Implementation intervention (training); pre/post survey
2024	Alomri, Ridwan M.; Alammur, Hatat	Defining and empirically testing a two-stage build-maintain model of cognitive behavioural therapy for insomnia.	Sleep Medicine	10.1016/j.sleep.2023.11.025	English	Accommodation	Acceptability	Individual	General insomnia	General CBT-I but focuses on SRT	Secondary analysis of RCT; framework development
2024	Åslund, L.; Jernelöv, Susanne; Serlachius, Eva; Vigorlani, Sarah; Wickström, Rikard K.; Hwang, Eva; Lekander, Mats	Digital cognitive behavioural therapy for insomnia versus digital sleep education control in an Australian community-based sample: a randomised controlled trial.	Internal Medicine Journal	10.1111/imj.16521	English	Accommodation	Acceptability	Individual	Australian adults with insomnia	Digital CBT-I	RCT; longitudinal follow-up (24 months)
2024	Bai, Nan; Cao, Xuling; Zhang, Huiyue; Liu, Xin; Yin, Min	Treatment strategies for insomnia in Japanese primary care physicians' practice: A Web-based questionnaire survey.	BMC Primary Care	10.1186/s12875-024-02449-7	English	Acceptability		Organizational	Japanese primary care providers	N/A - inquired about familiarity with insomnia interventions (including CBT-I)	Survey
2024	Bai, Nan; Yin, Min	Digital cognitive behavioural therapy for patients with insomnia and depression: A systematic review and meta-analysis.	Journal of Psychiatric & Mental Health Nursing (John Wiley & Sons, Inc.)	10.1111/jpm.13024	English	Acceptability	Accommodation	Individual	Patients with insomnia and depression	Digital CBT-I	Review - SR and Meta-Analysis
2024	Butterham, Philip J.; Thorndike, Frances P.; Gerwin, Robert; Botbyl, Jeffrey; Rittenband, Lee M.; Manicich, Yuri; Christensen, Helen Berry; Jasmine R.	Assessing the Short-Term Efficacy of Digital Cognitive Behavioral Therapy for Insomnia With Different Types of Coaching: Randomized Controlled Comparative Trial.	JMIR Mental Health	10.2196/51716	English	Accommodation	Acceptability	Organizational	General insomnia	Digital CBT-I plus either human or chatbot coaching	RCT; longitudinal follow-up (4 weeks)
2024	Bethelius, K.; Jernelöv, S.; Kaldö, V.; Lu, C.; Ström, M.-M.; Jansson-Fridmark, M.	Efficacy of eHealth Versus In-Person Cognitive Behavioral Therapy for insomnia: Systematic Review and Meta-Analysis of Effectiveness.	JMIR Mental Health	10.2196/58217	English	Availability	Accessibility	Policy	General insomnia	In-person CBT-I vs digital CBT-I	Review - SR and Meta-Analysis; equivalence testing
2024	Botheilus, K.; Jernelöv, S.; Kaldö, V.; Lu, C.; Ström, M.-M.; Jansson-Fridmark, M.	Internet-delivered cognitive behavioral therapy for adolescents with insomnia: Feasibility and preliminary efficacy.	Clinical Child Psychology & Psychiatry	10.1177/13591045231202406	English	Acceptability	Accommodation	Individual	Adolescents	Digital CBT-I, 6 weeks	Uncontrolled pilot study; pre/post
2024	Carson, Emma-Kate; Drillon, Haryana M.; Vardy, Janette L.; Brown, Chris; Nunes-Zotkowski, Kelly Fernao; Della-Fiorantina, Stephen; Khan, Sarah; Parsonson, Andrew; Roncolato, Felicia; Pearson, Antonia; Barnes, Tristan; Kilar, Belinda E.; Chan, Wai Sze; Chung, Wing Yee; Lok, Samson Hoi Chun; Cheah, Amanda Kah Mun; Lee, Anna Kai Wai; Ng, Abbe Sin Ying; Kowatsch, Tobias	Multimodal, Technology-Assisted Intervention for the Management of Menopause after Cancer Improves Cancer-Related Quality of Life—Results from the Menopause after Cancer (Mac) Study.	Cancers	10.3390/cancers16061127	English	Accommodation	Acceptability	Individual	Women in menopause post-cancer	Digital CBT-I (Sleepio) combined with use of non-hormonal pharmacotherapy to manage vasomotor symptoms	Single-arm trial; longitudinal follow-up (6 months)
2024	Clark, Candice Ford	Internet-Guided Cognitive Behavioral Therapy for Insomnia Among Patients With Traumatic Brain Injury: A Randomized Clinical Trial.	JAMA Network Open	10.1001/jamanetworkopen.2024.20090	English	Acceptability	Accommodation	Individual	Military service members and veterans with insomnia (moderate to severe) and TBI	Digital CBT-I, 6 weekly lessons	RCT; longitudinal follow-up (3 months)
2024	Cody, Sharnika L.; Kusko, Daniel A.; Oroszko, Cesar E.; Owens, Michael A.; Pedron, Joanna M.; Ghorup, Shannon R.; Thomas, Stephen J.; Goodin, Burel R.	Digital cognitive Verhaltenstherapie bei Schlaflosigkeit eignet sich für die Patientenversorgung (?).	ZfA: Zeitschrift für Allgemeinmedizin	10.1007/s44266-024-00187-8	German	Accommodation		Individual	German adults	Digital CBT-I, 8 weeks	RCT
2024	Cody, Sharnika L.; Kusko, Daniel A.; Oroszko, Cesar E.; Owens, Michael A.; Pedron, Joanna M.; Ghorup, Shannon R.; Thomas, Stephen J.; Goodin, Burel R.	Cognitive Behavioral Therapy for Insomnia in Pain Management for Nonspecific Chronic Spinal Pain: A Randomized Clinical Trial.	JAMA Network Open	10.1001/jamanetworkopen.2024.25856	English	Availability	Accommodation	Organizational	Patients with insomnia and nonspecific chronic spine pain	CBT-I integrated into pain management clinic, 6 sessions plus 12 pain management sessions	Multicenter RCT; longitudinal follow-up (12 months)
2024	Dietrich, Jessica R; Blok, Amanda C; Zhou, Eric S	Sleep disturbance and menopause	Current Opinion in Obstetrics & Gynecology	10.1097/OCO.0000000000001012	English	Acceptability		Individual	Peri and postmenopausal women	Review including multi-modal CBT-I	Review - SR; Treatment evidence summary
2024	Dolzak, Michael L.; Waldrop, Joseph; Miller, Katherine E.; Taylor, Katherine; Owen, Jason; Kuhn, Eric	Cognitive behavioural therapy for insomnia in people with cancer	The Cochrane Database of Systematic Reviews	10.1002/14651858.CD015176.pub2	English	Acceptability		Individual	Cancer survivors with insomnia	1:1 CBT-I vs digital CBT-I	Review - SR and Meta-Analysis
2024	Donohoe, Flórida; O'Meara, Yvonne; Roberts, Aidin; Comerford, Louise; Valcheva, Ivaila; Kearns, Una; Gailigan, Marie; Higgins, Michaela J.; Henry, Alasdair L.; Kelly, Catherine M.; Walsh, Janice M.; Hickey, Martha Brennan; Donal J. Drummond; Sean P. A.; Bei, Bei	Impact of Adherence to Digital Cognitive Behavioral Therapy for Insomnia Effectiveness	Yonsei Medical Journal	10.3349/ymj.2024.0398	English	Accommodation		Individual	General insomnia	Digital CBT-I	RCT
2024	Dutrie, Cassian J.; Cameron, Claire; Smith-Han, Kelly; Beckert, Lutz; Delapachina, Shanyit; Garand, Shelia K.; Sparks, Ben; Wilson, Eric El-Monshel; Ahmed Hashem; Khoury, Leena Mohamed; Altheib, Marwan; Saad, Moustafa Tag El-Mekok; Elsheikh, Mahmoud Ahmed; Loufy, Ahmed; Ali, Ahmed Salah; El-Gazzar, Heba E.; Fayed, Sara Mohamed; Zoromba, Mohamed A.	Cognitive Behavioral Therapy for Insomnia in People With Chronic Disease: A Systematic Review and Meta-Analysis	JAMA Internal medicine	10.1001/jamainternmed.2025.4610	English	Acceptability		Individual	Patients with insomnia and chronic disease	Review including multi-modal CBT-I	Review - SR and Meta-Analysis
2024	Dutrie, Cassian J.; Cameron, Claire; Smith-Han, Kelly; Beckert, Lutz; Delapachina, Shanyit; Garand, Shelia K.; Sparks, Ben; Wilson, Eric El-Monshel; Ahmed Hashem; Khoury, Leena Mohamed; Altheib, Marwan; Saad, Moustafa Tag El-Mekok; Elsheikh, Mahmoud Ahmed; Loufy, Ahmed; Ali, Ahmed Salah; El-Gazzar, Heba E.; Fayed, Sara Mohamed; Zoromba, Mohamed A.	CBTweb implementation outcomes: one-year follow up	Cognitive Behaviour Therapy	10.1080/16006073.2024.2442371	English	Availability	Acceptability	Policy	Multidisciplinary clinicians who are CBT-I providers	Online Provider Training Platform; CBTweb.org	Implementation Science / Training Evaluation; longitudinal follow-up (1 year)
2024	Fang, Jiaqi; Lye, Zhihong A.; Siah, Da; Shiao, Zhou; Wengjing, Zeng; Shufei; Luo, Xue; Guo, Junzong; Zhao, Yuhui; Li, Shuangyan; Hou, Yanfei; Lu, Chong; Zhang, Bin	vCBT-I dialogue system: a comparative evaluation of large language models and adaptation strategies for insomnia treatment	Journal of Translational Medicine	10.1186/s12967-025-06873-y	English	Accommodation		Organizational	Digital delivery CBT-I apps	N/A - creating intelligent dialogue systems (AI-driven) for digital CBT-I apps	Model comparative trial
2024	Fang, Jiaqi; Lye, Zhihong A.; Siah, Da; Shiao, Zhou; Wengjing, Zeng; Shufei; Luo, Xue; Guo, Junzong; Zhao, Yuhui; Li, Shuangyan; Hou, Yanfei; Lu, Chong; Zhang, Bin	Variants of time in bed manipulation therapy for patients with insomnia: A scoping review	Sleep Medicine Reviews	10.1016/j.smrv.2025.102150	English	Accommodation	Acceptability	Individual	Adults	CBT-I time in bed manipulation	Review - scoping review

2024	Floyd, Veronica; Vargas, Ivan	Psychotherapeutic, pharmacological and other active interventions from the NICE guideline for post-traumatic stress disorder with sleep disorder: systematic review and meta-analysis	BMC psychiatry	10.1186/s12888-025-07157-9	English	Acceptability		Individual	Individuals with sleep disorders and PTSD	Review including multi-modal CBT-I	Review - SR and Meta-Analysis
2024	Furukawa, Yuki; Nagakawa, Daiki; Sato, Shunichi; Toyomoto, Rie; Takashina, Hikari N.; Kobayashi, Koki; Sakata, Masatsugu; Nakajima, Shun; Ito, Masami; Yamamoto, Ryuchiro; Hara, Shintaro; Sakakibara, Eisuke; Peris, Michael; Kasai, Kyoto	Treating sleep disturbances in refugees and asylum seekers: results from a randomized controlled pilot trial evaluating the STARS group intervention	European Journal of Psychotraumatology	10.1080/20088066.2025.2455248	English	Accommodation	Acceptability	Individual	Refugees and Asylum seekers	Group CBT-I adapted for refugees: Sleep Training adapted for Refugees (STARS)	Pilot RCT
2024	Furukawa, Yuki; Sakata, Masatsugu; Furukawa, Yoshiko A.; Eftimiou, Orestis; Peris, Michael	Recommendations for permanent sleep telehealth: an American Academy of Sleep Medicine position statement	Journal of clinical sleep medicine : JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.11438	English	Accessibility	Affordability	Policy	General insomnia	Telehealth CBT-I	Review - Position statement with recommendations
2024	Gehrke-Beck, Sabine	Effectiveness of Information and Communication Technology-Based Cognitive Behavioral Therapy Using the Smart Sleep App on Insomnia in Older Adults: Randomized Controlled Trial	Journal of Medical Internet Research	10.2196/e7751	English	Accommodation		Individual	Community-dwelling older adults in South Korea	Digital CBT-I adapted for community-dwelling older adults; Smart Sleep Automated CBT-I (Amazon Alexa)	RCT
2024	Germain, Anne; Wolfson, Megan; Klanczyc, Brittany; Brock, Matthew S.; Hearn, Hunter; O'Reilly, Brian; Blue Star, John; Mydlowiec, Vincent	Development of a Voice-Activated Virtual Assistant to Improve Insomnia Among Young Adult Cancer Survivors: Mixed Methods Feasibility and Acceptability Study	JMIR formative research	10.2196/94869	English	Acceptability	Accessibility	Individual	Young adult cancer survivors	Automated CBT-I (Amazon Alexa)	Feasibility/acceptability study
2024	Gumpert, Nicole B.; Tully, Isabelle A.; Tutak, Joshua; Dientch, Jessica R.; Zulman, Donna M.; Rossi, Lisa O.; Simpson, Norah; Manber, Rachel	Qualitative Investigation of Primary Care Provider Perspectives on the Assessment and Treatment of Insomnia	Journal of Clinical Psychology in Medical Settings	10.1007/s10880-025-10088-y	English	Acceptability	Availability	Organizational	Primary care providers at the VA	N/A - inquiring about treatment of insomnia	Qualitative
2024	Hollenback, Christopher S.; Jeon, Sanghoon; O'Connell, Meghan; Conley, Samantha; Yaggi, Henry; Radaker, Nancy S.	An active inference strategy for prompting reliable responses from large language models in medical practice	NPJ digital medicine	10.1038/s41746-025-01516-2	English	Accommodation	Availability	Individual	General insomnia	Automated CBT-I	Validation study (therapist reviewed AI responses to queries)
2024	Karlin, Bradley; Ryan J Anderson, Jillian M Rung; Charlotte Drury-Oworek, Tyson S Barnett	A Pilot Randomized-Controlled Trial of Sleep Scholar: A Brief, Internet-Based Insomnia Intervention for College Students	Behavior Therapy	10.1016/j.beth.2024.06.007	English	Accommodation		Individual	College students with insomnia	Digital CBT-I tailored to college students	Pilot RCT
2024	Kawakatsu, Yuki; Takahata, Mai; Satake, Shingo; Sato, Toshiaki; Eakman, Aaron	Effectiveness of internet-based self-help cognitive behavioral therapy for insomnia (CBT-i) among community adults: A randomized controlled trial	Applied Psychology: Health and Well-Being	10.1111/aphw.70047	English	Acceptability	Accommodation	Individual	Community adults with mild-to-moderate insomnia in Hong Kong	Digital CBT-I	RCT
2024	Knutzen, Sofie Magelberg; Christensen, Dine; Skjærland, Carina; Patrick, Darrin; Dahlbakk, Malene; Flensborg, Arvid; Ali, Zacharias, Robert	Cognitive behavioral therapy for insomnia in neurodegenerative disorders-targeting sleep disturbances in Alzheimer's and Parkinson's disease: a scoping review	Frontiers in Psychology	10.3389/fpsyg.2025.1700496	English	Acceptability		Individual	Patients with neurodegenerative disorders (Alzheimer's, Mild Cognitive Impairment, and Parkinson's Disease)	Compared in-person CBT-I and telehealth CBT-I	Review - scoping review
2024	Kutser, Freemie; Whitehead, Lisa; Quigley, Eimear; Stanley, Mandy	Continuous sleep tracking in digital CBT-I: Efficacy and insights from a naturalistic environment study	International journal of clinical and health psychology: IJCHP	10.1016/j.ijchp.2025.100646	English	Acceptability	Accommodation	Individual	General insomnia	Digital CBT-I, 8-weeks	Observational
2024	Lau, Patsy H.; Marney, Dekar S.; Carmona, Nicole E.; Starick, Elshah; Iskenderova, Irene; Carney, Colleen E.	Cognitive Behavioral Therapy for Insomnia in China: A Knowledge, Attitude, and Practice Study Among Medical Doctors Treating Patients with Insomnia	Behavioral Sleep Medicine	10.1080/15402002.2024.2449354	English	Acceptability		Organizational	Medical doctors in China	N/A - inquired about provider experience treating insomnia	Cross sectional survey
2024	Li, Patsy W. C.; Yu, Doris S. F.	Integrating interventions based on cognitive behavioural therapy for insomnia in physical therapist practice for individuals with chronic pain and insomnia: Identifying barriers and formulating implementation strategies	Brazilian Journal of Physical Therapy	10.1016/j.bjpt.2025.101243	English	Availability	Accommodation	Organizational	Providers (physical therapists, GPs, and psychologists) and patients with insomnia and pain	Inquiring about PT-led CBT-I integrated into PT goals for pain	Qualitative; implementation science
2024	Li, Sophie H.; Corkish, Brittany; Richardson, Cele; Christensen, Helen; Werner-Seidler, Aliza	Development of a Mobile App (iCANSleep) to Treat Insomnia in Cancer Survivors: User-Centered Design Study	JMIR cancer	10.2196/74387	English	Accommodation		Individual	Cancer survivors	Development of digital CBT-I app; iCANSleep	Qualitative - feedback and development on app adapted for cancer survivors; user-centered design
2024	Liu, Kevin T.; Garland, Sheila N.; Maghuni, Salimah H.; Kaye, Narda H.; Thompson, Embree, Li, Q. Susan; Mao, Jun J.	Internet-delivered cognitive behavioral therapy for insomnia: The future of insomnia treatment with large language models	Sleep Medicine: X	10.1016/j.sleep.2025.100157	English	Accommodation	Availability	Policy	General insomnia	Automated CBT-I	Review - theoretical synthesis and recommendations for future research
2024	Liu, Michelle; Pagador, Ashley Jane T.; Mayed, Jenna; Martinez, Emily C.; Schuster, Stephen M.	Real-World Implementation and Impact of Digital CBT for Insomnia on Healthcare Utilization: A Propensity-Matched Controlled Study	Implementation Research and Practice	10.1177/26334895251386306	English	Availability	Accommodation	Organizational	Patients in healthcare system	Digital CBT-I integrated into electronic health record	Implementation science; observational
2024	Loughan, Ashlee R.; Lanoye, Autumn; Willis, Keilee D.; Fox, Amber; Ravvits, Scott G.; Zukas, Alicia; Kim, Youngbeek	Comparative effectiveness and predictors of cognitive behavioral therapy for insomnia and its components in older adults: main outcomes of a randomized dismantling trial	Journal of clinical sleep medicine : JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.11756	English	Accommodation	Acceptability	Individual	Older adults with insomnia	In-person CBT-I: full CBT-I vs BT vs CT	RCT
2024	Malby, Ananya; Wang, Angela W.; Dreier, Melissa L.; Wallace, Vuolte, Orchard, Faith; Schneider, Jessica L.; Loades, Maria E.; Hamilton, Jessica L.	Comparison of Tailored Versus Standard Group Cognitive Behavioral Therapy for Shift Worker Insomnia: A Randomized Controlled Trial	Clocks & Sleep	10.3390/clocksleep7020024	English	Accommodation		Individual	Shift workers with insomnia	General CBT-I vs customized CBT-I	RCT
2024	Matarkey, Motly E.; Fu, Adelle J.; Mannan, Noushin; Shaw, Olivia M.; Haight, Theobaldus J.; Cota, Martin R.; Jhaud, Narsen C.; Werner, J. Kerit; Brody, David L.	Cognitive behavioural therapy for insomnia decreases the discrepancy between objective and subjective measures of sleep	Trends in Psychiatry and Psychotherapy	10.47626/2237-6089-2024-0819	English	Accommodation	Acceptability	Individual	Adults with insomnia	Group CBT-I	Observational; clinical trial
2024	Hattler, Anneleen; De Beets, Liesbet; Bittarys, Thomas; Van Looveren, Eveline; Maerkesse, Olivier; Cagnie, Barbara; Meoux, Mira; Moens, Maarten; Goubert, Dorien; Manneske, Wouter; Daniels, Lieven; Klemm, Kelle; Karmes, Steven; Nils, Jo; Matthews, Joe A.; Carlisle, Victoria R.; Walker, Robert; Dennis, Emma J.; Durant, Claire; McConville, Ryan; Isotokus, Hanna K.; Attwood, Angela S.	Patients' experiences of group-delivered sleep restriction therapy in primary care: a qualitative study undertaken alongside a randomized controlled trial	Sleep Medicine	10.1016/j.sleep.2025.100622	English	Availability	Acceptability	Organizational	Adults in Primary care in Sweden	Nurse-led Group SRT	Qualitative
2024	McLay, Laurie; Hunter, Joanne; Balfour, Kimberly; Marie Emerson, Lisa; Day, Andrew S.; Vandekerckhove, Moya; Dalton, Samuel; Radcliffe, Zoe; Woodford, Emma	Promoting sustained access to cognitive behavioral therapy for insomnia in Australia: a system-level implementation program	Journal of clinical sleep medicine : JCSM: official publication of the American Academy of Sleep Medicine	10.5664/jcsm.113374	English	Availability	Accessibility	Policy	Health System / General population	Review including multi-modal CBT-I	Review - implementation science with recommendations
2024		Open pilot study of a guided digital self-help intervention targeting sleep and the biological clock in university students using a pre-test post-test design	ScreenRx Reports	10.1038/s41598-025-04891-8	English	Accommodation		Individual	College students	Digital CBT-I with Circadian rhythm support; i-Sleep & BioClock	Feasibility; pilot study

2024	Milker, Mary Beth; Freeman, Lindsey K.; Helle, Ashley C.; Hall, Nicola A.; Dibetto, Angelo M.; McCrae, Christina S.	Barriers and Facilitators of Sleep Restriction Therapy in Internet-Delivered CBT-I: A Qualitative Content Analysis and the Development of a Treatment Path Model	Journal of Sleep Research	10.1111/jsr.70018	English	Acceptability	Accommodation	Individual	Adults with insomnia	Digital CBT-I; stepped-care	Qualitative - content analysis
2024	Nhu, Nguyen Thanh; Wong, Cheng-Ze; Chen, Ivy Y.; Jan, Ya-Wen; Kang, Jumi-Hong	The implementation of internet-delivered cognitive behaviour therapy for adolescents with insomnia comorbid to psychiatric conditions at two child and adolescent psychiatry clinics	Psychiatry Research	10.1016/j.psychres.2025.116815	English	Availability	Accommodation	Organizational	Outpatients at child and adolescent psychiatry clinics with insomnia and comorbid psychiatric disorder	Digital CBT-I in addition to routine psychiatric care (and with support from staff)	Implementation science
2024	O'Connell, Meghan; Feder, Shelli L.; Mwanjil-Enewere, Uzor; Redeker, Nancy S.	Role and perception of healthcare professionals in referring cancer patients to online cognitive behavioral therapy for insomnia	Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-025-09284-1	English	Acceptability	Accessibility	Organizational	Healthcare professionals at cancer centers in France	N/A - inquiring about referring patients to CBT-I (telehealth vs digital delivery (insomniq))	Qualitative - thematic analysis
2024	Pape, Laura M.; Jorke, Sophie; Kivell, Lila M. M.; van Straten, Anneliese; Antypa, Niki	Exploring Pregnant Women's Perspectives in Developing a WeChat-Delivered Cognitive Behavioral Therapy for Insomnia: A Qualitative Study	Behavioral Sleep Medicine	10.1080/15402002.2025.2513311	English	Accommodation	Acceptability	Individual	Pregnant women in China	Digital CBT-I; WeChat	Qualitative - content analysis
2024	Pchelina, Polina; Polushtov, Mikhail	Exploring the effect of a culturally adapted and personalized digital CBT-I app in insomnia patients with mild-to-moderate OSA: a secondary analysis of a randomized controlled trial	Postgraduate Medical Journal	10.1093/postgrad/pga003	English	Accommodation		Individual	COMISA vs insomnia only	Digital CBT-I for COMISA; culturally adapted, interactive, and personalized	Secondary analysis of RCT
2024	Pchelina, Polina; Polushtov, Mikhail; Krieger, Tobias; Duss, Simone B.; Berger, Thomas	Sleep Disorders in Family Medicine: A Cross-Sectional Study on Prevalence, Screening, and Treatment Approaches in Saudi Arabia	Cureus	10.7759/cureus.78937	English	Availability	Accessibility	Organizational	Family medicine patients in Saudi Arabia	N/A - inquiring about treatment offered for sleep disorders (including insomnia)	Cross sectional survey
2024	Pillemer, Asaf; Rockliff, Christopher J.; Zhou, Eric S.; You, Wen	A qualitative exploration of barriers and facilitators to implementing sleep and cognitive behavioral therapy for insomnia knowledge into graduate psychology students' practice	Behavioral Sleep Medicine	10.1080/15402002.2025.2576909	English	Availability	Acceptability	Organizational	Australian Graduate psychology students	Online introductory sleep workshop on insomnia management and CBT-I	Qualitative - thematic analysis
2024	Pinkston, Sophie Wardle	The effectiveness of cognitive behavioural therapy for insomnia: Impact of comorbidities and dysfunctional beliefs on insomnia severity in a real-world clinical setting	Journal of Sleep Research	10.1111/jsr.70261	English	Acceptability		Individual	Real world outpatients in Italy (implied high comorbidity)	General CBT-I	Observational; effectiveness study
2024	Pigada, Emina; Dwyer, Nriam	Validating the efficacy of a mobile digital therapeutic for insomnia (WELT-I): Randomized controlled decentralized clinical trial	Journal of Medical Internet Research	10.2196/70722	English	Accommodation		Individual	General insomnia	Digital CBT-I; WELT-I	RCT
2024	Quin, Anna; Tirotsky, Liut; Attribay, Laura; Spina, Marie-Antoinette; Fisher, Jane; Stafford, Lesley; Wiley, Joshua F.; Bei, Bei	Patterns of insomnia and its treatment in North Central London: Using primary care data to establish unmet needs and health inequalities	BMJ Psych Open	10.1192/bpo.2025.10861	English	Availability	Acceptability	Organizational	Primary care patients in the UK	N/A - looking at referrals for CBT-I	Epidemiological; health records study
2024	Rand, Alexandra C.; Rogers, Daniel O.; Berlin, Gregory S.; Burnone, Laura; Dante, Greg; DeViva, Jason; McCarthy, Elissa; Niculet, Maria E.; Santoro, Gia; Hermes, Eric D. A.	CBT-I can be delivered by a range of healthcare providers	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/bsaf173	English	Availability		Policy	BSM experts	N/A - inquiring about who should deliver CBT-I	Review - Position statements
2024	Remadi, M.; Dinis, S.; Bernard, L.; D'ontonaire, D.; Bousaud, M.; Chemaoui, M.; Saguin, E.	Thérapie cognitive-comportementale pour l'insomnie chez des adultes souffrant d'un trouble de la personnalité du groupe B et d'insomnie: Une étude de faisabilité (étude INSOPERSO)	Annales Médico-Psychologiques	10.1016/j.amp.2025.06.005	French	Acceptability		Individual	Patients with insomnia and Group B personality disorders	In-person Group CBT-I, 4 sessions	Mixed-methods - pilot study and thematic analysis
2024	Rosow, Anderson B.; Magnante, Anna T.; Uih, Nicole; Figueroa, Lynette	The future of insomnia research—There's still work to be done	Journal of Sleep Research	10.1111/jsr.70091	English	Acceptability	Accommodation	Individual	General insomnia	General CBT-I vs CBT-I and off-label medication	Review - narrative review with recommendations for future research
2024	Schofield, Helena; Wicklow, Emerson; Aaronson, Robert M.; Dawson, Spencer C.; Khosla, Seema; Lee-Iannotti, Joyce K.; Lau, Roberta M.; Lewis, Daniel S.; McCrae, Christina S.; Neubauer, David; Ong, Jason C.; Haffman, Thomas H.; Whittington, Christen; Martin, Jennifer L.	About the other side of sleep disorders: Improving daytime problems, fatigue, sleepiness, cognitive functioning and more	Journal of Sleep Research	10.1111/jsr.70164	English	Acceptability		Individual	General insomnia	General CBT-I	Review - narrative review with recommendations
2024	Shaffer, Kelly M.; Glazer, Jillian V.; Chow, Philip T.; Ingersoll, Karen S.; Ritterband, Lee M.	Implementing brief behavioral treatment for insomnia in Department of Veterans Affairs Primary Care Mental Health Integration clinics: Reach outcomes from a hybrid type 3 effectiveness-implementation trial	Psychological Services	10.1037/ser0000924	English	Availability	Accessibility	Organizational	Veterans in primary care and mental health integration clinics	Training providers in BBT and providing implementation assistance	Implementation science
2024	Shaffer, Kelly M.; Pensapko, Kate; Glazer, Jillian V.; Mattos, Meghan K.; Klinger, Julie; Buysse, Daniel J.; Ritterband, Lee M.; Donovan, Heidi	Industry sponsorship bias in randomized controlled trials of digital cognitive behavioral therapy for insomnia: A meta-research study based on the 2023 Brazilian guidelines on the diagnosis and treatment of insomnia in adults	Frontiers in Neurology	10.3389/fneur.2025.1600767	English	Accommodation		Policy	General insomnia; digital CBT-I users	Digital CBT-I review of apps, especially commercial companies	Review - Meta-Analysis and Bias Assessment
2024	Shin, Jiyoon; Kim, Sujin; Lee, Jisyoung; Gu, Hyerin; Ahn, Jhye; Park, Chorong; Seo, Mincheol; Jeon, Jeong Eun; Lee, Ha Young; Yoon, Ji Won; Kim, Sojeong; Yoon, Yeaseul; Lee, Heon-Jeong; Kim, Seog-Ju; Lee, Yu Jin	Agomelatine with cognitive behavioral therapy reduces insomnia severity index and subjective units of distress scores than initial-dose clonazepam in moderate to severe insomnia patients: A quasi-experimental study	Pharmacology, Biochemistry and Behavior	10.1016/j.pbb.2025.174003	English	Accommodation		Individual	Patients with moderate to severe insomnia	CBT-I combined with sleep medication	Quasi-experimental
2024	Skoglund, Helena; Svendsen, Borge; Kallestad, Håvard Vedaa; Øystein	Cognitive behavioral therapy for perinatal insomnia: Exploring adherence, perceived usefulness of intervention components, and their associations with sleep outcomes	Behavioral Sleep Medicine	10.1080/15402002.2025.2501704	English	Acceptability		Individual	Perinatal individuals	CBT-I delivered at 3 time points (35 weeks pregnant, 1-3 months postpartum, and 6 months postpartum)	Secondary analysis of RCT
2024	Song, Yeonsoo; Papayan, Anna; Lee, Diane; Mitchell, Michael N.; McCurry, Susan M.; Irwin, Michael R.; Teng, Edmond; Alessi, Cathy A.; Martin, Jennifer L.	Smartphone application-delivered cognitive behavioural therapy for insomnia with telephone support for insomnia disorder compared to a waitlist control: A randomised clinical trial	Journal of Sleep Research	10.1111/jsr.14363	English	Accommodation		Individual	General insomnia	Digital CBT-I (6 weekly modules) with phone support (15 minutes weekly)	RCT
2024	Spina, Marie-Antoinette; Bei, Bei; Rajaratnam, Shanbhakumar W.; Krystal, Andrew; Edinger, Jack D.; Buysse, Daniel J.; Thase, Michael; Manber, Rachel	Prevention of pain interference in insomnia patients via digital cognitive-behavioral therapy for insomnia	Behavioral Sleep Medicine	10.1080/15402002.2025.2500519	English	Acceptability	Accommodation	Individual	Adults with insomnia and comorbid pain	Digital CBT-I	Secondary analysis of RCT
2024	Sweetman, Alexander; Reynolds, Chelsea; Lack, Leon; Vukobin, Andrew; Chai-Cotzler, Ching Li; Wallace, Douglas M.; Crawford, Megan; Richardson, Cole	Web-based cognitive-behavioral therapy for insomnia in cancer survivors: The OncoSleep randomized trial	Sleep Medicine	10.1016/j.sleep.2025.02.021	English	Accommodation		Individual	Cancer survivors	Digital CBT-I modified for cancer survivors; OncoSleep, 6 weekly modules	RCT

2024	Sweetman, Alexander; Reynolds, Chelsea; Richardson, Cole	Trauma-informed cognitive behavioral therapy for insomnia in women veterans: An intervention development study	Cognitive and Behavioral Practice	10.1016/j.cbpra.2025.03.002	English	Accommodation		Individual	Women veterans with PTSD	Trauma-informed CBT-I	Pilot study; Protocol development
2024	Swierczbiak, Brooke; Odenhof, Erin; Byrne, Jamie Em; Staiger, Petra K.	Non-guided, mobile, CBT-I-based sleep intervention in War-torn Ukraine: A feasibility study.	PLoS ONE	10.1371/journal.pone.0310070	English	Acceptability	Accommodation	Individual	War-affected adults in Ukraine	Digital CBT-I; Sleep2	Feasibility; pre/post
2024	Tadros, Michelle; Li, Sophie; Corkish, Britt; Upton, Emily; Newby, Jill; Werner-Seidler, Aliza	Effects of digital sleep interventions on sleep among college students and young adults: Systematic review and meta-analysis.	Journal of Medical Internet Research	10.2196/99657	English	Acceptability		Individual	College students	Digital CBT-I	Review - Meta-Analysis
2024	Takahashi, Masahiro; Sakurai, Hiroshi; Inada, Ken; Aoki, Yumi; Ise, Kanya; Kise, Morio; Yoshida, Erika; Matsui, Kentaro; Utsumi, Tomohiro; Shimura, Akiyoshi; Okajima, Iku; Kotori, Nozomu; Yamashita, Hidehisa; Suzuki, Masahiro; Kuriyama, Kenichi; Shimizu, Eiji; Mashiwa, Kazuo; Watanabe, Koichiro; Takase, Yoshihiko	Napping during cognitive behavioural therapy for insomnia: Friends or foes?	Journal of Sleep Research	10.1111/jsr.14343	English	Accommodation	Acceptability	Individual	General insomnia	CBT-I modified to allow napping	Pilot study; matched group comparison
2024	Umer, Christ S; Vakis, Corinne L; Jefferys, Amy S; Olsen, Marie; Zerkakis, Jennifer; Goodwin, Kaitlyn; Gentry, Pamela; Rose, Cynthia; Weidenbacher, Hollis J; Beckham, Jean C; Bosworth, Hayden B	Effect of cognitive behavioral therapy for insomnia on sleep quality among college students: The role of hyperarousal and dysfunctional beliefs.	Behavioral Sleep Medicine	10.1080/15402002.2024.2401473	English	Acceptability		Individual	Chinese college students	General CBT-I, made rec. after to include mindfulness (but didn't in this study)	Cross sectional; pre/post
2024	Waterman, Lauren Z.; Creed, Michael	Improving sleep: A systematic review of the literature.			English	Accommodation		Policy	General insomnia	Integrated CBT-I with other approaches (light therapy, mindfulness, hypnotherapy, and medication)	Review - SR
2024	Wickwire, Emerson M	Digital CBT for insomnia and emotion regulation in the workplace: A randomised waitlist-controlled trial.	Psychological Medicine	10.1017/S0033291725000194	English	Accommodation	Accessibility	Organizational	Working adults with mild insomnia (or more) and comorbid depression or anxiety symptoms	Telehealth CBT-I modified to include emotion regulation, 4 sessions, integrated into the workplace	RCT
2024	Wu, Yimei; Li, Jingwen; Liu, Hongying; Luo, Junling; Hu, Wen; Li, Haijiang	Applying natural language processing techniques to map trends in insomnia treatment terms on the insomnia subreddit: Infodemiology study.	Journal of Medical Internet Research	10.2196/58902	English	Acceptability		Policy	Reddit users	N/A - Reddit search for insomnia and treatment discussed (includes CBT-I, meds, etc.)	Natural Language Processing (NLP); Digital Trend Analysis
2024	Zambelli, Zoe; Hultstad, Elizabeth J.; Fidalgo, Antonio R.; Mangar, Stephen; Dimitriou, Dagmara	The effects of a sleep intervention in the early COVID-19 pandemic on insomnia and depressive symptoms: Results of a randomized controlled pilot study.	Journal of Psychiatric Research	10.1016/j.jpsychires.2025.01.011	English	Acceptability	Accessibility	Individual	Individuals with insomnia symptoms that emerged after the start of COVID	Telehealth CBT-I, 5 weeks	RCT; longitudinal follow-up (28 weeks)
2024	Zhou, Eric S.; Revette, Anna; Ritterband, Lee M.; Bethia, Traci N.; Delo, Lauren; Simmons, Patricia D.; Rosenberg, Lynn	Effectiveness of digital cognitive behavioral therapy for insomnia on professional activity: A systematic review and meta-analysis of randomized controlled trials.	Sleep Medicine Reviews	10.1016/j.smrv.2024.100524	English	Affordability		Organizational	Working adults	Digital CBT-I	Review - Meta-Analysis
2025	AlJawel, Manwa F.; Alsaadani, Najla M.	What are the preferred delivery modes for cognitive behavioral therapy-insomnia treatment among adults with chronic insomnia disorder?			English	Acceptability	Accommodation	Individual	Adults with chronic insomnia	N/A - inquired about CBT-I delivery preference (in-person/telehealth, digital app)	Cross sectional survey
2025	Allen, Todd B.; Williams, Kimberly A.; Anderson, Jason L.; McCoy, Kathleen T.	Feasibility of single-session online cognitive behavioral therapy for insomnia: Brief report.	Psicologia: Teoria e Prática	10.5935/1980-6906/PTPCP17428.en	English	Accommodation	Accessibility	Organizational	General insomnia	Telehealth CBT-I, single session	Mixed-methods - feasibility study and thematic analysis
2025	Altzman, Orly; Croescher, Neagan E; Quin, Nina; Cassena, Laura; Welbeck, Cornelia; Pennington, Donna M; Bai, Bei	Effects of a Triage Checklist to optimize insomnia treatment outcomes and reduce hypnotic use: The RCT of the effectiveness of stepped-care sleep therapy in general practice study.	Sleep: Journal of Sleep and Sleep Disorders Research	10.1093/sleep/bsae182	English	Accommodation		Policy	Middle-age and older adults with insomnia	Stepped-care CBT-I	RCT; longitudinal follow-up (12 months)
2025	Baglioni, Chiara; Gabbati, Andrea; Meneo, Debora; Cavallini, Greta; Gelfo, Francesca; Mancini, Francesco; Bruhmann, Carlo	Effects of cognitive behavioral therapy on sleep quality and insomnia severity index in women with menopausal insomnia: a systematic review and meta-analysis.	Women's Health Nursing	10.4069/whn.2025.09.07	English	Acceptability		Individual	Women in menopause	Review including multi-modal CBT-I	Review - SR and Meta-Analysis
2025	Bao, Xueying; Zhu, Xinyu; Yang, Dongren; Lou, Hao; Wang, Ruoyun; Wu, Yutong; Li, Wenhui; Xia, Yu; Zeng, Li; Pan, Yingying; Wang, Xigui; Zhang, Xian; Ling, Cheng; Ling, Yuhui; Zhang, Yan; Zhao, Qi; Yang, Mei	Effectiveness of Digital Cognitive Behavioral Therapy for Insomnia: A Meta-Analysis of Randomized Controlled Trials.	Iranian Journal of Psychiatry	10.18502/ijps.v20i4.19889	English	Accommodation		Policy	General insomnia	Digital CBT-I	Review - SR and Meta-Analysis
2025	Baum, Erika; Philipp, Maximilian; Spiegelhalder, Kai	Black Women Benefit From Psychotherapies for Insomnia, but Experience Adherence Challenges: Results of a Comparative Effectiveness Trial in Women Veterans.	Women's Health Issues	10.1016/j.whi.2025.08.003	English	Acceptability	Accommodation	Individual	Black women veterans with insomnia	CBT-I vs ACT-I	Secondary analysis of RCT
2025	Bini, Christina; Backstrom, Joostin; Aresdott, Kristofer; Jansson-Friolmark, Markus; Sandlund, Christina	Comparative Efficacy of Brief Behavioral Therapy for Insomnia: A Systematic Review and Network Meta-Analysis.	Worldviews on Evidence-Based Nursing (John Wiley & Sons, Inc.)	10.1111/wenb.70675	English	Accommodation		Policy	General insomnia	In-person BBT	Review - SR and Meta-Analysis
2025	Bramoweth, Adam D.; Hough, Caroline E.; O'Brien, Erin M.; Kingman, Elizabeth A.; Deininger, Cara J.; Umer, Christ S.; Boudriaux-Kelly, Monique Y.	Insomnie - Update der S3-Leitlinie.	ZfA: Zeitschrift für Allgemeinmedizin	10.1007/s44286-025-00387-w	German	Acceptability		Policy	German general insomnia	CBT-I as first line treatment, preferred face-to-face	Review - clinical practice guidelines
2025	McCoy, Jennifer L.; Yeok, Ada O; Brockmeier, Harriet A.; Ell, Johanna; Kato, Linzi; Strahler, Jane; Duck, Antje; Riemann, Dieter	Effects of Cognitive Behavioral Therapy for Insomnia in Patients with Alcohol Use Disorder: An Experimental Study.	Journal of Korean Academy of Psychiatric & Mental Health Nursing (KJPMHN)	10.12934/jkpmhn.2025.34.2.211	English	Accommodation	Availability	Individual	Hospitalized patients with alcohol use disorder	Inpatient CBT-I, 5 sessions; integrated into alcohol program	Pre/post test design
2025	Buntrock, Claudia; Spiegelhalder, Kai; Lehn, Dirk; Cai, Zhaodan; Tang, Yiqiao; Liu, Chunyu; Li, Hancong; Zhao, Guozhen; Zhao, Zhou; Zhang, Bo	Cancer survivors' acceptability and perspectives on Engagement with digital cognitive behavioral therapy for insomnia: a mixed methods perspective.	Supportive Care in Cancer	10.1007/s00520-025-09552-0	English	Accommodation	Acceptability	Individual	Cancer survivors	Digital CBT-I modified for cancer survivors; OncoSleep	Mixed-methods - survey and thematic analysis

2025	Carlson, Owendolyn C.; Kelly, Monica R.; Erickson, Alexander J.; Saldana, Kathryn; Gomez, Giselle; Carlson, Katie J.; Lee, Duane; Pigeon, Wilfred R.; McCarthy, Eissa; Orliva, Jason C.; McDonald, Sarah Kate; Josephson, Karen R.; Alessi, Cathy A.; Yano, Elizabeth M.; Martin, Jennifer L.; Hamilton, Alison B.	The Efficacy of Psycho-Educational Interventions to Optimize Women's Sleep in Pregnancy: An Integrative Review.	Birth: Issues in Perinatal Care Review.	10.1111/birt.12902	English	Acceptability		Individual	Pregnant individuals	Review including multi-modal CBT-i	Review - integrative review and Meta-Analysis
2025	Carmona, Nicole E.; Solomon, Natalie L.; Adams, Karen E.	Digital CBT-i in Comorbid Insomnia and Depression: Clinical Outcomes From a Pragmatic Randomized Controlled Trial.	Depression & Anxiety (1091-4269)	10.1155/da/2171041	English	Acceptability	Availability	Individual	Patients with insomnia and comorbid depression	Digital CBT-i integrated into treatment as usual for depression, 10 modules	RCT; longitudinal follow-up (24 weeks)
2025	Chan, Ka Long; Pau, Neissa Hoi Yan; Poon, Scarlett Fung Oi Lam; Bun Lai Hong; Lam, Chun Bun; Chan, Kevin Ka Shing	Sleep Hygiene Education, ReadWatch® Actigraphy, and Telehealth Cognitive Behavioral Training for Insomnia for People With Prostate Cancer.	Oncology Nursing Forum	10.1188/25.ONF.E15-E34	English	Acceptability	Availability	Organizational	People with prostate cancer	Telehealth CBT-i, 4 weeks, integrated into treatment as usual	Pilot RCT; feasibility
2025	Chen, Lu; Wang, Rulin; Fang, Xu; Zhao, Jingyue; Wang, Fuchun; Zhou, Dan	Insomnia in Women Surviving Breast and Gynecological Cancers—A Narrative Review to Address the Hormonal Factor.	Cancers	10.3390/cancers17344022	English	Accommodation		Policy	Female cancers cancer survivors (breast and gynecological)	Multi-modal CBT-i, recommend integrating this with hormone therapy	Review - Clinical review and treatment recommendations
2025	Clara, Maria L.; Hegarty, Josephine; Van Straten, Annetiek; Gludetti, Federica; Buskenhout, Imke; Koc, Irem; Caruamo, Maria C.; Allen Gomes, Ana	Using motivational spirited cognitive behavioral change communication to increase acceptance/Utilization of the CBT-i Coach for improved quality of sleep in adult psychiatric patients.	Archives of Psychiatric Nursing	10.1016/j.apnu.2025.151989	English	Accommodation	Availability	Organizational	Adults in outpatient psychiatry (implied psychiatric comorbidities)	Digital CBT-i; CBT-i Coach, plus motivational spirited cognitive behavioral communication, weekly for 8 weeks	Pre/post design; quality improvement
2025	Clara, Maria L.; van Straten, Annetiek; Savard, Josée; Caruamo, Maria C.; Allen Gomes, Ana	Remission, treatment response, and treatment adherence across the delivery methods of cognitive behavioral therapy for insomnia: A systematic review and meta-analysis of randomized controlled trials.	Sleep Medicine Reviews	10.1016/j.smrv.2025.102204	English	Accommodation	Availability	Policy	General insomnia	Compared CBT-i formats: 1:1, group, digital, digital with support	Review - SR and Meta-Analysis
2025	Crosby, Eric S.; Troop-Gordon, Wendy; Witte, Tracy K.	Effectiveness of digital cognitive behavioral therapy for insomnia in nurses with shift work sleep disorder: Results of a randomized controlled trial.	International Journal of Nursing Studies	10.1016/j.ijnurstu.2025.105112	English	Accommodation		Organizational	Nurses working shift-work	Digital CBT-i adapted for shift-workers; SleepCare	RCT
2025	Cudney, Lauren E.; Green, Sheryl M.; McCabe, Randi E.; Frey, Benicio N.	Insomnia in ambulatory care: A clinical review.	American Journal of Health-System Pharmacy	10.1093/ajhp/aez255	English	Acceptability		Policy	Patients in primary care	N/A - review of treatment options for patients in primary care settings (including CBT-i)	Review - clinical review and practice guidelines
2025	Cummings, Jack A.; Gottlieb, Daniel J.; Sofer, Tamir; Wallace, Danielle A.	Emotional Processing Following Digital Cognitive Behavioral Therapy for Insomnia in People With Depressive Symptoms: A Randomized Clinical Trial.	JAMA Network Open	10.1001/jamanetworkopen.2024.61602	English	Acceptability	Accommodation	Individual	Adults with insomnia and depression	Digital CBT-i, 6 sessions	RCT
2025	Davidson, Judith R.; Gardner, David; Fretz, Katherine; Lynch, Stephanie; Watson, Shayna; Desmarais, Erin; Sloan, Eileen P.; Leung, Cynthia	The Effects of Digital Cognitive Behavioral Therapy for Insomnia in Chronic Pain: A Randomized Controlled Trial	Psychotherapy and Psychosomatics	10.1159/000547436	English	Acceptability	Accommodation	Individual	Patients with insomnia and chronic pain	Digital CBT-i	RCT
2025	del Giudice, Renata; Daccorbo, Tommaso; Mandelli, Laura; Gallucci, Marcello; Maderdu, Fabio; Muffolo, Matteo; d'Albora, Maria; Conforti, Lorenzo; Ormisto, Daniela; Scivica, Monica; Porcili, Stefano; Capri, Raffaella	Effectiveness of Mobile Health-Delivered Cognitive Behavioral Therapy for Insomnia in Adults: A Systematic Review and Meta-Analysis of Randomised Controlled Trials	Journal of Clinical Nursing	10.1111/jocn.17858	English	Accommodation		Policy	Adults with insomnia	Digital CBT-i	Review - SR and Meta-Analysis
2025	Dopheide, Julie A.; Roth, Winter R.; Chu, Michelle K.L.	"Better Sleep Means I'm Better Able to Provide Care": Caregivers' Perceived Impacts of an Internet-Delivered Insomnia Intervention	International Journal of Behavioral Medicine	10.1007/s12529-025-10425-3	English	Acceptability	Accommodation	Individual	Caregivers with insomnia	Digital CBT-i; SHUTi	Qualitative
2025	Dressler, Raphael J.; Spiegelholder, Kai; Schiel, Julian E.; Benz, Fae; Johann, Anna; Feige, Bernd; Jemeliov, Susanna; Peris, Michael; Riemann, Dieter	Effects of a partner-assisted insomnia intervention on couples' relationships: A qualitative study	Sleep Medicine	10.1016/j.sleep.2025.108746	English	Accommodation	Acceptability	Individual	Couples	Partner assisted CBT-i	Qualitative - thematic analysis
2025	Dumser, Britta; Müller, Celina L.; Ehring, Thomas; Werner, Gabriela G.; Koch, Theresa	Results of a pilot randomized controlled trial of CBT-i for veterans with serious mental illness and insomnia	Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine	10.1007/944470-025-00009-2	English	Accommodation		Policy	Veterans with serious mental illness (SMI)	CBT-i tailored for SMI "CBT-i for SMI" RCT; practice guidelines	
2025	Espe, Colin A.; Grandner, Michael A.; Drake, Christopher L.	Impact of treatment credibility and expectancy on cognitive behavioral therapy for insomnia outcomes among cancer survivors	Journal of Psychosomatic Research	10.1016/j.psychres.2025.112447	English	Acceptability		Individual	Cancer survivors	Telehealth CBT-i, 7 sessions	Mixed-Methods - moderation analysis and qualitative interviews
2025	Faraut, Brice; Galland, Louise; Labonne, Annabelle; Dubois, Julie Margrethe; Adrien, Joëlle; Léger, Damien	"Better sleep, better wellbeing": Qualitative process evaluation of a hybrid, digital cognitive behavioural therapy programme for employees with sleep and emotion regulation problems	British Journal of Health Psychology	10.1111/bjhp.70041	English	Accommodation		Organizational	Working adults/employees	Digital CBT-i modified for employees with insomnia and emotion regulation; Supporting Employees with Insomnia and Emotional Regulation Problems (SEEP)	Qualitative - thematic analysis
2025	Figueiredo, Laura Cesar; de Oliveira, Clarissa Tochetto	Efficacy of repeated self-guided digital cognitive behavioral therapy for chronic insomnia: A pilot open-label study following a previous RCT	Digital Health	10.1177/20552076261417863	English	Acceptability		Individual	Participants with an ISI score ≥ 8 at 6 months after completing the initial digital CBT-i	Repeated digital CBT-i	Pilot RCT
2025	Ford, Jessica; Blue, Colleen; Voita, Corinna L.; Andrews, Sara M.; Ferguson, Stephanie; Bosworth, Hayden; Sperber, Nina; Ulmer, Christa S.	Outcomes from a combined cognitive behavioral therapy for insomnia (CBT-i) and sleep-related medication and substance use reduction treatment	Sleep Medicine	10.1016/j.sleep.2025.108696	English	Accommodation	Accessibility	Organizational	Adults with insomnia and sleep med or substance use for sleep	Telehealth Group-based CBT-i incorporating gradual dose reduction protocols for sleep meds, 7 weeks	Retrospective Cohort Study; pre/post
2025	Garland, Shelia N.; Kutana, Samira; Peadar, Katherine Ann; Lee, Rachel; Rush, Joshua; Cerrillo, Gregory	A mixed-method process evaluation of guided online cognitive behavioral therapy for insomnia in patients with borderline personality disorder	BMC psychiatry	10.1186/s12888-026-07859-8	English	Acceptability		Organizational	Patients with insomnia and borderline personality disorder (BPD)	Digital CBT-i supported by therapist	Mixed-methods
2025	Goldschmidt, Jennifer; Gehman, Philip R.	Stepped-care management of insomnia: Treatment choices guided by a patient decision aid in a pragmatic nonrandomized clinical trial setting.	Journal of Sleep Research	10.1111/jsr.70127	English	Accommodation	Acceptability	Policy	General insomnia	Stepped-care CBT-i with sleep medication as an option	Secondary analysis of RCT; evaluation of treatment choices
2025	Grögl, Lorenz; Brückner, Hanna; Heimes, Hannah; Buntrock, Claudia; Hempeler, Christin; Spiegelholder, Kai; Lühr, Dirk	A pilot randomized-controlled trial of sleep scholar: A single-session, internet-based insomnia intervention for college students.			English	Accommodation		Individual	College students with subclinical insomnia or higher	Digital CBT-i, single-session, tailored to the needs of college students; Sleep Scholar	RCT

2025	Groninger, Hunter; Arem, Hannah; Ayangma, Lylian; Gong, Lisa; Zhou, Eric; Greenberg, Daniel	Treatment preferences in patients with insomnia and medical comorbidity: Associated factors and impact on treatment-outcome.	Journal of Sleep Research	10.1111/jsr.70115	English	Acceptability		Individual	Patients with medical comorbidities	CBT-I or Amitriptyline, 12 weeks	RCT
2025	Groninger, Tanja; Höhn, Christopher; Schabus, Manuel; Partzer, Betinda Angela; Laineher, Anton-Rupert	The development and evaluation of a group videoconferencing cognitive behavioural intervention to improve sleep in university students.			English	Accommodation	Accessibility	Individual	College students	Telehealth Group CBT-I, 4 sessions	Mixed-Methods - Pilot RCT and qualitative
2025	Hasan, Faizul; Gordon, Christopher James; Yuliana, Lia Taunissa; Romadon, Debby Syahnu; Chiu, Hsiao-Yean	Pitfalls of insomnia management in the elderly: A narrative review.	Neurological Sciences	10.1007/s10072-025-08621-w	English	Acceptability	Accommodation	Policy	Older adults with insomnia	N/A - review of management of insomnia in the elderly (including CBT-I)	Review - Clinical review and treatment recommendations
2025	Hasan, Faizul; Prasetya, Era Catur; Gordon, Christopher James; Romadon, Debby Syahnu; Chang, Kai-Mei; Bartlett, Delaysi L; Liu, Chia-Jui; Gautama, Made Satya Nugraha; Izzati, Nur; Chiu, Hsiao-Yean	Predicting adherence to fully-automated, chatbot-delivered digital cognitive behavioral therapy for insomnia (dCBT-I) using machine learning: A pilot real-world study.	PLoS Digital Health	10.1371/journal.pdig.0001170	English	Accommodation	Acceptability	Individual	General insomnia	Automated CBT-I (chatbot-delivered), 28 days	Pilot real-world study; machine learning predictive modeling
2025	Hinterberger, Alexandra; Erg, Esther-Sevil; Soeki, Aniko; Topalidis, Pavlos I.; Schabus, Manuel	Exploring pregnant women's perspectives in developing a WeChat-delivered cognitive behavioral therapy for insomnia: a qualitative study.	Sleep Medicine	10.1016/j.sleep.2025.107323	English	Acceptability	Accommodation	Individual	Pregnant women in China	Digital CBT-I; WeChat	Qualitative - Content Analysis
2025	Hu, Sifan; Chen, Yan; Sun, Qiqing; Zhang, Anqi; Liu, Sijia; Chen, Qianqian; Zhang, Yifeng; Wang, Li Dong; Jiahui, Lu; Lin, Sun, Hongqiang	Sleep education in clinical psychology training programs.	Training and Education in Professional Psychology	10.1037/a0026793	English	Availability		Organizational	Doctoral clinical psychology students	Online sleep course for students, 10-week, 15-modules	Pre/post; educational intervention
2025	Jansson-Fröjmark, Markus; Sunmhed, Rikard	Dissemination of CBT-I to the non-sleep specialist: protocol development and training issues.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcm.1786	English	Availability		Organizational	Mental health clinicians from different disciplines (psychiatry, psychology, social work, and nursing)	CBT-I training workshop and supervision	Implementation Case Study; Program Development
2025	Jennings, Matthew B.; Kalmbach, David A.; Ruff, Anthony N.; Miller, Christopher B.; Roehrs, Timothy; Drake, Christopher; Cheng, Philip	National dissemination of cognitive behavioral therapy for insomnia in veterans: therapist- and patient-level outcomes.	Journal of consulting and clinical psychology	10.1037/a0032554	English	Availability		Organizational	VA Clinicians and veterans	VA CBT-I Training Program	Prospective Cohort; Implementation Evaluation
2025	Jermolov, Susanna; Blom, Kerstin	Manual-guided cognitive-behavioural therapy for insomnia delivered by ordinary primary care personnel in general medical practice: a randomized controlled effectiveness trial.	Journal of sleep research	10.1111/jsr.12067	English	Availability	Acceptability	Organizational	Primary care patients with insomnia	In-person CBT-I, nurse-administered, integrated in primary care	RCT
2025	Kakao, Yuhmei Akemi; Asahi, Marcio; Bacelar, Andreia; Bezerra, Andreia Gomes; Clutti, Giovanna Lira Rosa; Conway, Silvia Gonçalves; Galdunoz, José Carlos Fernandes; Dräger, Luciano F.; Khouri, Mariana Perry; Leite, Ingrid Porto Araújo; Luciano, Ygor de Matos; Poyares, Dalia; Turk, Sergio; Pires, Gabriel; Nathan, Kim; Chuanhe; Lee, Yoonhee; Kang, Seung-Oul; Lee, Seon-Hui	Master's-level practitioners as cognitive behavioral therapy for insomnia providers: an underutilized resource.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcm.3096	English	Availability		Policy	Master's-Level Practitioners (LCSWs, LPCs, LMFTs)	General CBT-I	Review - position paper
2025	Kurapov, Anton; Blechert, Jens; Hinterberger, Alexandra; Topalidis, Pavlos; Schabus, Manuel	Core competencies for health professionals' training in pediatric behavioral sleep care: a Delphi study.	Behavioral sleep medicine	10.1080/15402002.2013.874348	English	Availability		Policy	Non-sleep-specialist health professionals	CBT-I training for professionals	Delphi Method; Consensus Study; training competency development
2025	Kurapov, Anton; Blechert, Jens; Hinterberger, Alexandra; Topalidis, Pavlos; Schabus, Manuel	Impact of brief cognitive behavioral treatment for insomnia on health care utilization and costs.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcm.3436	English	Affordability		Individual	Sleep center outpatients	Brief CBT-I	Cost analysis; Retrospective Medical Record Review
2025	Latella, Desirée; Caldroni, Andrea; Casella, Carmela; De Luca, Rosaria; Gargem, Antonio; Impatizzari, Federica; Calvi, Santina; Quartarone, Angelo; Calabò, Rocco Salvatore	Health economics of insomnia treatments: The return on investment for a good night's sleep.	Sleep medicine reviews	10.1016/j.smrv.2015.11.004	English	Affordability		Policy	General insomnia	General CBT-I	Review - SR and cost-effectiveness analysis
2025	Lee, Soonsae; Park, Kyung-Mee; Lee, Do Hyun; Choi, Eun Chae; Lee, Yujin; Lee, Eun	Psychological and Behavioral Interventions for Managing Insomnia Disorder: An Evidence Report for a Clinical Practice Guideline by the American College of Physicians	Annals of Internal Medicine	10.7326/m15-1782	English	Acceptability		Policy	General insomnia	Review including multi-modal CBT-I	Review - SR with clinical guidelines
2025	Lin, Chuanqing; Cheng, Chen; Xia, Yu; Wang, Ruiyuan; Zhang, Luying; Han, Lintong; Hai, Dong; Dai, Chenyue; Dai, Tianen; Cao, Luhuan; Zhu, Xinyue; Chen, Hao; Zeng, Li; Ren, Chufan; Yang, Dongren; Wang, Yijun; Zhang, Meijia; Mo, Zefei; Chen, Yinda; Shuai, Jianwei; Yu, Rongwen; Peng, Yuming	Management of Chronic Insomnia Disorder in Adults: A Clinical Practice Guideline From the American College of Physicians	Annals of Internal Medicine	10.7326/m15-2175	English	Acceptability		Policy	Adults with chronic insomnia	General CBT-I as first line treatment	Review - clinical practice guideline
2025	Lu, Yi-An; Li, Hui-Chen; Tsai, Pei-Shan	Where are the behavioral sleep medicine providers and where are they needed? A geographic assessment.	Behavioral sleep medicine		English	Accessibility		Policy	BSM providers	N/A - assessment of where CBT-I is being delivered	Geographic Distribution Analysis; GIS mapping
2025	Lundkvist, Charlotte; Khafiz, Najah; Ramklint, Mia; Isaksson, Johan; Jermolov, Susanna; Zetterqvist, Vendela	Next Steps for Patients Who Fail to Respond to Cognitive Behavioral Therapy for Insomnia (CBT-I): the Perspective from Behavioral Sleep Medicine Psychologists	Current Sleep Medicine Reports	10.1007/s40675-017-0096-x	English	Acceptability	Accommodation	Individual	Individuals with insomnia who responded suboptimally to CBT-I	Augmented CBT-I (pics for adding mindfulness, light, Melatonin, exercise, etc.)	Review - Clinical framework and narrative review
2025	Manikis, Rachel; Gumpert, Nicole B.; Tully, Isabelle A.; Kim, Jane P.; Kim, Borys; Simpson, Norah; Bonak, Lisa G.; Zulman, Donna M.; Goldhaber-Fiebert, Jeremy D.; Rangan, Elizabeth; Dietrich, Jessica R.; Tutak, Joshua; Palaniappan, Latha	Improving insomnia in primary care patients: A randomized controlled trial of nurse-led group treatment	International journal of nursing studies	10.1016/j.ijnurstu.2017.03.007	English	Availability	Acceptability	Organizational	Primary care patients with insomnia	In-person, nurse-led Group CBT-I, integrated into primary care setting	RCT
2025	Martayon, Marine; Labie, Céline; Verschueren, Sabine; Vanacache, Olivier; Nij, Jo; Malacosse, Olivier; Maffart, Anneleen; de Vlam, Kurt; Ranga, Nik; Caspers, Neke; Janssens, Thomas; De Baets, Liesbet	European guideline for the diagnosis and treatment of insomnia	Journal of sleep research	10.1111/jsr.12594	English	Acceptability		Policy	General insomnia	General CBT-I as first line treatment	Review - clinical practice guideline

2025	Martella, Silvia; Proserpio, Paolo; Guerrieri, Maria Elena; Gualbati, Andrea; Ferini-Strambi, Luigi; Cucinella, Laura; Iacobone, Anna Daniela; Franchi, Daniela; Nappi, Rossella E.	Three-Year Follow-Up Comparing Cognitive Behavioral Therapy for Depression to Cognitive Behavioral Therapy for Insomnia, for Patients With Both Diagnoses.	Sleep	10.1093/sleep/tzad08	English	Acceptability		Individual	Patients with insomnia and comorbid depression	General CBT-I	RCT, longitudinal follow-up (3 years)
2025	Moy, Kinko I.; Erickson, Alexander J.; Carlson, Owendolyn C.; Kelly, Monica R.; Song, Yeonsu; Ravolorio, Kaddy Y.; Mitchell, Michael N.; Washington, Donna L.; Yano, Elizabeth M.; Alessi, Cathy A.; McGowan, Sarah Kate; Fung, Constance H.; Martin, Jennifer L.	Development of a Sleep Telementorship Program for Rural Department of Veterans Affairs Primary Care Providers: Sleep Veterans Affairs Extension for Community Healthcare Outcomes	Annals of the American Thoracic Society	10.1513/annats.201905-361bc	English	Availability	Accessibility	Organizational	Rural primary care providers and veterans	Virtual learning with telehealth sleep didactics and case reviews	Feasibility study; needs assessment
2025	McCrone, Christina S; Curtis, Ashley F; Stearns, Melanie A	Australasian Sleep Association position statement regarding the use of psychological/behavioral treatments in the management of insomnia in adults.	Sleep medicine	10.1016/j.sleep.2017.03.017	English	Acceptability	Accommodation	Policy	General insomnia	General CBT-I as first line treatment	Review - clinical practice guideline
2025	Meakins, Hailey; Farrough, James; Staben, Kaitlin; Morillo-Aguirre, Ana Victoria; Jackson, Melinda L.; Meltzer, Lisa J.; Jung, Moira F.; Kennedy, Gerard A.; Bucks, Pamela S.; Sweetman, Alexander; Phillips, Lisa J.; Cunningham, David C.; Lyons, Kayley M.; Grace, Marisa; Ralven, Immo C.	A systematic review of cognitive behavioral therapy for insomnia implemented in primary care and community settings.	Sleep medicine reviews	10.1016/j.smrv.2018.11.001	English	Availability		Organizational	Primary care patients	Non-specialist delivered CBT-I implemented in primary care and/or community settings	Review - SR and Meta-Analysis
2025	Miler, Christopher B.; Bradley, Danielle; Wood, Ian; Wilkins, David; Nair, Anupama; Brennan, Benjamin; Bole, Shane; Poisson, Laiba; Hall, Shana; Thomson, Greg; Hirata, Mika; Kalmbach, David A.; Drake, Christopher L.	Patient Preferences for Managing Insomnia: A Discrete Choice Experiment	The patient	10.1007/s40271-018-0303-y	English	Acceptability		Individual	Patients with moderate to severe insomnia	N/A - inquired about treatment preferences for insomnia	Empirical Quantitative Preference Study
2025	Miler, Christopher; Bradley, Danielle; Hall, Shana; Hynes, Helen; Chowdhury, Sulayman; Sampson, Chris	Cost-effectiveness of cognitive-behavioural therapy for sleep disorder added to usual care in patients with schizophrenia: the BEST study.	BJPsych open	10.1192/bjo.2018.2	English	Affordability		Policy	Patients with Schizophrenia	CBT-I adapted for Schizophrenia	Cost-utility analysis; economic evaluation
2025	Moon, Hee-Jin; Yu, Se-Na; Hur, Myung-Hwang	A secondary analysis of the role of geography in Engagement and outcomes in a clinical trial of an efficacious internet intervention for insomnia	Internet interventions	10.1016/j.invent.2019.10.0294	English	Accessibility	Accommodation	Organizational	General insomnia	Digital CBT-I; SHUTi	Secondary analysis of RCT; GIS mapping
2025	Mortimer, Duncan; Yimer, Lucy; McKay, Adam; Wong, Dana; Frencham, Kate; Grima, Natalie; Roper, Monique; Nguyen, Sylvia; Murray, Jade; Spitz, Gershon; Ponsford, Jennie	We Snooze, Clients Lose: Time for Social Workers to Join Sleep Promotion Efforts.	Social work	10.1093/sw/sw021	English	Availability		Policy	Vulnerable & Underserved Populations	Advocating for training social workers in sleep and CBT-I	Review - professional position paper and conceptual framework
2025	Moukhtarian, Talar R.; Fletcher, Sophie; Walasek, Lukasz; Patel, Krishane; Toro, Carla; Hurley-Wallace, Anna L.; Kershaw, Charlotte; Russell, Sean; Daly, Oisín; Tang, Nicole K. Y.; Meyer, Caroline	Sleep Education and Training among Practicing Clinical Psychologists in the United States and Canada.	Behavioral sleep medicine	10.1080/15402002.2020.1960990	English	Availability		Policy	Practicing clinical psychologists	N/A - inquired about treating sleep in patients and prior training	Cross sectional survey; professional practice analysis
2025	Myers, Jamie S.; Humphrey-Sewell, Rebekah E.; Fowler, Lauren A.; Eng, Daniel; Stickler, Rachael; Hooper, Dedrick; Kim, Jaromee Geobum; Jianghua He; Mays, Mary Penne; Siengakorn, Catherine; Wulff, Burchfield, Elizabeth; Xinghui Shen; Hains, Jennifer; Parker, William; Maliski, Sally	Cost-effectiveness of digital cognitive behavioral therapy (Sleepio) for insomnia: a Markov simulation model in the United States.	Sleep	10.1093/sleep/tzad223	English	Availability	Accommodation	Policy	General insomnia	Comparison of 1:1, group, or digital delivery of CBT-I	Cost-utility analysis; Markov Model Simulation
2025	Nazari, Abouzar; Mirzakhani, Ali; Gamarroudi, Gholamreza; Amani, Hotsen	Practice patterns of board-certified sleep medicine providers: A national analysis among older adult Medicare beneficiaries	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsn.8326	English	Availability		Policy	Older adult Medicare beneficiaries	N/A - claims analysis	Retrospective National Claims Analysis
2025	Nguyen, Lisa Marie	Medical student education in sleep and its disorders is still meagre 20 years on: A cross-sectional survey of UK undergraduate medical education.	Journal of sleep research	10.1111/jsr.12980	English	Availability	Availability	Organizational	Medical schools in the UK	N/A - inquiring about sleep training	Cross sectional survey; longitudinal comparison (20 years ago)
2025	O'Hora, Kathleen P.; Morhouse, Allison B.; Friedman, Leah; Posner, Dore; Ahmed, Maryam; Hernandez, Beatriz; Burda, Kristen Faye; Kushida, Chris; Zeltzer, Jamie M.; Lazzaroni, Laura C.; Manber, Rachel; Yeevaage, Jerome; Goldstein-Piekarski, Andrea N.	A Course on Cognitive and Behavioral Interventions for Sleep Disorders within a Master Degree Programme in Clinical and Health Psychology: The First Triennium Experience	Psychologica	10.14195/1647-8606_63-2_8	Portuguese	Availability		Organizational	Psychology Master's Degree Students	Optional master's psychology course on treating sleep disorders	Educational Evaluation; Program Description
2025	Ossorio, Raquel A.; Ahmed, Maryam; O'Hora, Kathleen P.; Solomon, Natalie L.; Lopez, Maria; Morhouse, Allison B.; Kim, Jane P.; Manber, Rachel; Goldstein-Piekarski, Andrea N.	Cognitive Behavioral Therapy for Treatment of Insomnia in Primary Care for Resident Physicians.	MedEdPORTAL: the journal of teaching and learning resources	10.15766/mep.2374-8265.11002	English	Availability		Organizational	Internal medicine residents	90-minute workshop training on CBT-I	Pre/post; educational evaluation
2025	Pape, Laura M.; Antypa, Niki; Spinhoven, Philip; van Straten, Annemieke; Strulj, Sascha Y.; Caring Universities Consortium	Primary care provider evaluation and management of insomnia.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsn.9154	English	Acceptability	Availability	Organizational	Primary care patients	N/A - chart review investigating frequency of insomnia and treatment offered (including CBT-I)	Retrospective Chart Review
2025	Park, Kyung Hae; Lee, Soeun; Lee, Yujin; Moon, Dae U; Lee, Eun	The Smarter Sleep educational interventions: an initiative to reduce hypnotic prescribing in in-patient psychiatric care	BJPsych bulletin	10.1192/bjbp.2021.41	English	Availability	Acceptability	Organizational	Providers on inpatient mental health units	Educational materials on safe sleep med prescribing and alternative treatment (CBT-I)	Educational intervention; controlled before and after study
2025	Park, Soek Young; Song, Eun Ju; Park, Keun Young	Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine systematic review, meta-analysis, and GRADE assessment	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsn.8988	English	Acceptability		Policy	Adults with chronic insomnia	Review including multi-modal CBT-I	Review - SR and Meta-Analysis; developing clinical practice guidelines

2025	Prabhuar, Kousalya; Ravikumar, Abhinav; Jayabalan, Anu Priya; Ravi, Bharathi; Ravikumar, Chandini; PanirukalSelvan, Nitishadevi; Alagfar, Saleh F.; Sivaraman, Varadarajan; Shammugasundaram, Natarajan; Sankar, Karthik	Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine clinical practice guideline.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsm.8886	English	Acceptability	Policy	Adults with chronic insomnia	Recommends full CBT-I or BBTI, single-components (SRT or SC) only conditionally	Review - clinical practice guideline	
2025	Rosén, Ann; Cassel, Maria; Stjernberg, Johanna; Stenfa, Joet; Blom, Kerstin; Tamm, Sandra; Åkerstedt, Torbjörn; Carlsson, Rickard; Jernelöv, Susanna	Wake up psychology! Postgraduate psychology students need more sleep and insomnia education	Australian Psychologist	10.1080/00050067.2021.1955614	English	Availability	Organizational	Postgraduate psychology programs in Australia	N/A - inquiring about sleep training survey - thematic analysis and hour counts	Needs assessment; Mixed-Methods survey - thematic analysis and hour counts	
2025	Schuffelen, Jennifer; Maurer, Leonie F.; Gieselmann, Anika; Carona, Carlos	Lost Sleep: the Lack of Sleep Education and Training in School Psychology	Contemporary School Psychology	10.1007/s40688-021-00355-8	English	Availability	Organizational	Practicing school psychologists and school psychology graduate educators	N/A - inquiring about sleep training	Needs assessment; survey	
2025	Scott, Amelia J.; Cornea, Ashleigh B.; Bisby, Madeline A.; Chandra, Shrikha S.; Rahimi, Matthew; Christina, Stefanny; Heriawan, Andrea I.; Dear, Blake F.	Real-World Evaluation of Clinical Response and Long-Term Healthcare Resource Utilization Patterns Following Treatment with a Digital Therapeutic for Chronic Insomnia.	Clinical Economics and outcomes research : CEOR	10.2147/ceor.s368780	English	Affordability	Policy	General insomnia	Digital CBT-I; Sonmyrt (previously SHUTi)	Pre/post Claims Analysis; retrospective and longitudinal (health care utilization 2 years before and 2 years after CBT-I)	
2025	Scott, Anna Mae, et al.	Embracing telemedicine and digital delivery of cognitive-behavioral therapy for insomnia: where do we come from and where are we going?	Sleep	10.1093/sleep/zaac291	English	Accessibility	Policy	General insomnia	Telehealth and digital CBT-I	Review - state of the science review	
2025	Shang, Xingchen; Li, Sha; Lee, Jung Iac; Guo, Jia; Luk, Tzu Tsun; Lai, Agnes Yuen Kwan; Wang, Man Ping	Racial disparities in treatment Engagement and outcomes in digital cognitive behavioral therapy for insomnia among pregnant women.	Sleep health	10.1016/j.sleh.2022.10.010	English	Acceptability	Individual	Black pregnant women	Digital CBT-I	Secondary analysis of RCT	
2025	Shusterman, Roma; Waters, Allison C.; O'Neill, Shannon; Bangs, Marshall; Luu, Pham; Tucker, Don M.	Quality-adjusted life years for digital cognitive behavioural therapy for insomnia (Sleepio): a secondary analysis.	BJOP open	10.3395/bjopopen.2022.0090	English	Affordability	Policy	Participants in effectiveness trial with digital CBT-I (Sleepio)	Digital CBT-I; Sleepio	Cost-utility; secondary analysis of RCT	
2025	Simon, Laura; Steinmetz, Lisa; Berghoff, Nils; Behm, Charlotte; Neumann, Lena-Marie; Kischler, Ann-Marie; Remann, Dieter; Ebert, David Daniel; Sönagshäufeler, Kai; Baummeister, Harald	We know CBT-I works, now what?	Faculty reviews	10.12703/fr11-4	English	Acceptability	Policy	Adults with insomnia	Review including multi-modal CBT-I	Review - state of the science review	
2025	St Pierre, Laurent; Huberdeau, Ann-Julie; Bélisle, Félix-Antoine; Vallières, Annie; Bastien, Cécile; Côté, Laurie-Anne; Hudon, Alexandre; Bissonnette, Annabelle; Calhoun, Lionel	Barriers in Access to and Delivery of Behavioral Sleep Treatments	Current Sleep Medicine Reports	10.1007/s40675-023-00270-9	English	Acceptability	Availability	US Population	N/A - advocates for increasing awareness of behavioral sleep interventions	Review - literature review with barrier analysis	
2025	Sweetman, Alexander; McEvoy, R. Doug; Frommer, Michael S.; Adams, Robert; Chal-Cox-Gar, Ching Li; Newell, Sallie; Moham-Hail, Violante; Rodman, Sally	Familiarity of Brazilian psychologists with basic concepts in sleep science and chronobiology.	Chronobiology International	10.1080/07420528.2023.2258670	English	Acceptability	Organizational	Professional Psychologists in Brazil	N/A - inquiring about knowledge of sleep science	Cross-Sectional Survey; Professional Competency Analysis	
2025	Takano, Yuta; Okajima, Isa; Osao, Masumi; Bata, Rui; Machida, Naho; Higami, Koyo; Takagi, Shunsuke; Inoue, Yuichi	Disseminating cognitive behavioural therapy (CBT) for insomnia at scale: capitalising on the potential of digital CBT to deliver clinical guideline care.	Journal of sleep research	10.1111/jsr.14025	English	Availability	Accessibility	Policy	General insomnia	Stepped-care CBT-I	Review - Theoretical Framework; Clinical Position Paper
2025	Tamm, Sandra; Tse, Katrina Y. K.; Heller, Jennifer; Saunders, Kate E. A.; Hamer, Catherine J.; Espie, Colin A.; Reid, Matthew; Kola, Simon D.	Examining the barriers and recommendations for integrating more equitable insomnia treatment options in primary care.	Frontiers in sleep	10.3389/frsle.2023.1279603	English	Acceptability	Availability	Policy	US Adults	General CBT-I	Review - conceptual review and health equity analysis
2025	Vivekanathan, Vishnuvardhini; Potlick, Wendy; Zain, Yasmin; Willey, Suzanne	Therapist training in treating sleep problems: A survey study of clinical practice.	Journal of clinical psychology	10.1002/clp.23511	English	Acceptability	Availability	Organizational	Mental Health Clinicians	N/A - inquiring about sleep training and interest	Cross sectional survey; needs assessment
2025	Vohra, Kuneer Praveen; Johnson, Karin G.; Datta, Ashitaad; Ibrahim, Sally; Krishnan, Vidya; Abbasi-Feinberg, Farhat; Abreu, Alexandre Roche; Bandyopadhyay, Anjali; Gundahagowda, Indira; Kuhlmann, David; Martin, Jennifer L.; Olson, Eric J.; Patel, Sushel P.; Shalghkar, Anita V.; Trotti, Lynn Marie; Wickwire, Emerson M.; Rowley, James A.; Kumar, Vishesh K	Patient perspectives on facilitators and barriers to equitable Engagement with digital CBT-I.	Sleep health	10.1016/j.sleh.2023.07.003	English	Acceptability	Accommodation	Individual	General insomnia, digital CBT-I users	Digital CBT-I	Mixed methods - quare Engagement and qual thematic analysis
2025	Wardle-Pinkston, Sophie; Taylor, Daniel L.; Lin, Tao; Dietrich, Jessica R.; Pruckman, Kirsti; Wilkerson, Allison K.	Embedding digital sleep health into primary care practice: A triangulation of perspectives from general practitioners, nurses, and pharmacists.	Digital health	10.1177/20552076231180970	English	Acceptability	Accommodation	Organizational	Australian primary care health professionals (general practitioners, community nurses, and pharmacists)	Digital CBT-I	Mixed-methods - survey and qualitative interviews
2025	Waterman, Lauren Z.; Harrison, Fleur O. M.; Osaigbo, Uche; Dougan, Sarah	Expanding Access to CBT-I for Older Adults: Review and Expansion of Recent Recommendations	Current Sleep Medicine Reports	10.1007/s40675-023-00271-8	English	Accommodation	Acceptability	Policy	Older adults with insomnia	N/A - advocating for interdisciplinary care models including CBT-I	Review - state of the science review with clinical recommendations
2025	White, Stacey	Clinical and cost-effectiveness of nurse-delivered sleep restriction therapy for insomnia in primary care (HABIT): a pragmatic, superiority, open-label, randomised controlled trial.	Lancet (London, England)	10.1016/s0140-6736(23)00683-9	English	Availability	Accommodation	Organizational	Adults with insomnia	Nurse-delivered SRT, 4 sessions	RCT
2025	Zamri, Louise; Jourdain, Jonathan; Savard, Josée; Gourdoux, Estelle; Pallard-Brunet, Guilhem; Fasse, Léonor; Le Provost, Jean-Bernard; Charles, Cécile; Dauche, Sarah; Boisson, Diane	A 2023 Update on Managing Insomnia in Primary Care: Insights From an Expert Consensus Group.	The primary care companion for CNS disorders	10.4086/pcc.22rv0385	English	Acceptability	Accommodation	Policy	Primary care patients with insomnia	N/A - discussion updating recs for insomnia treatment, includes behavioral and meds	Review - Expert Consensus Statement
2025	Zetter, Delia; Endomba, Francisca Tesdy; Pierandrei, Achille; Pinot, Jean-Michel; Chavet-Ostleier, Jean-Christophe; Forestier, Nathalie; Hussami, Aymard	Sleep Health Education to Promote Public Health: Attitudes and Desired Learning Goals among Social Work Students	Social Work in Public Health	10.1080/19371918.2022.2099304	English	Acceptability	Availability	Organizational	Social Work students	N/A - inquired about desire to learn about sleep health	Qualitative - Needs assessment; curriculum analysis

2025	Zhang, Cheng Liu, Yuxuan; Guo, Xiaoming; Shen, Yane; Ma, Jing	Guideline-concordant use of cognitive behavioral therapy for insomnia in the Veterans Health Administration.	Sleep Health	10.1016/j.sleh.2023.07.002	English	Availability	Acceptability	Policy	US Veterans at the VA	General CBT-I	Emr Retrospective Audit; Implementation Study
2025	Zhao, Yi-Fan; Huang, Cheng-Yang; Zhang, Zhi-Xin; Liu, Rui-Ben; Liu, Jia-Ling; Li, Xiao-Zhang; Guo, Guang-Ling; Zhang, Chao	Patient perceptions of digital and therapist-led CBT for insomnia: A qualitative study.	Behavioral sleep medicine	10.1080/15402002.2024.2386611	English	Acceptability	Accommodation	Individual	Middle-age and older adults with insomnia	Digital CBT-I vs telehealth CBT-I	Qualitative
2025	Zhu, Kaiyu; Xue, Shengqing	Increasing access to evidence-based insomnia care in the United States: findings from an American Academy of Sleep Medicine stakeholder summit.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsm.10922	English	Accessibility	Acceptability	Policy	US Adults with insomnia	N/A - workgroup to discuss barriers and recommendations for CBT-I access	Review - Summary of workgroup findings and recommendations; Stakeholder Summit Report
2026	Cheung, Janet M. Y.; Rimerband, Lee M.; Chen, Si-Jing; Hein, Hans; Morin, Charles M.; Crosby, Eric S.	Investigating the Effectiveness of CBT-I Coach, a Free, Publicly Available mHealth App for Insomnia.	Journal of technology in behavioral science	10.1007/941347-024-00459-8	English	Accommodation	Acceptability	Individual	General insomnia, digital CBT-I (CBT-I Coach) users	Digital CBT-I; CBT-I Coach	Naturalistic Observation study
2026		Reasons for why Medical Students Prefer Specific Sleep Management Strategies.	Behavioral sleep medicine	10.1080/15402002.2024.2318261	English	Acceptability		Individual	Medical students	N/A - inquired about existing sleep strategies and barriers to implementing known healthy strategies	Cross sectional survey
2026	George, Brianna; Turk, Joshua; Savard, Josée; Rash, Joshua A.; Quinn-Nilas, Christopher; Seal, Melanie; Unquhart, Robin; Thoms, John; Laing, Kara; Garland, Sheila N.	Nurse-Supported Self-Directed Cognitive Behavioral Therapy for Insomnia: A Randomized Clinical Trial.	JAMA internal medicine	10.1001/jamainternmed.2024.4419	English	Availability	Accommodation	Organizational	Veterans at the VA with insomnia (high psychiatric comorbidity sample)	Self-guided CBT-I (treatment manual readings) plus nurse support (6 weekly phone calls)	RCT
2026	Outenreiz, Gabriela; Chowdhury, Anoushka; Hartogensis, Wendy; Sottani, Severine; Chao, Maria T.; Mason, Kelley E.	Looking back and looking ahead: advancing understanding of insomnia economics.	Sleep	10.1093/sleep/zaaf140	English	Affordability		Policy	BSM researchers	N/A - advocating for better understanding of cost effectiveness of CBT-I (different delivery)	Review - summary of literature with proposed research agenda
2026	Huang, Yangyi; Yan, Yongyang; Kwok, Jojo Yan Yan; Chau, Pui Hing; Ho, Mu-Hsing; O'Connor, Siobhán; Lee, Jung-lae	Improve accessibility to evidence-based treatment for insomnia disorder.	Translational behavioral medicine	10.1093/tbm/vbae006	English	Availability	Affordability	Policy	General insomnia	General CBT-I	Review - professional position paper and Policy advocacy
2026	Husley-Wallace, Anna; Fletcher, Sophie; Moustafaraj, Talal R.; Patel, Kishore; Payne, Agatha; Jackson, Tabetha; Toro, Carlo; Daly, Gary; Russell, Sean; Walasek, Lukasz; Tang, Nicole K. Y.; Meyer, Caroline	Saudi Clinical Psychologists' Competence in Sleep Disorders Management: A Comprehensive Perspective	Sleep and Vigilance	10.1007/941782-024-00271-w	English	Acceptability	Availability	Organizational	Saudi Clinical Psychologists	N/A - inquired about comfort level in assessing and treating sleep disorders in practice	Cross sectional survey
2026	Kingman, Elizabeth A.; Goldberg, Richard W.; Brown, Clayton H.; Li, Lan; Kroychik, Julia A.; Gorman, Philip R.; Howell, Mary Katherine; Poulton, Peter L.; Fischer, Melanie W.; Bennett, Melanie E.	Impact of real-world implementation of evidence-based insomnia treatment within a large payer-provider health system: initial provider and patient-level outcomes	SLEEP Advances	10.1093/sleepadvances/psae053	English	Availability	Acceptability	Organizational	CBT-I Clinicians and patients	Competency-based CBT-I Training and Brief Treatment	Implementation science; pilot
2026	Labor, Aislinn F.; Durukan, Melodi; Hamill, Kellie; Meilor, Alex; Drummond, Sean P. A.	Cost Savings Associated With Fully Automated Digital Cognitive Behavioral Therapy for Insomnia Disorder (SleepioRx): A Matched-Control Study of US Patients	Journal of Health Economics and Outcomes Research	10.36468/jheor.2025.146434	English	Affordability		Policy	Commercial and Medicare beneficiaries with insomnia	Digital CBT-I; SleepioRx	Cost-analysis; Retrospective Difference-in-Differences Analysis
2026	Percepics, Kate; Gallagher, Virginia; Glazer, Brian; Donovan, Heidi; Matzo, Meghan; Klinger, Julie; Buysse, Daniel; Rimerband, Lee; Shaffer, Kelly	Cost-effectiveness of cognitive behavioural therapy versus health education for sleep disturbance and fatigue following stroke and traumatic brain injury.	Journal of rehabilitation medicine	10.2340/jrm.v57.42770	English	Affordability	Accommodation	Policy	Australian adults with insomnia following ABI	Modified CBT-I to account for daytime symptoms; CBT-SF (sleep and fatigue)	RCT; cost-analysis; economic evaluation
2026	Rauwerda, Nynke; Pot, Irene; Braams, Annemarie; van Straten, Annemieke; van Nieuwenk, Pythia; Boss, Myrthe; Riksen, Marian; Knoop, Hans	Cognitive Behavioral Therapists' Experience on Relevance of Sleep and Sleep Disorders in Training and Clinical Practice: A Survey Study from Italy.	Brain sciences	10.3390/brainsci15010048	English	Acceptability	Availability	Organizational	Italian therapists / general CBT Professionals	N/A - inquired about training and experience treating sleep disorders in practice	Cross Sectional Survey; Professional Needs Assessment
2026	Rello, Eleonora; Antonioni, Annibale; Di Lorenzo, Francesco	Bibliometric and visual analysis of cancer-related insomnia research from 2015 to 2025.	Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer	10.1007/s00520-025-09909-5	English	Acceptability		Policy	Cancer patients and survivors with insomnia	Review including multi-modal CBT-I	Bibliometric Analysis
2026	Schuffelen, Jennifer; Maurer, Leonie F.; Gieseemann, Anika	Boosting access to evidence-based insomnia care: our experience with a stepped care approach in Canada.	Translational behavioral medicine	10.1093/tbm/vbaaf032	English	Availability	Accommodation	Policy	Canadian Population	Stepped-care CBT-I	Review - policy commentary and strategic framework
2026	Shang, X.; Luk, T.T.; Lai, A.Y.K.; Wang, M.P.	PRO-CBT-I for insomnia treatment can be delivered by a range of healthcare providers.	Sleep	10.1093/sleep/zaaf124	English	Availability	Accommodation	Policy	General insomnia	CBT-I delivered by different disciplines	Review - Clinical Position Paper
2026	So, Rose-Wing Lai; Chan, Kit-Ying; Cheung, Christopher Chi Wai; Chan, Ngan Yin; Li, Shirley Xin; Chan, Joey Wing Yan; Chau, Steven Wai Ho; Wing, Yun Kwok; Li, Ten Man Ho	CON: CBT-I for insomnia treatment can be delivered by a range of healthcare providers.	Sleep	10.1093/sleep/zaaf123	English	Acceptability		Policy	General insomnia	Gold standard CBT-I by mental health providers with specialized training	Review - Clinical Position Paper
2026	Tadros, Michelle	Effects of nurse-led, web-based brief behavioral therapy on insomnia severity in patients in the chronic stage of stroke recovery: a preliminary randomized controlled trial.	Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine	10.5664/jcsm.11856	English	Accommodation	Availability	Individual	Stroke survivors in Indonesia	Nurse-led In-person BBTI vs digital BBTI, 4 weeks	RCT
2026	van Trigt, Shanna; van Nassau, Femke; van der Zweerde, Tanja; van Someren, Eus J. W.; van Straten, Annemieke; van Marle, Hein J. F.	Time to take the Declaration of Helsinki seriously? A systematic review of comparison conditions in clinical trials on internet-delivered cognitive behavioral therapy for insomnia.	Sleep medicine reviews	10.1016/j.smrv.2025.102224	English	Accommodation	Acceptability	Policy	Clinical samples in digital CBT-I trials	Digital CBT-I vs "gold standard" face-to-face CBT-I	Review - SR and critique of comparison groups
2026	Zhang, Cheng Liu, Yuxuan; Guo, Xiaoming; Shen, Yane; Ma, Jing	Telehealth versus face-to-face delivery of cognitive behavioural therapy for insomnia: A systematic review and meta-analysis of randomised controlled trials	Journal of Telemedicine and Telecare	10.1177/1357633X231204071	English	Accessibility	Acceptability	Policy	General insomnia	Telehealth CBT-I vs in-person CBT-I	Review - SR and Meta-Analysis

STUDY 3: APPENDIX A

IPA INTERVIEW GUIDE

Interpretative Phenomenological Analysis Study Individuals with Lived Experience Protocol Semi-Structured Interview Guide

Internal Notes:

- Target population: Individuals who completed the 4-hour instructional CBT-I workshop
- Target sample: 6-10 people
- Research question: How do participants in the Cognitive Behavioral Therapy for Insomnia 4-hour workshop experience the implementation of their CBT-I protocol at home?
- Timeframe of data collection: ongoing, capturing participants 1-2 months after completion of the workshop

[Begin captioning now, if needed]

Introduction. My name is Jessi and I work at the Insomnia Clinic, I am also a PhD candidate in the School of Social Work at Colorado State University. Today, I would like to have a conversation with you about your experiences implementing CBT-I since attending the workshop.

Procedure. The interview today will be in the format of a one-on-one conversation between us. I have some scripted questions but will also ask you to elaborate on the information you bring up with me. If you agree to participate in this interview, I will facilitate a conversation about your experience with implementing CBT-I so far, specifically how you have experienced any successes or barriers to implementing this intervention on your own.

Informed Consent.

- Your participation in this interview is voluntary, and you may choose to end it at any time by clicking exit. You can also choose to take a break, pause or reschedule.
- Do you have any questions about the informed consent that you signed?
- Are you still okay with me recording this interview? If yes, I will ask again once the recording begins so that your consent is included in the recording.

- If you have more opinions to share after the interview, you can contact me, and I would love to hear from you.
- You will be offered \$50 for taking part in this interview. Before we begin, let me make sure I have the correct ((email or address)) to send the card to.

Setting the stage for our time together.

- In order to protect your privacy, I will not include your name in any write ups or reports. For example, instead of writing something like “Fred was happy with his experience with the agency,” I would write “one of the participants was happy with his experience.”
- During the discussion, please feel free to ask me to clarify if something is unclear.
- There are no right or wrong answers.

Questions. If you have any questions after the interview, you may email me at any time at the email used to set up this interview.

Do you have any questions or concerns before we begin the interview?

[Begin recording now]

Permission to record. Once again, do you give your permission for this interview to be recorded today for research purposes?

CBT-I Individuals with Lived Experience Interview Guide

Before we start, here is a bit more context about what we'll be talking about today. You have been selected for this research study because you attended the 4-hour instructional workshop on CBT-I through the Insomnia Clinic.

This is an intervention specifically designed to treat insomnia. ***Do you have any questions about what I mean when I say insomnia?***

During the group training that you attended for insomnia, you learned a few skills to help you manage this, we refer to this as CBT-I (or cognitive behavioral therapy for insomnia) and the skills include stimulus control and restricted time in bed or sleep restriction. Stimulus control means waiting until you are sleepy to get into bed and getting out of bed if you are unable to sleep. Time in bed restriction or sleep restriction means shrinking your time in bed to match how much sleep you are getting.. ***Do you have any questions about what CBT-I means, including questions about stimulus control and/or time in bed restriction?***

When I ask you about your experience in implementing CBT-I, these are the specific protocols that I will be asking about. You can refer to them separately (stimulus control and/or time in bed restriction) or as a collective "CBT-I" OR you can just describe in your own words what you tried.

This research study is really trying to focus on your **experience** and what it has felt like implementing CBT-I. Throughout our conversation, I will be prompting you to walk me through these experiences and/or give examples.

1. To start off, could you provide a bit of background about your experience with insomnia before attending the workshop? *Probe for length of time, ways they had attempted to address it in the past, any prior CBT-I experience, disruptions to functioning, etc.*
2. What brought you to pursue the workshop instead of another means of treatment, like individual therapy sessions?

Experience with the workshop. I am now going to ask some questions about your experience with the workshop itself.

3. What was your understanding of CBT-I before going to the workshop that day?
 - a. What did you understand were the potential benefits?
 - b. What did you understand were the potential barriers?
4. Take me back to the day of the workshop, before it started. Could you tell me what you were thinking about the workshop? *Probe for beliefs about it (this will/won't work, this will be hard, my sleep problem is unique, etc.)*
5. How were you feeling about the workshop? *Probe for: emotions about it (nervous, excited, skeptical, etc.)*
 - a. What motivated you to participate in the workshop that day?

- b. What worried you about participating in the workshop that day?
- 6. What was it like walking into the group (or joining online)?
- 7. What was your experience of the workshop itself? *Probe for: ability to follow along and understand the material, applicability to your problem, etc.*
- 8. What was your experience interacting with the other participants in the workshop? *Probe for commonalities and differences, group dynamics*
- 9. When you left the workshop, how were you feeling about CBT-I?
 - a. Were there aspects you were excited about?
 - b. Aspects you were nervous about?
- 10. When you left the workshop, what were you thinking about trying CBT-I on your own?
- 11. Is there anything else about the workshop itself that feels important to share that I have not asked about?

Experience with implementing CBT-I. Now that we've talked a bit about the workshop itself, I am curious about the days and weeks that followed, when you were trying to implement what you learned.

I am going to focus on several key time points after the workshop to learn how things went for you, including things that worked well and barriers you experienced. I will have similar questions to address the first night, first week, and how things have gone as you have tried to integrate the training over the longer period of time.

Let's focus first on the first few days to one week following the workshop.

- 12. Could you describe how you felt the night after the workshop? I know that this may have been a little while ago so the details might be a little fuzzy.
- 13. Did you try to implement what you had learned that first night? Why or why not?
- 14. Talk me through what you tried and what this experience was like.
 - a. What went well about this experience?
 - i. What was going on in your life that made it possible to implement CBT-I those first few nights?
 - b. What was challenging?
 - i. If challenges, what specifically was going on for you at that time? For example, was there something else in your life that made it more challenging (separate from your insomnia itself)?
 - ii. How did you navigate challenges in those first few nights?
 - iii. Was there anything or anyone in your life that helped you navigate challenges?
 - c. What could have been improved? *Probe for what they could have done differently OR what the training could have done differently*
 - d. Is there anything that surprised you about implementing CBT-I in those first few nights?
- 15. After about a week of time how was it going for you?
- 16. Where you regularly applying the CBT-I strategies? Why or why not?

17. What was this experience like either way?
 - a. A week in, what was going well about the strategies?
 - i. What was going on in your life that made it possible to implement CBT-I in the first week or so?
 - b. What was challenging? What got in the way?
 - i. Again, if challenges, what was going on in your life at that time?
 - ii. How were you navigating any challenges you experienced in the first week?
 - iii. Was there anything or anyone in your life that helped you navigate challenges?
 - c. What could have been improved? *Probe for what they could have done differently OR what the training could have done differently*
18. How were you feeling about CBT-I during that first week or so?

Now let's talk about the weeks to month following the workshop.

19. In the weeks after the workshop, what did you notice about your attempts at using the CBT-I protocol? *Probe for specific examples when relevant*
20. Were there aspects of CBT-I itself that deterred you from implementing the intervention? If yes, what were they and why?
21. How comfortable were you implementing the CBT-I protocols on your own based on what you learned in the workshop?
22. Talk me through how a typical **night** felt for you while trying to use CBT-I.
23. What specifically were you trying and how was this going?
 - a. What went well about this experience?
 - i. What was going on in your life that made it possible to implement CBT-I in the weeks after the workshop?
 - b. What was challenging?
 - i. Again, was there something specific going on in your life that created challenges?
 - ii. How did you navigate any challenges you encountered in the weeks after the workshop?
 - iii. Was there anything or anyone in your life that helped you navigate challenges?
 - c. What could have been improved? *Probe for what they could have done differently OR what the training could have done differently*
 - d. Is there anything that surprised you about implementing CBT-I in the weeks after the workshop?
24. Did anything come up that was unexpected? *(related or unrelated to CBT-I that impacted CBT-I)* Was there anything in your life that prevented you from implementing CBT-I?
25. How did you experience your home environment while trying to implement CBT-I? *Probe for space for stimulus control, environmental barriers to sleep*
 - a. Did your home environment support or take away from your attempts to implement CBT-I? *Probe for specifics*

- b. Do you have a bed partner? If yes, what was your experience with that person like while you were implementing CBT-I strategies?
 - c. Do you care for anyone at home (kids, vulnerable adults or elders)? If yes, what was your experience like with them while implementing CBT-I strategies?
- 26. Did you experience any conflict with the CBT-I protocol and your culture, traditions, or upbringing?
- 27. Talk me through how a typical **day** felt while you were trying to use CBT-I.
 - a. Did you feel any different during the day while you were using CBT-I at night?
- 28. Did the CBT-I protocols feel relevant and applicable to your specific problem? Why or why not?
- 29. In the weeks after the workshop, what did you notice about your sleep? Did your experience of sleep change (or not)?
 - a. If yes, how did it change?
 - b. If no, tell me what that experience was like.
 - c. Yes or no: how did you feel about your sleep during that time?
- 30. Did you ever consider reaching out for additional support or clarification with CBT-I after the workshop? Why or why not?
 - a. If yes, what did you do or consider doing?
 - b. Talk me through your experience with this and what factored into your decision to reach out or not.

Now let's focus on how things are going now.

- 31. Do you feel you have been able to integrate CBT-I into your life?
 - a. Why or why not?
- 32. Tell me about your overall experience attempting to integrate this, whether successful or not.
 - a. How burdensome has it felt trying to integrate CBT-I into your life? (*Not at all to extremely*)
 - i. If burdensome, what made it feel that way?
 - b. What other emotions have come up while you have been working on this?
 - c. Is there anything that surprised you about implementing CBT-I?
- 33. Has your experience with CBT-I impacted any other areas of your life? *Probe for relationships, caregiving, work, etc.*
- 34. What advice would you give to someone who was just beginning to try and improve their insomnia?
- 35. What advice would you give to someone who was just beginning CBT-I?
- 36. What advice would you give to someone who was about to begin the workshop?

- 37. Is there anything about your experience that I have not asked you about but you think is important to share?

Thank you so much for taking the time to speak with me today! Your feedback is hugely valuable as we try to continue to make improvements to CBT-I it is so important to understand the lived experience of implementing it. Do you have any other comments or questions for me before we conclude?

If there was anything you did not feel comfortable sharing face to face, or think of later that you forgot to include, you may also email any additional information.