Tools for Treating Sleep Disturbances Among Latinos

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According to the Centers for Disease Control and Prevention, sleeping problem, primarily insomnia, is a very common problem impacting nearly 60 million people with significant healthcare costs and burden. Persons suffering from insomnia are more likely to suffer from chronic health problems such as diabetes, obesity, chronic pain, heart disease, and gastrointestinal problems (Taylor et al., 2007). Women are more likely to report insomnia symptoms compared to men, and 50% of adults aged 65 and older report problems with sleep (Ohayon, Zulley, Guilleminault, Smirne, & Priest, 2001; Ohayon, 2002). Depression and anxiety disorders are also highly comorbid with insomnia along with other sleep disorders such as obstructive sleep apnea. Making the diagnosis of insomnia is based on patients' subjective report of the sleeping problem and the judgment of the clinician. Thus, it is important that clinicians can recognize the difference between acute sleep problems and insomnia as a disorder. Acute sleep problems may be caused by caffeine, napping, health problems, and recent life stressors with the sleeping problem improving once the stressor is resolved. Insomnia as a disorder is defined by the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-5) (DSM-5; America Psychiatric Association, 2000), as difficulty falling or staying asleep along with perceived negative impact on daytime functioning not related to other sleep, medical, or mental disorders. The DSM-5 proposes a minimum frequency of at least three nights and a minimum duration of 3 months. In the "traditional" model of insomnia, the sleep disturbance is conceptualized as a symptom of a primary disorder coming from a medical or psychological problem; and once the primary disorder is treated, then the sleep disturbance disappears. However, recent research has shown this is not always the case that insomnia may not have some underlying problem to be treated but rather the sleep problem is what needs to be addressed. It is now recognized that in some cases insomnia presents first and is actually the risk factor for the first episode of depression and possibly leads to depressive relapses (Manber et al., 2008).

Spielman, Caruso, and Glovinsky (1987) presented the biobehavioral model of insomnia showing the factors that can be related in the development and maintenance of insomnia over

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time. First, there are predisposing factors such as a biological (i.e., hyperarousal brain physiology) or psychological predispositions that have been present prior to the onset of the disorder. The predisposing factors make people more vulnerable to sleeping problems that when combined with a triggering event maybe what causes the onset of the insomnia. The triggering event is the precipitating factor that often presents in the form of some biological or psychological stressor. For some individuals, the sleep disturbance improves once the precipitating factor is no longer present. However, for some, they start to engage in behaviors they feel may be helpful to their sleeping problem, but over time just complicate the problem. Behavioral examples include napping, staying in bed for long periods, caffeine in excess, and possibly taking sleeping aids. These behaviors are called perpetuating factors that when used over time continue to maintain the insomnia. Cognitions about sleep can also be perpetuating factors as it is common for people with insomnia to become anxious about their inability to sleep and worry how their sleeping problem is going to impact their daytime performance. As a result, these unhelpful sleep cognitions create more distress focused on their sleep again maintaining their chronic insomnia.

If left untreated, insomnia can be associated with significant healthcare costs such as work-related accidents (i.e., falling asleep) and indirect costs such as absenteeism. Thus, treatment of the disorder in the context of other mental and medical conditions is important not only for the individual but for society as well.

Treatment can include medication management, psychological treatment, or a combination of the two. Pharmaceutical companies continually report exponential growth in the number of sleep-aid prescriptions filled each year. The concern is not only the fact that sleep aids have side effects, such as memory loss, drowsiness, dizziness, and loss of coordination and balance (especially in elderly), but in some cases, they may only work slightly better than a placebo (Consumer Reports, 2015).

Sleeping aids should generally be used for short-term use (few weeks), but people are often using them for years, thus becoming dependent on them and increasing their risk for other health problems. Growing research is showing that people taking sleeping aids for long periods of time may have an increased risk for developing cancer and are far more likely to die prematurely than those who don't take sleep aids (Kripke, Langer, & Kline, 2012). Furthermore, there are alarming concerns for benzodiazepines (Ativan, Xanax, Valium, and Klonopin), which are associated with higher rates of emergency room visits due to falls, fractures, and auto accidents and also associated with higher rates of Alzheimer's disease (de Gage et al., 2014).

Their effectiveness is so limited that the American Academy of Sleep Medicine (AASM) no longer considers them a first-choice treatment. Instead, the AASM considers the use of cognitive behavioral therapy for insomnia (CBT-I) as the leading treatment.

CBT-I is a nonmedication approach that goes beyond general sleep hygiene such as avoiding alcohol, not watching television in bed, etc. and addresses the key behaviors and thoughts that can interfere with sleep. Treatment includes several behavioral interventions of sleep restriction, stimulus control, relaxation therapy, and cognitive therapy specifically aimed at insomnia. Recently, the American Academy of Physicians recommended CBT-I as the frontline treatment for insomnia compared to medications (Qaseem, Kansagara, Forciea, & Cooke, 2016). This recommendation is based on review of trials from 2004 to 2015 that compared CBT-I treatment to medications with CBT-I being found to be the more effective and safer treatment option. Research has shown that the use of CBT-I has equal or greater effectiveness when compared to medications in the short term, but over time CBT-I has been shown to be more effective and more durable effects (Morin, Colecchi, Stone, Sood, & Brink, 1999). There are few known side effects of CBT-I besides the possibility of increasing daytime sleepiness associated with sleep

restriction therapy. But compared to medications, the side effects are significantly less, and people often no longer need medications following treatment, thereby eliminating all potential drug side effects.

CBT-I can be delivered in an outpatient mental health setting, but also can be done within primary care clinics as well. A limitation to dissemination of CBT-I to a broader range of patients is the limitation of qualified clinicians trained in CBT-I. Furthermore, the limitation of Spanish-speaking therapists trained to provide treatment is even greater. Indeed the research on insomnia among Latinos is limited and resources related to insomnia for Spanish speakers are sparse. A PsycINFO search using the terms insomnia and Hispanic or Latino yielded only 52 publications. When the keywords treatment, intervention, and therapy were added, these results were further reduced to 28, and the majority of those publications were focused on psychotropic medication and/or are irrelevant to insomnia among Latinos; none of the manuscripts reviewed discussed the use of CBT-I with Latinos. Nonetheless, there is evidence to suggest that standard CBT generalizes to Latinos (Benuto & O'Donohue, 2015) indicating that the active ingredients in CBT-I may generalize to Latinos as well. Given the substantial prevalence rates of sleep-related difficulties among Latinos, interventions for treating these difficulties are needed.

Indeed, the prevalence rates of sleep-related difficulties among Latinos are substantial. While Ford, Cunningham, Giles, and Croft (2015) found similar prevalence rates of insomnia in the National Health Interview Survey among Whites and Hispanics (approximately 19% for both), other researchers have found higher rates for insomnia among Latinos. For example, Hispanic youth were significantly more likely to report insomnia symptoms (42.0%) than non-Hispanic white youth (30.4%: Blank et al., 2015). Pregnant Latinas are also substantially impacted by insomnia, and insomnia symptoms have been noted to be particularly high among Latinas with depression (Manber et al., 2013). Moreover, Latinos have been noted to report poorer sleep practices relative to African American and Asian students (Gaultney, 2010). Loredo and colleagues (2010) reviewed the literature on Latinos and sleep and indicated that the high prevalence of risk factors in Hispanics (i.e., obesity, diabetes, living in the inner city, use of alcohol, poor sleep hygiene) suggests that sleep-related issues are high. The literature also suggests that acculturation to the US lifestyle is positively related to sleep difficulties among this group (Manber et al., 2013; Seicean, Neuhauser, Strohl, & Redline, 2011). This has been supported in research that has identified that US-born Hispanic/Latina immigrants were more likely to report sleep complaints than their first-generation ethnic counterparts (Hale, Troxel, Kravitz, Hall, & Matthews, 2014). This illustrates some of the complexities that we observe with this group.

Complexities aside, the literature clearly indicates that insomnia is a highly treatable condition via the use of CBT-I. While the research regarding the exact prevalence rate of sleep-related difficulties among Latinos is mixed, it is clear that Latinos need interventions targeted at sleep-related difficulties. Given the limited resources available for clinicians who work with Spanish speakers, this chapter attempts to fill a gap with regard to the resources that are available for clinicians who work with Spanish speakers. Specifically, below we provide an overview of CBT-I and associated resources and tools that can be used by the Spanish-speaking clinician with Spanish-speaking clients. While these specific tools have not been tested via a randomized clinical trial, the principles presented in the session overview (see below) and in the worksheets, resources, and tools were all derived from evidence-based principles as an attempt to fill a large gap in the resources available for Spanish speakers.

Treatment Plan Timeline

Session #	Treatment component	Session goals	Handouts
1	Assessment/evaluation Therapeutic alliance	Intake paperwork Confidentiality Information gathering Case conceptualization Introduction CBT-I	Sleep intake (see Appendix A) Sleep diary (Appendix B) Optional sleep and mood measures
2	Psychoeducation Stimulus control Sleep restriction Sleep hygiene	Review sleep diary Continue introduction CBT-I Information gathering Rapport building Identify new TIB Behavioral components	Sleep diary (Appendix B)
3	Stimulus control Sleep restriction Cognitive therapy	Review sleep diary Modify TIB Thought records Behavioral components Homework	Sleep diary (Appendix B) Thought record (Appendix C)
4–6	Stimulus control Sleep restriction Cognitive therapy	Review sleep diary Modify TIB Thought records (if needed) Behavioral components Homework	Sleep diary (Appendix B) Thought record (if needed) (Appendix C)

First Session/Intake

The initial appointment is the assessment of the sleep complaint and may need to be completed over two sessions depending on how much time is allocated. The goal of the first session is to provide a comprehensive assessment of the patient's sleep complaints that focuses on four essential areas: (1) sleep history and specific sleep complaints along with perpetuating factors, (2) medical history and current medications, (3) substance use, and (4) psychiatric or other mental disorders. It is common for clinicians to use a sleep history questionnaire (see Appendix A) to be completed prior to the initial interview. Another important clinical tool is the sleep diary that patients complete to monitor sleep pattern for a period of often 2 weeks (see Appendix B). The American Academy of Sleep Medicine has a standard sleep diary available in Spanish for download as well. If possible, it can be helpful to have the sleep diary completed prior to the initial appointment as well with 2 weeks of sleep data. The sleep diary asks patients to record bedtimes, when they feel they went to sleep, wake up, and finally rise time from bed. Sleep diaries are the patients' subjective report of sleep so to ensure the greatest possible accuracy and consistency; the diary should be completed every morning immediately after getting out of bed. The patient will be provided with a blank sleep diary at the end of every session as homework to track progress.

Creating a structured intake interview focused on sleep is crucial to building rapport as often people with insomnia or other sleep complaints generally have not had any opportunities to talk about their sleep. Further, many patients suffer from sleeping problems for a long period of time, and going through a thorough history may be challenging for clinician to sort through. Therefore, developing a structured session that can still be conducted in an empathetic way that considers cultural factors that may contribute to the sleep disturbance is important for building the therapeutic relationship.

In structuring the intake, a good starting point is to find out the history of the problem in when it first started in the onset, duration, and severity of symptoms. For instance, "what was going on in your life when the sleeping problems first started? How long has your symptoms been going on? How do you feel this problem impacts your life?" Finding out the timeline of events for the sleeping problem is important to identify if the person meets criteria for insomnia disorder or another sleep disorder. By finding out contributing factors or precipitants, this will help the therapist set the stage for explaining the model of insomnia and conditioned arousal in later sessions. It regards to the patient's sleep schedule; it may be helpful to start by asking when the patient gets into bed compared to when he/she turns off the lights to try and go to sleep. These two times may be completely different suggestive of poor sleep hygiene if the patient gets into bed at 9 pm to read, but does not turn off lights till midnight to try to go to sleep. Often people with insomnia get into bed because they feel this is routine or what they "should" be doing, but do not know the difference between feeling tired and actually becoming sleepy. So it is important to ask how long it takes to fall to sleep and what does he/she do when cannot fall asleep? It is common for patients to stay in bed "trying" to fall asleep and getting into bed just because they feel fatigued, but not necessarily sleepy. It is also important to find out the timing for the beginning sleep period, middle and end of the night as well. For instance, "how many times do you think you wake in the middle of the night and how long does it take you to fall back to sleep? What time do you wake up in the morning and get out of bed?" The therapist would want to know if the patient's current sleep schedule is different than his/her premorbid sleep schedule. If the current schedule is dramatically different identifying why the patient changed the schedule may lead to clues to behavioral factors that have continued the ongoing sleeping problem.

Another important aspect of the clinical interview is gathering information on the patient's medical and psychiatric history. Gathering this information along with a thorough sleep evaluation is often why the first session may need to be longer or broken into two sessions. Providing a medical and psychiatric interview is beyond the scope of this chapter, but identifying untreated comorbid sleep disorders and psychiatric is crucial for successful treatment. For instance, chronic pain, sleep apnea, and insomnia in menopausal women along with depression and anxiety are common problems. Appropriate referrals may be needed such as referral to sleep medicine physician for further evaluation if sleep apnea is suspected. Further, prescription medications such as opioids can impact sleep, so identifying a full list of medications is also needed. Often insomnia patients have been on prescription sleeping medications for years and have become dependent on medication for sleep. It would be important to know when the patient started to take the medication, how often it is taken, and do they take the medication again in the middle of the night. Patients often become psychologically dependent as they view medication as the only hope and fear they have lost all ability to sleep without it. This may have to be addressed as treatment progresses if the patient's goal is to get off the medication at some point, and collaboration with the prescribing provider may be needed.

In evaluating comorbid medical problems, it is common that a medical problem or sleep disorder is present. One of the most common comorbid medical problems is obstructive sleep apnea (OSA), which requires referral to a sleep medicine specialist and overnight sleep study. In this case, it is not the job of the therapist to make the diagnosis but to know when to refer. Often sleep apnea patients when not treated feel very sleepy during the day, which may require modification to the standard CBT-I protocol. The prominent features of OSA are loud snoring, witnessed apneas by partner, waking gasping for air or choking, and significant daytime sleepiness. The patient may have also been previously diagnosed with OSA and stopped treatment with continuous positive airway pressure (CPAP). If the patient is no longer compliant with CPAP treatment, psychoeducation on OSA may be needed as the patient is going to continue to have problems staying asleep despite CBT-I treatment. Thus, it

should be made clear that treatment goals will likely not be met until the OSA is successfully treated. In regard to psychiatric problems, the therapist would want to assess for history of depression, bipolar disorder, PTSD, anxiety disorders, and substance abuse problems. If the patient is only seeking sleep-specific therapy and not long-term treatment, the focus will likely be on the current symptoms and how they impact sleep rather than focus on lifelong conditions. In regard to substance abuse, evaluating the patient's use of alcohol, nicotine, caffeine, stimulants, and illicit drugs is needed. It is important to know when the patient is ingesting relative to bedtime as many of the substances interfere with sleep. For instance, people may not know the half-life of caffeine and that the energy drink they had a few hours ago may be continuing to impact their ability to fall asleep. Further alcohol is a depressant and the patient may use it to "unwind" or relax before bedtime, but alcohol withdrawal may be contributing to the middle of the night awakenings. Ask questions about smoking as nicotine also causes sleep fragmentation. Other factors to evaluate for include the timing of physical activity in relation to bedtime as strenuous physical activity immediately prior to bed may impact sleep. Eating a heavy meal prior to bed may also impact sleep so assessing eating behaviors and if the patient eats in the middle of the night when unable to sleep.

Besides the sleep questionnaire and sleep diary, there are other helpful assessment tools that may be administered during the initial appointment to establish a baseline of sleep disturbance and also track changes. These include the Insomnia Severity Index (ISI), Dysfunctional Beliefs About Sleep Questionnaire (DBAS), and Epworth Sleepiness Scale (ESS). The ISI is a seven-item questionnaire (Morin, 1993) that provides a measure of perceived sleep disturbance and the patient's level of distress related to the symptoms. It takes less than 5 min to complete and can easily be administered in primary care setting or waiting room. The total score represents overall severity level with higher scores indicating more severe insomnia or sleep disturbance. The DBAS (Morin, Vallieres & Ivers, 2007) can be used to help identify unhelpful sleep-related cognitions. The therapist can note highly endorsed items to be addressed later in cognitive therapy. The ESS is a measure commonly used in sleep medicine clinics and is an eight-item self-report questionnaire that evaluates daytime sleepiness. Scores range from 0 to 24 with higher scores suggesting greater daytime sleepiness. Often insomnia patients do not score in the higher or sleepy ranges with higher scores being more common with untreated sleep apnea and should be referred to a sleep medicine specialist for more evaluation. Other psychological testing such as the Beck Depression Inventory-2 and Beck Anxiety Inventory may be helpful as supplemental information to identify comorbid psychological problems.

Session 2

Session 2 is the most challenging of all the therapy sessions because it requires the most psychoeducation and teaching on the part of the therapist. The patient may have questions about treatment and what cognitive behavioral therapy for insomnia is. Review of Spielman's 3-P model of insomnia and using examples from the patient's history to explain possible predisposing and precipitating events is useful. Good psychoeducation is very important as it will help lay the groundwork for the remaining sessions by helping patients better understand the treatment rationale and increase likelihood of adherence. Patients may have unrealistic beliefs about their sleep (i.e., "I need to sleep 9–10 hours per night") and can be helpful to educate what is average with adults sleeping 6–8 hours per night. Also starting to talk about the focus of CBT-I treatment is a quality not quantity. This may provoke some anxiety for the insomnia patient that is hoping to sleep 9 hours per night, but again the therapist will want to emphasize that treatment will focus on the patient's current sleep and trying to make it better.

Session 2 includes the behavioral components of treatment including stimulus control and sleep restriction. Stimulus control developed by Bootzin (1972) suggests repeated pairing of the bed with anxiety and frustration that over time

the bed becomes conditioned for arousal compared to sleep. Often insomnia patients say they get sleepy somewhere else than the bed such as the couch and when they get into bed they are wide-awake. This suggests that the bed has become a learned cue for wakefulness. Thus, explaining to the patient that continuous pairing of the bed with unpleasant or anxiety-provoking experiences becomes a cue for the body to become tense. An important point to make is this can be unlearned, but the patient will have to change behavior and routine. The instructions provided by the therapist should include the following: First, go to bed only when sleepy not when feeling fatigued or tired. As mentioned, patients may not know the difference between feeling tired and sleepy, so they may have to learn how to differentiate between the two. Second, do not spend excessive time in bed and only spend the amount of time that you need for sleep. This will become more clear when the therapist goes over the sleep restriction guidelines (see below), but patients are instructed not to try and force sleep by remaining in bed. This can be very challenging for some patients to follow such as the case of chronic pain because remaining in bed is comfortable and why get out of bed if you don't need to. Thus, it is important to explain the principle of conditioned arousal and that getting out of bed will allow for less chance for pairing of the bed with arousal. The therapist may have to provide the patient with non-stimulating activities to do when out of bed such as listening to audiotapes or reading. The question of computers may come up, but the use of computers is not recommended because they run the risk of causing more arousal. Further, computers impact melatonin, which is needed for restful sleep. Many activities (i.e., reading) can be done on the couch or another place prior to bed, but not in the bed because the bed must become a cue only for sleep. The only exception is sexual activity.

Other stimulus control components include the removal of naps and maintaining consistent wake times. Patients often have variable rise times and take naps in order to "catch" up or make up for sleep loss, but this inconsistency weakens the circadian clock and the drive for sleep. In the case of morning wake times, a good example is the concept of "jet lag" that having variable rise times feels like "jet lag" or that the body just flew cross-country. This only creates a burden on the body or the circadian clock to constantly make adjustments to the morning time changes. Similar is the case with napping in that naps also weaken the body clock. Often people with insomnia feel tired, but not sleepy, so they likely don't nap if even provided the time to do so. But often people with chronic pain and sleep apnea do feel sleepy during the day and may sleep for hours that only later impacts their sleep at night. Safety concerns for the patient should always be considered when suggesting the removal of naps. Drowsy driving is always a concern, and if a therapist is concerned that the patient is so sleepy that he/she may fall asleep while driving, then napping may be allowed, but it should be limited. If the patient is taking long naps in the afternoon, it should be explained that napping reduces the sleep drive and will impact the ability to fall and stay asleep. When safety is not a concern, napping should be eliminated, but if short naps are recommended for safety reasons, the patient should be encouraged to set an alarm and aim for a short scheduled nap. In regard to other safety concerns, there are times when stimulus control may need to be adapted in the case of frail elderly patients or chronic pain. In these cases, instead of getting out of bed when unable to sleep, the therapist may want to recommend to just sit up in bed when the patient can't sleep and engage in a relaxing activity. This helps lessen the pressure of forcing sleep or high sleep effort without the concern of the patient possibly falling when getting out of bed.

The other primary behavioral component is sleep restriction therapy introduced by Spielman and colleagues (1987). This chapter will briefly cover the principles of sleep restriction, but the therapist may want to gather more intensive training on the topic prior to implementation. Essentially, sleep restriction reduces the patient's times in bed to total sleep time (TST) in order to reduce awakening and improve sleep quality. Once this has been achieved, the time in bed (TIB) can be increased in small increments to

increase sleep quantity. It should be explained to the patient that sleep quantity is not the goal and not to focus on the numbers of hours per sleep but rather the sleep quality (i.e., number of nighttime awakening reduced, falling asleep faster). The first step is to take the sleep diary and determine the patient's total sleep time (TST), which is different than patient's time in bed (TIB). Some patients may be spending up to 10 h or more in bed hoping to get 6–7 h of sleep. For instance, the patient that gets into bed at 10 pm, but does not fall asleep till midnight, sleeps till 6 am. In this case the TST would be about 6 h, but TIB would be about 8 h. Using the sleep diaries, you calculate the average TST for 2 weeks. Next is the recommendation for the patient's new TIB based on his average TST. The general rule for the new TIB is to take the average TST and add 30 min. So in the case above with the TST of 6 h, the new TIB could be 12–6:30 or 11:30–6 or 12:30–7 or 11:00–5:30. Generally, the suggestion is to start from the rise time and work backward. So if the patient has to get up at 6 am for work, his/her new bedtime would be 11:30 pm and rise time 6 am. Again focusing on consistency in that, it is important to maintain the recommended rise time no matter what. Patients will often ask if they should keep the time if they have a "bad" night or sleep and maybe only slept a few hours. The therapist would want to encourage the patient to maintain the schedule, reinforcing the importance of stimulus control and the biological clock. Further, if the patient maintains the schedule after a "bad" night, the sleep drive or need for sleep will build and likely will have a better night of sleep the following night. In some cases, the therapist will have to guide the patient in choosing a realistic wake-up time. If the new TIB is 6.5 h and the patient wants to wake at 8 am, it may not be realistic for the patient to stay awake till 1:30 am. It may be more realistic to move the rise time up, so the patient does not have to stay up as late. In the following sessions, the TIB will likely be expanded so encouraging patient to stick with the schedule because it will get better in sessions to come. It may also be helpful to not use the word sleep restriction when presenting the rationale, but rather using the term sleep efficiency training suggesting you are trying to make your time in bed as efficient as possible.

Finally, if time allows in the session, the therapist may also want to introduce some basic sleep hygiene principles such as limiting caffeine and alcohol. Exercise can be helpful for the sleep, but vigorous exercise close to bedtime is not recommended. Also making sure the bedroom environment is comfortable with a comfortable bed, keeping your bedroom dark, having comfortable temperature, and limiting stimulating activities close to bedtime and lights such as blue light from computer are all helpful tips.

Session 3

The focus of third session will be to adjust patient's TIB and the cognitive components of CBT-I treatment. The session begins by reviewing the sleep diary and identifying any areas in which the patient had problems adhering to the schedule. For instance, if the patient slept past the recommended rise time or had a hard time staying up to the bedtime, the therapist will have to problem solve with the patient. A conversation can be had around what activities can be done to either stay up to the recommended bedtime or what activities can be done after the rise time. The next step will be to adjust the sleep schedule based on the patients' sleep efficiency (SE), which is the percentage of TIB that is actually spent asleep. Using the sleep diary, a calculation of SE is made by using the formula TST/TIB *100. If SE for the prior week is at least 85% than the TIB, it will be increased by 15 min for that week with the time increase given at the bedtime. For instance, if the initial recommended TIB in bed was 11:30 pm to 6 am, the new recommended bedtime would move up to 11:15 pm, but the rise time would remain the same at 6 am. If SE is between 80 and 84%, then TIB can stay the same. If SE is less than 80%, a new TIB will need to be calculated using the current sleep diary data as conducted in the previous session. The therapist will have to work through obstacles to adherence and work with the patient to develop a TIB that is realistic and one the patient can adhere to. In some cases, the new TIB may have to be curtailed by 15–30 min to increase adherence.

After the sleep schedule has been discussed, next is addressing arousal and sleep cognitions that impact sleep. Insomnia patients often experience high arousal and hypervigilance that impacts their ability to fall and stay asleep. Therapists familiar with relaxation strategies such as mindfulness meditation, diaphragmatic breathing, and progressive muscle relaxation can be helpful to teach as calming skills. Essentially, teaching the patient how to create a calming or wind down period prior to bed is essential. Over time the patient may have learned bad habits such as being on the computer and getting into bed trying to force sleep without letting their mind calm down prior to bed. The importance of setting side time to unwind before bed should be explained to the patient along with learning calming skills that works best for each individual. Intrusive thoughts such as worrying about future events and worrying about the next workday or what was not addressed during the day are common for all people. When asked, patients often say "I try to clear my mind and not think about anything," but trying to suppress thoughts does not help to create a state of relaxation. Explaining to the patient that worries only makes insomnia worse because it strengthens the conditioned arousal to the bed. Other techniques that can be taught include scheduling a worry time, one that is not to close to bedtime, in which the patient can allocate 30 min to worry daily. Thus, when bedtime comes along, patients can remind them that they can postpone their worries to the scheduled time the following day. At the end of the day, patients can also establish a "to-do" list for the following day, so these thoughts will not intrude when they get into bed to try to go to sleep.

The patient's beliefs about sleep may need to be adapted, and this is when cognitive therapy is used. The cognitive techniques used are similar to cognitive behavioral therapy for treatment of other psychological problems such as depression or anxiety. The focus is to teach patients to identify unhelpful thinking styles focused on sleep and come up with more balanced ways to modify unhelpful cognitions. Assuming the therapist already has some familiarity with cognitive therapy, the use of thought records is commonly used and can be adapted for insomnia patient (see Appendix X). Some unhelpful beliefs common to insomnia patients include worrying that poor or not enough sleep will impact daytime functioning. The therapist may hear "If I don't get 8 or more hours of sleep per night I am a mess the next day." The therapist may want to use the downward arrow technique asking questions if the feared consequences were to come true. For instance, "what would happen if you (feared outcome) did occur?" Once the worry becomes clearer, the therapist can explore evidence for and evidence against the likelihood of that feared consequence that may actually happen. If the fear is around performance the next day often reminding the patient there has been nights he has slept poorly or less than 8 h and has been able to function during the day. This is also an example of unrealistic expectation about sleep that one must sleep 8 or a minimum set number of hours per night. This may be an unrealistic expectation on the part of the patient on his or her individual sleep needs, and using Socratic questioning or downward arrow technique, the therapist can help the patient question the usefulness of this expectation. Just as in traditional cognitive therapy, there are common unhelpful thinking styles that usually arise such as catastrophizing ("if I don't sleep well tonight I will not be able to get through my day tomorrow), overgeneralization ("I made a mistake at work because of my sleep"), and misattribution ("I am in bad mood today because I did not sleep well). Using the thought record, the therapist can work through these thoughts with the patient. At the end of the session, the patient should be instructed to continue with sleep diary tracking the new TIB schedule and also complete the thought record as homework for the next session.

Sessions 4–6 (If Needed)

Many patients just need to learn the behavioral and cognitive components of treatment to experience improvements in sleep and may not need additional sessions. In other cases, patients can benefit from one or more additional sessions with the focus of the remaining sessions depending on the needs of the patient. Some patients may need

more help with their sleep schedules, while others may need to focus on the cognitive components or learn more relaxation strategies. So having a strong case conceptualization on the factors that contribute to the patient's sleep problem will be helpful in driving treatment needs for the remaining sessions. The therapist will encourage the patient to continue with treatment recommendations including the behavioral components of sleep restriction and stimulus control despite any challenges that might have occurred. No materials are specifically needed for the follow-up sessions, but sleep diaries and thought records can continue to be used.

Other Treatment Considerations

Safety issues with the use of stimulus control were discussed above, but there are also other treatment considerations the CBT-I therapist will have to consider. Many patients seeing treatment may have become dependent on sedative medication and may also have serious comorbid medical and psychiatric issues. There are many medications used for insomnia ranging from benzodiazepine receptor agonists (BZRAs) such as ambien or lunesta that are FDA approved for insomnia and "off-label" for insomnia such as in the case of benzodiazepines (temazepam, clonazepam, etc.). Atypical antipsychotics such as quetiapine and the antidepressant trazadone are often used as well. Over time the patient may have developed tolerance, so abrupt withdrawal of the medications may result in distressing rebound insomnia symptoms. In these cases, patients have become dependent on the medication nightly and feel they may have lost all abilities to sleep without it. Further, they may believe their sleep is only a "chemical" imbalance, so they need medications for the remainder of their life. Cognitive therapy may be needed to target these unrealistic or catastrophic beliefs. Further, relaxation strategies need to be strongly utilized, so the patient has some coping skills if titration takes place. Often patients want to get off their medications, and it will be important to work with the prescribing provider to have a treatment plan in place prior. Keep in mind titration is not suggested until the patient has successfully implemented CBT strategies and has experienced an improvement in sleep in order to build confidence that they may be able to sleep without the medications at some point.

In the case for the patients with comorbid medical problems, the therapist may have to help the patient seek appropriate medical care. As discussed earlier, patients with sleep apnea may need to follow up with sleep medicine for treatment. Many medications may have side effects like insomnia, and the patient may want to have a conversation about this with his or her treating physician. Besides insomnia, patients may also be experiencing depression, PTSD, or anxiety. The therapist may start with specific sleep-targeted treatment and may consider continuing with treatment for the remaining psychological problems if appropriate. If the therapist does not have training such as in the case of PTSD treatment, he/she may choose to refer the patient to another therapist for continuing treatment after CBT-I.

Appendix A

Heramientas Para la Evaluación del Sueño - Adultos

Nombre: **Fecha:**
Nombre de quien lo refiere:

Describa brevemente el/los problema(s) para dormir que está teniendo o la razón por la que desea tratamiento?

De la siguiente lista, marque su(s) problema(s):

____ Dificultad para quedarse dormido ____ Dificultad para mantenerse dormido

____ Despierta en la madrugada ____ Dificultad para despertarse a la hora planeada

¿Cuando fue la primera vez que se dio cuenta que estaba presentado problemas para dormir? Por favor identifique cualquier evento que haya contribuido a que se desarrollará su(s) problema(s) para dormir (ej., problemas de salud, un evento traumático, la muerte de un ser querido).

¿Qué es lo que usted piensa que esta contribuyendo a sus problemas para dormir ahorra mismo?

Historia Psico-social

¿cuando era niño o adolescente tuvo problemas para dormir o problemas psicológicos ? Si fue así, por favor explique:

Historial familiar de insomnio y/o otros trastornos y/o problemas de el sueño (ej., Apnea obstructiva)? _____

Historial familiar de salud mental y otros problemas relacionados (ej., depresión, esquizofrenia, ansiedad, etc.)?

¿esta experimentando algún conflicto familiar y/o problemas en el trabajo en la actualidad? Si No

Si su respuesta es "Si" por favor explique: _____

¿Ha estado casado alguna vez? Si No ¿Cuantas veces?_____ _____

¿Cual es su estado civil? Por favor haga un círculo sobre la opción: Casado(a) soltero(a) viviendo con su pareja separado(a) divorciado(a) viudo(a)

Cuantos hijos(as) tiene? _____Algún problema con la crianza de sus hijos? ____Si su respuesta es "Si" por favor explique:

¿Cómo es su relación con sus hijos(as)? haga un círculo sobre la opción – Buena Mas o menos Mala

¿Tiene familiares o amigos con quienes usted se relacione y pase tiempo? haga un círculo sobre la opción: Si No

Abuso de Substancias y Otros Comportamientos Adictivos

Actualmente, consume usted alcohol? haga un círculo sobre la opción - Si No

Con que frecuencia? (Una vez por semana, por mes, por año) _____

Si su respuesta es si, cuantas bebidas consume en cada ocasión? (ej., 1-2, 3-4, o 5+ bebidas) _____

En el presente, usa drogas ilegales (no prescritas) incluyendo marihuana? haga un círculo sobre la opción – Si No

Si su respuesta es "Si," que tipo de drogas (ej., marihuana, cocaína) y con que frecuencia las usa? (una vez por semana, por mes)?

¿Usa o ha usado alcohol y/o drogas ilegales (ej., marihuana) para poder dormir? Si su respuesta es "Si,"
Por favor escribe cuál(es)?

¿Ha estado en tratamiento y/o ha tenido problemas legales (ej., DUI) relacionados con el uso de alcohol en el pasado?

Escriba las fechas y los nombres de los centros de tratamiento (Si no recuerda con exactitud, sólo escriba una fecha estimada):

¿Fuma cigarros (circule) en la actualidad? Si No ¿Cuantos por día?_____

Por favor indique si usted ha fumado cigarros en el pasado y la fecha en que paro de fumar? _____

¿Juega y/o apuesta en la actualidad? haga un círculo sobre la opción –Si No Si respondió "Si," ¿con qué frecuencia? _

¿Alguna vez ha estado en tratamiento debido al juego y/o apuestas? _____

¿Cuantas bebidas de cafeína (ej., café, soda, bebidas de energía) consume por día? Por favor indique el tipo de bebida(s)?

Historial Médico

Sí ha tenido alguno de los problemas médicos descritos en la siguiente lista, por favor haga un círculo sobre la opción,. Indique cuando fue diagnosticado y cuando le dieron tratamiento:

Alergias _____

Asma _____

Artritis _____

Cáncer _____

COPD_____

Trastorno de Arteria Coronaria _____

CVA o Accidente Cerebro Vascular (Embolo) _____

Diabetes _____

Problemas Digestivos _____

Epilepsia _____

Lesión cerebral/TBI _____

Presión Alta/Hipertensión _____

Hepatitis _____

Trastorno del sueño/Apnea _____

Convulsiones _____

Tinnitus (Zumbido en los oídos)_____

Otros: _____

Nivel de dolor*** _____

**** Usando una escala de 0-10 (10 indica el dolor mas severo que usted pudiera imaginar y 0 nada de dolor) indique la severidad de su dolor en la actualidad), _____.

Por favor indique las cirugías que haya tenido (ej., cinturón gástrico (bypass), cirugía del corazón, etc.): _____

_____

_____

Medicinas para dormir que haya tomado en el pasado (prescritos y disponibles sin receta medica)?

Nombre	Dosis	Como las tomaba (antes de dormir, media noche; PRN)	Cuanto tiempo?	Le ayudaron?

Actualmente ¿Qué medicamentos para dormir se encuentra tomando (prescritos y disponibles sin receta medica)?

Nombre	Dosis	Como las tomaba (antes de dormir, media noche; PRN)	Cuanto tiempo?	Le ayudan?

Por favor indique cualquier otra(s) medicinas recetadas o prescritas por un médico (Use la parte de atrás de la hoja si necesita mas espacio): _____

_____

_____

Historial Psiquiátrico

Alguna vez ha sido diagnosticado o tratado por un problema de salud mental y/o psiquiátrico (ej., depresión, ansiedad, trastorno bipolar, PTSD/TEPT)? Por favor menciónelos: _____

_____

En el presente, ¿Está siendo tratado por algún problema psiquiátrico? Si No Si su respuesta es "Si," ¿quién es su doctor, psiquíatra y/o proveedor de tratamiento médico, y cual es el enfoque de su tratamiento (Psicoterapia vs. medicina)?

_____

Alguna vez, ha sido hospitalizado por problemas psiquiátricos/emocionales? Si su respuesta es "Si," ¿cuándo y donde?

_____

_____

En la actualidad le han prescrito medicinas psiquiátricas (ej., antidepresivos, estabilizadores de ánimo, etc.)?

_____

¿Tiene usted historial de intentos de suicidio? Si responde "Si," escriba las fechas aproximadas_____

_____

¿Ha tenido pensamientos relacionados con cometer suicidio, recientemente? haga un círculo sobre la opción Si No

¿Ha tenido pensamientos relacionados, con hacer daño, asesinar y/o matar a otras personas? haga un círculo sobre la opción Si No

Hábitos al Dormir (Enfóquese en la semana de actividad regular mas reciente):

¿A que hora suele ir a dormir, esto implica, estar con las luces apagadas? _____

En promedio, ¿cuánto tiempo le toma quedarse dormido? _____

¿Realiza actividades antes de ir dormir (ej., leer, bañarse, escuchar música)? Se encuentra acostado en su cama cuando realiza dichas actividades (leer, escuchas música, etc.)?

_____

_____

¿Qué sucede cuando no puede dormirse (pensamientos/acciones)? _____

_____

¿Cuántas veces se despierta, en promedio, durante la noche?_____

¿Qué pasa cuando despierta en el medio de la noche (pensamientos/acciones)? _____

_____

Regularmente, ¿a qué hora se despierta?_____

¿A que hora se levanta de la cama para empezar su día? ¿Se levanta a la misma hora durante la semana que durante el fin de semana?

_____

¿Cuantas horas cree usted que está durmiendo en realidad? _____

¿Toma siestas durante el día? De cuanto tiempo_____

Si usted tuviera la oportunidad de tomar una siesta, ¿la tomaría? _____

¿Cuantas horas de sueño piensa usted que necesita cada noche para sentirse descansado y poder funcionar? _____

¿Hay algunos aspectos, fuera de lo normal, que afecten y estén trastornando su ambiente durante su sueño (ej., compañero de cama, cuidado de niños, mascotas, incomodidad, ruido, luces, temperatura, se siente inseguro(a)?

_____

Efectos durante el día:

Piensa usted que su problema para dormir le afecta en alguna de las áreas descritas en la siguiente lista? ¿cómo?

Energía/fatiga: _____

Memoria/Habilidad para concentrarse_____

Estado de ánimo (ej., irritabilidad, ansiedad, depresión): _____

Niveles de actividad durante el día: _____

Habilidad de trabajar: _____

Otras cosas por favor describa:_____

Comportamiento al dormir/Síntomas: por favor haga un círculo sobre la opción Si o No

¿Le han dicho alguna vez que ronca muy fuerte?	Si	No
¿Alguna vez su compañero de cama le ha dicho que deja de respirar cuando duerme?	Si	No
¿Le duele la cabeza por la mañana?	Si	No
¿Se siente con sueño aún cuando ha dormido 8 horas o cuando ha incrementado sus horas de sueño?	Si	No
¿Alguna vez ha sentido que se queda congelado(a) o paralizado mientras trata de dormir o cuando se despierta?	Si	No
¿Alguna vez ha vivido una situación donde siente como si estuviera soñando y como si tuviera una alucinación cuando se esta quedando dormido?	Si	No
¿Ha tenido episodios donde siente que no puede estar despierto(a) durante el día?	Si	No
¿Ha tenido episodios donde, de repente, siente que sus músculos están débiles y no le responden (ej., sus piernas cojean)? o ¿ha sentido emociones intensas como, por ejemplo, mucha ira o llorar?	Si	No
¿Camina dormido?	Si	No
¿Tiene pesadillas frecuentemente?	Si	No
¿Alguna vez le ha dicho su compañero(a) de cama que usted patea, golpea, y/o se pone violento(a) cuando esta dormido(a)	Si	No
Si respondió "Si" a la última pregunta,¿ recuerda usted esos episodios?	Si	No
¿Se despierta gritando durante la noche?	Si	No
¿Come usted durante la noche antes de ir a dormir?	Si	No
¿Rechina o aprieta los dientes mientras duerme?	Si	No
¿Le cuesta mucho trabajo quedarse dormido debido a la incomodidad de sus piernas?	Si	No
Si respondió "Si" a la última pregunta, ¿tiene que levantarse y mover sus piernas para sentirse mejor?	Si	No
¿Siente hormigueo y/o sensaciones como si insectos caminaran en sus piernas?	Si	No
¿Sus piernas se estiran de repente sin que usted lo controle durante la noche cuando trata de quedarse dormido(a)?	Si	No

Por favor escriba una lista de las metas que desea lograr en este tratamiento:

_____

_____

_____

_____

_____

Appendix B

Diario de el Dormir

Día de la semana	Lunes	Martes	Miércoles	Jueves	Viernes	Sábado	Domingo
¿A qué hora se acostó a dormir?							
¿A qué hora apagó las luces para dormirse?							
¿Cuánto tiempo le tomo quedarse dormido después de que apagó las luces?							
¿ Cuántas veces despertó por la noche aproximadamente ?							
Aproximadamente ¿ Cuánto tiempo duró despierto durante esas ocasiones que despertó?							
¿A qué hora despertó finalmente?							
¿A qué hora se levantó de la cama?							

Appendix C

Registro Adaptado a los Pensamientos para Casos de Insomnio

Situación ¿Donde? ¿Cuándo?	Intensidad de el estado de ánimo (O-100%)	Pensamientos con relacionados con dormir	Evidencia a favor de ese pensamiento	Evidencia Contra ese pensamiento	Pensamientos alternativos o para reemplazar	Nuevo grado sobre su estado de ánimo (0-100)

Adaptado de *Planes de Tratamiento e Intervenciones para el Insomnio* por Manber and Carney (2015)

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