Cognitive Behavior Therapy – Insomnia

Assessment Interview:

1. Schedule: Bedtime, lights out time, how long to get to sleep, how many awakenings, how long awake for them, final wakeup time, out of bed time. How much variation. Weekends versus weekdays. Estimated total sleep time, total time in bed.

2. Pre-bedtime activities: What do you do in the couple of hours before bed? Eating, screens, exercising heavily, conflictual conversation, thinking about high stakes choice points

3. Falling asleep: In the time between lights out and falling asleep, what do you do? What do you think about? Any strategies? How hard do you try to go to sleep? How worried are you that you won't be able to sleep?

4. Awakenings: When do you awaken, for how long, how many times; what do you do during these times? What's the degree of pleasantness or unpleasantness? What are thoughts?

5. Final wake-up: Is it hard to get out of bed, hard to wake up? Is there awakening before the desired wake-up time? Do you feel groggy or zombie-like or refreshed after getting out of bed?

6. Use of sleep meds, prescription, otc? (including melatonin)? Alcohol? Cannabis? For any of these, dose and time.

7. Bedroom environment: temperature, light, partner issues, caregiving issues, pets, feeling safe, noise, mattress, screens and speakers. Phone used in bed or not.

8. Precipitants: When sleep problem start? What happened then? What was your response?

9. Premorbid sleep: What was sleep like before problems, if there was such a time?

10. Circadian chronotype: Evening chronotype: How late do you sleep if you can sleep as long as you want? When you get up for work or school, how unpleasant is it? How long before feel fully awake? Morning chronotype: Get sleepy early in evening? Wake up earlier than need or want to?

11. Napping during the day: How often, what time, how long.

12. Stimulant use? Prescription, caffeine, nicotine, cocaine

13. Daytime activity: Exercise? Type, amount, time?

14. Daytime sleepiness or fatigue?

15. Perceived consequences of low sleep: Mood, cognition, work mistakes, falling asleep. How awful is it during the night when not able to sleep; how awful are any consequences the next day. Is there a fear of migraine headaches?

16. Screen for obstructive sleep apnea: previous diagnosis, use of CPAP, loud snoring, sleepy or tired during the day, someone hears periods where snoring stops for 10 seconds or more, high blood pressure? Regarding high blood pressure: "Eighty-nine percent of young patients aged 18–35 with

HTN not attributed to secondary causes have underlying OSA." (HTN=hypertension, OSA=obstructive sleep apnea.) Brown, et al., 2022, https://doi.org/10.1007/s11906-022-01181-w

17. Screen for restless legs syndrome: uncomfortable feeling in legs when lying down or otherwise at rest? Discomfort relieved by walking, moving legs? Worse at night? An overnight sleep study is not required for diagnosis.

18. Screen for periodic limb movement disorder: movements of limbs that often disrupt sleep, but unlike with restless legs, patients with period limb movements are usually not aware of their limb movements. Thus info from bed partner or family members about kicking or thrashing in the night may be more informative than info from interview of patient. An overnight sleep study is usually required for diagnosis.

19. Screen for hyperthyroidism: heat intolerance, weight loss despite increased appetite and eating, tachycardia, tremor, sweating, diarrhea, fatigue, goiter, hair loss, change in hair texture, nervousness or irritability, bulging eyes.

20. Screen for nightmares.

21. Screen for trauma that produce a fear of being "off guard" during sleep.

Treatment begins: Education about sleep

1. The sleep drive – what makes us tend to fall asleep. This tends to increase the longer we are awake. Taking a nap decreases it. For most people a great deal of exercise earlier in the day increases it. High intensity exercise sometimes decreases it temporarily – for as much as couple of hours. Caffeine decreases it (probably by blocking adenosine receptors; the buildup of adenosine probably mediates the sleep drive). Withdrawal from alcohol decreases it.

2. Circadian rhythms. We have a "clock" in our brains (it's located in the suprachiasmatic nucleus of the hypothalamus) that tells us when to feel wakeful and when to feel sleepy. The past patterns of sleep and wakefulness determine how the clock is set. It takes at least several days to reset the clock. It is highly recommended that anyone interested in better sleep get up at the same time each morning, and go to bed fairly close to the same time each night, so as to keep the rhythm steady. A steady sleep rhythm teaches the brain when to be asleep and awake. There are four clock-resetters that tell the brain, "It is time to be awake now." These are: bright light, exercise, eating, and being out of bed and active. If you need to move your sleep rhythm earlier, do these in the morning; if you need to move it later, do these in the evening or afternoon.

Assignment: Get up at the same time each morning.

Treatment continues:

1. **Assignment: Keep a sleep diary.** This consists of the answers to the questions in #1 of the assessment interview above. It's not necessary to watch the clock and get exact times; something in the middle between taking wild inaccurate guesses and compulsive clock-watching is desirable. If the work

of a sleep diary is prohibitive, perhaps one can keep track of their estimates of total time in bed and total time asleep.

2. **Sleep hygiene rules.** Regular out of bed time in morning. Avoiding drugs that affect sleep, as much as possible. Quiet and dark environment for sleep. Electronic diversions not used from a time before bedtime till out of bed in morning. No TV in bedroom. Cool enough environment. Lack of disruption by bed partner or pets. Not napping during day, or short nap only in early afternoon.

3. **Relaxation strategies**. Learning and practicing any of ~10 strategies. Consider the "Pleasant Dreams Exercise." Part of the goal of these is toleration of aloneness without external stimulation. Thus listening to a meditation app on one's phone does not count.

"When I have occasionally set myself to consider the different distractions of [human beings]," Pascal observed in "Pensées," his collection of essays published in 1670, "I have discovered that all [their] unhappiness ... arises from one single fact, that they cannot stay quietly in their own chamber."

4. **Decision-making as alternative to in-bed worries**. Having a time, well before bed, in which you generate, preferably in writing, a list of the issues, the choice points, the dilemmas, you need to make decisions about. Write out decision process (SOIL ADDLE can be a guide to this.)

5. **Exercise**. One study found that the most effective exercise in sleep-promotion was walking combined with muscle endurance exercise. The latter is resistance exercise midway between strength-building and cardio – e.g. gradually building up with pushups, squats, planks, or weights permitting 30 to 60 or more reps. But: the best form of exercise for any person is that which they can get themselves to do. Hypothesis: evolution did not equip the body for good sleep in the presence of as little exercise as most people get today. Hypothesis: The total quantity of exercise should be titrated upward until the fatigue from it aids greatly in sleeping.

6 **Stimulus control**. This means set up a conditioned association between being in bed and sleeping. Traditional instructions: 1. Go to bed only when sleepy (not just fatigued or tired). 2. Use the bed and bedroom only for sleep (or sex). 3. If unable to sleep, get out of bed and return to bed only when sleepy. 4. Wake up at the same time every day regardless of how much you slept. 5. Do not nap.

Some modifications to this:

1. Some people (JMS included) do not feel sleepy before going to bed, but feel sleepy (and fall asleep) very soon after going to bed. This may be regarded as the action of the conditioned association between the bed and sleep. Some people may go to bed contingent upon "bedtime" and not have to wait for sleepiness to occur before lying down.

2. When to get out of bed: If one is not asleep, but in a state of very pleasant rest, with pleasant thoughts and fantasies going through the mind, staying in bed and enjoying relaxation may be better than having to get out. The reason for this is that it tends to defocus from the question, "Am I asleep," to the question, "Am I enjoying this time?" Hypothesis: Reducing the displeasure of sleeplessness may take care of lots of the problems associated with insomnia. Hypothesis: If one is in a state of pleasant relaxation, sleep tends to take care of itself.

3. When to go back to bed after getting out: as in modification #1, the person might after some time have a trial of going back to bed rather than waiting until they are sleepy while out of bed.

4. Some people get into a routine of a brief (20-30 min) nap in the early afternoon as part of their routine, and get away with it without ill effects.

Using the bed for things other than sleeping is a major problem with the advent of screen entertainment. Setting up an association between bed and sleep means don't watch TV in bed, don't be on the phone in bed, don't go to sleep listening to something or watching something. The more the stimuli under which one falls asleep duplicate the stimuli under which you wake up in the middle of the night, the better, and the more those are darkness and silence, the better.

What to do when one gets out of bed because of not sleeping: do something productive but unexciting. Organize objects or papers, clean, read something instructive but not exciting, such as books on psychological skills…. Don't surf the Internet, read Stephen King novels, get into an interaction on social media….

7 **Sleep restriction.** Figure out from the sleep diary the average time asleep. Limit the time in bed to this amount of time, or 5 hours, whichever is greater. Once the habit of not spending much time in bed awake has been established, gradually increase the time in bed.

A second procedure has been called "sleep compression." In this procedure, you don't limit the time in bed all at once, but go down by 30 minute increments each week, till it becomes true that there is not much time in bed awake or until 5 hours are reached.

The point of sleep restriction is to use the increased sleep drive that results to help you establish the habit of sleeping while in bed.

8 **Thought revision.** Notice, and try to revise, the thoughts about how awful is the failure to get to sleep or get back to sleep.

More from 17th century Pascal: "For [we] hold an inward talk with [ourselves] alone, which it behooves [us] to regulate well."

STOP Questionnaire for Obstructive Sleep Apnea (OSA)

Height: _____ inches

Weight: _____ lbs

Age: _____ Male / Female Body Mass Index (BMI): _____

Collar size of shirt: S M L XL or _____ inches Neck Circumference: _____ cm / inches

The STOP Test consists of Four Questions:

1. Snoring

Do you snore loudly (louder than talking or loud enough to be

heard through closed door)?

2. Tired

Do you often feel tired, fatigued or sleepy during the day?

3. Observed

Has as anyone observed you stop breathing during your sleep?

4. Blood Pressure

Do you have or are you being treated for high blood pressure?

Total ____ Yes ____ No

High risk of OSA: answering yes to two or more questions

Low risk of OSA: answering yes to less than two questions

Chung, F., Yegneswaran, B., Liao, P., Chung, S., Vairavanathan, S., Islam, S., Khajehdehi, A., Shapiro C. (2008). STOP questionnaire. A tool to screen patients for obstructive sleep apnea. Anesthesiology, 108 (5), 812-21.

PITTSBURGH SLEEP QUALITY INDEX

INSTRUCTIONS:

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month.

Please answer all questions.

1. During the past month, what time have you usually gone to bed at night?

BED TIME _____

2. During the past month, how long (in minutes) has it usually taken you to fall asleep each night?

NUMBER OF MINUTES _____

3. During the past month, what time have you usually gotten up in the morning?

GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.)

HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you . . .

a) Cannot get to sleep within 30 minutes

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

b) Wake up in the middle of the night or early morning

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

c) Have to get up to use the bathroom

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

d) Cannot breathe comfortably

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

e) Cough or snore loudly

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

f) Feel too cold

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

g) Feel too hot

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

h) Had bad dreams

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

i) Have pain

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

j) Other reason(s), please describe_____

_____

How often during the past month have you had trouble sleeping because of this?

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

6. During the past month, how would you rate your sleep quality overall?

Very good _____

Fairly good _____

Fairly bad _____

Very bad _____

7. During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

8. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

9. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

No problem at all _____

Only a very slight problem _____

Somewhat of a problem _____

A very big problem _____

10. Do you have a bed partner or room mate?

No bed partner or room mate _____

Partner/room mate in other room _____

Partner in same room, but not same bed _____

Partner in same bed _____

If you have a room mate or bed partner, ask him/her how often in the past month you have had . . .

a) Loud snoring

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

b) Long pauses between breaths while asleep

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

c) Legs twitching or jerking while you sleep

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

d) Episodes of disorientation or confusion during sleep

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____

e) Other restlessness while you sleep; please describe_____

_____

Not during the past month____

Less than once a week _____

Once or twice a week_____

Three or more times a week_____