# Insomnia and CBT-I

Jessica Koenig M.D.
Concert Health
Psychiatric Consultant
Partners Presentation 1/2021

# Disclosures

- none

# Learning Objectives

- Understand DSM-5 Criteria for insomnia
- Discuss common causes of insomnia
- PCP work up of insomnia
- CBT-insomnia Overview
- Understand Session 1-3 of CBT-I in depth
- Q & A

# Insomnia Disorder DSM-V Criteria

Insomnia Disorder

- Poor sleep quality or quantity with one of the following:
  - Difficulty initiating sleep
  - Difficulty maintaining sleep
  - Early-morning awakenings
- Occurs at least 3 times per week for at least 3 months despite adequate opportunity to sleep
- Clinically significant distress or impairment caused
- Other illness do not adequately explain the predominant complaint of insomnia
- Can occur independently or concurrently with another mental health condition, medical condition or substance use disorder. Co-occuring illnesses are the rule, not the exception.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

# Prevalence

- 1/3 of adults report insomnia symptoms
- 10-15% report associated daytime impairments
- 6-10% meet criteria for DSM V insomnia disorder diagnosis
- 40-50% of individuals with insomnia present with a comorbid mental health disorder

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

# Patient Case

- 53 yo F with HTN comes into clinic complaining of poor sleep. She states she has restless sleep almost every night. Difficulty initiating sleep and staying asleep. She wakes up every few hours and feels tired throughout the day. This has been going on for 4-5 months. She wants sleep medication because she is worried that it is causing her to make mistakes at work and be irritable with her family.

# Treatment

- Treat condition causing and/or contributing to insomnia if caused by medical, mental health or substance use disorder
- Therapy: CBT-I is first line treatment for acute or chronic insomnia
  - Most appropriate for insomnia not related to another condition (Edinger & Means, 2005)
  - Clinically effective for comorbid insomnia as adjunctive treatment (Wu et al, 2015)
- Medications targeting sleep specifically can help but should be used short term and in conjunction with other treatments

Edinger JD, Means MK. Cognitive-behavioral therapy for primary insomnia. Clin Psychol Rev. 2005 Jul;25(5):539-58. doi: 10.1016/j.cpr.2005.04.003. PMID: 15951083.

Wu JQ, Appleman ER, Salazar RD, Ong JC. Cognitive Behavioral Therapy for Insomnia Comorbid With Psychiatric and Medical Conditions: A Meta-analysis. JAMA Intern Med. 2015 Sep;175(9):1461-72. doi: 10.1001/jamainternmed.2015.3006. PMID: 26147487.

# Causes

- Psychiatric illnesses
- Medical conditions
- Drugs
- Medication
- Lifestyle factors

Schutte-Rodin S, Broch L, Buysse D, Dorsey C, Sateia M. Clinical guideline for the evaluation and management of chronic insomnia in adults. *J Clin Sleep Med*. 2008 Oct 15. 4(5):487-504.

# Medical History and Exam

- Evaluate for medical conditions that could be causing or contributing to insomnia. Common Co-occurring conditions include:
  - Obstructive Sleep Apnea
    - prevalence between 2%-14% (Semelka, 2016)
  - Restless Leg Syndrome
  - COPD
  - CHF
  - Chronic pain

Semelka M, Wilson J, Floyd R. Diagnosis and Treatment of Obstructive Sleep Apnea in Adults. Am Fam Physician. 2016 Sep 1;94(5):355-60. PMID: 27583421.

# Patient Case

- Pt reports nighttime snoring and daytime fatigue to us.  Her BMI is >35kg/$m^2$,she has hypertension and is over the age of 50 years old. Given her risk factors she is sent for a sleep study that diagnosis her with OSA.
- She gets a CPAP which improves her sleep but doesn't resolve it.

# Social History

- Substance use
  - illicit drug use but also caffeine, tobacco and alcohol
  - May need to specifically assesses cannabis use including specific strains used (indica, sativa)
  - Determine amount and time of day using as this can affect sleep
- Lifestyle factors
  - Assess current sleep routine and sleep hygiene factors
  - Travel history (risk of jet lag)
  - Work history (night shift, 24-hour call, etc)
  - Stress

# Patient Case

- Pt reports that she is a 1ppd smoker and has been trying to quit. She uses NRT throughout the day. We learn that she puts a patch on every morning but does not remove it at night. She also smokes cigarettes when she wakes up because she believes this reduces her stress in the middle of the night and helps her get back to sleep.
- We educated her to remove the patch before bedtime and that nicotine is a potent stimulant and can cause insomnia. She starts removing the patch at bedtime but is unable to quit smoking during the night.
- She has some improvement in her ability to initiate sleep, but still struggles with staying asleep through the night.

# Psychiatric History and Exam

- Evaluate for psychiatric causes that could be affecting sleep:
  - Depression---PHQ-9
  - Anxiety--- GAD-7
  - Bipolar disorder---MDQ screening
  - PTSD--- PCL-5
  - Dementia--- MOCA
  - Narcolepsy or other sleep-wake disorder---sleep study

# Patient Case

- Our patient screens positive on PHQ-9 and after further assessment we determine she has symptoms that are consistent with MDD, mild/single episode.
- She starts therapy and trailed on fluoxetine 20mg. Her sleep issues continues, although slightly less.

# Medication History

- Current medicine could be the cause or contributing to patient's insomnia
- Common classes that could cause insomnia include:
  - SSRI/SNRI
  - ACEI/ARBs
  - Corticosteroids
  - Beta-blockers
  - Cholinesterase Inhibitors
  - Stimulants ( determine timing of day and formulation)

Neel Jr., Armon. "Insomnia - 10 Medications That Can Cause Sleeplessness." *AARP*, 0AD, www.aarp.org/health/drugs-supplements/info-04-2013/medications-that-can-cause-insomnia.html.

# Patient case

- On a follow up the patient tells us that they take their fluoxetine at night because they were forgetting to take it in the morning.
- We quickly educate her that some SSRI's and particularly fluoxetine can be activating and that taking it later in the day can interfere with sleep.
- She agrees to set an alarm reminder in the morning and now takes her fluoxetine with her breakfast.

# CBT-insomnia

- Sleep Tracking (Sleep diary)
- Addressing negative thoughts and worries about sleep
- Provide sleep education
- Stimulus control
- Sleep hygiene
- Relaxation techniques
- Sleep restriction

Perlis, M. L., Benson-Jungquist, C., Smith, M. T., & Posner, D. A. (2005). *Cognitive behavioral treatment of insomnia: A session-by-session guide*. Springer New York. https://doi.org/10.1007/0-387-29180-6

# CBT-i Sessions

- Session 1: Introduction
- Session 2: Sleep Efficiency: Reclaiming the bed for sleep
- Session 3: Sleep Hygiene Behaviors
- Session 4: Sleep and Your Thoughts
- Session 5+: Titration and Compliance
- Session 6: Relapse Prevention: Action Plan for Addressing Insomnia in the Future

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# CBT-I Session 1

- **Purpose:**
  1. Introduction and structure of treatment
     - What is the program about
     - Goals of the program
  2. Discuss Sleep log
- **Exercise:**
  - Complete the sleep log for last night as an example
- **Assignment:**
  - Complete the sleep log each morning
  - Review Sleep Hygiene Guidelines and **star the ones you think you might be breaking**.

# Goals

- Increase the amount of time slept
- Increase the quality of sleep
- Increase control of sleep patterns

# Rational

- Most appropriate for insomnia not related to another condition
  (Edinger & Means, 2005)
- Clinically effective for comorbid insomnia as adjunctive treatment
  (Wu et al, 2015)
- Works better than sleep medication for the long term
- IF you practice every day, you should start to see improvement after only 4 weeks
- About 80% of people who complete CBTi demonstrate significant long term-sleep improvement

# Sleep Log

**Sleep log**

| Today's date | Sample<br>Mon<br>1/1/12 | | | | | | | | **Calculated Averages** |
|---|---|---|---|---|---|---|---|---|---|
| 1. What time did you get into bed? | 10:30 p.m. | | | | | | | | |
| 2. About what time did you fall asleep? | 12 a.m. | | | | | | | | |
| 3. In total, about how long were you up in the middle of the night? | 1 hour | | | | | | | | |
| 4. What time was your final awakening? | 6:30 a.m. | | | | | | | | |
| 5. What time did you get out of bed for the day? | 7 a.m. | | | | | | | | |
| **6. Time in Bed** (#5 minus #1) | 8.5 hours | | | | | | | | |
| **7. Total Time Asleep** (#4 minus #2 minus #3) | 5.5 hours | | | | | | | | |
| **8. Sleep Efficiency (Time Asleep ÷ Time in Bed)** | 65% | | | | | | | | |
| 9. How would you rate the quality of your sleep? | □ Very poor<br>☑ Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | |
| 10. In total, how long did you nap or doze yesterday? | 45 min | | | | | | | | |
| 11. Comments (if applicable) | I have a cold<br><br>Didn't wear c-pap | | | | | | | | |

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# Patient Case Sleep Log

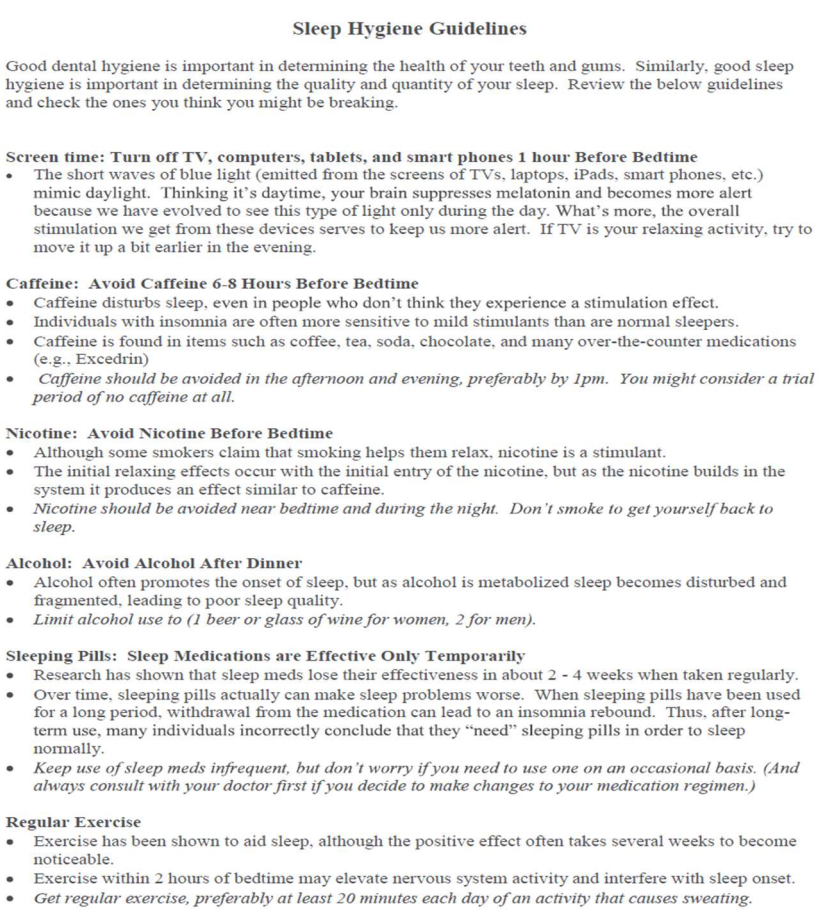
| | Sample | | |
|---|---|---|---|
| Today's date | Mon 1/1/12 | | |
| 1. What time did you get into bed? | 10:30 p.m. | 11:30 | |
| 2. About what time did you fall asleep? | 12 a.m. | 12:30 | |
| 3. In total, about how long were you up in the middle of the night? | 1 hour | 1 hours | |
| 4. What time was your final awakening? | 6:30 a.m. | 6:30 | |
| 5. What time did you get out of bed for the day? | 7 a.m. | 8:30 | |
| **6. Time in Bed** (#5 minus #1) | 8.5 hours | 9 hours | |
| **7. Total Time Asleep** (#4 minus #2 minus #3) | 5.5 hours | 5 hours | |
| **8. Sleep Efficiency (Time Asleep ÷ Time in Bed)** | 65% | 55% | |
| 9. How would you rate the quality of your sleep? | □ Very poor<br>☑ Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good | □ Very poor<br>□Poor<br>□ Fair<br>□ Good<br>□ Very good |
| 10. In total, how long did you nap or doze yesterday? | 45 min | | |
| 11. Comments (if applicable) | I have a cold<br><br>Didn't wear c-pap | +naps | |

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# Sleep Hygiene Suggestions

- Sleep hygiene examples
  - Turn off screens 1 hour before bedtime
  - Avoid Caffeine 6-8 hours before bedtime
  - Avoid nicotine before bedtime (including NRT if possible)
  - Avoid alcohol after dinner
  - Exercise regularly but not within 2 hours before bedtime
  - Small snacks before bed are ok but avoid heavy meals
- Sleep hygiene Resources
  - CDC→ Tips for better sleep
    - https://www.cdc.gov/sleep/about_sleep/sleep_hygiene.html
  - Sleep Foundation→ sleep hygiene
    - https://www.sleepfoundation.org/sleep-hygiene
  - Center for Clinical Intervention → sleep→ sleep hygiene
    - https://www.cci.health.wa.gov.au/Resources/Looking-After-Yourself/Sleep

# Sleep hygiene Guidelines



**Sleep Hygiene Guidelines**

Good dental hygiene is important in determining the health of your teeth and gums. Similarly, good sleep hygiene is important in determining the quality and quantity of your sleep. Review the below guidelines and check the ones you think you might be breaking.

**Screen time: Turn off TV, computers, tablets, and smart phones 1 hour Before Bedtime**

- The short waves of blue light (emitted from the screens of TVs, laptops, iPads, smart phones, etc.) mimic daylight. Thinking it's daytime, your brain suppresses melatonin and becomes more alert because we have evolved to see this type of light only during the day. What's more, the overall stimulation we get from these devices serves to keep us more alert. If TV is your relaxing activity, try to move it up a bit earlier in the evening.

**Caffeine: Avoid Caffeine 6-8 Hours Before Bedtime**

- Caffeine disturbs sleep, even in people who don't think they experience a stimulation effect.
- Individuals with insomnia are often more sensitive to mild stimulants than are normal sleepers.
- Caffeine is found in items such as coffee, tea, soda, chocolate, and many over-the-counter medications (e.g., Excedrin)
- *Caffeine should be avoided in the afternoon and evening, preferably by 1pm. You might consider a trial period of no caffeine at all.*

**Nicotine: Avoid Nicotine Before Bedtime**

- Although some smokers claim that smoking helps them relax, nicotine is a stimulant.
- The initial relaxing effects occur with the initial entry of the nicotine, but as the nicotine builds in the system it produces an effect similar to caffeine.
- *Nicotine should be avoided near bedtime and during the night. Don't smoke to get yourself back to sleep.*

**Alcohol: Avoid Alcohol After Dinner**

- Alcohol often promotes the onset of sleep, but as alcohol is metabolized sleep becomes disturbed and fragmented, leading to poor sleep quality.
- *Limit alcohol use to (1 beer or glass of wine for women, 2 for men).*

**Sleeping Pills: Sleep Medications are Effective Only Temporarily**

- Research has shown that sleep meds lose their effectiveness in about 2 - 4 weeks when taken regularly.
- Over time, sleeping pills actually can make sleep problems worse. When sleeping pills have been used for a long period, withdrawal from the medication can lead to an insomnia rebound. Thus, after long-term use, many individuals incorrectly conclude that they "need" sleeping pills in order to sleep normally.
- *Keep use of sleep meds infrequent, but don't worry if you need to use one on an occasional basis. (And always consult with your doctor first if you decide to make changes to your medication regimen.)*

**Regular Exercise**

- Exercise has been shown to aid sleep, although the positive effect often takes several weeks to become noticeable.
- Exercise within 2 hours of bedtime may elevate nervous system activity and interfere with sleep onset.
- *Get regular exercise, preferably at least 20 minutes each day of an activity that causes sweating.*

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# CBT-I Session 2

Purpose:

1. Assignment review
2. Problem solve any difficulties in completing sleep logs
3. Learn about Sleep Efficiency
4. Learn about Stimulus Control (Bed = Sleep)

# Sleep Efficiency

- Sleep Efficiency = Time Asleep ÷ Time in Bed
  - If you spent 4 hours asleep and 8 total hours in bed last night, your sleep efficiency would be 4 ÷ 8, or 50%
- Our goal is to increase the percentage of time you spend asleep in bed

# Sleep Drive

- Sleep is regulated by our brain based on how long we have been awake
- The longer we are awake the sleepier we get
- Sleeping in or napping decreases your sleep drive

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# First Step

- For the next week, only stay in bed as long as you are typically able to sleep
  - Initially will get less sleep
  - But then you will be sleepier the following nights and it will be easier to fall asleep
  - Sometimes it may take a few nights of decreased sleep before you fall asleep quickly

| | | | |
|---|---|---|---|
| **6. Time in Bed** (#5 minus #1) | 8.5 hours | | |
| **7. Total Time Asleep** (#4 minus #2 minus #3) | 5.5 hours |  | |
| **8. Sleep Efficiency (Time Asleep ÷ Time in Bed)** | 65% | | |

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# Session 2 Exercise

1. Determine your average Total Sleep Time from your sleep log: _____
   - This is how much Time in Bed you get to spend this week
2. Decide your Wake Up Time: _____
3. From that, determine your Bed Time: _____
4. Determine your Sleep Efficiency (Time Asleep ÷ Time in Bed): _____
   - This will help you see how much you improve.

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# Patient Case

1. Determine your average Total Sleep Time from your sleep log: ___5.5_____
   - This is how much Time in Bed you get to spend this week
2. Decide your Wake Up Time: __6am_____
3. From that, determine your Bed Time: ___12-12:30am____
4. Determine your Average Sleep Efficiency over the next week (Time Asleep ÷ Time in Bed): _____
   - This will help you see how much you improve.

# Why do we need stimulus control?

Feelings, behavior and body reactions are associated with each other. Similar to how CBT is used to address cognitive responses in depression and anxiety, we need to address automatic thoughts and cognitive distortions about insomnia.

One of the major problems in insomnia is that the bed/bedtime is no longer paired with feelings of relaxation and falling asleep easily.

Instead of Bed = Sleep, for insomniacs Bed = Awake

# Stimulus Control

Connections between behaviors and thoughts are created by positive and negative rewards and routines. When someone suffers from insomnia they can inadvertently associate the bed and bedtime with wakefulness (and often stress).

# Patient Case

We asked out patient to answer the following questions

*Think about when you are lying in bed and can't sleep.*

*How do you feel?*

*What do you usually do?*

*Does it make it easier or harder to fall asleep?*

*She told us she feels frustrated and restless when she isn't able to get to sleep quickly and sleep for at least 8 hours. She tries hard to get to sleep but counting, listening to relaxing music and often times will stay in bed past her alarm.*

**This experience associates the bed and bedtime with negative feelings.**

# Solution

- Just as connections can be learned that impair sleep, connections can also be learned that improve sleep.
- We want the bed  and bedroom to be paired with feelings of relaxation and sleep.
- Practice:
  - Set regular wake up time
  - Go to bed only when sleepy
  - If unable to fall asleep get out of bed and return only when sleepy
  - Avoid excessive napping during the day.
  - Hide the clock
  - Only use your bed for sleep or sex

# Wake up time

- Get out of bed immediately after you wake up
- Set stimulus like sunlight or bright in door lights in the morning

# Go to bed only when sleepy

- Make note of what it really feels like when YOU are sleepy
- If you are not sleepy when you go to bed, you may toss and turn, reinforcing the negative association we are trying to break

# Only use bed for sleep or sex

- Avoid watching TV, eating, reading or doing any other activity in bed
- You want to minimize pairing the bed with any other activity to reinforce the association that the bed= sleep

# Hide the clock

- Frequently looking at the clock will  increase frustration that you are not asleep as well as provide light to further stimulate your brain into thinking it should not go to sleep

# Avoid/reduce naps

- Avoiding naps will increase the chances that you will fall asleep faster the next night

# Leave the bed

- If you are unable to fall asleep after 15 minutes leave the bed
- Make an educated guess about the time so you aren't clock watching
- When you get up, go to another place of the house/room and read a boring book or listen to a boring podcast (There are sleep podcasts that exist!)
- Avoid checking phone, watching TV, getting on the computer
- The activity should not be stimulating

# Stimulus Control

- Set regular wake up time
- Go to bed only when sleepy
- If unable to fall asleep get out of bed and return only when sleepy
- Avoid excessive napping during the day.
- Hide the clock
- Only use your bed for sleep or sex

# Session 2 Assignment

- Continue to complete the sleep logs
- Keep a set “Time in Bed” window: Go to bed consistently at your Bed Time and set an alarm to get up consistently at your Wake Up Time
- Follow Sleep Guidelines (*Refer to Guide to Overcoming Insomnia*)

# Session 3

- Review Sleep log and adjust time in bed window
- Review stimulus control strategies
- Review sleep hygiene
- Problem solve any difficulties

# Adjusting time in bed window

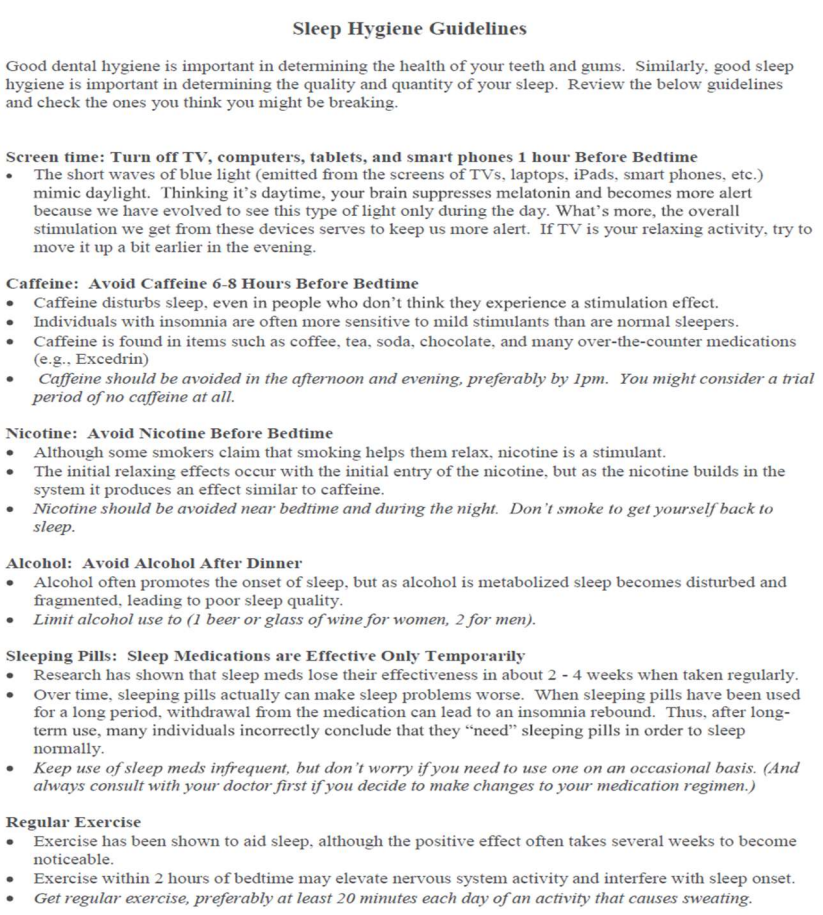
- If last week's average slee efficiency was >85% increase time in bed by 15 min
- If last weeks average sleep efficiency was <80% decrease time in bed by 15 min
- If between 80-85% maintain time in bed

| | | | |
|---|---|---|---|
| **6. Time in Bed** (#5 minus #1) | 8.5 hours | | |
| **7. Total Time Asleep** (#4 minus #2 minus #3) | 5.5 hours | | |
| **8. Sleep Efficiency (Time Asleep ÷ Time in Bed)** | 65% | ← | |

# Stimulus Control

- Set regular wake up time
- Go to bed only when sleepy
- If unable to fall asleep get out of bed and return only when sleepy
- Avoid excessive napping during the day.
- Hide the clock
- Only use your bed for sleep or sex

# Sleep hygiene Guidelines



**Sleep Hygiene Guidelines**

Good dental hygiene is important in determining the health of your teeth and gums. Similarly, good sleep hygiene is important in determining the quality and quantity of your sleep. Review the below guidelines and check the ones you think you might be breaking.

**Screen time: Turn off TV, computers, tablets, and smart phones 1 hour Before Bedtime**

- The short waves of blue light (emitted from the screens of TVs, laptops, iPads, smart phones, etc.) mimic daylight. Thinking it's daytime, your brain suppresses melatonin and becomes more alert because we have evolved to see this type of light only during the day. What's more, the overall stimulation we get from these devices serves to keep us more alert. If TV is your relaxing activity, try to move it up a bit earlier in the evening.

**Caffeine: Avoid Caffeine 6-8 Hours Before Bedtime**

- Caffeine disturbs sleep, even in people who don't think they experience a stimulation effect.
- Individuals with insomnia are often more sensitive to mild stimulants than are normal sleepers.
- Caffeine is found in items such as coffee, tea, soda, chocolate, and many over-the-counter medications (e.g., Excedrin)
- *Caffeine should be avoided in the afternoon and evening, preferably by 1pm. You might consider a trial period of no caffeine at all.*

**Nicotine: Avoid Nicotine Before Bedtime**

- Although some smokers claim that smoking helps them relax, nicotine is a stimulant.
- The initial relaxing effects occur with the initial entry of the nicotine, but as the nicotine builds in the system it produces an effect similar to caffeine.
- *Nicotine should be avoided near bedtime and during the night. Don't smoke to get yourself back to sleep.*

**Alcohol: Avoid Alcohol After Dinner**

- Alcohol often promotes the onset of sleep, but as alcohol is metabolized sleep becomes disturbed and fragmented, leading to poor sleep quality.
- *Limit alcohol use to (1 beer or glass of wine for women, 2 for men).*

**Sleeping Pills: Sleep Medications are Effective Only Temporarily**

- Research has shown that sleep meds lose their effectiveness in about 2 - 4 weeks when taken regularly.
- Over time, sleeping pills actually can make sleep problems worse. When sleeping pills have been used for a long period, withdrawal from the medication can lead to an insomnia rebound. Thus, after long-term use, many individuals incorrectly conclude that they "need" sleeping pills in order to sleep normally.
- *Keep use of sleep meds infrequent, but don't worry if you need to use one on an occasional basis. (And always consult with your doctor first if you decide to make changes to your medication regimen.)*

**Regular Exercise**

- Exercise has been shown to aid sleep, although the positive effect often takes several weeks to become noticeable.
- Exercise within 2 hours of bedtime may elevate nervous system activity and interfere with sleep onset.
- *Get regular exercise, preferably at least 20 minutes each day of an activity that causes sweating.*

Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Revised by John McQuaid, Jocelyn Sze and Poorni Otilingam. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin.

# SMART solutions

- Use SMART solution to address problems with sleep hygiene or stimulus control strategies
  - Specific and small
  - Measurable
  - Action oriented
  - Realistic
  - Time stamped

# Patient case

Q. What are 2-3 rules of Sleep Hygiene that you are breaking and how can you fix that?

| Sleep Hygiene Problem | Solution |
| --- | --- |
| | |
| | |
| | |

# Patient Case

- Problem: I toss and turn every night before I get to sleep
- Patient's solution: Each night, I'll leave my bedroom if I am awake for 20 minutes or more"

- Problem: I eat dinner late because I get off of work late
- Patient solution: I'll pack dinner 3 nights a week and have a smaller snack when I get home from work

- Problem: I need to take a nap every day to make it through work
- Patient solution: I'll allow myself to take a nap everyday if I need it but I will limit it to 15min and if I can't get to sleep within 15min I will get up

# Session 3 Assignment

- Adjust your time in bed window, if necessary
- Continue to complete the sleep log
- Practice Sleep hygiene solutions and continue to use SMART solutions module to address additional problems that arise

To Be Continued…

# Is this Practical?

- Focus on one task or recommendation in a visit
- Have frequent follow ups to monitor progress
- Introduce new tasks and recommendations slowly
- Use apps and outside resources to supplement patients learning
  - CBTi Coach
  - Shuti Online program
    - www.santamonicasleep.com/contents/insomnia-program
  - Society of Behavioral Sleep Medicine
  - American Board of Sleep Medicine

# References


- Carlat, D., & Puzantian, T. (2018). *Medication fact book for psychiatric practice* (4th ed.). Newburyport, MA: Carlat Publishing.
- *Bourne, Edmund J. The Anxiety & Phobia Workbook. Oakland, CA :New Harbinger Publications, 1990.*
- Edinger JD, Means MK. Cognitive-behavioral therapy for primary insomnia. Clin Psychol Rev. 2005 Jul;25(5):539-58. doi: 10.1016/j.cpr.2005.04.003. PMID: 15951083.
- Wu JQ, Appleman ER, Salazar RD, Ong JC. Cognitive Behavioral Therapy for Insomnia Comorbid With Psychiatric and Medical Conditions: A Meta-analysis. JAMA Intern Med. 2015 Sep;175(9):1461-72. doi: 10.1001/jamainternmed.2015.3006. PMID: 26147487.
- Semelka M, Wilson J, Floyd R. Diagnosis and Treatment of Obstructive Sleep Apnea in Adults. Am Fam Physician. 2016 Sep 1;94(5):355-60. PMID: 27583421.
- Schutte-Rodin S, Broch L, Buysse D, Dorsey C, Sateia M. Clinical guideline for the evaluation and management of chronic insomnia in adults. *J Clin Sleep Med*. 2008 Oct 15. 4(5):487-504.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- Perlis, M. L., Benson-Jungquist, C., Smith, M. T., & Posner, D. A. (2005). *Cognitive behavioral treatment of insomnia: A session-by-session guide*. Springer New York. https://doi.org/10.1007/0-387-29180-6
- McQuaid J, Sze J, Otilingam P. Cognitive Behavioral Therapy for Insomnia (CBTi): Treatment Manual. Based on a CBT Manual developed by: Richardo Munoz and Jeannine Miranda. Based on Treatment methods developed by: Richard R. Bootzin and Charles Morin. "Date unknown".
- Neel Jr., Armon. "Insomnia - 10 Medications That Can Cause Sleeplessness." *AARP*, 0AD, www.aarp.org/health/drugs-supplements/info-04-2013/medications-that-can-cause-insomnia.html.

# Resources

- Websites
  - Veterans Affairs→ Veterans Employment Toolkit→ Relaxation Exercise: Progressive Muscle Relaxation
  - Positive Psychology.com→ Progressive Muscle Relaxation
    - https://positivepsychology.com/progressive-muscle-relaxation-pmr/
  - Sleep Foundation→ Sleep hygiene
    - https://www.sleepfoundation.org/sleep-hygiene/relaxation-exercises-to-help-fall-asleep
  - CDC→ Tips for better sleep
    - https://www.cdc.gov/sleep/about_sleep/sleep_hygiene.html
  - Sleep Foundation→ sleep hygiene
    - https://www.sleepfoundation.org/sleep-hygiene
  - Center for Clinical Intervention → sleep→ sleep hygiene
    - https://www.cci.health.wa.gov.au/Resources/Looking-After-Yourself/Sleep
- Apps
  - Headspace
  - Calm
  - Sanvello
  - CBT- Coach
- Book
  - Perlis, M. L., Benson-Jungquist, C., Smith, M. T., & Posner, D. A. (2005). *Cognitive behavioral treatment of insomnia: A session-by-session guide*. Springer New York. https://doi.org/10.1007/0-387-29180-6

# Questions?