Application of Principles of CBT-I for Management of Insomnia in Primary Care

Presented by Kyle Davis, PhD
Disclosures

- I have no relevant financial relationships to disclose
Learning Objectives

- Define the 4-Factor Model of Insomnia
- Define the key fundamentals of CBT-I
- Explain the application of principles of Sleep Efficiency Therapy and stimulus control in primary care
DSM-V Definition and Prevalence of Insomnia

- “Dissatisfaction with sleep quality or quantity characterized by difficulty initiating sleep, maintaining sleep, or early morning awakenings that cause significant distress or impairment in daytime functioning and occur at least three nights per week for at least 3 months despite adequate opportunity for sleep.”

- Prevalence of chronic insomnia is 15-30% of population
Pop Quiz

Insomnia is typically the result of …

A. Genetics
B. Learned behavior
C. An overactive mind
D. Chemical imbalance
Four Factor Model of Insomnia: Predisposing Factors

- Hyperarousability trait
- Female gender
- Aging
- Family history of insomnia
- Personal history of insomnia
- Presence of a psychiatric disorder
- Other sleep disorders
- ”Night owls” with irregular wake schedules

What are YOUR Predisposing Factors?

Perlis modification of Spielman model
Four Factor Model of Insomnia: Precipitating Factors

- Increased stress
- Changes in work schedule
- Traumatic events
- Physical health problems
- Mental health problems

What were YOUR precipitating factors?

4 FACTOR MODEL

- Conditioned Arousal
- Perpetuating
- Precipitating
- Predisposing

TARGET FOR CBT TX OF INSOMNIA

Threshold

Pre-Morbid Acute Early Chronic Acute Tx + Response

Perlis modification of Spielman model
Four Factor Model of Insomnia: Perpetuating Factors

- Unrealistic sleep requirement expectations
- Faulty appraisals of sleep difficulties
- Misattributions of daytime impairments
- Misconceptions about the causes of insomnia
- Excessive amount of time spent in bed
- Irregular sleep wake schedule
- Napping
- Engaging in sleep-interfering activities in the bedroom
- Using substances for sleep and/or wake

Perlis modification of Spielman model
Four Factor Model of Insomnia: Conditioned Arousal

- Learned expectation to be awake in bed
- The more time you spend in bed awake, alert, frustrated, and/or anxious the stronger the association between being in bed and being awake becomes
- This is often why your brain “turns on” when you get in bed at night

Perlis modification of Spielman model
Targeting Perpetuating Factors in CBT-I

1. Sleep Efficiency Therapy
2. Stimulus control
3. Cognitive Therapy/counter arousal
4. Sleep hygiene
Sleep Efficiency Therapy

Hold sleep diary
• Restrict time in bed to the number of hours of sleep (≥5)
• Anchor sleep schedule to wake time
  – Keep rigid bed and rise times
• Review strategies for staying awake
• Sleep will probably be less before it is more
• Goal is to consolidate sleep
  • Sleep deprivation will actually help
• Gradually extend sleep opportunity (15 min/week as sleep improves)
Stimulus Control

Do nothing in bed but sleep* AND sleep nowhere but the bed

*and sex
Stimulus Control

- Go to bed only when you are sleepy
- Do not use your bed or bedroom for anything other than sleep (or sex)
- If you are unable to fall asleep after about 15-20 minutes, leave the bed and bedroom
  - Hide the clock
  - Repeat as necessary
- Wake up at a regular time regardless of how well or how long you slept
- Avoid taking naps
GENERAL TIPS FOR HAVING HEALTHY SLEEP HYGIENE

- Go to bed and wake up at the same time every day (even on the weekends!)
- Avoid caffeine consumption (e.g., coffee, soft drinks, chocolate) starting in the late afternoon
- Expose yourself to bright light in the morning – sunlight helps the biological clock to reset itself each day
- Make sure your bedroom is conducive to sleep – it should be dark, quiet, comfortable, and cool
- Sleep on a comfortable mattress and pillow
- Don’t go to bed feeling hungry, but also don’t eat a heavy meal right before bed
- Develop a relaxing routine before bedtime – ideas include bathing, music, and reading
- Reserve your bedroom for sleeping only – keep cell phones, computers, televisions and video games out of your bedroom
- Exercise regularly during the day
- Don’t have pets in your bedroom

Treatment Summary

Recommendations
PCP’s can give patients

1. Go to bed only when sleepy
2. Get out of bed when unable to sleep (after 20-30 min or if you feel wide awake)
3. Get up at a consistent time every morning regardless of how well you sleep
4. Avoid napping/dozing during day
5. Use the bed and bedroom for sleep and sex only
6. Practice good sleep hygiene

CBT-I overview

1. Monitor average total sleep ability and set matching sleep schedule (extend slowly once symptoms of insomnia start to improve)
2. Practice stimulus control
3. Practice good sleep hygiene
4. Challenge dysfunctional beliefs associated with sleep
5. Practice counterarousal strategies
Thank you!

Please feel free to contact me at davisky@sihs.org with any questions!