Behavioral Health Lens on Sleep: Assessment and Intervention

PRIMARY CARE DEVELOPMENT CORPORATION

CoE Center of Excellence for Integrated Health Solutions
Funded by Substance Abuse and Mental Health Services Administration
Operated by the National Council for Behavioral Health

Today's Moderator

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About PCDC

Primary Care Development Corporation (PCDC) is a national nonprofit organization and a community development financial institution catalyzing excellence in primary care through strategic community investment, capacity building, and policy initiatives to achieve health equity.

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SAMHSA
Substance Abuse and Mental Health Services Administration

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Integrating Care Through a Biopsychosocial Approach to Health

- Improve awareness, screening and interventions to support addressing sleep challenges and corresponding impacts:
  - Identify interrelated effects of sleep deficiency
  - Build skills for partnering with patients around sleep
  - Develop an interdisciplinary toolbox on sleep

(Image courtesy C. Aguilar)

Solving for Sleep Webinar Series

- December 3rd – Sleep: The Foundation of Improved Health Outcomes
- January 7th – Unseen Impacts: Health Disparities and Sleep
- February 4th – Behavioral Health Lens on Sleep: Assessment and Intervention
- March 4th – One Good Night: Experiences of Patients and Families Across the Lifespan
- April 1st – Physical Health and Primary Care Lens on Sleep: Assessment and Intervention
- May 6th – What about Us? A Discussion with and for Healthcare Providers

For further information and to register, please visit pcdc.org/sleep

Audience Demographics Poll

- Do you work in a:
  - Primary care setting
  - Behavioral health setting
  - Integrated care setting

- Are you working primarily as a:
  - MD/DO
  - Nurse Practitioner
  - Physician Assistant
  - Registered Nurse
  - Medical Assistant
  - Therapist
  - Social Worker
  - Care Manager
  - Other

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CBT-I for Insomnia

Cognitive Behavioral Therapy for Insomnia (CBT-I): Clinical Application and Practical Recommendations

PRIMARY CARE DEVELOPMENT CORPORATION

Slides Adapted from work by Aaron W. Joyce, PhD and Kate Belon, PhD

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Today's Key Objectives

- To explain the behavioral conceptualization of insomnia and treatment rationale for CBT-I
- To provide information regarding clinical practice guidelines for assessment of insomnia, including assessment tools
- To provide an explanation of CBT-I and its various components

Today's Key Takeaways

- CBT-I is highly effective for patients engaging in problematic sleep behaviors/thoughts
- CBT-I is a first line treatment for insomnia disorder, and should be recommended before sleep medications
- You can use principles of CBT-I or suggest further treatment to those engaging in maladaptive behaviors or cognitions that contribute to insomnia disorder
- For more information:
  - Society of Behavioral Sleep Medicine
  - American Academy of Sleep Medicine

But first….a case study presented by Lee Ruszczyk

Case Study

- Patient is a 46-year-old African American female who is reporting problem with sleep for the past two years.
- Patient is reporting extreme difficulty falling asleep as well as extreme difficulty staying asleep.
- Patient scored an 8 on the Insomnia Severity Index. Patient stated that she is up most of the night on an almost daily basis. She denies sleeping for any extended period during the day.
- Patient describes her sleep environment as comfortable and quiet. She denies any use of caffeine.

Case Study Continued:

- Patient reports functioning during the day. She takes care of her grandchildren.
- She has a history of taking medication in order to sleep. Currently prescribed hydroxyzine but reports ineffective.
- Patient is requesting Ambien from primary care provider.
- Report of nightmares where patient is startled and jumps up awake out of bed.
- History of the following:
  - Back Pain
  - Hyperlipidemia
  - Positive on GAD 2 and PHQ 2

Insomnia – DSM 5 Diagnostic Criteria

- A predominant complaint of dissatisfaction with sleep quantity or quality, associated with one (or more of the following)
  - Difficulty initiating sleep
  - Difficulty maintaining sleep
  - Early morning awakening with inability to return to sleep
- Clinically significant distress or impairment is present

Insomnia – DSM 5 Diagnostic Criteria (cont.)

- Sleep difficulty at least 3 times per week
- Sleep difficulty is present for at least 3 months
- Sleep difficulty occurs despite adequate opportunity for sleep
- Not better explained by another sleep disorder
- Not attributable to physiological effects of a substance
- Predominant complaint not adequately explained by coexisting mental or physical conditions

Differential Diagnosis

- Normal sleep variations
- Situational/acute insomnia
- Delayed sleep phase and shift work types of circadian rhythm sleep-wake disorders
- Narcolepsy
- Parasomnias
- Substance/medication induced sleep disorder, insomnia type

CBT-I

- What is CBT-I?
  - Cognitive behavioral therapy
  - Goal: change sleep-incompatible thoughts and behaviors

- CBT-I ≠ Sleep Hygiene

Insomnia: Symptom or Disorder

- Disturbed sleep is a *symptom* when it is:
  - Due to stress
  - Due to a mental disorder
  - Due to a medical disorder
  - Due to substances

- Disturbed sleep is an *insomnia disorder* when it is associated with distress and/or impairment perceived as due to poor sleep

JCSM
Journal of Clinical Sleep Medicine

SPECIAL ARTICLE

Clinical Guideline for the Evaluation and Management of Chronic Insomnia in Adults

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Insomnia is the most prevalent sleep disorder in the general population, and is commonly encountered in medical practices. Insomnia is defined as the subjective perception of difficulty with sleep initiation, duration, consolidation, or quality that occurs despite adequate opportunity for sleep, and that results in some form of daytime impairment.[1] Insomnia may present with a variety of specific complaints and etiologies, making the evaluation and management of chronic insomnia demanding on a clinician's time. The purpose of this clinical guideline is to provide clinicians with a practical framework for the assessment and disease management of chronic adult insomnia, using existing evidence-based insomnia practice parameters where available, and consensus-based recommendations to bridge areas where such parameters do not exist. Unless otherwise stated, "insomnia" refers to chronic insomnia, which is present for at least a month, as opposed to acute or transient insomnia, which may last days to weeks.

Citation: 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*;4(5):487-504.

SUMMARY RECOMMENDATIONS

General:

- Insomnia is an important public health problem that requires accurate diagnosis and effective treatment. **(Standard)**
- An insomnia diagnosis requires associated daytime dysfunction in addition to appropriate insomnia symptomatology. **(ICSD-2 definition)**

Evaluation:

- Insomnia is primarily diagnosed by clinical evaluation through a thorough sleep history and detailed medical, substance, and psychiatric history. **(Standard)**
  - The sleep history should cover specific insomnia complaints, pre-sleep conditions, sleep-wake patterns, other sleep-related symptoms, and daytime consequences. **(Consensus)**
  - The history helps to establish the type and evolution of insomnia, perpetuating factors, and identification of comorbid medical, substance, and/or psychiatric conditions. **(Consensus)**
- Instruments which are helpful in the evaluation and differential diagnosis of insomnia include self-administered questionnaires, at-home sleep logs, symptom checklists, psychological screening tests, and bed partner interviews. **(Guideline)**
  - At minimum, the patient should complete: (1) A general medical/psychiatric questionnaire to identify comorbid disorders (2) The Epworth Sleepiness Scale or other sleepiness assessment to identify sleepy patients and comorbid disorders of sleepiness (3) A two-week sleep log to identify general patterns of sleep-wake times and day-to-day variability. **(Consensus)**
  - Sleep diary data should be collected prior to and during the course of active treatment and in the case of relapse or reevaluation in the long-term. **(Consensus)**
  - Additional assessment instruments that may aid in the baseline evaluation and outcomes follow-up of patients with chronic insomnia include measures of subjective sleep quality, psychological assessment scales, daytime function, quality of life, and dysfunctional beliefs and attitudes. **(Consensus)**
- Physical and mental status examination may provide important information regarding comorbid conditions and differential diagnosis. **(Standard)**
- Polysomnography and daytime multiple sleep latency testing (MSLT) are not indicated in the routine evaluation of chronic insomnia, including insomnia due to psychiatric or neuropsychiatric disorders. **(Standard)**
  - Polysomnography is indicated when there is reasonable clinical suspicion of breathing (sleep apnea) or movement disorders, when initial diagnosis is uncertain, treatment fails (behavioral or pharmacologic), or precipitous arousals occur with violent or injurious behavior. **(Guideline)**

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American Academy of Sleep Medicine Guidelines for the Assessment of Insomnia

- At a minimum:
  - General medical/psychiatric questionnaire to identify comorbid disorders
  - The Epsworth Sleepiness Scale
  - Two-week Sleep Log
  - Additional Assessments
    - Subjective sleep quality
    - Psychological assessment scales
    - Daytime function
    - Quality of life
    - Dysfunctional beliefs and attitudes

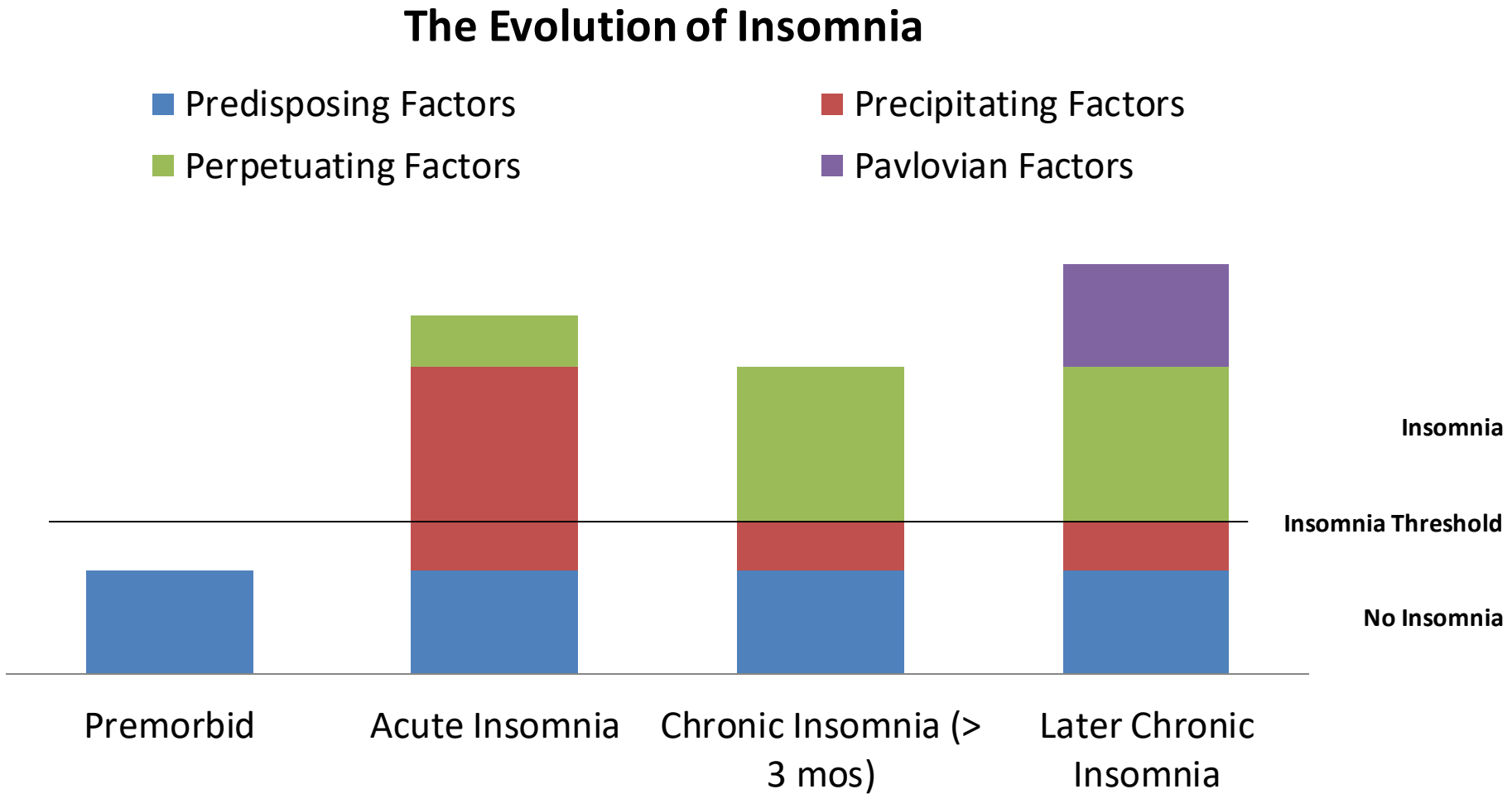
Treatment Goals/Treatment Outcomes

- 1. To improve sleep quality and quantity
- 2. To improve insomnia-related daytime impairments

- Outcome indicators
  - WASO
  - SOL
  - Number of awakenings
  - Sleep time or sleep efficiency
  - Association between the bed and sleeping
  - Improvement of sleep-related psychological distress

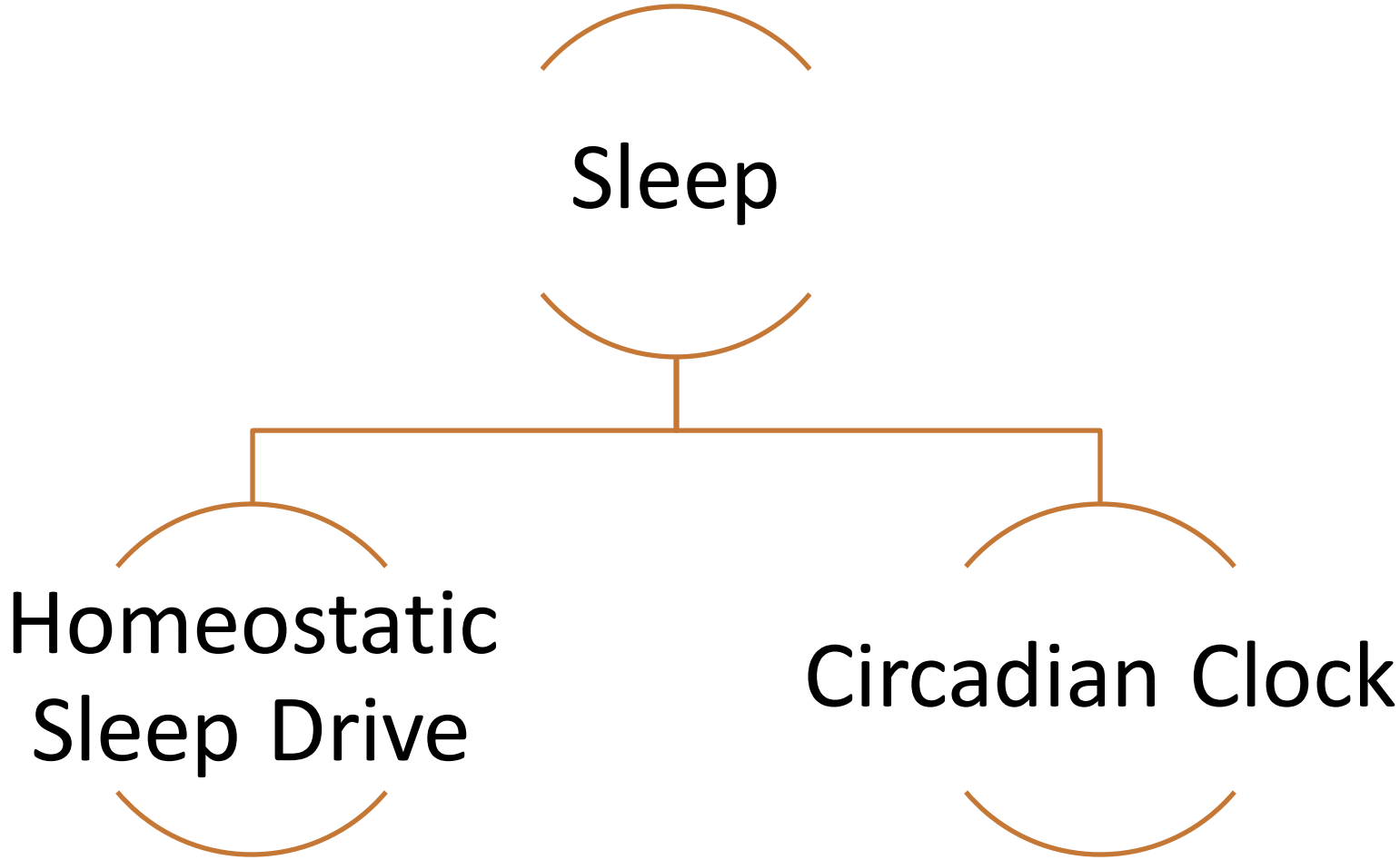
Behavioral Conceptualization of Insomnia

4P Model


The Evolution of Insomnia
Predisposing Factors
Precipitating Factors
Perpetuating Factors
Pavlovian Factors
Insomnia
Insomnia Threshold
No Insomnia
Premorbid
Acute Insomnia
Chronic Insomnia (> 3 mos)
Later Chronic Insomnia

Classical Conditioning

Two-Process Model of Sleep Regulation



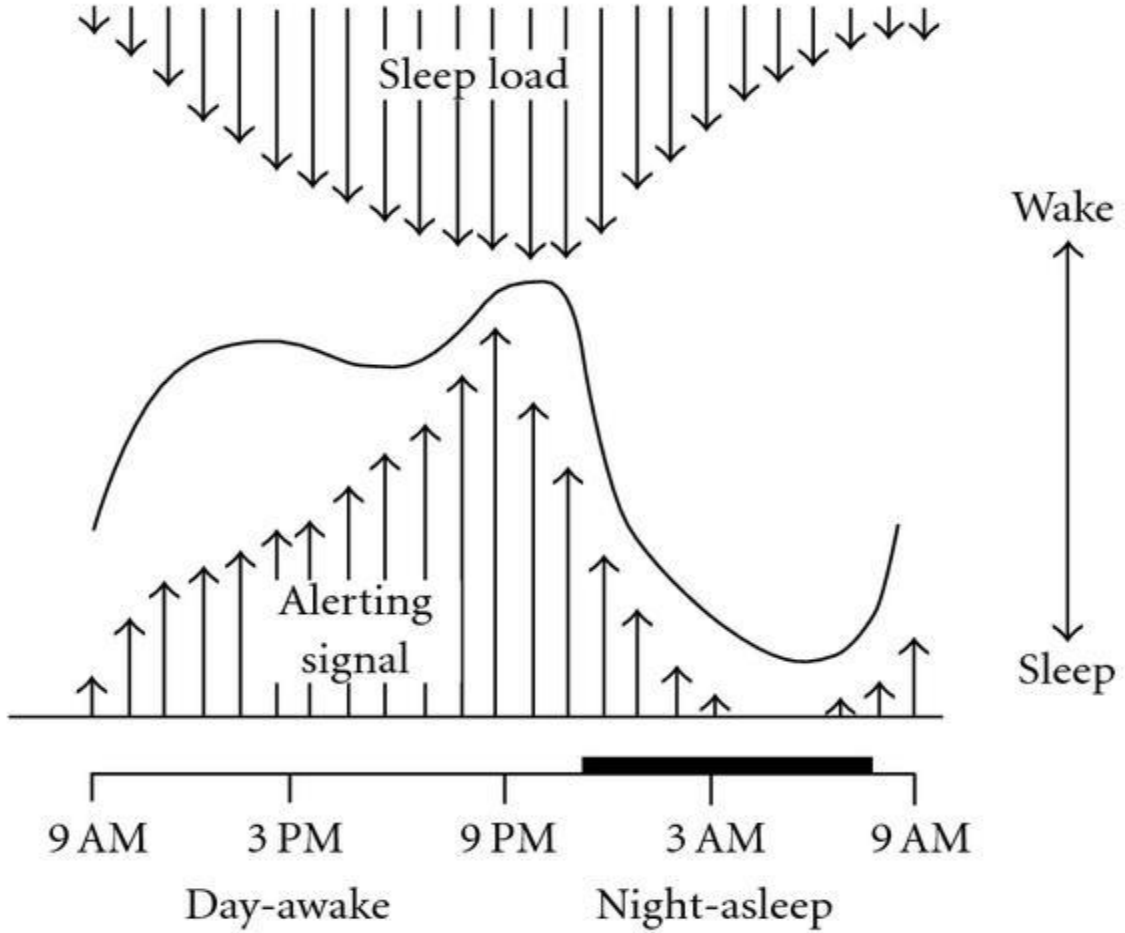
Sleep Regulation: Sleep Drive

- A homeostatic process by which a sleep deficit results in a compensatory increase in the intensity and duration of sleep
- Adenosine is thought to play a role in sleep homeostasis
- Factors that weaken the sleep drive include
  - Excess time in bed
  - Napping
  - Dozing
  - Sleeping in

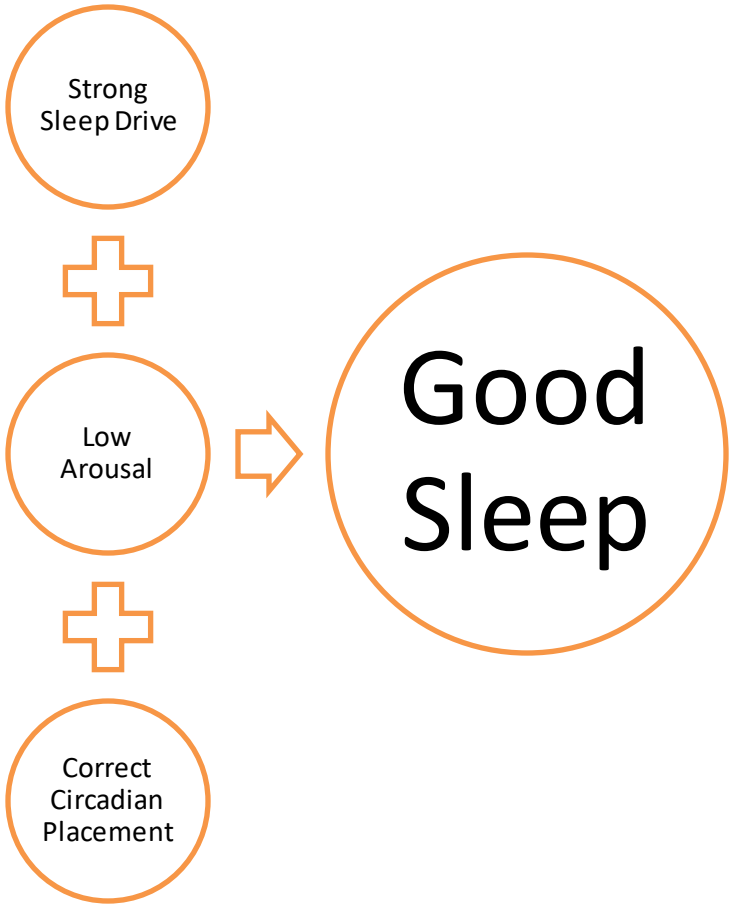
Sleep Regulation: Circadian Clock

- Endogenous internal clock that sends *alerting signals* of varying strength during the 24-hour day
  - In humans, the clock runs on a 24.2-hour cycle on average in a time-free environment
  - Environmental cues then entrain the clock to a 24-hour cycle
- Environmental cues include
  - Timing and amount of light exposure
  - Waking at a regular time
  - Regularity of other activities

Sleep Regulation



Putting it Together



Clues that CBT-I is Indicated

- Chronic Insomnia > 3 months
- Behaviors that weaken sleep drive
  - Excess time in bed
  - Napping/Dozing
  - Sleeping in
- Behaviors affecting circadian rhythm
  - Poor timing / amount of light exposure
  - Irregular wake time
- Hyperarousal
  - Active mind/worry/clock-watching when in bed
  - Feel sleepy but become alert when get in bed

CBT-I Components and Targets

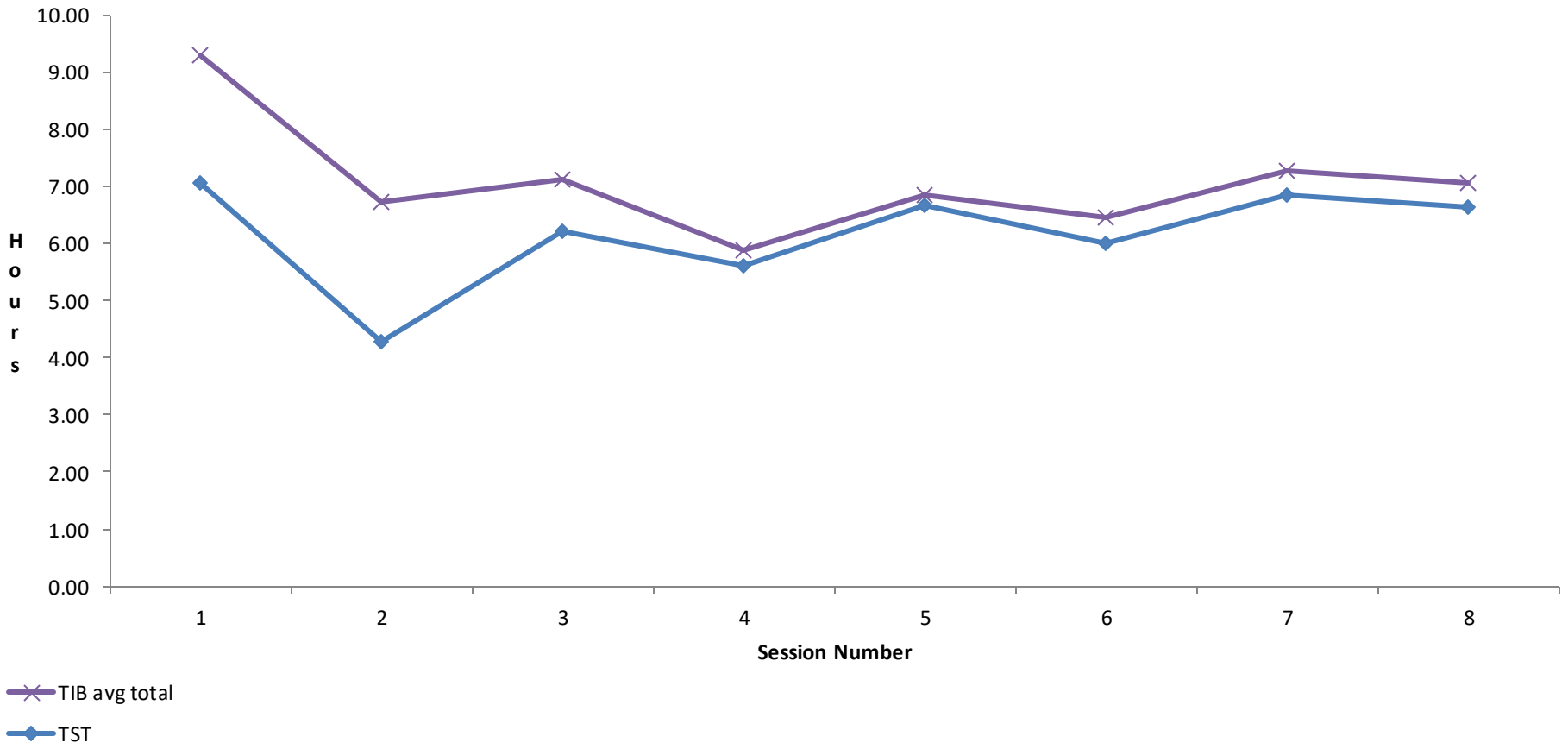
CBT-I Targets

- Behaviors
  - Increase sleep drive
  - Optimize congruence between circadian clock and placement of sleep opportunity
  - Strengthen the signal of the circadian clock
  - Strengthen bed as cue for sleep
  - Reduce physiological arousal
- Cognitions
  - Reduce sleep effort
  - Reduce cognitive arousal
  - Address dysfunctional beliefs about sleep
  - Address obstacles to adherence

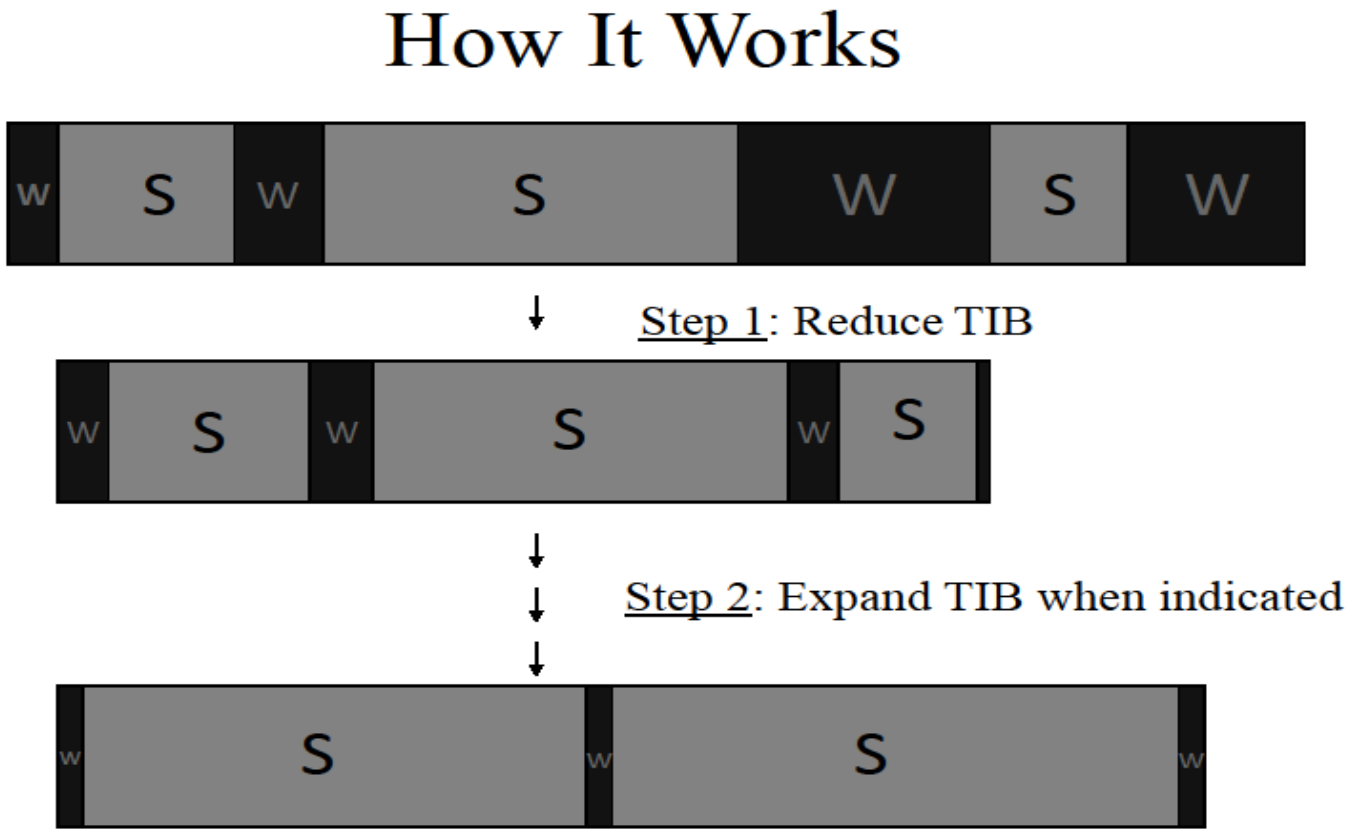
CBT-I Components

- Sleep Restriction
  - Restrict time in bed to increase sleep drive and consolidate sleep
- Stimulus Control
  - Strengthen bed and bedroom as a cue for sleep
- Cognitive Restructuring
  - Address thoughts and beliefs that interfere with sleep and adherence
- Relaxation
  - Arousal reduction
- Sleep Hygiene
  - Address environmental issues, substances, exercise, eating

Sleep Restriction Therapy



Sleep Restriction Therapy



Sleep Education Figures ~ Page 6

Today's date								
In total, how long did you nap or doze yesterday?	n/a							
1. What time did you get into bed?	10:15 p.m.							
2. What time did you try to go to sleep?	11:30 p.m.							
3. How long did it take you to fall asleep?	1 hour 15 min.							
4. How many times did you wake up, not counting your final awakening?	3 times							
5. In total, how long did these awakenings last?	1 hour 10 min.							
6a. What time was your final awakening?	6:35 a.m.							
6b. Did you wake up earlier than you desired? **6c. If yes, how many minutes earlier?**	☑ Yes □ No 30 min.							
7. What time did you get out of bed for the day?	7:20 a.m.							
8. How would you rate the quality of your sleep?	□ Very poor ☑ Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good	□ Very poor □Poor □ Fair □ Good □ Very good
9. Comments (if applicable)	I have a cold							

Stimulus Control

- Purpose is to promote conditioning of sleep (as opposed to wakefulness, misery) to the sleep environment
  - Go to bed only when sleepy
  - Get out of bed when unable to sleep and return only when sleepy
  - Avoid any sleep-incompatible behaviors in the sleep environment
  - Arise at a regular time
  - Avoid daytime napping

Cognitive Restructuring

- Common problematic beliefs about sleep
  - "I won't be able to get back to sleep"
  - "I won't be able to function tomorrow if I don't get some sleep"

- Problematic beliefs about sleep can result in sleep effort, which paradoxically exacerbates insomnia

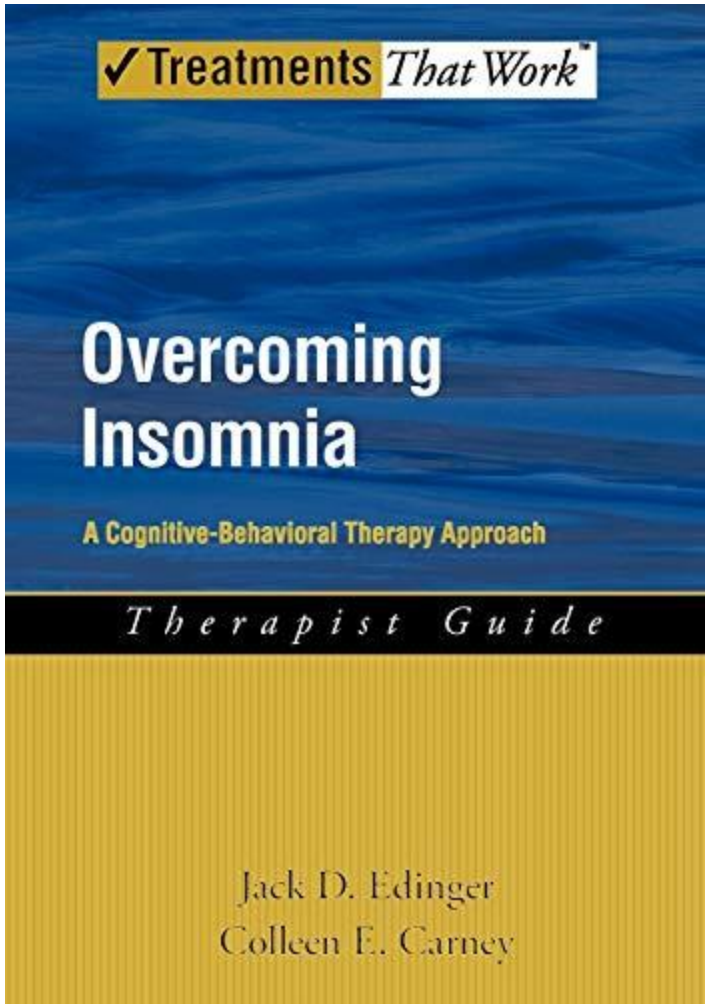
- Behavioral experiments, coping cards, and paradoxical intention can be useful at changing problematic beliefs

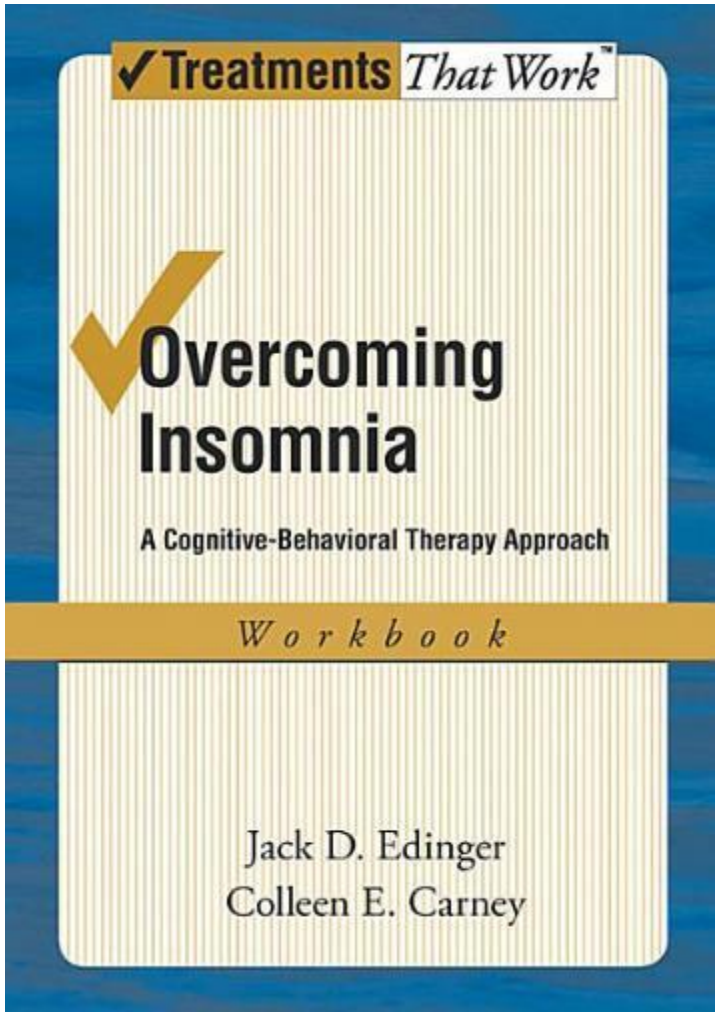
Relaxation and Sleep Hygiene

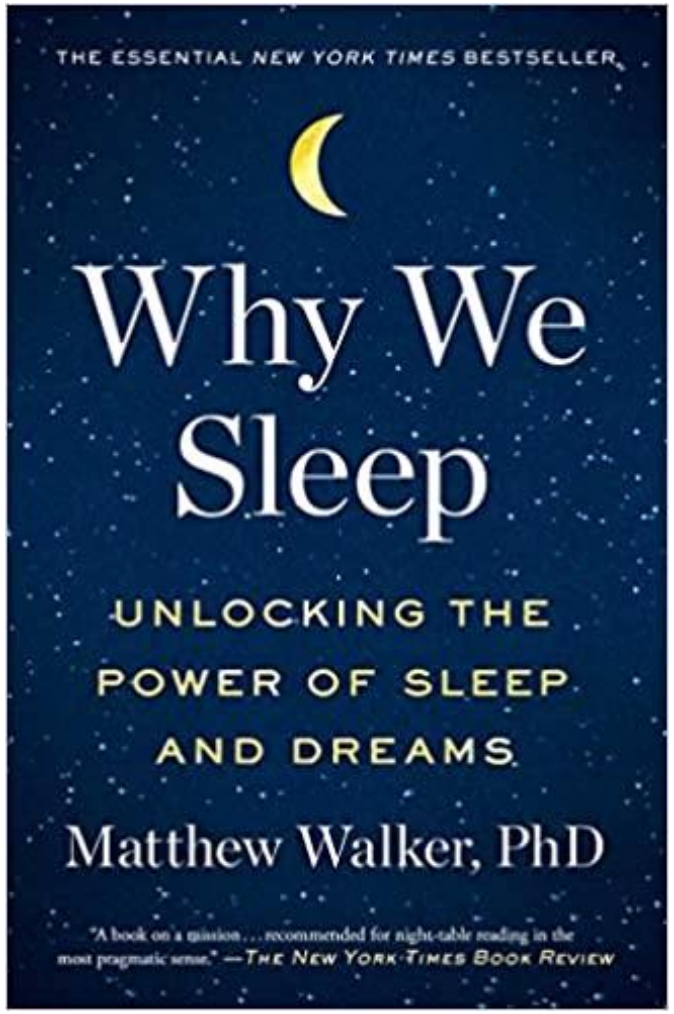
- Most relaxation procedures equally effective

- Sleep hygiene is intended as information about lifestyle habits that affect sleep
  - Limit caffeine, alcohol, tobacco
  - Exercise regularly, but not before bed
  - Hide clocks in the bedroom
  - Bedroom should be quiet, dark, and cool

Tools and Resources







The Future of CBT-I? Electronic Technologies

- CBT-I Coach
- SHUTi
- Sleepio
- RESTORE

Examples of Assessment and Tracking/Outcome Tools

- PHQ-9
- GAD-7
- PC-PTSD
- Insomnia Severity Index
- Epworth Sleepiness Scale
- Pittsburgh Sleep Quality Index
- Dysfunctional Beliefs and Attitudes About Sleep Questionnaire (DBAS)

Sleep Problems During COVID-19 Practical Recommendations

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REVIEW

Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy

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ABSTRACT

In the current global home confinement situation due to the COVID-19 outbreak, most individuals are exposed to an unprecedented stressful situation of unknown duration. This may not only increase daytime stress, anxiety and depression levels, but also disrupt sleep. Importantly, because of the fundamental role that sleep plays in emotion regulation, sleep disturbance can have direct consequences upon next day emotional functioning. In this paper, we summarize what is known about the stress–sleep link and confinement as well as effective insomnia treatment. We discuss those effects of the current home confinement situation that can disrupt sleep but also those that could benefit sleep quality. We suggest adaptions of cognitive behavioural therapy elements that are feasible to implement for those facing changed work schedules and requirements, those with health anxiety and those handling childcare and home-schooling, whilst also recognizing the general limitations imposed on physical exercise and social interaction. Managing sleep problems as best as possible during home confinement can limit stress and possibly prevent disruptions of social relationships.

KEYWORDS
COVID-19, home confinement, sleep problems, stress

1 | INTRODUCTION

Since the COVID-19 outbreak in December 2019 and its societal consequences of mass home confinement, a stressful situation has developed for many across the globe. Being forced to stay at home, work from home, do home-schooling with children, drastically minimize outings, reduce social interaction or work many more hours under stressful circumstances, and in parallel manage the attendant

Sleep Problems During COVID-19 Practical Recommendations Continued

- For Healthcare Staff
  - Work on stress (i.e., social support = better sleep)
  - Regular exercise but not right before desired bedtime
  - Try to get natural daylight during the day or bright lights at work but not in the bedroom
  - Engage in relaxing activities before bed
  - Eat light meals at set times and not before desired sleep onset

Sleep Problems During COVID-19 Practical Recommendations Continued

- For Healthcare Staff (continued)
  - If symptoms related to lack of sleep including dangerous work-related mistakes, take a nap
  - Do not drive home after a long shift

Sleep Problems During COVID-19 Practical Recommendations Continued

- Recommendations Regarding Sleep Medication
  - Avoid, if possible
  - Try CBT-I as the first option
  - If CBT-I is unavailable/unfeasible/ineffective, short term BZ or HBRA might be effective
  - Sedating antidepressants might be beneficial, mainly if comorbid depression or anxiety

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From Theory to Practice

Application in an Integrated Setting

- Regular screening for insomnia as part of Behavioral Health screenings.
- Sleep is a normal process which does not carry significant stigma.
- Identified sleep issues can be used can be the gateway to discuss additional behavioral health issues such as depression and anxiety
- Time Limitations based on the environment. Sessions are not regularly scheduled and tend to be client focused on changes they are willing to make.
- Population challenges such as housing, environmental safety, poverty, food insecurity, health inequities and availability of resources

Office Hour

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Learn more about our year-long virtual initiative and register for the webinar Series at pcdc.org/sleep.