CBT-I For Primary Care:

Review of Components & Application for Residents in Primary Care

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Disclosures

- None

Objectives

Participants in this sessions will be able to:

1. Identify the 5 basic components of CBT-I
2. Know how to apply each of the components when treating a patient, and
3. Develop at least two new methods of training residents in CBT-I in their clinical practices.

Agenda

- Scope and Character of Sleep Problems
- CBT-I: Background and Basics
- CBT-I in the Real World
- Tips for Primary Care Integration
- Resources and Wrap-Up

Scope and Character of Sleep Problems

Why does sleep matter?

2016 estimate of total annual costs of insomnia in US were $150-175 Billion

(Reynolds & Ebben 2017)

- **Life Impacts:**
  - Diminished work efficiency
  - Daytime sleepiness
  - Increased absenteeism
  - Motor vehicle crashes
  - Work Accidents
  - Decreased promotion rates
- **Health Impacts:**
  - Cognitive difficulties (memory, attention, concentration)
  - Mood declines (depression & anxiety)
  - Decreased quality of life
  - Increased suicidal ideation
  - Immunity degradation
  - Cardiovascular disease (hypertension, MI, mortality)

Sleep difficulties are common

- Conservative estimates show 10-30% of adults live with chronic insomnia (Bhaskar et al., 2016)

- More prevalent in:
  - Older people (~30-48%) (Patel et al., 2018)
  - Teenagers (23.6%) (Donskoy & Loghmanee, 2018)
  - Pregnant women (50%) (Kizilirmak et al., 2012)
  - Minority groups (though with some conflicting data)

Types of Sleep Problems - Insomnias

- Acute vs Chronic

- Different types of sleep disturbances (Irish et al., 2015)
  - Sleep onset latency (SOL)
  - Wake after sleep onset (WASO)
  - Total sleep time (TST)—short
  - Sleep efficiency (SE)—low
  - Sleep quality (subjective)

- CBT-I shown to be effective in each of the measured components of sleep quality and effects last up to one year after treatment

  (Trauer et al., 2015; van der Zweerde et al., 2019)

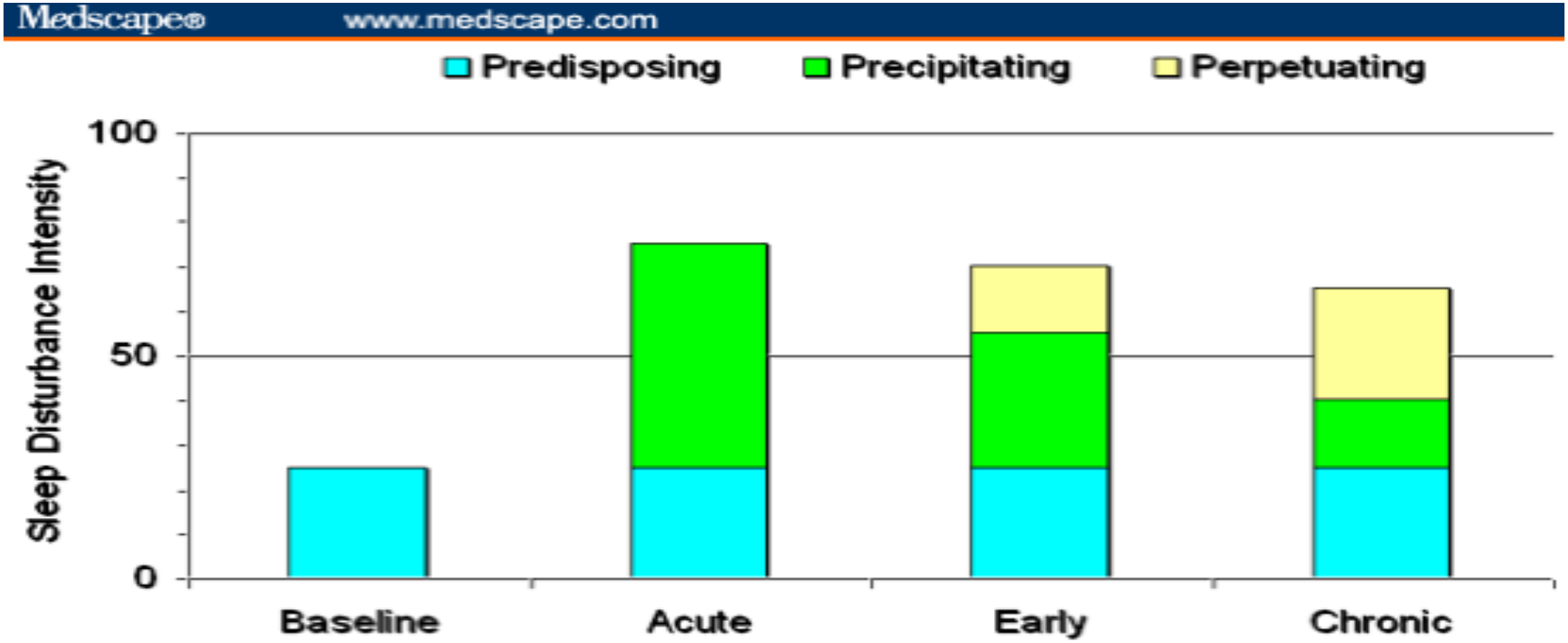
Recommendation for Management of Insomnia

- A preference for CBT-I or other behavioral therapies over medication as initial therapy has been endorsed in clinical practice guidelines:
  - **The American Academy of Sleep Medicine** (Schutte-Rodin et al., 2008),
  - **The British Association for Psychopharmacology** (Wilson et al., 2010),
  - **The American College of Physicians** (Qaseem et al., 2016; Brasure et al., 2016),
  - **The European Sleep Research Society** (Riemann, et al., 2017)

CBT-I Background & Basics

The Five Components of CBT-I

Spielman's Model of Sleep Disturbance (1987)



Predisposing, Precipitating, Perpetuating Factors

Predisposing

- Age
- Arousability
- Female sex
- Living alone
- Psychological disorders
- Smoking

Precipitating

- Alcoholism
- Chronic pain
- Comorbid physical conditions
- Divorce, separation
- Low SES
- Shiftwork
- Snoring
- Stressful life events
- Unemployment

Perpetuating

- Excessive time in bed
- Napping
- Chronic medication use
- Worry about sleep loss
- Night time habits
- Inconsistent bedtime

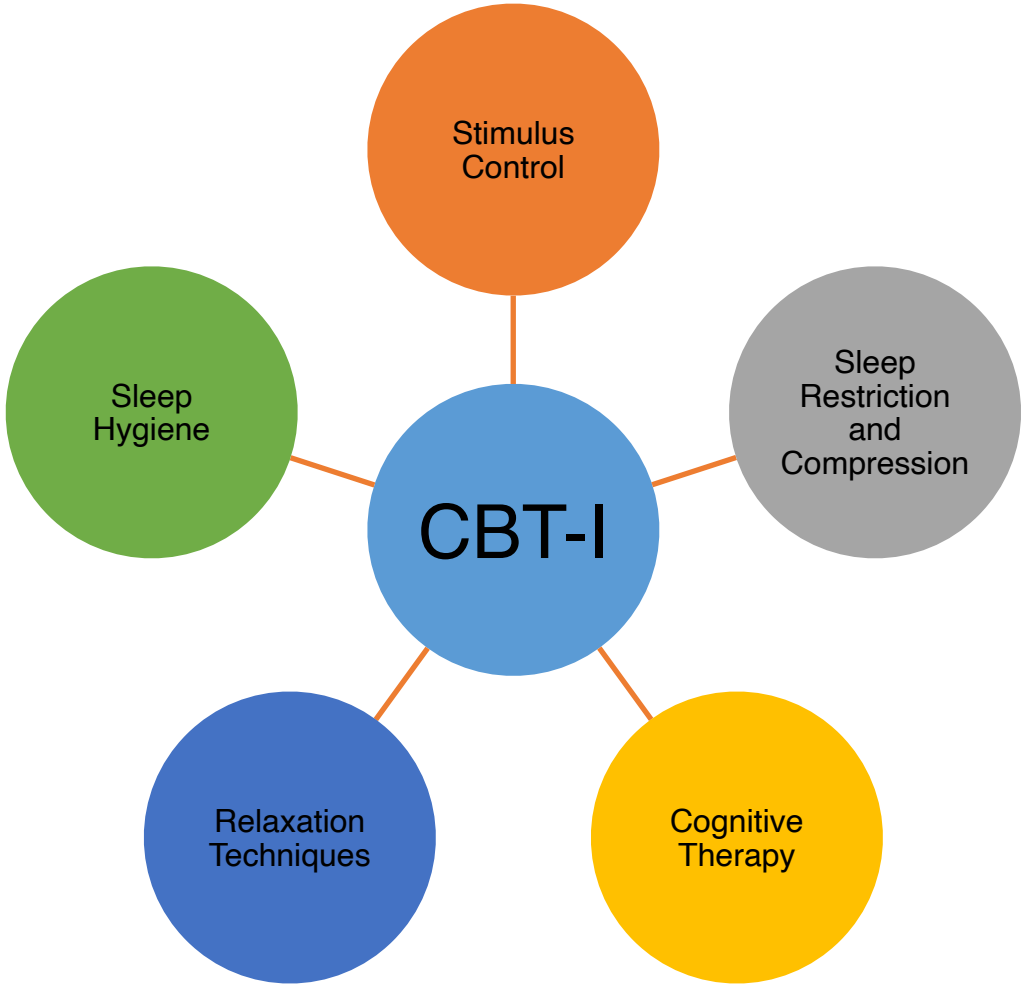
(Maness & Khan, 2015)

Insomnia and Sleep Assessment

- Diagnostic criteria must be met (Maness and Kahn, 2015)

- Medical, social, psychological and sleep history required
  - Timing of insomnia
  - Daytime sleepiness patterns
  - Sleep schedule
  - Sleep environment
  - Sleep habits and patterns
  - Symptoms of another disorder (kicking, apnea, etc.)
  - Predisposing, precipitating and perpetuation factors
  - Previous treatment(s)

Five Components of CBT-I



Stimulus Control

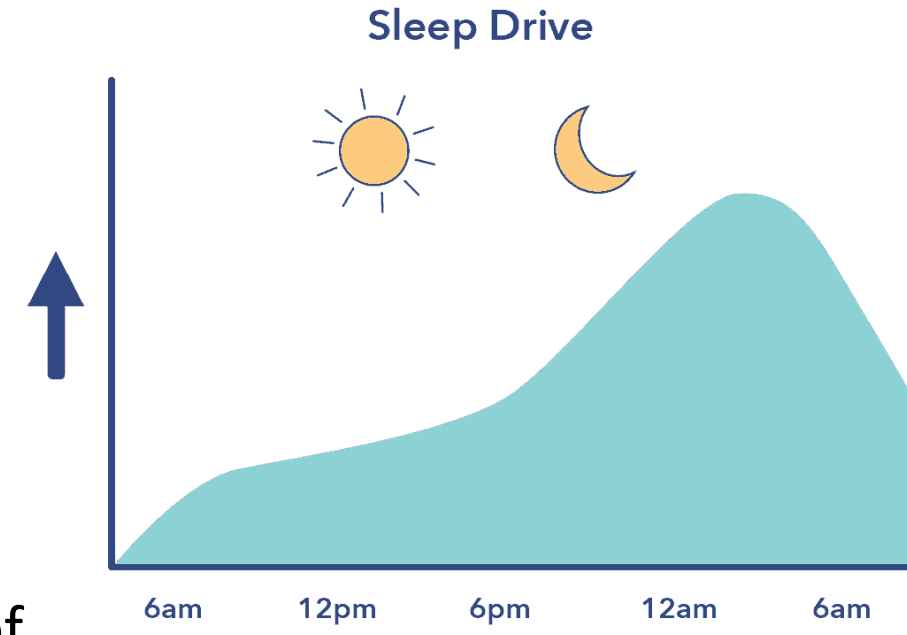
- Used for sleep initiation and maintenance; studied as monotherapy

- Typical instructions:
  - Lie down when you intend to go to sleep and only when sleepy
  - Avoid anything other the sleep and sex in bed/bedroom
  - Leave bedroom if awake for more than 15 minutes
  - Return to bed only when sleepy
  - Keep a fixed wake time 7 days/week

  (Perlis et al., 2008)

Sleep Restriction Therapy

- Recommended for both sleep initiation and maintenance problems; less studied as monotherapy. Listed as "optional" by AASM*
- Requires:
  - Individual to limit amount of time in bed to an amount equal to their average total sleep time (no less than 4.5 hours)
  - Fixed wake time
  - Delayed bedtime, then gradually increase amount of time in bed usually in 15 minute increments as sleep efficiency increases

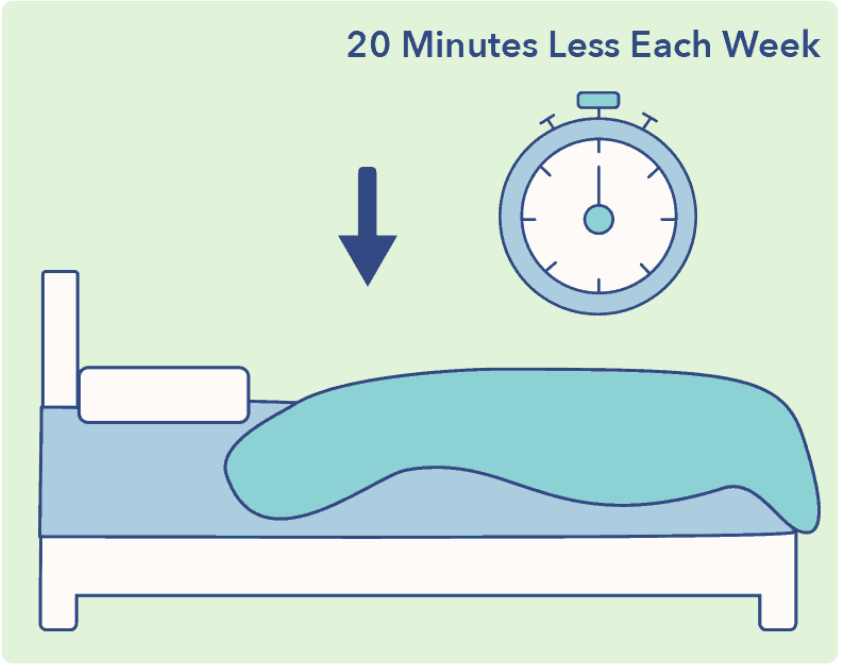


Sleep Compression

- Gradual reduction of Time in Bed (TIB) versus sleep restriction with abrupt changes to sleep routine
  - Ideal for those who lack sleep, but have energy

- Steps to Sleep Compression:
  - Estimate Total Sleep Time (TST) and TIB
  - Incrementally reduce TIB for 2 months so TST = TIB
  - Monotherapy or part of larger CBT-I intervention

  (Lichstein, Thomas, & McCurry, 2011)



Cognitive Therapy

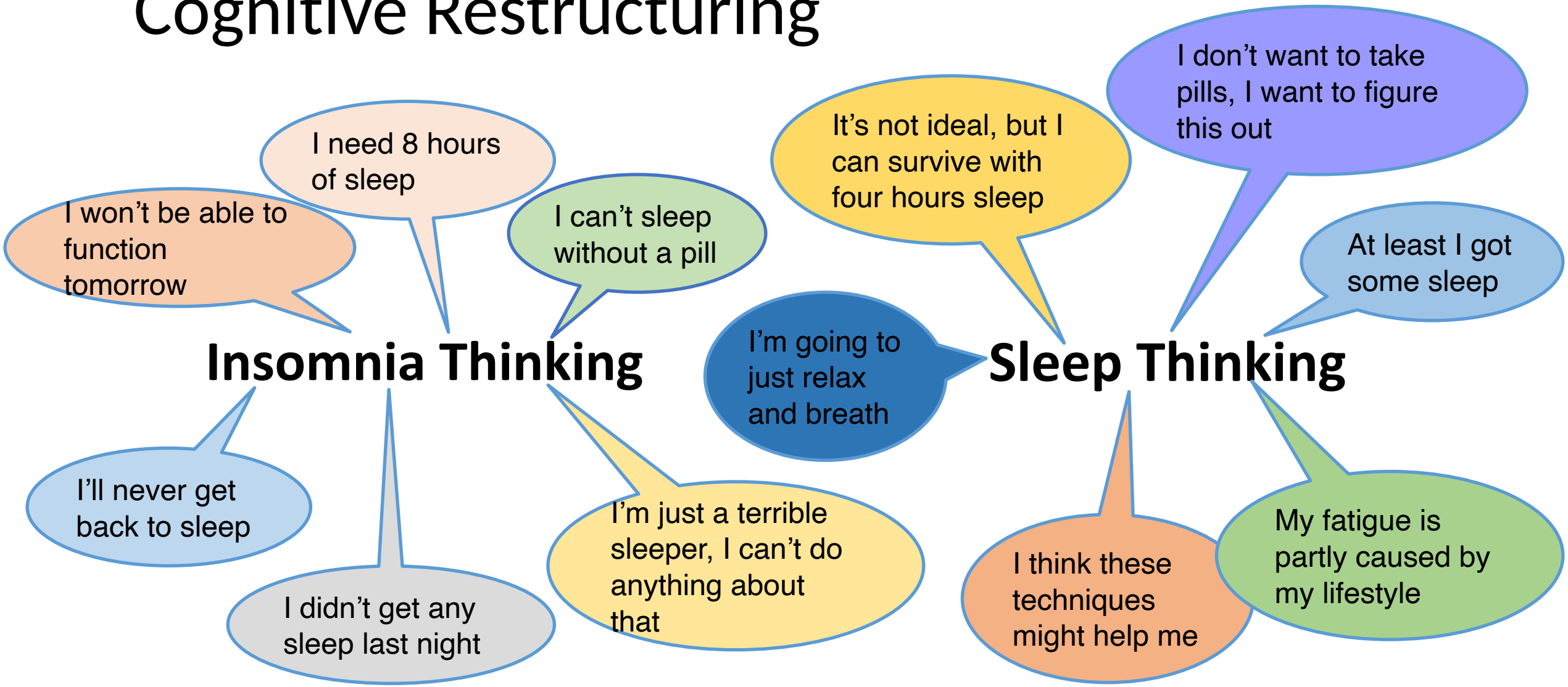
Insomnia Thinking

- Unrealistic Expectations
- Black and White Thinking
- Catastrophizing
- Overgeneralization
- Emotional Reasoning

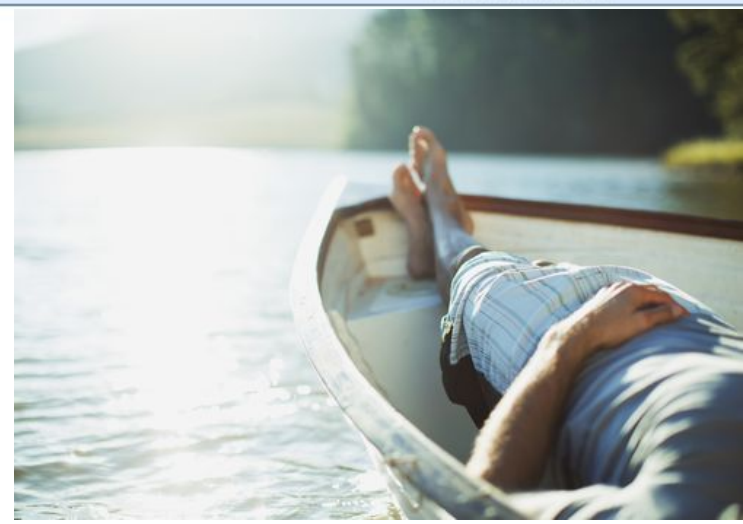
Sleep Thinking

- Set realistic expectations, dispel myths
- Spectrum of sleep quality and quantity
- Positive evaluation of sleep experienced
- Nuanced verbiage of sleep patterns
- Thoughts based on observable data

Cognitive Restructuring



Relaxation Techniques



- Diaphragmatic breathing
- Progressive muscle relaxation
- Visualization
- Auditory relaxation
- Bedtime routine
- Light yoga or tai chi
- Mindfulness
- Body scan
- Meditation
- Journal writing
- Shower or bath
- Worry time in advance
- Biofeedback
- Reading (not on a screen)

Sleep Hygiene

- Environmental influences
  - Room temperature
  - Ambient noise
  - Room lighting
  - Bed comfort
- Physical Influences
  - Caffeine
  - Exercise
  - Diet
- Social influences
  - Phone calls
  - Sleep partners: sig other, pets, children
  - Social media
  - Schedule
- Mental Influences
  - Frustration
  - “Trying” to sleep
  - Cognitive distortions

CBT-I in the Real World

How to incorporate into Primary Care settings

A: CBT-I as First Line Treatment, but…

Q: In your clinical practice/residents' practice, what are the barriers you perceive for patients getting CBT-I for their insomnia?

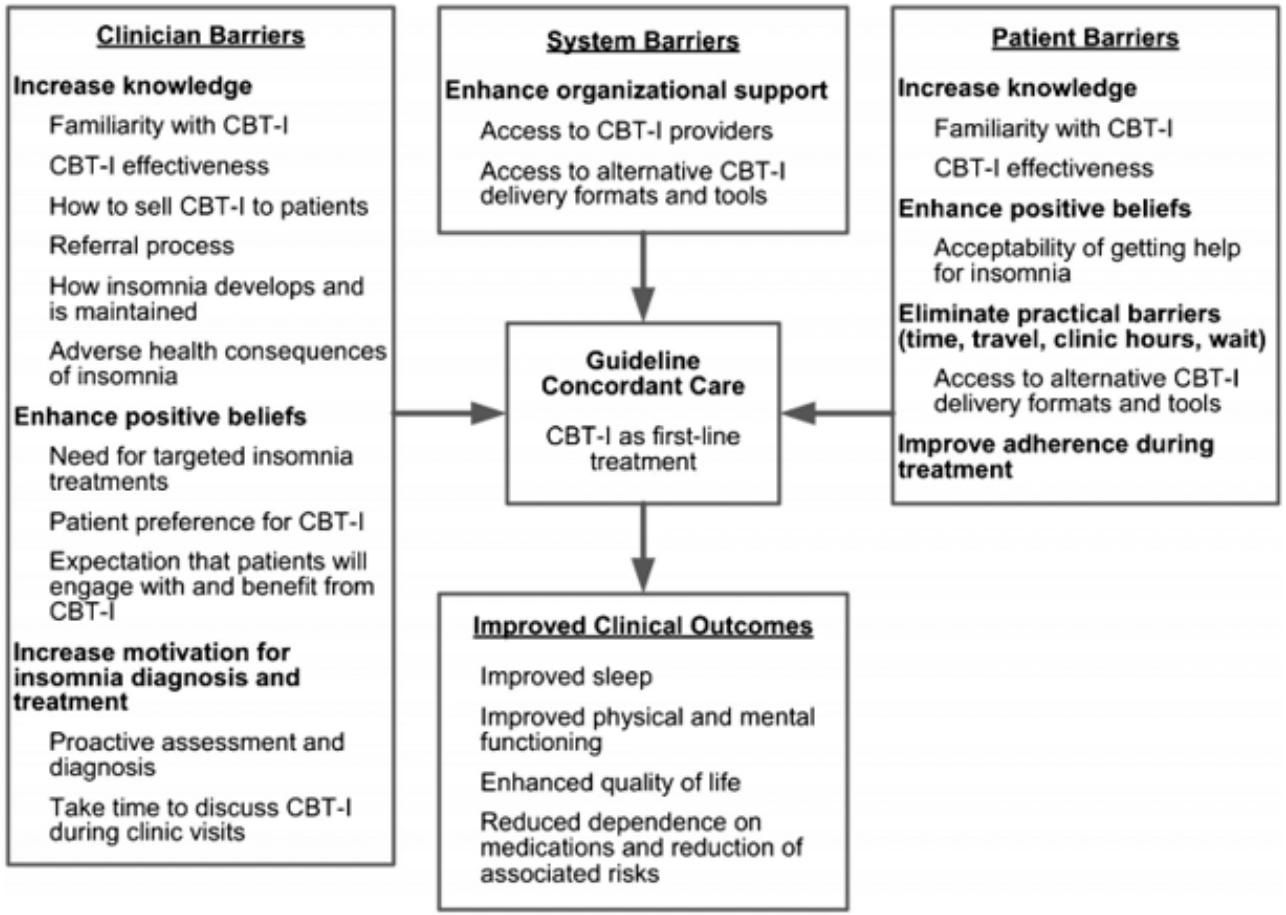
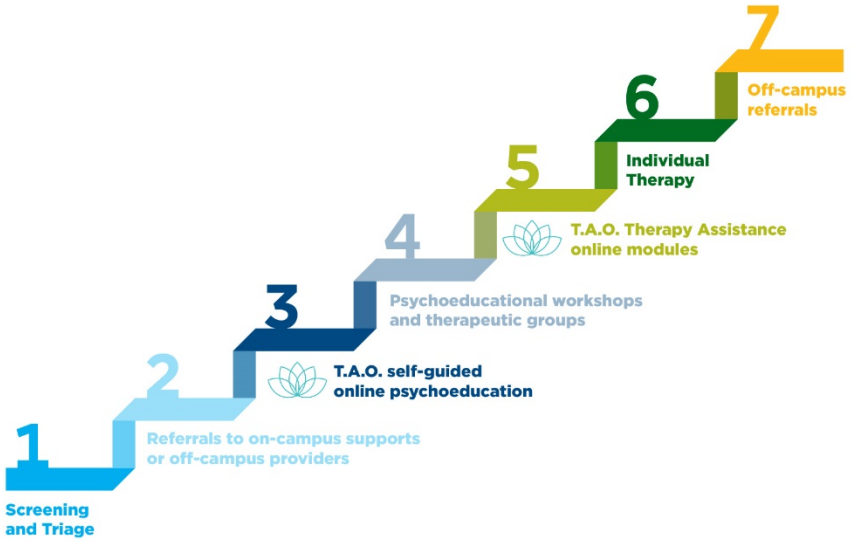


Fig. 2 Intervention targets to increase guideline-concordant management of insomnia in primary care.

Stepped-Care of Insomnia

- Need for embedding CBT-I training within educational curriculum for healthcare providers as part of professional development (Cheung et al., 2019)
- Levels of treatment recommended for insomnia (Morgenthaler et al., 2006)
  - Sleep hygiene (non-recommended as stand alone)
  - Relaxation therapy
  - Sleep restriction therapy
  - Stimulus control
  - Biofeedback
  - CBTi
    - Full
    - Abbreviated
  - Medications
  - Sleep studies



Abbreviated CBT-I

- 2-25 minute appointments in primary care setting (Edinger and Sampson, 2003)
- 2 week interval between meetings
- First appointment
  - Review of sleep logs
  - Sleep education
  - Condensed behavioral regimen
- Second appointment
  - Reviewed previous instructions and adherence
  - Problem solve adherence problems
  - Instructions for independent adjustments provided

Methods of Teaching CBT-I

- 90 minute workshop (Ock et al., 2020)
  - 5 minutes intro
  - 40 minutes didactics
  - 15 minutes case-based role play
  - 20 minutes large-group discussion/review
  - 5 minutes summary
- Individual education
- Role-play
- Shadow behavioral health providers

Digital CBT-I or Electronic CBT-I

- dCBT-I effective with individuals from various demographic groups
- Comparable uptake in Black and White participants
- “Minimal to no involvement of clinician"
- Used as part of a stepped-care model along with traditional CBT-I
- Used Sleepio Program (www.sleepio.com) access for 12 weeks or Sleep Healthy Using The Internet (SHUTi) that is self-guided

(Cheng, et al., 2018; Ritterband, et al., 2017)

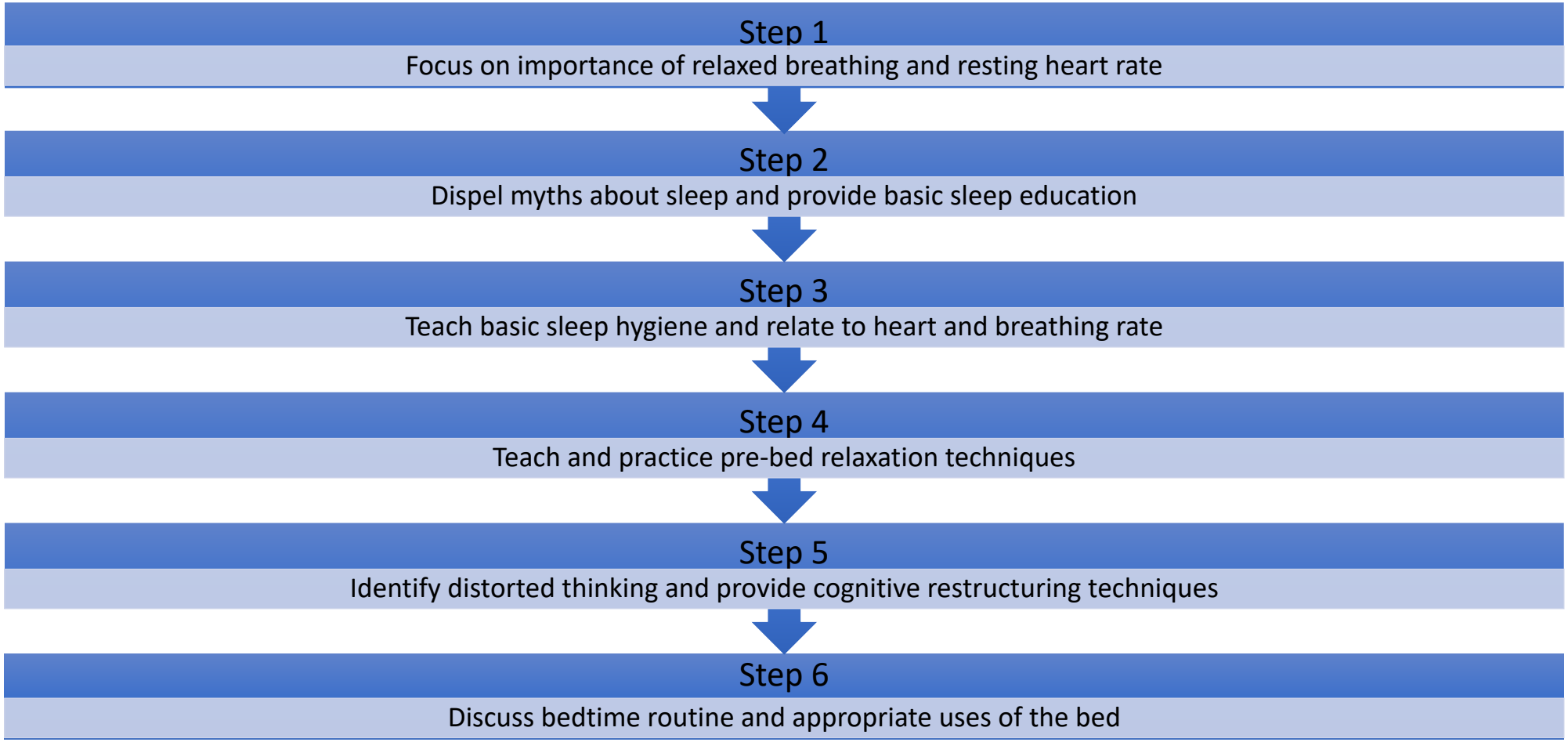
Breakout Session

1. What training have your received on the components of CBT-I?
2. Which components do you train residents on/use in your clinical practice?
3. Which techniques have you found useful for incorporating CBT-I in primary care setting?

Tips for Primary Care Integration

A Six-Step Training and Teaching Tool

A Six-Step Teaching Pattern for Primary Care



Teaching Better Patterns of Sleep

Step 1: What 2 Things Are Required For Sleep?	Step 2: Dispel Myths, Provide Basic Sleep Education
Answer: Slow rhythmic breathing and resting heart rate. Utility: Helps patients understand why sleep hygiene practices are useful. Additionally, it helps patients self-monitor their own sleep related behaviors and the resulting impacts of these behaviors.	Myths: Everyone requires 8 hours of sleep per day. Naps make up for lost sleep at night. Only the number of hours slept matters. Basic Education: All stages of sleep are important to good health. Quality of sleep is as important as quantity. Naps do not provide the same restorative effects as good sleep.

Teaching Better Patterns of Sleep

Step 3: Teach Basic Sleep Hygiene
Rule: No caffeine after 2:00 pm Reason: The half-life of caffeine is very long, it's a stimulant, and raises heart rate. Rule: Don't stay in bed if you can't fall asleep after 15-20 minutes. Reason: The resulting frustration leads to tossing/turning, higher blood pressure and breathing. Rule: Have a regular bed time routine which includes some form of relaxation. Reason: The routine prepares the body for sleep and relaxation slows breathing and heart rate.

Teaching Better Patterns of Sleep

Step 4: Teach Pre-Bed Relaxation Techniques
Deep breathing and stretching or yoga
Rhythmic movement and exercise
Progressive muscle relaxation
Mindfulness, meditation, or prayer
Guided imagery or visualization
Reading calm materials or sound therapy
Worry journal or notepad nearby

Step 5: Support Positive Sleep Talk
Problem Solving: - I can sleep well tonight, I just need to relax Positive Anticipation: - I can't wait to relax in my bed Objective Projection: - Even without much sleep, I have energy Spectrum Mindset: - That was decent sleep, it's getting better

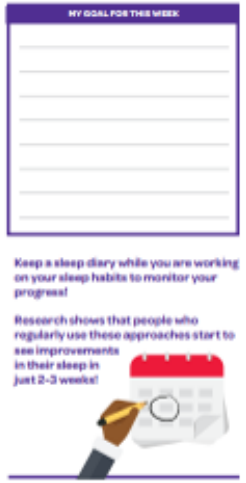
Teaching Better Patterns of Sleep

Step 6: Discuss Bedtime Routine and Appropriate Uses of the Bed
Question: Why should beds be for sleeping and sex only? *Answer:* If you do others things, your body becomes accustomed to not sleeping in bed.
Question: Why do I need to have a bedtime routine each night? *Answer:* A bedtime routine creates habit, slows the body down, and allows for sleep prep.
Question: What does a bedtime routine look like? *Answer:* It includes quiet, unrushed, pleasurable activities to slow your heart and breathing rate.
Question: Can my bedtime routine include alcohol to help me fall asleep? *Answer:* Alcohol can speed up sleep onset, but has a rebound effect disrupting sleep continuity.
Question: What if I'm tossing, turning, and just can't sleep? *Answer:* Engage in 1-2 quiet activities, which do not involve electronics, until fatigue sets in.

Resources and Wrap-Up

CHANGE that MATTERS

Promoting Healthy Behaviors

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CBT-i Coach
Average: 3.6 (461 votes)
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Description
Feedback to VA
CBT-i Coach is for people who are engaged in Cognitive Behavioral Therapy for Insomnia with a health provider, or who have experienced symptoms of insomnia and would like to improve their sleep habits. The app will guide users through the process of learning about sleep, developing positive sleep routines, and improving their sleep environments. It provides a structured program that teaches strategies proven to improve sleep and help alleviate symptoms of insomnia.
CBT-i Coach is intended to augment face-to-face care with a healthcare professional. It can be used on its own, but it is not intended to replace therapy for those who need it.

Handouts

- Primary Care Teaching Pattern
- Resources

Comfort of *not* going to prescribing first…

Review

- Sleep problems take a heavy toll on our patients and society
- Primary care is a viable venue to teach and implement CBT-I
- CBT-I has 5 components
  - Stimulus Control
  - Sleep Restriction
  - Cognitive Therapy
  - Relaxation Techniques
  - Sleep Hygiene
- A six-step teaching tool can be used in primary care for easy implementation of CBT-I

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