

Insomnia: What it is, What it isn't, and How to Fix it

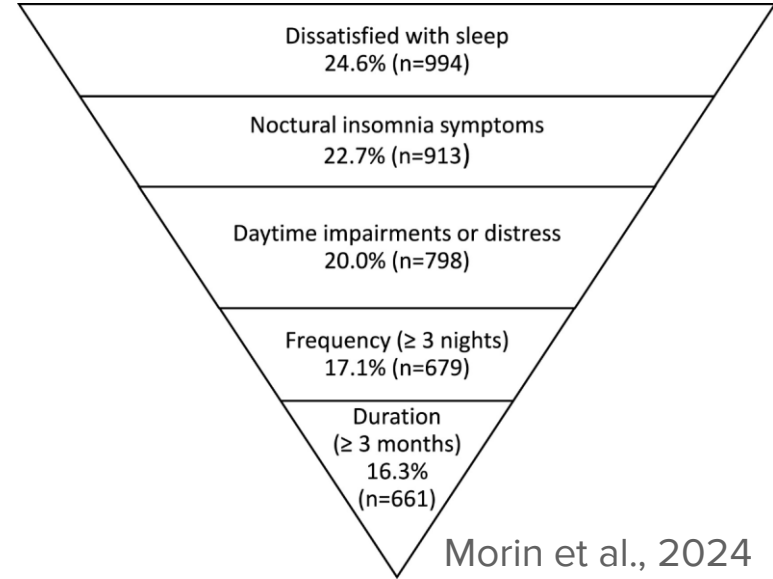
Matt Dwyer, PhD Registered Provisional Psychologist

Learning Objectives

- Learn the diagnostic criteria and psychological factors that maintain insomnia
- Learn to distinguish insomnia from other conditions that impact sleep
- Learn how CBT can effectively treat insomnia

Prevalence of Insomnia in Canada

- 30-40% of adults in Canada report at least one symptom of insomnia 3 nights per week in the past month (Morin et. al., 2011)
- Insomnia is more prevalent in Indigenous populations, with rates reported at roughly 19.2% to over 30%, depending on the definition (Doseman et al., 2024)



DSM-5-TR: Insomnia Disorder Criteria

- A. A predominant complaint of dissatisfaction with sleep quantity or quality associated with one or more of the following:

Difficulty initiating, maintaining sleep, or early awakening

- A. Sleep difficulty causes clinically significant distress or impairment in important areas of functioning
- B. Sleep difficulty occurs at least 3 nights per week
- C. Sleep difficulty is present for at last 3 months
- D. Sleep difficulty occurs despite adequate opportunity for sleep
- E. Not better explained by or occurs only during the course of another sleep disorder
- F. Not attributable to the effects of a substance
- G. Not adequately explained by a coexisting mental disorder or medical condition

DSM-5-TR: Insomnia Disorder Criteria

A. A predominant complaint of dissatisfaction with sleep quantity or quality associated with one or more of the following:

Sleep onset/
Initial insomnia



Sleep maintenance/
Middle insomnia



Late insomnia



DSM-5-TR: Insomnia Disorder Criteria

B. Sleep difficulty causes clinically significant distress or impairment in important areas of functioning:

- Social, occupational, educational, academic, behavioural
 - Excessive concern with sleep
 - Increased irritability
 - Poor concentration and attention
 - Increased suicidal thoughts and behaviour

Insomnia Severity Index (ISI)

1. Please rate the current (i.e., last 2 weeks) **SEVERITY** of your insomnia problem(s).

| | None | Mild | Moderate | Severe | Very |
|------------------------------|------|------|----------|--------|------|
| Difficulty falling asleep: | 0 | 1 | 2 | 3 | 4 |
| Difficulty staying asleep: | 0 | 1 | 2 | 3 | 4 |
| Problem waking up too early: | 0 | 1 | 2 | 3 | 4 |

2. How **SATISFIED**/dissatisfied are you with your current sleep pattern?

| Very Satisfied | | | | | Very Dissatisfied |
|----------------|---|---|---|---|-------------------|
| 0 | 1 | 2 | 3 | 4 | |

3. To what extent do you consider your sleep problem to **INTERFERE** with your daily functioning (e.g. daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc.).

| Not at all Interfering | A Little | Somewhat | Much | Very Much Interfering |
|---------------------------|----------|----------|------|--------------------------|
| 0 | 1 | 2 | 3 | 4 |

4. How **NOTICEABLE** to others do you think your sleeping problem is in terms of impairing the quality of your life?

| Not at all Noticeable | Barely | Somewhat | Much | Very Much Noticeable |
|--------------------------|--------|----------|------|-------------------------|
| 0 | 1 | 2 | 3 | 4 |

5. How **WORRIED**/distressed are you about your current sleep problem?

| Not at all | A Little | Somewhat | Much | Very Much |
|------------|----------|----------|------|-----------|
| 0 | 1 | 2 | 3 | 4 |

Scoring & Interpretation

- **Total score range:** 0–28
- **Common severity categories:**
 - **0–7:** No clinically significant insomnia
 - **8–14:** Subthreshold insomnia
 - **15–21:** Moderate insomnia
 - **22–28:** Severe insomnia

DSM-5-TR: Insomnia Disorder Criteria

C. Sleep difficulty occurs at least 3 nights per week

D. Sleep difficulty is present for at least 3 months

E. Sleep difficulty occurs despite adequate opportunity for sleep



DSM-5-TR: Insomnia Disorder Criteria

F. Not better explained by or occurs only during the course of another sleep disorder

- Circadian rhythm sleep-wake disorders
 - Delayed sleep phase type
 - Advanced sleep phase type
 - Irregular sleep phase type
 - Non-24 hour sleep-wake type
 - Shift work type



DSM-5-TR: Insomnia Disorder Criteria

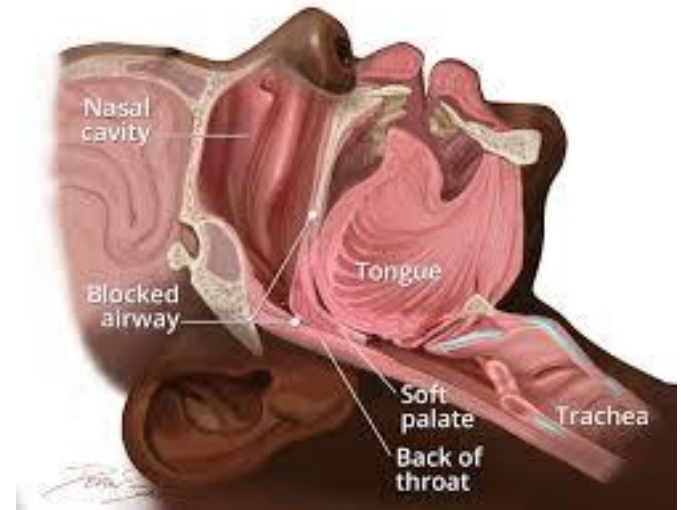
F. Not better explained by or occurs only during the course of another sleep disorder

- Restless leg syndrome (Willis-Ekbom Disease)
 - Restless Legs Syndrome Rating Scale

DSM-5-TR: Insomnia Disorder Criteria

F. Not better explained by or occurs only during the course of another sleep disorder

- Breathing related sleep disorders
 - Obstructive sleep apnea
 - STOP BANG
 - Central sleep apnea
 - Sleep-Related Hypoventilation



DSM-5-TR: Insomnia Disorder Criteria

F. Not better explained by or occurs only during the course of another sleep disorder

- Narcolepsy
 - Type 1: with cataplexy or hypocretin deficiency
 - Type 2: without cataplexy and with or without hypocretin deficiency

DSM-5-TR: Insomnia Disorder Criteria

F. Not better explained by or occurs only during the course of another sleep disorder

- Parasomnias
 - Non-REM Sleep Arousal Disorders (sleepwalking and sleep terrors)
 - Nightmare Disorder
 - REM Sleep Behavior Disorder

DSM-5-TR: Insomnia Disorder Criteria

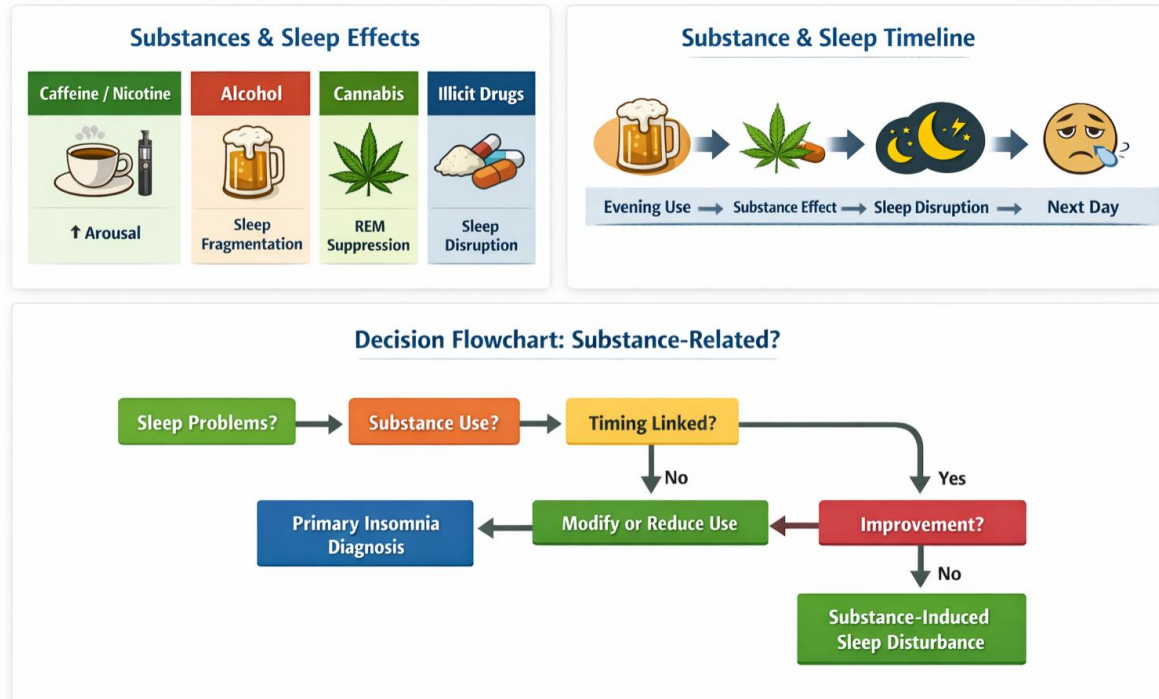
F. Not better explained by or occurs only during the course of another sleep disorder

- Substance/Medication Induced Sleep Disorder

| | | |
|--|---|---|
| Stimulants (methylphenidate, amphetamines) | Beta agonists (asthma/COPD) | Cholinesterase inhibitors (Alzheimer's medications) |
| Antidepressants (SSRIs, SNRS, NDRIs) | Antihypertensives (beta blockers, central alpha agonists) | Decongestants |
| Corticosteroids | Thyroid hormone | Nicotine replacement |

DSM-5-TR: Insomnia Disorder Criteria

G. Not attributable to the effects of a substance



DSM-5-TR: Insomnia Disorder Criteria

H. Not adequately explained by a coexisting mental disorder or medical condition

- Major depressive disorder (PHQ-9)
- Bipolar disorder (MDQ)
- Generalized anxiety disorder (GAD-7)
- Posttraumatic stress disorder (PCL-5)
- Neurocognitive disorders

DSM-5-TR: Insomnia Disorder Specifiers

Specify if:

- With nonsleep disorder mental comorbidity, including substance use disorders
- With other medical comorbidity
- With other sleep disorder

Specify if:

- Episodic: Symptoms last at least 1 month but less than 3 months.
- Persistent: Symptoms last 3 months or longer.
- Recurrent: Two (or more) episodes within the space of 1 year.

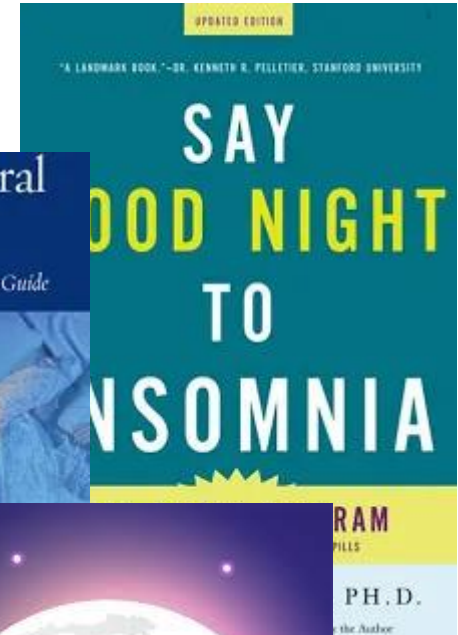
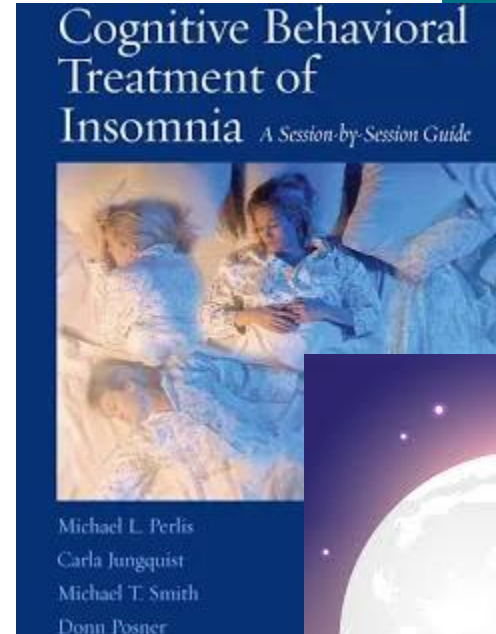
Note: Acute and short-term insomnia (i.e., symptoms lasting less than 3 months but otherwise meeting all criteria with regard to frequency, intensity, distress, and/or impairment) should be coded as “other specified insomnia disorder”

CBT-I is the Recommended First-Line Treatment

| | |
|------|---|
| 2005 | NIH Consensus (NIH Consensus and State of the Science Statements, 2005, 22(2), 1-30) |
| 2008 | American Academy of Sleep Medicine (Schutte-Rodin et al., 2008, J of Clinical Sleep Medicine, 4(5), 487-504) |
| 2016 | American College of Physicians (Qaseem et al., 2016, Annals of Internal Medicine, 165 (2), 125-133)) |
| 2017 | European Sleep Research Society (Riemann et al., 2017, Journal of Sleep Research, 26(6), 675-700) |
| 2019 | British Association of Psychopharmacology (Wilson et al., 2019, Journal of Psychopharmacology, 33(8), 923-947) |
| 2024 | Canadian Sleep Research Consortium (Morin et al., 2024. <i>Sleep Medicine</i> , 124, 338-345.) |

CBT-I Treatment Components

- Sleep education + sleep diary
- Cognitive restructuring
- Sleep restriction
- Stimulus control
- Relaxation training
- Sleep hygiene



Speilman's Three P Model

Predisposing factors

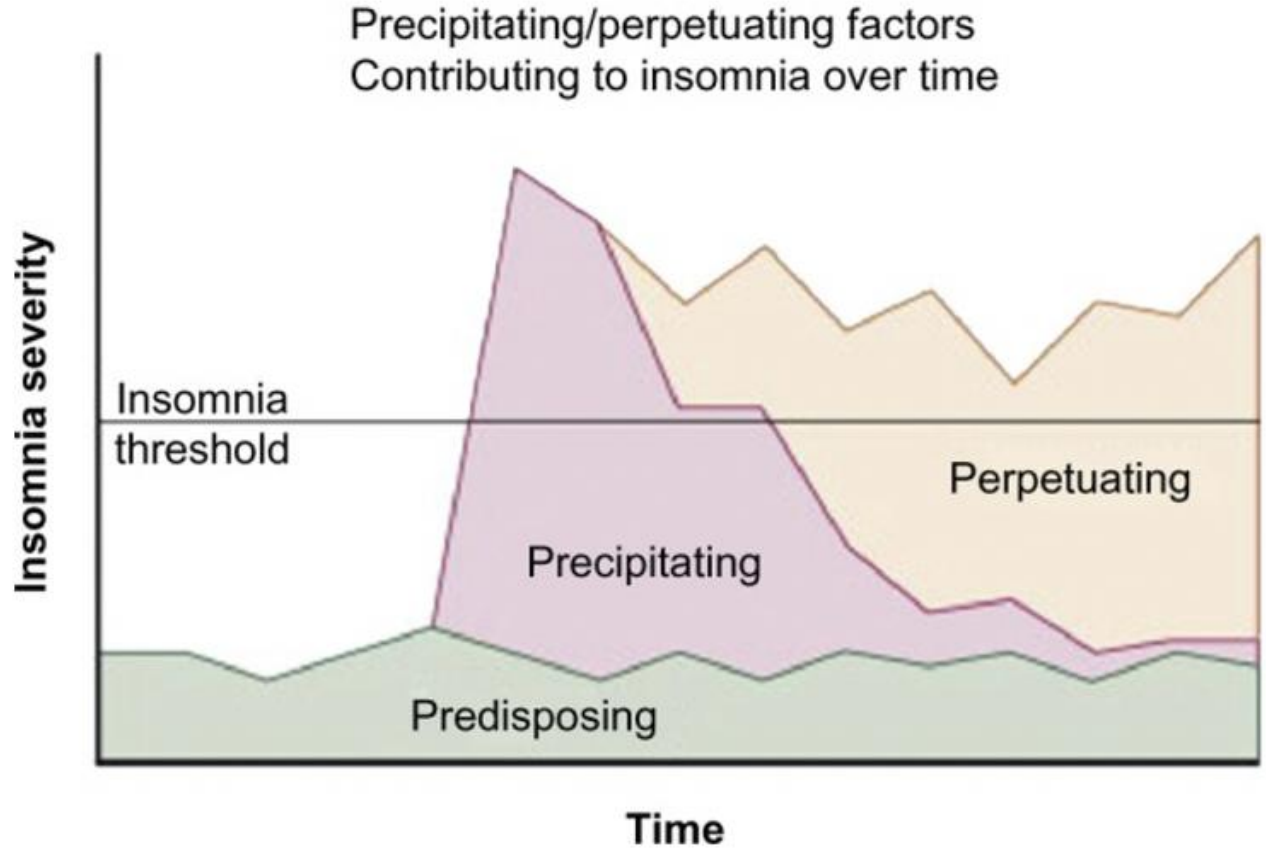
- Genetics
- Age/sex/health
- Beliefs about sleep

Precipitating factors

- Life changes and stress
- Health changes
- Medications

Perpetuating factors

- Sleep habits
- Worry about sleep
- Excessive time in bed



Stages of Sleep

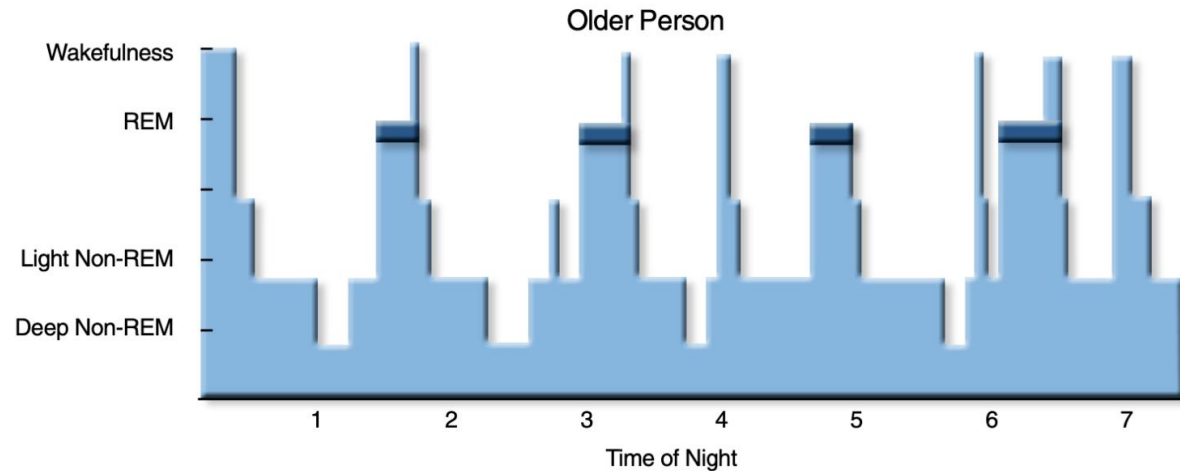
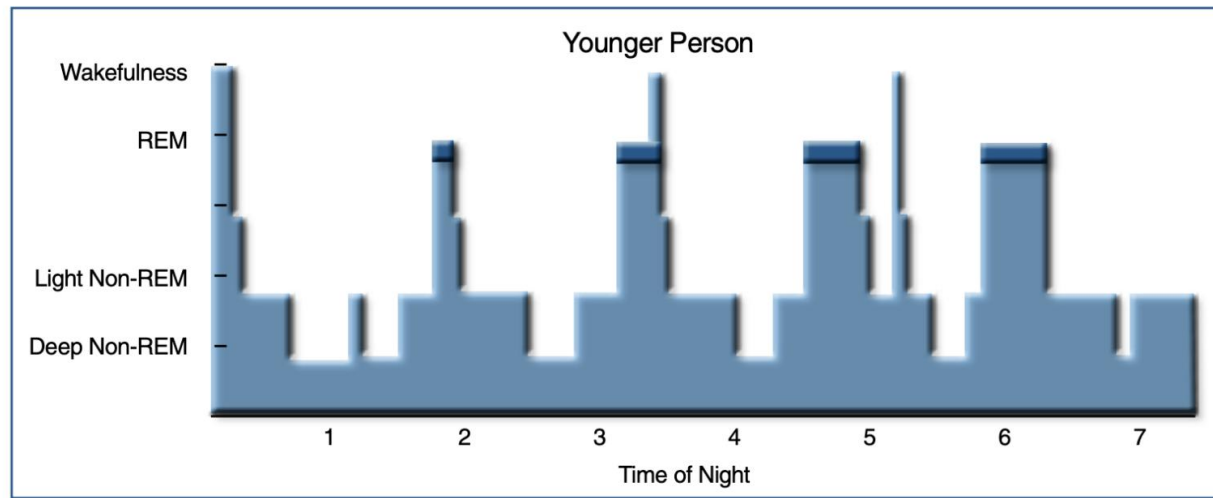
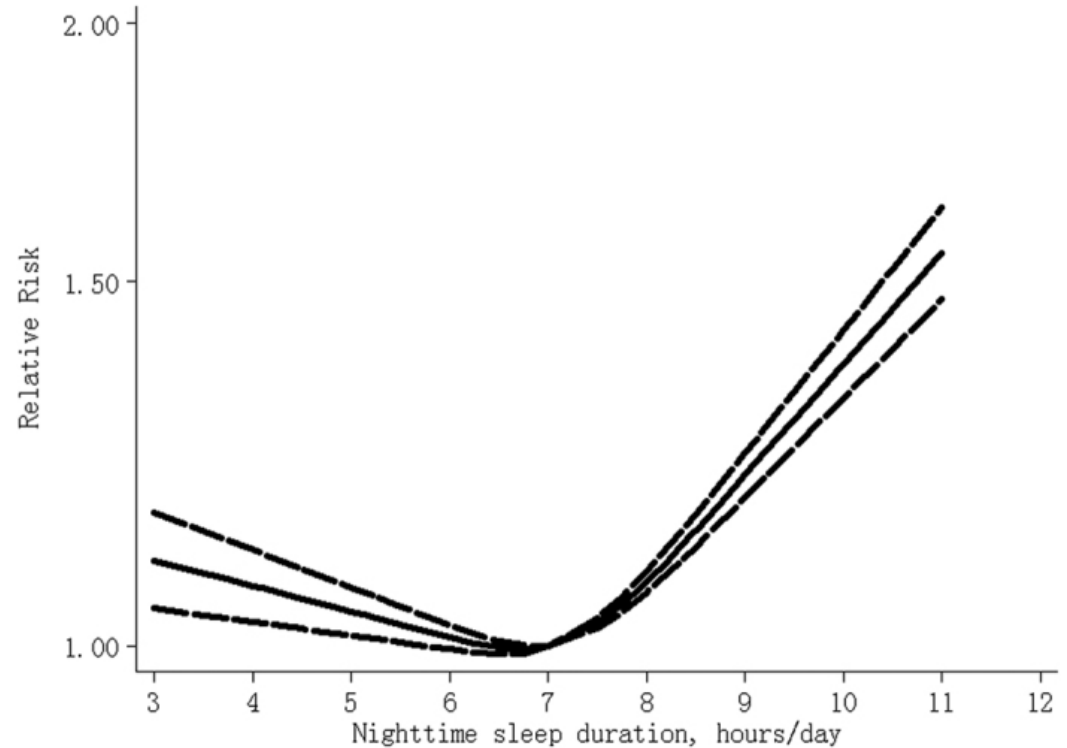


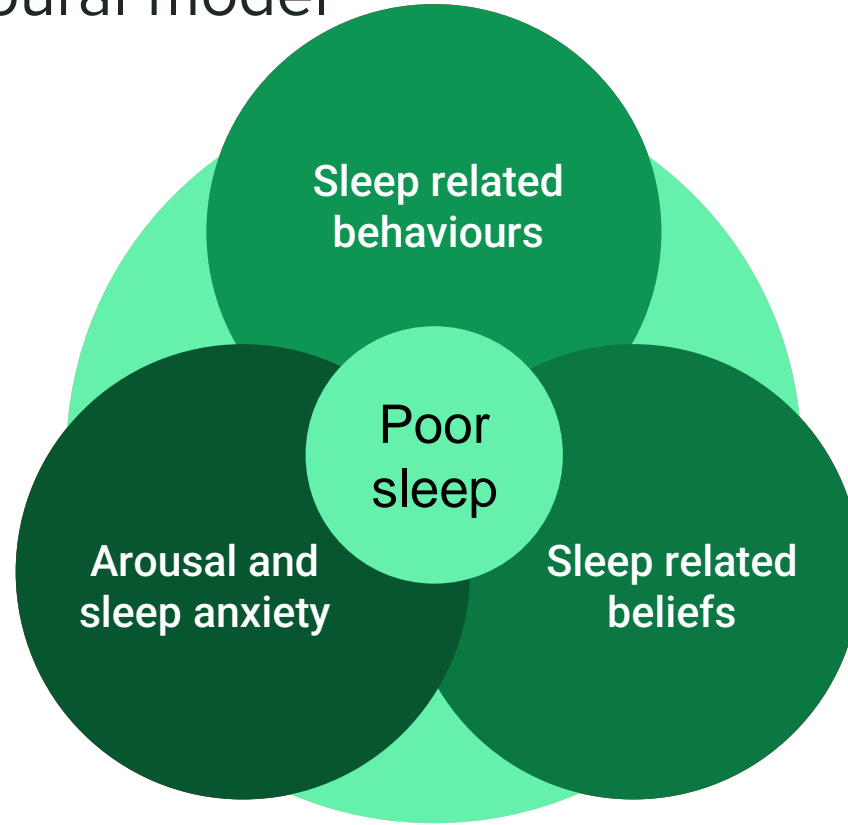
Figure 5. Sleep Across the Night for Younger Versus Older Adults

Sleep Need in Adults



Shen X, Wu Y, Zhang D. Nighttime sleep duration, 24-hour sleep duration and risk of all-cause mortality among adults: a meta-analysis of prospective cohort studies. *Sci Rep.* 2016 Feb 22;6:21480. doi: 10.1038/srep21480. PMID: 26900147; PMCID: PMC4761879.

Cognitive-behavioural model



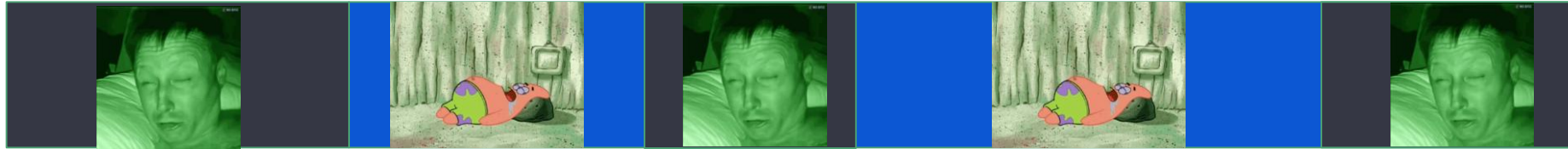
Sleep Diary

Name: _____

Sample

| | | | | | | | | |
|---|--|---|---|---|---|---|---|---|
| Today's date | 4/5/08 | | | | | | | |
| 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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | |
| 6c. If yes, how many minutes earlier? | 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? | <input type="checkbox"/> Very poor <input checked="" type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good | <input type="checkbox"/> Very poor <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Good <input type="checkbox"/> Very good |
| 9. Comments (if applicable) | I have a cold | | | | | | | |

Sleep Restriction



11:00

4:00

12:00

5:00

1:00

6:00

2:00

7:00

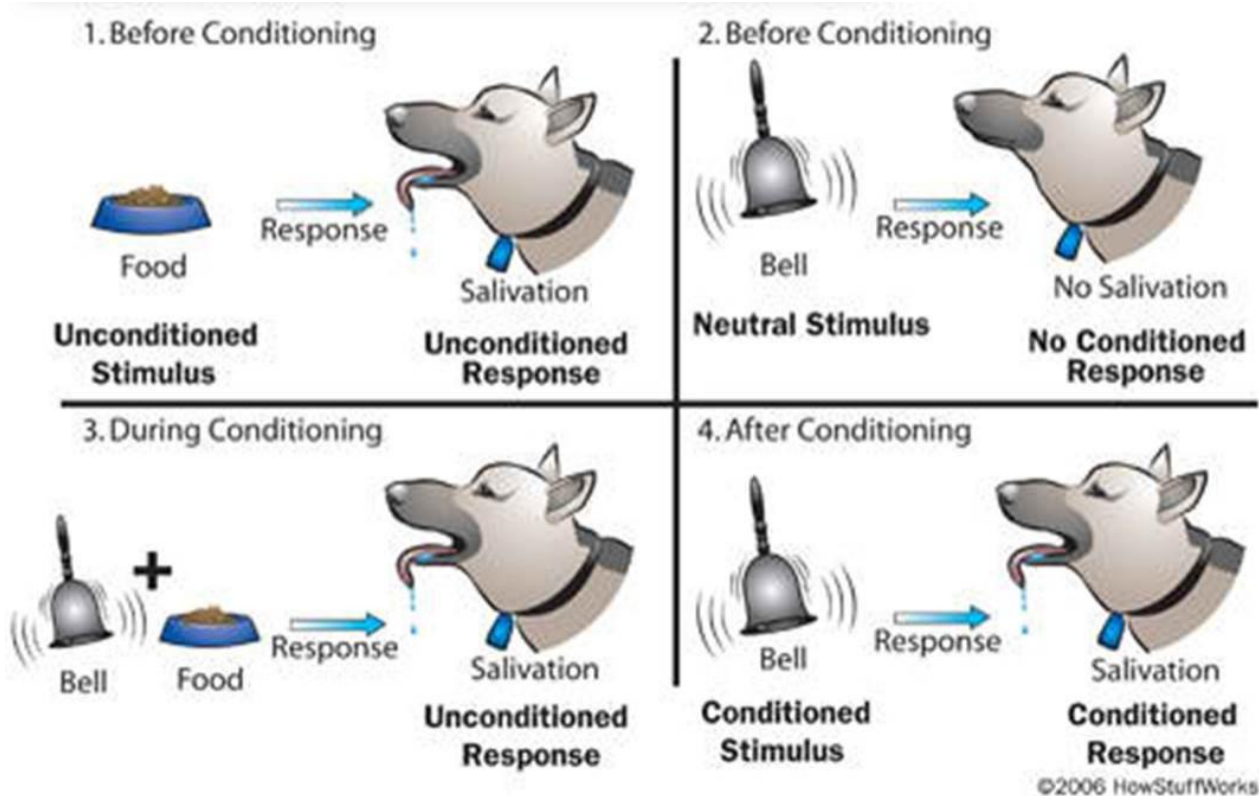
3:00

8:00

Sleep efficiency = Total sleep time/Time in bed



Stimulus Control



Stimulus control

The circadian clock and body temperature

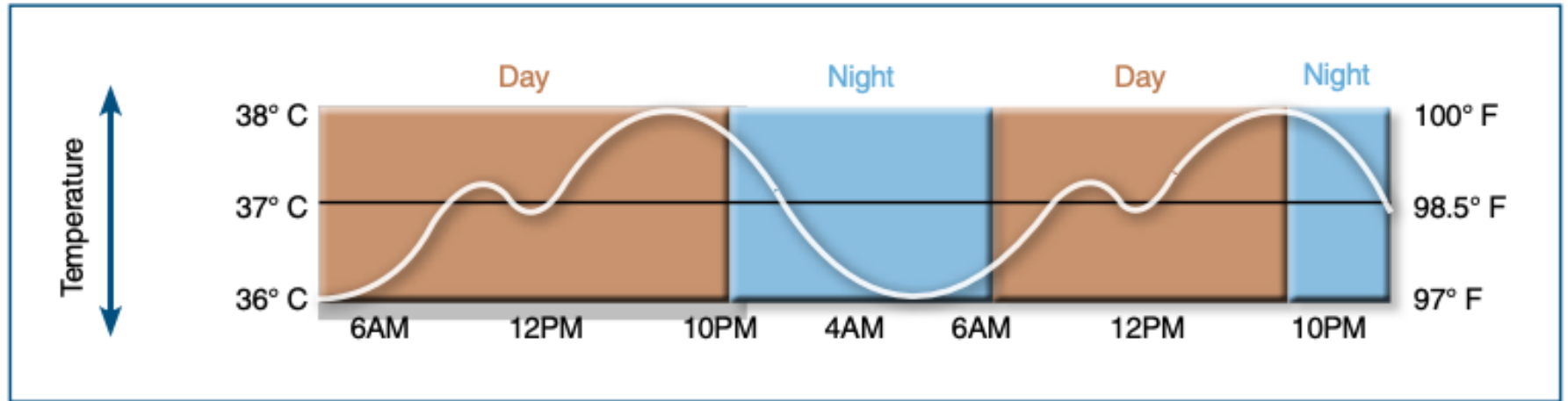
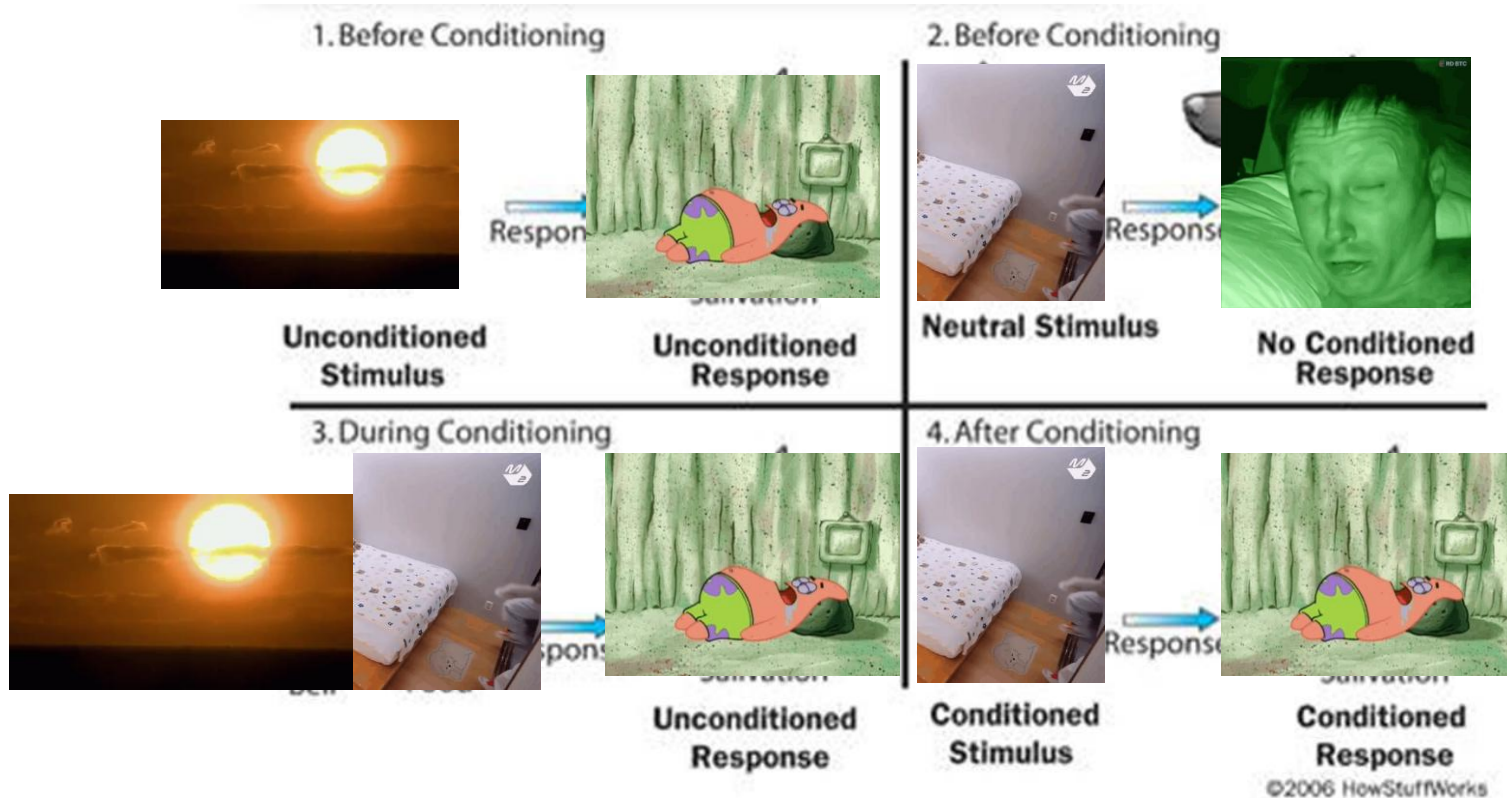


Figure 4. Sleep and Wake and the Daily Temperature Pattern

Stimulus Control



Stimulus Control

Rules for effective stimulus control:

- Do not go to bed until you feel sleepy
- Do not use the bedroom for any activity other than sleep (or sex)
- Get out of bed if you are awake for >20-30 minutes
- Do not return to bed before feeling sleepy
- Do not sleep anywhere other than bed

Cognitive Restructuring

| Situation | Automatic Thought | Emotion (0–100%) | Evidence For | Evidence Against | Balanced Thought | New Emotion (0–100%) | Behavior Plan |
|---|--|------------------------------------|---|---|---|-----------------------------|---|
| Awake in bed at 2:30 a.m., staring at the clock | “I’ll never fall asleep. Tomorrow will be a disaster.” | Anxiety 80% Frustration 70% | Awake >1 hour Important meeting tomorrow | Have fallen asleep before Managed on little sleep previously Anxiety keeps me awake | “Being awake now doesn’t mean no sleep. I’ve coped before.” | Anxiety 40% Calm 50% | Get out of bed if awake >20 min Quiet activity Return when sleepy |

Relaxation training

- Develop a buffer zone/wind-down routine
- Schedule “worry time”
- Create a “todo list”
- Practice progressive muscle relaxation (PMR)
- Practice other mindfulness exercises
 - Guided visual imagery
 - Body scan
 - Diaphragmatic breathing

Sleep Hygiene

Daytime

- Wake up at the **same time every day**
- Get **morning sunlight exposure**
- Avoid naps (or keep <20 min before 3 p.m.)
- Stay physically active (earlier in day)

Evening

- **Limit caffeine** after noon
- Avoid nicotine close to bedtime
- Reduce alcohol (fragments sleep)
- Wind-down routine (30–60 minutes)

Bedtime Environment

- Cool, dark, quiet bedroom
- Comfortable bedding
- Phone off
- Clock out of sight

In Bed

- Bed = **sleep & intimacy only**
- Go to bed **only when sleepy**
- If awake >20 min → get up
- Return when sleepy

Insomnia is:

- common
- specific
- impairing
- treatable

