

Improving Sleep Quality For BMT Patients

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Objectives

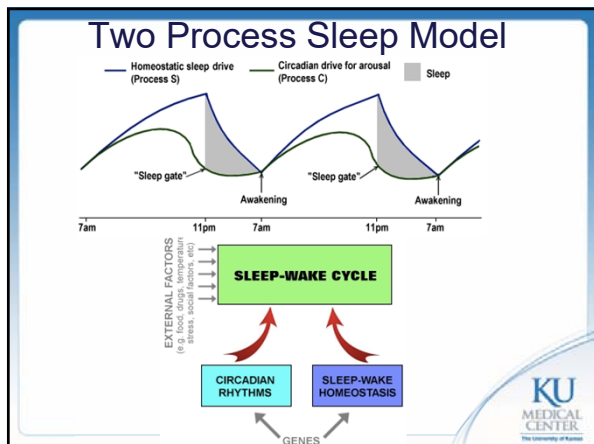
- Insomnia Definition
- BMT Consideration
- Sleep Assessment
- Outline CBT-I Intervention
- Medications
- Discussion/Questions



DSM-5 Insomnia


- One or more:
 - difficulty initiating sleep
 - difficulty maintaining sleep
 - waking up too early
- Sleep difficulty occurs:
 - despite adequate opportunity for sleep
 - at least 3 nights a week
 - at least 3 months
- Daytime consequences
- Not explained by another sleep-wake disorder or substance use
- Co-existing mental disorders and medical conditions do not adequately explain the predominant complaint of insomnia






Sleep and BMT

- 50 % of patients report sleep disturbance pre-transplant (Jim et al., 2016)
- 82% experience moderate to severe sleep disruption during hospitalization for transplant
- 69% SCT recipients report poor sleep quality during early post transplant recovery
- 48% continue to report moderate-severe disturbance 12 months post transplant (Nelson et al., 2014)
- Substantially higher than general population



Sleep and BMT


- Considerations
 - Long hospitalizations / hospital environment
 - Treatment side effects (nausea, mucositis, diarrhea etc, neuropathy)
 - Use of steroids
 - Disruption of normal activity (bed partner, exercise)
 - New environment (hope lodge)
 - GVHD and other long term complications
 - Nutrition
 - Pain
 - Other health concerns (obesity, diabetes, cardiac concerns, RLS)





Sleep Assessment

- Problem falling asleep? >30 minutes
 - Sleepy when getting into bed?
- Problem staying asleep?
 - How many arousals? How long to return to sleep?
- How do they feel during the day?
 - How easy to wake up? Grogginess?
 - Fatigue vs. sleepiness
- Daytime naps: can they nap? How often? Restorative?
- Are they allowing for adequate time to sleep?
- How much total time spent in bed? >9 hours too much
 - How much of that are they awake? What is total sleep time?
- What has natural sleep pattern been? Early bird, night owl, shorter sleeper, longer sleeper
- How long has this problem been going on? Was there a precipitating event?


*important to get bed partner information if possible



Assessment

- Medical / psychiatric history / comorbidities
- Assessing for factors serving to **maintain** sleep problems
- Caffeine: How much, across how many hours, when d/c
- Nicotine: How much per day, When is last intake at night, wake up during the night to smoke?
 - nighttime withdrawals & physiological arousal
 - Withdrawal effects unpleasant (one is insomnia) & cravings intense—can last months after quitting, Wellbutrin can worsen insomnia
- Alcohol: how much per week, when last intake at night, how long after asleep wake up, bingeing episodes (>4 drinks)
 - Usually helps with onset but worsens maintenance, waking up around 4 hours after intake from withdrawal of drug or urination needs, also sleep is lighter and less restorative




Assessment Tools


- Insomnia Severity Index (7 questions)
- Pittsburgh Sleep Quality Index (19 items, 5 additional completed by bed partner)
- PROMIS Sleep Disturbance (pool 27 items, short form options of 4, 6, 8)
- Epworth Sleepiness Scale (8 items)
- Sleep Diaries



Cognitive Behavioral Therapy for Insomnia (CBT-I)


- National Institute of Health, American Academy of Sleep Medicine: CBT-I first line of treatment for primary insomnia
- Efficacious in treating insomnia in patients with chronic pain (Currie et al., 2000) fibromyalgia (Edinger et al., 2005) and cancer survivors (Savard et al., 2005)
- Therapy Components
 - Stimulus control
 - Sleep restriction
 - Sleep hygiene
 - Cognitive Therapy
 - Relaxation Training





CBT-I Session Overview

- Assessment & Monitoring (Session 1)
 - Insomnia Severity Index (assessment)/ Introduce sleep diaries
- Psychoeducation (Session 2)
 - Sleep biology, circadian rhythms, conditioning, insomnia, CBT-I
- Stimulus Control & Sleep Restriction (Sessions 3&4)
 - Individualize recommendations, address barriers
- Managing arousal (session 5)
 - Relaxation skills training / Wind down routine
- Cognitive Retraining (session 6)
 - Automatic thoughts, rumination
 - Thought restructuring, thought records, worry time
- Individualized Behavioral Targets (Session 7)
 - Activation health behaviors (exercise, diet, substances)
 - Light/dark, sunshine!
- Wrap up/relapse prevention (session 8)




Sleep Logs

Cognitive Behavioral Therapy for Insomnia (CBT-I) Program Sleep Diary (Please complete upon awakening) NAME: _____

Today's Date	Medication(s) & Dose:	Medication(s) & Dose:	Medication(s) & Dose:	Medication(s) & Dose:	Medication(s) & Dose:	Medication(s) & Dose:	Medication(s) & Dose:
	Time(s) taken:	Time(s) taken:	Time(s) taken:	Time(s) taken:	Time(s) taken:	Time(s) taken:	Time(s) taken:
2. What time did you get into bed?	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM
3. What time did you try to go to sleep?	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM	... PM ... AM
4. How long did it take you to fall asleep?	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)
5. How many times did you wake up in the night?	... times	... times	... times	... times	... times	... times	... times
6. In total, how long did these awakenings last?	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)
7. What time did you finally awaken for the day?	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM
7a. Did you wake up earlier than you planned? If so, by how much?	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)
7b. Did you wake up later than you planned? If so, by how much?	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)	No/Yes ... min(s)
8. What time did you get out of bed for the day?	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM	... AM ... PM
9. In total, how long did you sleep?	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)	... hour(s) ... min(s)
10. What was the quality of your sleep? (1=very poor - 5=very good)							
11. How rested or refreshed do you feel? (1=not at all rested - 5=well rested)							

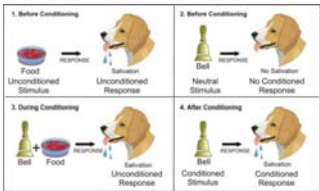
Psychoeducation

- Sleep varies by age (10 hours as adolescent, 8 young adult-middle aged, 6 old age)
 - There is no amount of sleep that fits everyone
 - Most normal adults sleep 6-8 hours per night (some 3 or 4, some 10 or 11)
- Most people wake up 1-2 times per night
- Energy dips throughout the day are normal
- Pre-sleep routine that is relaxing and behaviorally reinforcing, 60-90 minutes
- Review major changes in sleep habits expected
- Powerful internal body clock – sleep wake pattern
- Improvement 2-3 weeks
- Sleepiness with initial sleep schedule (set expectations)




Behavioral Intervention

- Stimulus control, sleep restriction used to standardize patient's sleep wake schedule
- Eliminate sleep incompatible behaviors that occur in bed and bedroom and restrict time in bed to develop efficient consolidated sleep pattern




Classical Conditioning




Behavioral Rules

- Rule 1: Select a standard wake-up time
- Rule 2: Use the bed only for sleeping
- Rule 3: Get out of bed when you can't sleep
- Rule 4: Don't worry, plan etc. in bed
- Rule 5: Avoid daytime napping
- Rule 6: Go to bed when sleepy, but not before time suggested



Basic Sleep Hygiene

- Limit caffeinated foods and beverages
 - >400mg (4 cups of coffee) can cause insomnia
 - Half life 2.5-4.5 hrs, stop by early afternoon or 6 hrs before sleep
- Limit alcohol use
 - Not in evening or as sleep aid, causes broken sleep, less refreshing
- Engage in moderate exercise
 - Avoid right before bedtime
- Bedtime snack (cheese, milk, peanut butter)
- Bedroom quiet and dark
 - Ear plugs, fan, white noise machine
 - No night lights, dark shades
- Temperature comfortable
 - Nothing over 75, cooler is better



SLEEP HYGIENE

HELPFUL TIPS TO HELP YOU SLEEP

What is sleep hygiene? "Sleep hygiene" is used to describe good sleep habits. Many of us don't pay attention to our sleeping habits but they are essential.

YOUR PERSONAL HABITS <ul style="list-style-type: none">• FIN A BEDTIME AND AN AWAKENING TIME• AVOID NAPPING DURING THE DAY• AVOID CAFFEINE & ALCOHOL 4-6 HOURS BEFORE BED• EXERCISE, BUT NOT BEFORE BED• AVOID ALOUD MUSIC	YOUR SLEEPING ENVIRONMENT <ul style="list-style-type: none">• USE COMFORTABLE BEDDING• BLOCK OUT ALL DISTRACTING NOISE• RESERVE THE BED FOR THE PURPOSES OF SLEEP, SEX AND SEXUALS• OTHER FACTORS	GETTING READY FOR BED <ul style="list-style-type: none">• TRY A LIGHT SNACK BEFORE BED• USE RELAXATION TECHNIQUES AND DON'T STAY IN BED LONGER THAN 1 HOUR
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SET INTO YOUR FAVORITE SLEEPING POSITION

THE LEVEL OF STRESS/ANXIETY YOU EXPERIENCE CAN AFFECT YOUR SLEEP. THESE TIPS CAN HELP YOU MANAGE YOUR STRESS AND ANXIETY. FOR MORE INFORMATION, VISIT www.sleepassociation.org.

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✓ **Treatments That Work**


Overcoming Insomnia

A Cognitive-Behavioral Therapy Approach

Workbook

Jack D. Edinger
Colleen E. Carney

www.sleepassociation.org



Relaxation Training

- Mindfulness, Diaphragmatic Breathing, PMR, Autogenics, Imagery
- <http://www.dartmouth.edu/~healthed/relax/downloads.html>
- Teach in session, assign for practice at home
- More helpful to practice throughout the day rather than JUST at night in order to build the skill
- Have to do a lot of work to get buy-in, discuss it as way to decrease cognitive activation, relax body, prepare for sleep

<https://www.sleepassociation.org/sleep-treatments/sleep-apps/>



DISCLAIMER

- Dr. Muenks Is not a prescriber



Medication


- Most common prescribed sleep meds
 - Zolpidem (Ambien)
 - Side effects, risks, hard to get off long term
 - Eszopiclone (Lunesta)
 - Good for staying asleep, can take it in middle of the night, works quick, wears off quick
 - Zaleplon (Sonata)
 - Falling asleep (not maintenance)
- Other Non Benzodiazepines
 - OTC Antihistamines (very quick tolerance – 3 days)
- Hydroxyzine
 - Also helps with chronic itching from histamine reactions , improves anxiety



Medication


- Benzodiazepines
 - Tolerance develops with continued use, reduced efficacy, abrupt withdrawal with worsening sleep, disrupts sleep structure, lose sedative qualities after 3 weeks
 - Lorazepam (Ativan)
 - Xanax (Alprazolam)
 - FDA approved for anxiety treatment but not insomnia

- Sedating Antidepressants
 - Trazadone
 - Most well tolerated
 - Inexpensive
 - Little impact on sleep structure
 - 100-150mg get antidepressant and insomnia
 - Mirtazapine – helps at lower doses not over 15 mg



Medication

- **Melatonin:** inconsistent research but safe enough to probably try (check w/ provider)
 - corticosteroids cause a reduction in melatonin serum levels, an important hormone in sleep regulation
 - .3mg – 5 average starting doses (start lowest and work way up by .5
 - Not FDA regulated as a dietary supplement
 - Consider interactions
 - Priming doses
 - Educate expectations (not going to make you drowsy)
 - Can't overdose, but can get rebound insomnia or unwanted side effects



Considerations for CBT-I Recommendation

- What is the primary complaint?
 - Non restorative sleep
- Circadian Rhythm Disorders (delayed sleep onset disorder)
 - Usually reporting normal restorative sleep on weekends
- Undiagnosed or unstable medical or psychiatric disorders
 - Acute illness prevents participation in tx (MDD, schizophrenia)
 - Sleep Apnea, RLS etc
- Contraindications
 - Frail, restricted mobility, fall risk
 - Epilepsy (sleep restriction can lower seizure threshold)
 - Bipolar disorder (sleep restriction can precipitate mania)
 - Exacerbation of parasomnias (night terrors, sleep walking, sleep paralysis)
- Compliance, dedication to major lifestyle changes



Questions, comments discussion



References

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC:

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