

Sleep 101

A CBT-I group for patients with chronic pain
Class #2

**Welcome
Back**

Agenda

- Homework Review – The Sleep Log and My sleep beliefs questionnaire
- Overview of the role of our thoughts and beliefs on sleep
- Sleep Medications



Homework

- Please take a few minutes to jot down something you noticed while you were tracking your sleep patterns on the sleep log during the past week
- Let's share some of our findings with the group

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Homework

- Let's talk about our findings when we completed the inventory focused on our beliefs about sleep:
- Any "aha" moments or surprises?
- How do our thoughts or beliefs impact our sleep?
- Mind and body are not separate entities

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Video on Sleep Efficiency

Understanding your sleep system

- We know that insomnia is impacted by the body and the mind
- Body physiology and their psychological processes



Sleep: A Balance Act

- Sleep is controlled by two things: your body clock and your sleep driver



The Body Clock

- The body clock
- Age
- Find out your Chronotype:
<https://sleephabits.net/morningness-eveningness-questionnaire>



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Working with your body clock

- Behave in accordance to your body clock
- Difference between being fatigued and being sleepy

"reset" your body clock daily by:

- o Exposure to sunlight in the morning
- o Keeping a regular wake-up schedule
- o Regularity in other routines: physical activity, meals,
- o social interactions

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Your Sleep Driver

- The sleep driver System:
- It is the amount of "pressure" to fall asleep your body experiences within 24 hours



Working with your sleep driver

- Don't try to compensate for lost sleep
- The following compensating behaviours tend to disrupt the sleep driver's balance:
 - Staying in bed after the alarm goes off/snoozing
 - Sleeping in the next day after a late night
 - Going to bed earlier than usual
 - Naps
 - Drastically reducing our activity levels





Quantity versus Quality

- Compensating behaviours seem intuitive and logical to recover from lack of sleep, BUT:
- After losing sleep, the system tries to recover by producing deeper sleep
- Quality is better than quantity: six hours of deep sleep feel much better than 10 hours of interrupted, light sleep

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Take home points

- Sleep is controlled by two systems: your body clock and your sleep driver
- Matching your schedule to your body clock and keeping a regular timing of activities that reset the body clock is helpful
- It is important to distinguish between sleepiness and fatigue
- Keeping a regular wake-up time is crucial

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More Take Home Points

- How deep you sleep is more important than how long you sleep
- Spending more time sleeping or resting tells your sleep driver to produce less sleep and lighter sleep
- Sleep patterns change with age: Changing expectations and modifying certain habits can help older adults to achieve better quality sleep



Sleep Efficiency

- Can be defined as the amount of time you spend in bed ACTUALLY sleeping versus the total amount of time you are in bed
- Can be calculated by dividing the amount of time spent asleep by the amount of time spent in bed and multiplying it by 100 to get a percentage value:
- If I slept 6 hours and spent 8 hours in bed:
 $6/8 \times 100 = 75\%$
- The ideal sleep efficiency coefficient has been determined at 85%

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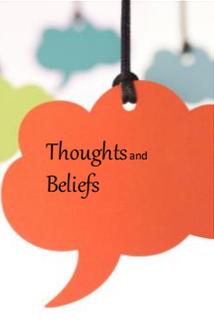
Sleep efficiency

Sleep efficiency explained:

- https://www.youtube.com/watch?v=7ubEDO09_U
- Here is a sleep efficiency calculator:
<https://mysleepwell.ca/cbt/sleep-efficiency-calculator/>



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Thoughts and beliefs about sleep

What we think and believe has an impact on our sleep

Thoughts elicit emotions...if you think about not getting any sleep tonight, how do you feel about it?

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Thoughts and emotions about sleep, elicit behaviours

What would you DO if you have trouble falling asleep?

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Unhelpful attitudes about sleep

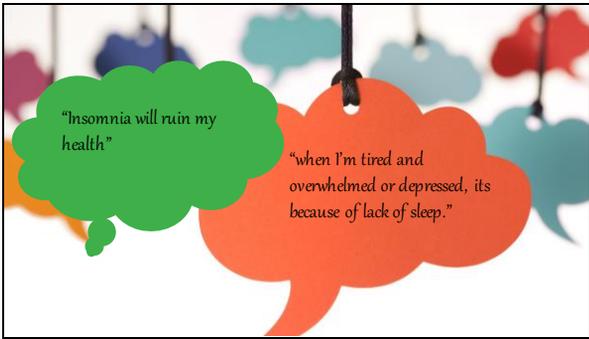
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graph TD; A[Excessive worry about loss of sleep] --> B[Overthinking about the consequences]; B --> C[Unrealistic expectations about sleep]; C --> D[Making catastrophic predictions];
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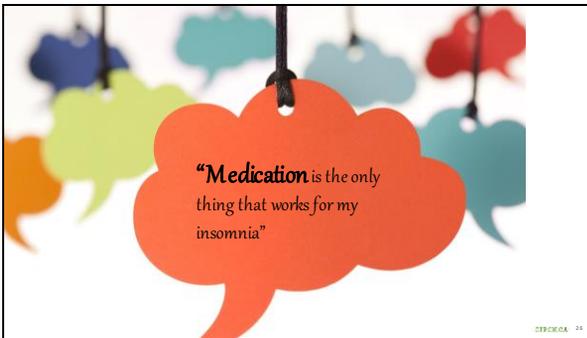
Let's Review some Common unhelpful thoughts/myths











More Take Home Points

- Thoughts, impact emotions, impact behaviours, impact thoughts, impact emotions, impact behaviours....
- Consider your beliefs and thoughts: How you think about sleep, impacts your emotions and behaviours with regards to sleep.
- We can cope and function on a lot less sleep than we usually think.



What about Medications?

Should I use them?



Sleeping Medication True or False

1. Sleeping pills are meant to be used long term (ie. >4 weeks)
True or False
2. Sleeping pills can contribute to insomnia.
True or False
3. Sleeping pills help me to get a much deeper sleep and help me to feel more rested in the morning.
True or False

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What are the most common medications used for sleep?

Benzodiazepines and Z-drugs are two classes of drugs that are used to treat problems such as anxiety or difficulty sleeping.

Some common names include:

- Lorazepam (Ativan)
- Clonazepam (Rivotril)
- Temazepam (Restoril)
- Zopiclone (Imovane)
- Zolpidem (Sublinox)



****Stopping a Benzodiazepine is not for everyone. Check with your DR first!**

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Limited Evidence for Sleep

Other Medications Used for Sleep

- Anti-depressants - Trazodone, mirtazapine
- Tri-cyclic antidepressants – nortriptyline, amitriptyline, doxepin
- Anti-psychotics – Quetiapine, Risperidone

*Medications should be adjusted on an individualized basis. Talk to your pharmacist or Dr. prior to making changes.

Balancing the Pros and Cons of Sleeping Medication

Benefits

- Estimated decrease in sleep latency by 10 to 20 minutes
- Estimated increase in total sleep-time by approximately 30 minutes



Harms

- Tolerance Building
- Withdrawal Symptoms
- Side effects
- Hangover Effects
- May suppress Delta and REM sleep

Potential Harms

Side Effects

- Hangover effects
- Fall risk
- Fractures
- Memory and performance impairment
- Increase risk of motor vehicle accidents
- Tolerance building
- Drug interactions

Withdrawal Symptoms

- Rebound insomnia when stopped abruptly - this can lead to a vicious cycle of increasing the dose to help with sleep.
- Anxiety
- Irritability
- Sweating
- Gastrointestinal symptoms

(all usually mild and last a few days to a few weeks)

What About OTC and Herbal Supplements ?

- ❖ OTC Antihistamines (diphenhydramine, doxylamine)
- ❖ Herbs (Valerian, kava, passionflower, and others)
- ❖ Melatonin



What other medications/substances can contribute to insomnia?

- Alcohol
- Amphetamines
- Caffeine
- Corticosteroids *
- Decongestants
- Diuretics *
- Nicotine
- Opioids
- Stimulating anti-depressants
- Many many others



*Dose earlier in the day to reduce impact on sleep

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Tips on Tapering

1. Don't go it alone!
 - o Talk to your pharmacist or physician to ensure that tapering your sleeping pill is right for you. Make a tapering plan. Follow-up frequently for support.
2. Go slow!
 - o Slowly reduce your dose. It may take weeks to months to entirely get off your sleeping pill.
3. Make a plan!
 - o Have a plan in place to deal with withdrawal symptoms (anxiety, insomnia).
4. Keep up with healthy sleep practices
5. Talk to a HCP about CBT-I.



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References

Websites:

- <https://mysleepwell.ca/>
- <https://www.sleepfoundation.org/articles/pain-and-sleep>

Articles:

- Cheatley et al. (2016). *Assessing and Managing Sleep Disturbance in Patients with Chronic Pain*. *Anesthesiology Clinics*. 2016 Jun;34(2):379-93. doi: 10.1016/j.anclin.2016.01.007. <https://pubmed.ncbi.nlm.nih.gov/27208716/>
- Schrimpf et al. (2015). *The effect of sleep deprivation on pain perception in healthy subjects: a meta-analysis*. *Sleep Medicine*. 2015 2015 Nov;16(11):1313-1320. doi: 10.1016/j.sleep.2015.07.022. <https://pubmed.ncbi.nlm.nih.gov/26498229/>

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- Jungquist, Carla, Perlis, Michael L., Posner, Donn, & Smith, Michael T. (2008). *Cognitive Behavioral Treatment of Insomnia: A session by session guide*. Springer.

Video on sleep efficiency:

https://www.youtube.com/watch?v=7ubEDO09_UI

My sleep beliefs questionnaire:

<http://drcoleencamey.com/wp-content/uploads/2013/05/My-beliefs-about-sleep.pdf> (Camey, 2013)

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Please help us improve 😊

Survey Monkey Link:

Link goes here

Thank You for Joining Us!!!!

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