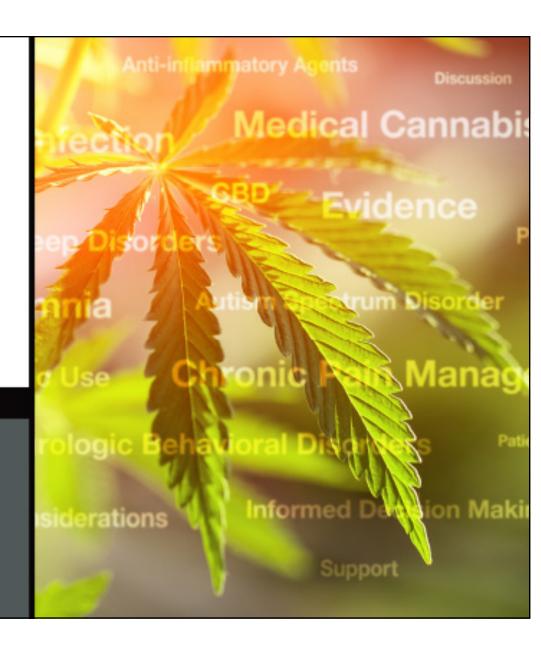
Treatment of Insomnia with Cannabis

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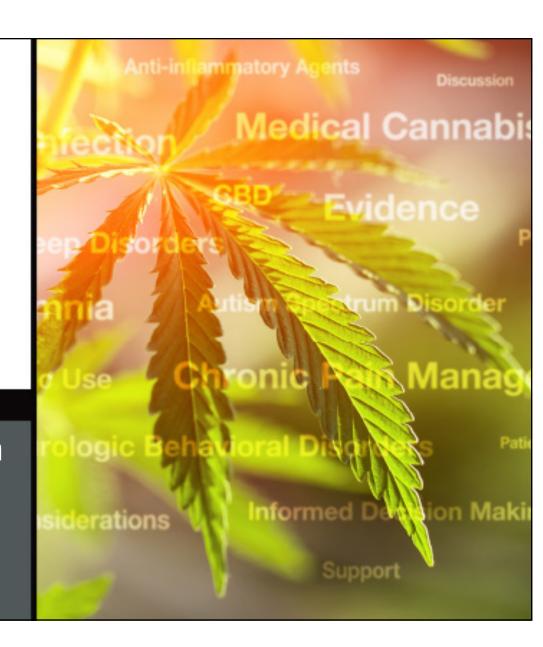
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Disclosures

Dr. Tishler has no disclosures to report.

Learning Objective

Evaluate the role of cannabis in the treatment of insomnia.



What is Insomnia?

- Increased sleep latency (trouble falling asleep)
- Difficulty maintaining sleep (early awakening)
- Mixed type
- 1/3 of patients in primary care report insomnia: 10% chronic¹
- Chronic—3 nights per week for more than one month
- Mental health issues only account for 50%²

1. MacGregor KL, et al. Gen Intern Med. 2012;27(3):339-344. 2. Ford DE, Kamerow DB. JAMA. 1989;262(11):1479-84.

Approaches to Treating Insomnia

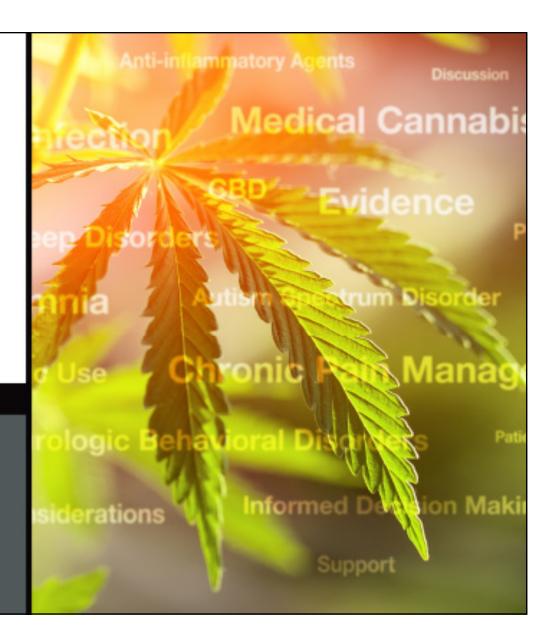
Nonpharmacologic

- Cognitive behavioral treatment (CBT)
- Sleep restriction treatment
- Stim control treatment
- Relaxation treatment

Pharmacological

- Zolpidem (Ambien), Eszopiclone (Lunesta), Zaleplon (Sonata)
- Benzodiazepines
- Tricyclic antidepressants (TCAs)*
- Trazadone*
- Antipsychotics (Mirtazapine, Remeron)*
- Antihistamines (Diphenhydramine, Benadryl)*
- Melatonin, Valerian Root*

How Does Cannabis Fit In?



3 Studies that Summarize What is Known About Cannabis and Insomnia at Present

- "CONCLUSION 4-19 There is moderate evidence that cannabinoids, primarily nabiximols, are an effective treatment to improve short-term sleep outcomes in individuals with sleep disturbance associated with obstructive sleep apnea syndrome, fibromyalgia, chronic pain, and multiple sclerosis."1
- 409 patients: 45% reduction in insomnia reported severity, self reported, no control, results varied by methods²
- 81 patients: Decreased insomnia, Sativa > Indica for nightmares (14 patients), lower THC > higher, higher CBD -> worse insomnia³

CBD = cannabidiol; THC = tetrahydrocannabinol.

1. National Academies of Sciences, Engineering, and Medicine. 2017. The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research. Washington, DC: The National Academies Press. https://doi.org/10.17226/24625. Accessed February 17, 2020; 2. Vigil JM, et al. Medicines (Basel). 2018;5(3). pii: E75; 3. Belendiuk KA, et al. Addict Behav. 2015;50:178-181.

Risk/Reward

Real:

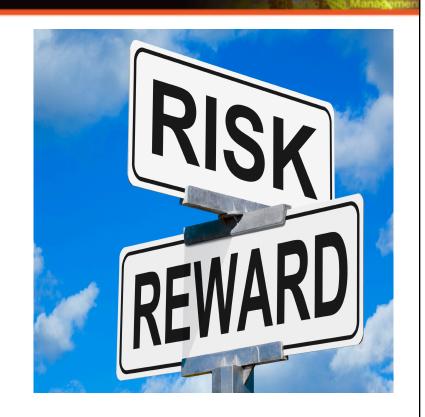
- Dependence (~3% over age 25)
- Memory (Verbal slowing over 40y)
- Drug Interactions (Almost all CBD)

Disproven:

Falls (No increase risk of falls in elderly)

• Unclear:

- Stroke¹
- Cardiac¹
- (OR ~1.2, but studies poor)



Subramaniam VN, et al. Mo Med. 2019;116(2):146-153.

How To Treat Insomnia with Cannabis



(Hint: Not like this!)

Route of Administration Makes All The Difference

- Inhaled
 - Rapid onset (10-15m)
 - Moderate duration (3-4h)
- Caveats
 - Some patients are resistant
 - Slightly higher learning curve
 - May provoke asthma/COPD
- Use flower not concentrate

- Oral
 - Delayed onset (1-2h)
 - Prolonged duration (8-12h)
- Caveats
 - Avoid high sugar/calorie
 - Bioavailability varies
- Use (small) edibles, not capsules or tincture

COPD = chronic obstructive pulmonary disease.

Which Route Depends on What You're Treating

- Inhaled
 - Best for sleep latency
- Tishler method of dosing
 - Slow steady deep breath in, to max capacity. Immediate exhale. Called 1 puff.
 - ~3-5mg THC if using 15-20%THC strain
 - Start 1-2p, titrate to 4p, 15m interval
 - Typically dosed shortly before bedtime

- Oral
 - Best for poor sleep maintenance
- Direct dosing in mg
 - Start 5mg, titrate to max 20mg
 - Never repeat dose in same day
 - Typically dosed shortly before bedtime
 - Can shift 1-2h earlier to address both latency and maintenance

Some Helpful Products: Inhaled*





- Temperature is crucial to safe, effective vaporization: 350°F (180°C) is ideal
- At 400°F (°C) combustion begins to produce toxins

Some Helpful Products: Cannabis Edibles*



Low dose, low calorie, low sugar

High precision dosing, good bioavailability



Watermelon flavored

 Easy to dose, longlasting, watermelon flavored confection

Sativa: 2mg Gems ("30 count)

Hybrid: 5mg Gems ("30 count)

Indica: 2mg Gems ("30 count)

Some Less Than Helpful Products*

Not very useful

- Dose too high
- Not readily divisible



- 55mg gluten free chocolate chip cookie
- 55mg peanut butter krispie cup
- 60mg CBD graham crackers (3 in pack)
- 60mg chocolate chip cookie
- 60mg chocolate peanut butter chip cookie
- 60mg peanut butter sandwich cookie
- 60mg toffee crunch cookie



- Low doses are ineffective
- High doses (10-20mg/kg/d) promotes WAKEFULNESS!
- High doses can cause medication interactions.

Call to Action: Cannabis in the Management of Insomnia

- Consider & treat medical causes of insomnia
- Consider & treat nonmedical causes
- Maximize sleep hygiene
- Sleep Latency = Inhaled
- Sleep Maintenance = Oral
- Mixed = Oral earlier
- 5-20mg regardless of route

- Use edibles over caps or tincture
- Avoid vape pens
- No bong rips
- Mind caloric intake
- CBD irrelevant

Questions Answers

Thank You!

