

# Science of Behavioral Change and Adherence to CPAP Therapy

Understanding Change Theory, Barriers, and Strategies for Improvement

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# Conflict of Interest Disclosures for Speakers

Alicia Julovich, MD has no relevant financial relationships with ineligible companies to disclose.

# Learning Objectives

Upon completion of this course, attendees should be able to...

- Describe the brief underlying principles of change theory.
- Identify common barriers to CPAP adherence
- Develop strategies to enhance patient adherence to CPAP therapy

Lessons from "The Gambler"

# Principles of Change Theory



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# Precontemplation

“Know when to Walk Away”

- Individuals are not yet aware or ready to change.
- If the conditions are not favorable, it may be wise to delay or shift the change effort





# Contemplation

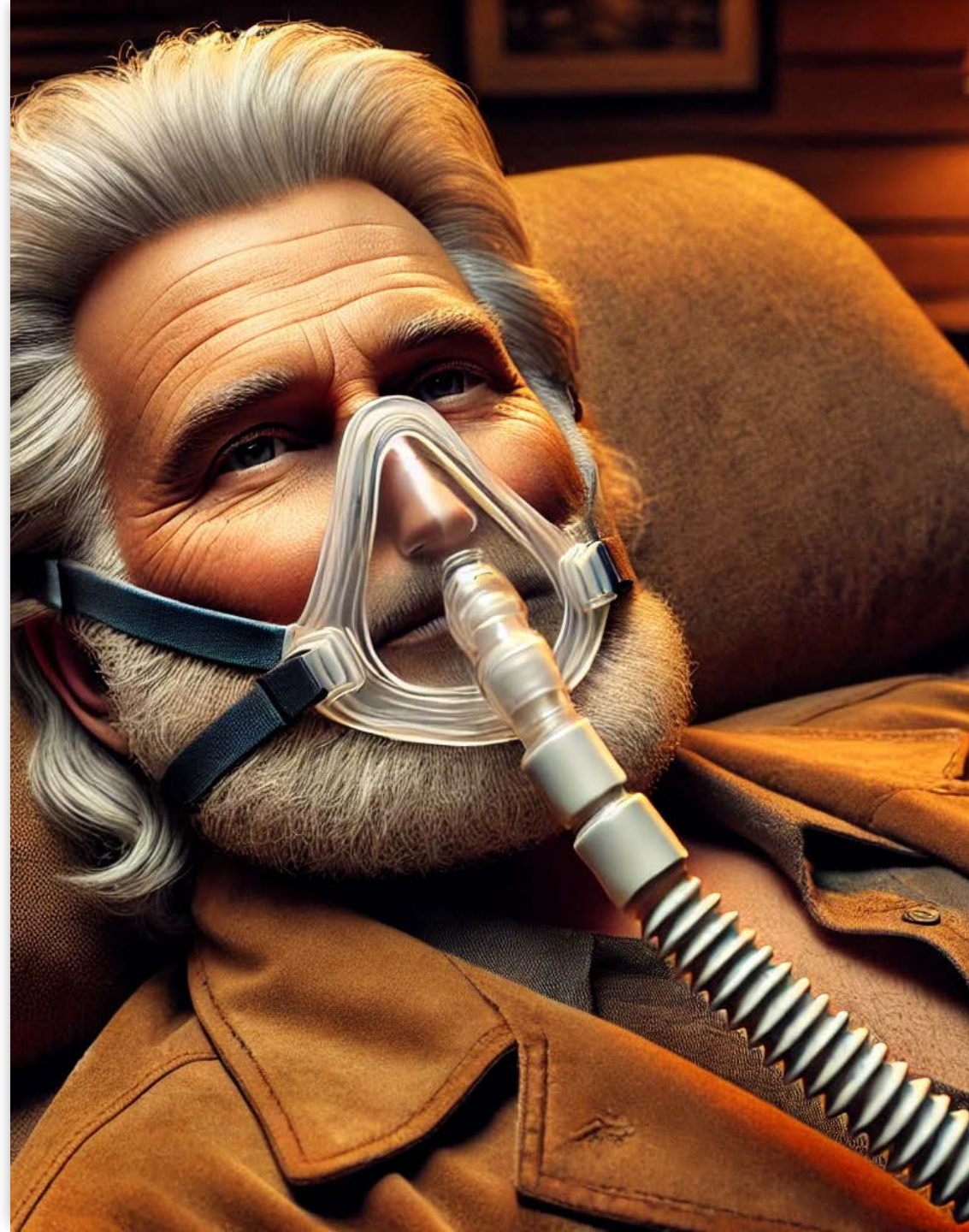
“Know When to Hold ‘Em, Know When to Fold ‘Em”

- individuals recognize the need for change but are uncertain about taking action.
- Contemplating their choices—whether to keep going in a certain direction (hold 'em) or let go (fold 'em).

# Action

“You never count your money when you’re sitting at the table”

- Requires self-control and timing



# Maintenance

“Every hand’s a winner, and every hands a loser”

- No guaranteed outcomes
- Need to be flexible to change to avoid slipping back into old habits
- Success depends on how you navigate the change process

AI generated







How do we help patients navigate the challenges?

# Common Barriers to CPAP Adherence

- What is considered as adherent?
  - Medicare-defined minimum use threshold of 4 or more hours for 70% of nights with an estimated 46% adherence rate<sup>1</sup>
- Largest deterrent to CPAP therapy → Claustrophobia
  - Cited as 63-84%<sup>2</sup>
- Equipment Related Barriers → mask leaks, portability, device noise, hose length, mask discomfort
- Lifestyle and demographic factors
  - Older patients and those with certain comorbidities (i.e.. DM, HF) tend to have better adherence rates, whereas younger individuals and those without a supportive bed partner are less likely to stick to CPAP therapy
  - Socioeconomic factors → insurance coverage and access to follow-up care
- Side effects
  - Dry mouth, nasal congestion

# Common Barriers to CPAP Adherence

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# Strategies to Enhance Patient Adherence

- Behavioral interventions accounted for 1.31 more hours per night of CPAP use compared to usual care (95% CI, 0.95 to 1.66)
  - Telemonitoring with provider intervention when CPAP use falls below thresholds or there are mask leaks (Moderate evidence; MD = 0.70 hours per night)
  - Peer support (See Resource slide for websites)
  - Encourage the involvement of a support system, such as family members or bed partners, to reinforce adherence
  - CBT, especially for those with anxiety and claustrophobia associated with non-adherence
  - Education alone only increased adherence by an additional 35 minutes per night
  - Motivational interviewing helps resolve any ambivalence to use of CPAP

# Strategies to Enhance Patient Adherence

- Mask fitting and Equipment Selection

Nasal Pillow



Full Face Mask



Nasal Mask

Oral Mask

# Strategies to Enhance Patient Adherence

- Follow up support
  - Schedule regular follow-up appointments to monitor adherence and address issues
  - Utilize telemedicine for follow-ups, making it easier for patients to access support
- Addressing side effects
  - Proactively discuss potential side effects and offer solutions, such as using humidifiers to combat dry mouth or nasal congestion



# Key Take Aways

- Telemonitoring with physician intervention to monitor adherence in real time
  - Offer telemedicine appointments to improve access
  - Behavioral intervention support
  - Improve mask fit
  - Address side effects
  - Ensure frequent follow-ups, especially initially
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# Resources

- American Academy of Sleep Medicine clinical practice guidelines for the treatment of OSA, educational materials such as pamphlets and videotapes for both clinicians and patients are available from several internet sites
  - American Academy of Sleep Medicine: <https://aasm.org>;
  - National Sleep Foundation: <https://www.sleepfoundation.org/narcolepsy/homeward>;
  - American Sleep Apnea Association: <https://www.sleepapnea.org/>

# Thank You!

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Please feel free to reach out for questions

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