

# Using ACT to Optimize Cognitive Behavioral Therapy for Insomnia

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Credit to: Kathryn Lieber, MD, University of CO, Tracy Kuo Stanford Sleep Disorders Clinic

# Objectives

Why care about sleep?

What is CBT-I

When CBT-I works

ID'd areas of growth

CE Credit?

Please Sign In

# A Quick Note on Values

# Insomnia in Clinical Context

## 4 Flavors of Insomnia

- Difficulty falling asleep
- Difficulty staying asleep
- Waking up too early
- Poor quality sleep

## Impacts quality of life or daytime functioning...

- Fatigue
- Daytime Sleepiness
- Attention, Concentration or Memory Impairment
- Poor work performance
- Irritability
- Headaches
- Anxiety

# Why Target Sleep Directly?

## PREVALENT

**1 of ever 3 (100+ million) Americans have occasional bouts of insomnia.**



**1/3 go on to have chronic insomnia (~23% of US population)**



**Sleep loss associated with daytime impairment (50-70 million)**

# Why Target Sleep Directly?

## **UBIQUITOUS**

- Virtually all psychiatric disorders are associated with sleep disruption

# Why Target Sleep Directly?

## **RISK FACTOR**

- For the development of medical illnesses (hypertension, heart disease, diabetes)
- Increasing evidence of its role as a likely mediating (causative) variable for the development of a new onset mental illness



# Why Target Sleep Directly?

## **NON-RESPONSE**

- Insomnia represents a risk factor for non-response to standard treatments for “primary” MH conditions

# Why Target Sleep Directly?

## **RELAPSE RISK**

- Untreated insomnia is a significant risk factor for relapse & recurrence of mental illness
- Doubling the chance of depression relapse (as a causal factor)

# Why Target Sleep Directly?

## **IMPROVES COMORBID CONDITIONS**

- Treatment has been shown to produce improvements in the “primary” issues of depression & chronic pain

# Why Target Sleep Directly?

## **DOESN'T HAVE TO BE TIMED**

- CBT-I has been found to be as effective for insomnia that occurs co-morbidly as it is with “primary” insomnia.

# Why Target Sleep Directly?

## Two (old) assumptions

- Sleep issues are usually are a symptom of something larger, not an independent issue
- Successful treatment of underlying primary disorder will result in amelioration of the sleep disturbance

# Why Target Sleep Directly?

## **SUMMARY**

- Shift in perspective → away from primary/secondary
- Significant factor in clinical response
- Significant factors in vulnerability to other MH processes
- Often needs focused, specialized treatment to improve
- Not directly targeting sleep symptoms = disservice
- Treatment exists!  
...over 30 years of evidence suggests that CBT-I is the most effective

# What is CBT-I?

Multi-Component

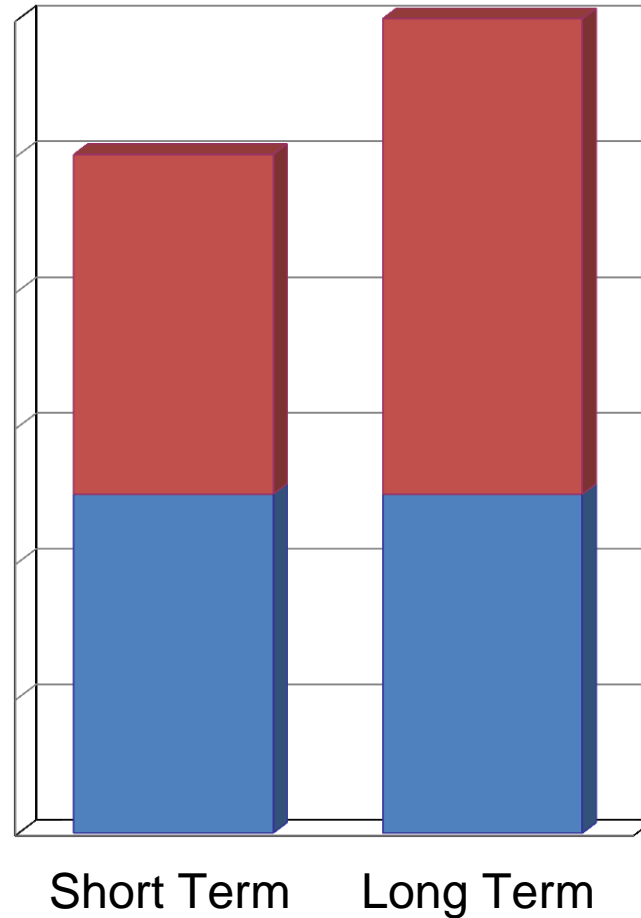
Non-Pharmalogical

Robust Evidence

Manualized & Idiopathic

# Efficacy

- CBT-I (over 50 clinical trials)
- Sleep Meds





# Target Areas

CBT-I is efficacious in:

- reducing time to fall asleep
- reducing amount of wake time during the night
- improving sleep efficiency

Note: CBT-I provides an improvement, not cure

It is estimated 20-30% return to “normal sleep”

Case Example?

# Causes of Chronic Insomnia

**Medical disorders:** CHF, COPD, asthma, GERD, cancer, chronic pain, hyperthyroidism, BPH, Parkinson's, fibromyalgia.

**Comorbid sleep disorder:** OSA, RLS, periodic limb movement disorder, circadian rhythm disorder

**Psychiatric disorders**

**Substance Abuse**

**Medications:** anticholinergics, antidepressants, antiepileptics, CNS stimulants, steroids

# A Model of Chronic Insomnia

## Predisposing Factors

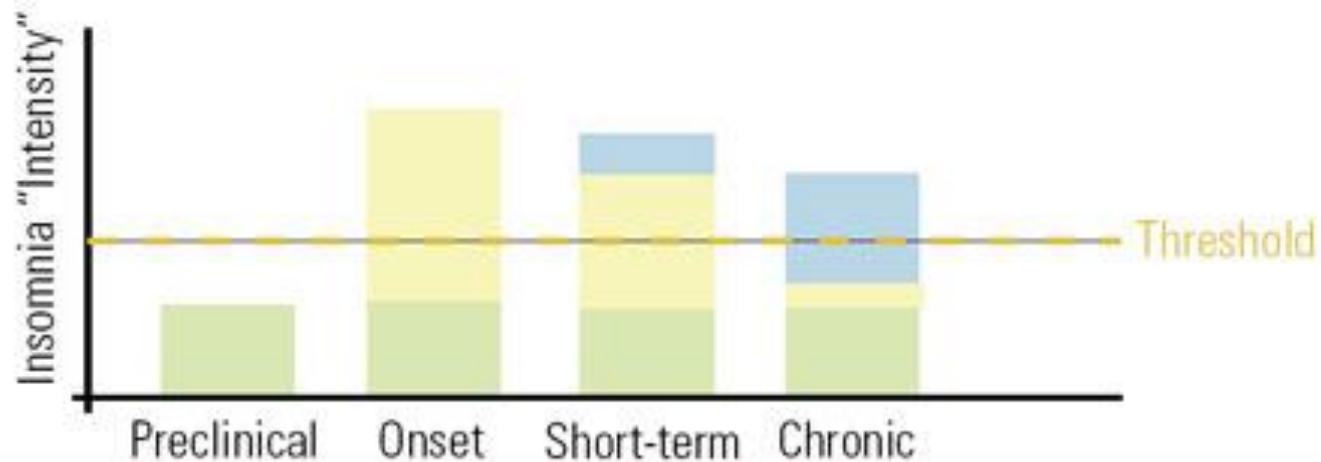
- Biological traits
- Psychological traits
- Social factors

## Precipitating Factors

- Medical illness
- Psychiatric illness
- Stressful life events

## Perpetuating Factors

- Excessive time in bed
- Napping
- Conditioning



# Perpetuating Factors

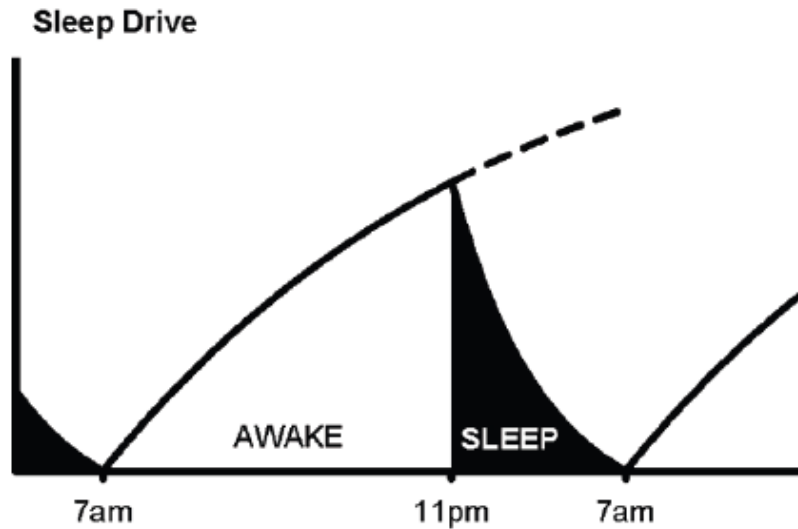
- **Excessive time in bed**
- **Increase in non-sleep related behaviors occurring in the bedroom**
- Naps & stimulant use
- Sleep aids
- Unhelpful & dysfunctional sleep related

# Behavioral Sleep Medicine

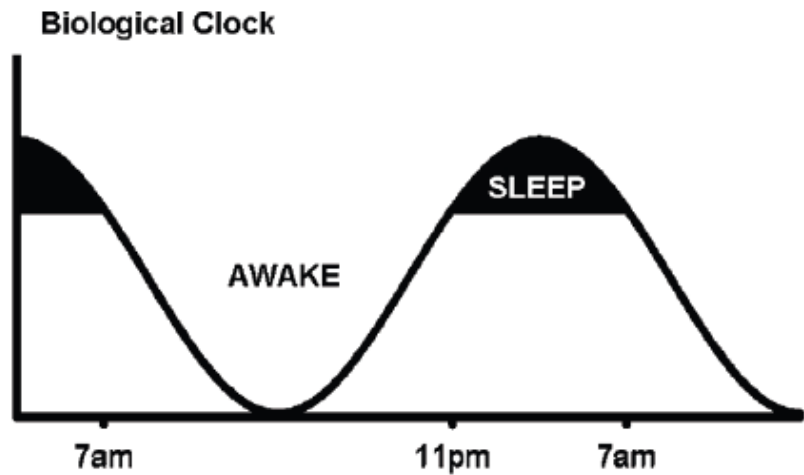


# Biology

1. How long you've been awake



2. The Biological Clock





# Multi-Component Approach

Technique	Purpose
<b>Sleep restriction</b>	Restrict time in bed to consolidate sleep and improve depth of sleep
<b>Stimulus control</b>	Strengthen bed/bedroom as sleep stimulus via behavior recommendations & focus on a consistent sleep-wake schedule
Cognitive therapy	Address thoughts and beliefs that interfere with sleep
Relaxation training	Reduce arousal & decrease anxiety
Psychoeducation	Education about factors (environment, health habits, & sleep habits) that help/hurt sleep.



# Stimulus Control (Bootzin, 1972)

*aka de-program sleep-interfering associations*

1. Wake up at the same time (including weekends). Set alarm.
2. Use bed only for sleep and sex.
3. Go to bed only when sleepy
4. Get out of bed when unable to fall asleep
5. Avoid daytime napping

# Sleep Restriction

Limit time in bed

mild sleep deprivation → sleep consolidation

## **How:**

- Reduce time in bed to estimated total sleep
- Wake up time is fixed
- Adjust weekly based on response

# Advantages & Disadvantages

## **Advantages of CBT-I**

- Non-pharmacological option
- Explicit focus on causative factors over symptom reduction - skills and strategies to use over time
- Effects are durable over time

## **Disadvantages of CBT-I**

- Meds are widely available & rapid (when effective)
- Attrition due to discomfort
- Improvements typically are not seen until 3-4 weeks

# Cognitive Strategies



**SLEEP**  
**OR DIE**



**NOT GETTING THE RIGHT AMOUNT OF SLEEP EACH NIGHT CAN HAVE SERIOUS HEALTH RISKS AND CAN LEAVE LONG-LASTING EFFECTS ON YOUR BODY AND MIND.**

**HEALTH RISKS OF NOT SLEEPING**

# Behavioral change is challenging.



Wanda was proud of herself for sticking to her one-cup-a-day limit...

# Multi-Component Approach

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# CBT-I initially focused on interpreting cognitive processes.

CBT Thought Record

Situation	Mood	Automatic Thoughts	Evidence for the Hot Thought	Evidence against the Hot Thought	Alternative Thoughts	Mood Now
<p><small>If for any reason you need a change of direction, please contact your therapist.</small></p>	<p><small>What emotion(s) are you experiencing at the time of the thought?</small></p>	<p><small>What belief(s) are you holding at the time of the thought? What are the underlying assumptions? Are they realistic?</small></p>	<p><small>Check the thought against the evidence. Are there any facts that support the thought? Are there any facts that contradict it?</small></p>	<p><small>What evidence do you have that contradicts the thought? Are there any facts that support the thought? Are there any facts that contradict it?</small></p>	<p><small>Are there any alternative thoughts? Are they realistic? Are they helpful? Are they consistent with your values?</small></p>	<p><small>How do you feel now? How do you feel after the thought? How do you feel after the alternative thought?</small></p>



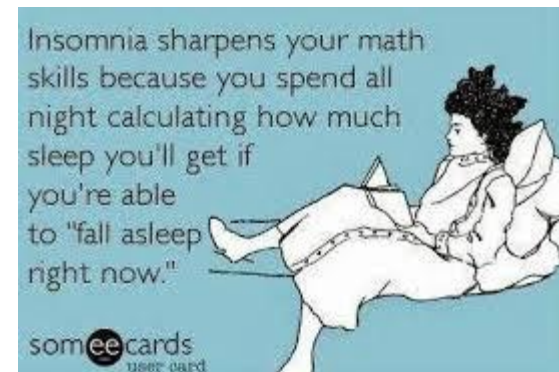
Sleep is a **MUST** for Good Health!

# CBT-I then augmented with sleep- interfering cognitive processes.



## Pre-sleep processes

## Level of cognitive activation

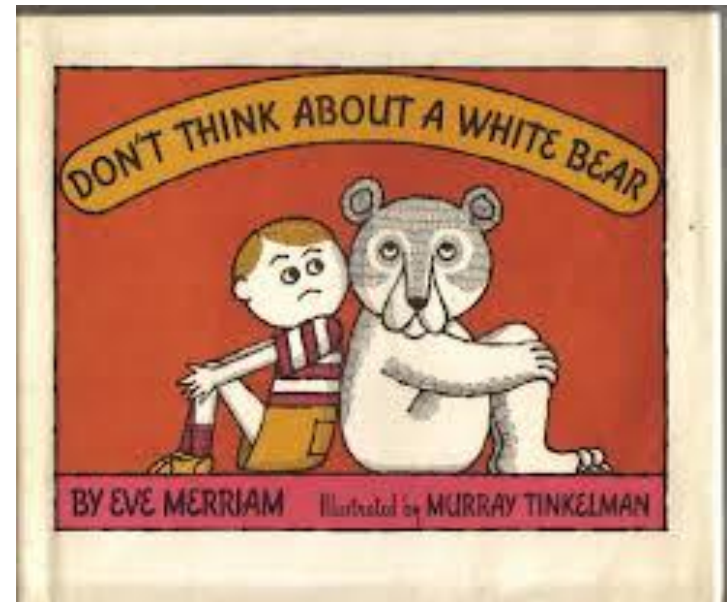




# People with insomnia tend to

use more thought control strategies (thought suppression, reappraisal, and worrying).

(Harvey & Payne, 2002)



# People with insomnia



www.shutterstock.com · 114277135

are more involved in excessive verbal thinking that is counter-productive both with regards to sleep and daytime functioning.

(Nelson & Harvey, 2003)

# People with insomnia tend to

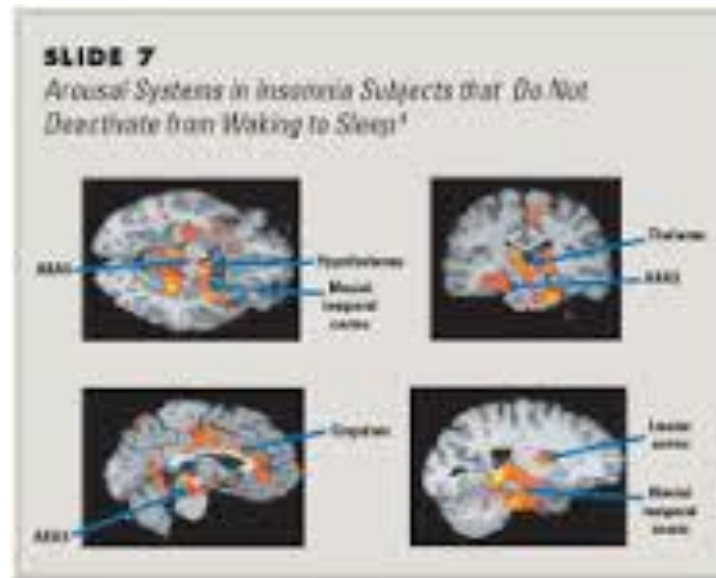
show more difficulty in letting go of verbal control both at night and during the day (researched via MSLTs).

(Lundh & Hindmarsh, 2002)



*"When I can't sleep, I find that it sometimes helps to get up and jot down my anxieties."*

# Poor sleepers have more hyper-arousal and anxiety.



Nofzinger E.A., Buysse D.J., Germain A., Price J.C., Miewald J.M., & Kupfer D.J. (2004) Functional neuroimaging evidence for hyperarousal in insomnia. *American Journal of Psychiatry*. 161(11):2126-2128.

# Mindfulness optimizes CBT-I

**"Using Mindfulness and Acceptance-Based Approaches for Insomnia" with Jason Ong, Ph.D.**



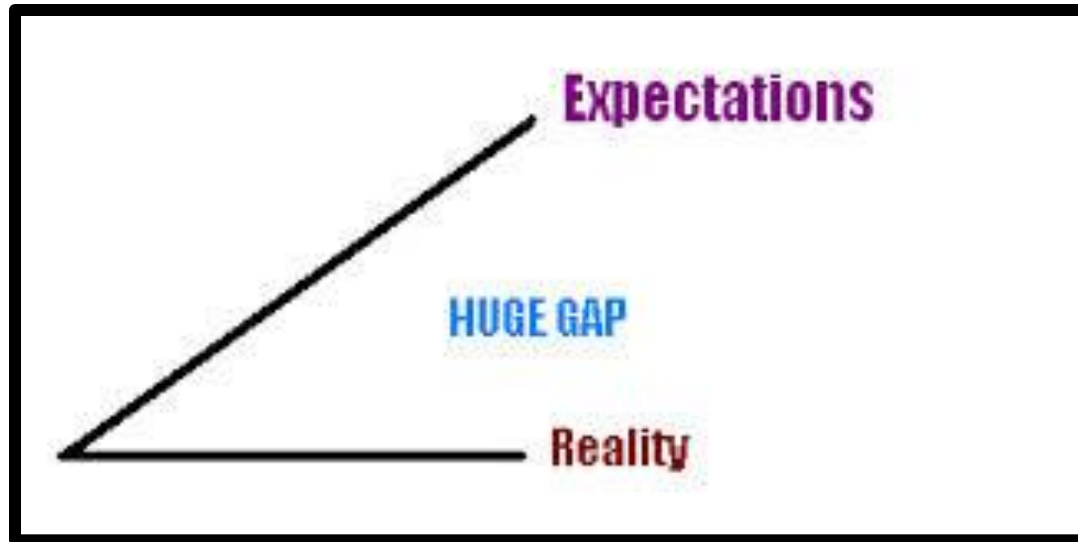
PLEASE TYPE YOUR QUESTIONS AND COMMENTS IN CHAT AREA or Email us if you are watching a webinar recording at:

info@mindbodymedicinetwork.com  
Mind Body Medicine Network, LLC  
<http://www.mindbodymedicinetwork.com/index.html>

**A Randomized Controlled Trial of Mindfulness Meditation for Chronic Insomnia (in press)**

**Jason C. Ong, PhD  
Rachel Manber, PhD  
Zindel Segal, PhD  
Yinglin Xia, PhD  
Shauna Shapiro, PhD  
James K. Wyatt, PhD**

**It is frustrating when EBT's are not effective.**

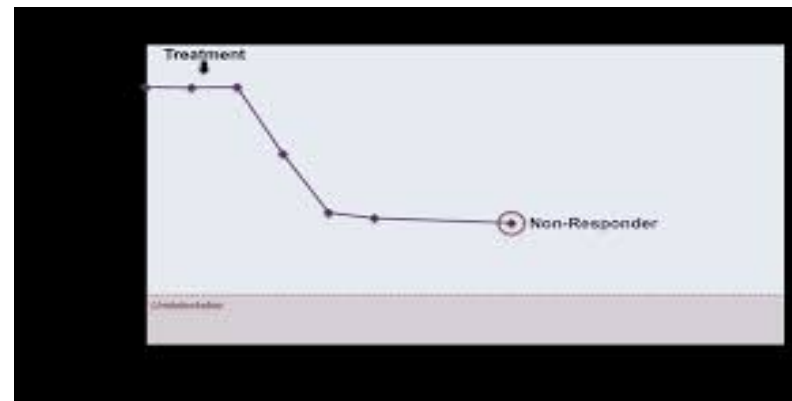


# CBT-I faces these challenges.

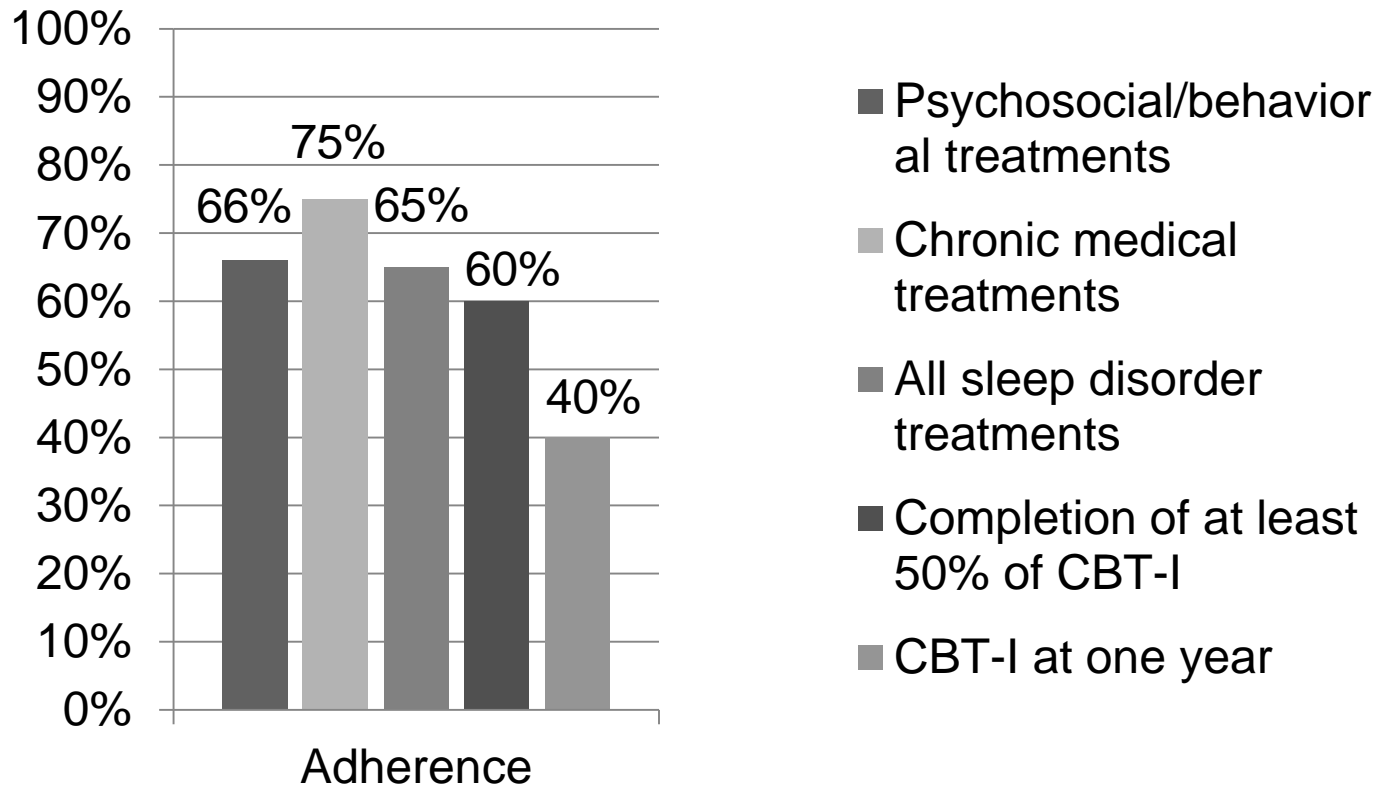
Engagement  
Compliance  
Response



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# Adherence is a concern.





# Explanations for non-engagement.



Self-efficacy



Motivation for Change



Level of Importance



Tolerance for discomfort



**Do or do not.  
There is no try.  
(Yoda)**

# Explanations for non-compliance.



Psychiatric Illness



Pre-treatment levels of sleepiness



Pre-treatment disturbance severity



Tolerance for discomfort

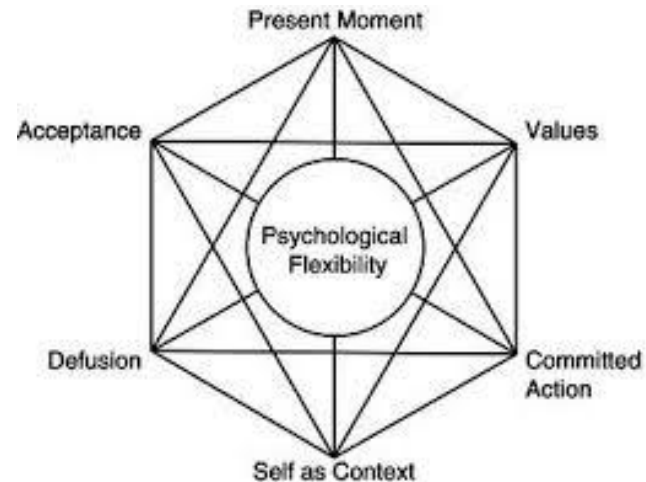


**Experience is the teacher of all things.  
(Julius Caesar)**

# Adherence is contextual and often rule-governed.

“Adherence should be conceptualized as a set of interacting behaviors influenced by individual, social, and environmental forces.”

Matthews, Arnedt, McCarthy, Cuddihy, & Aloia, (2013) Adherence to Cognitive Behavior Therapy for Insomnia, A Systematic Review. *Sleep Medicine Review*, (17), 453-464.



# Controlling the Controlling is a problem.

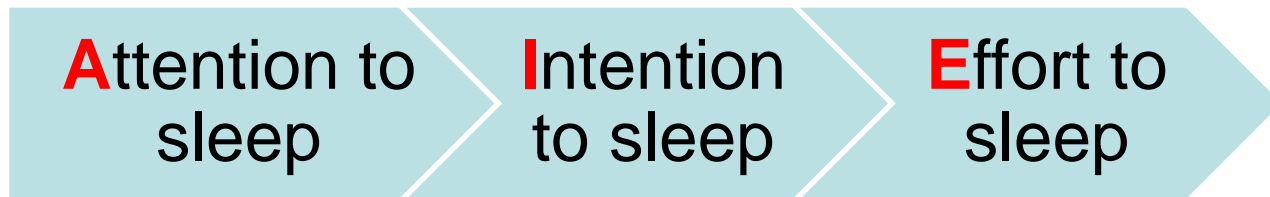


CartoonChurch.com

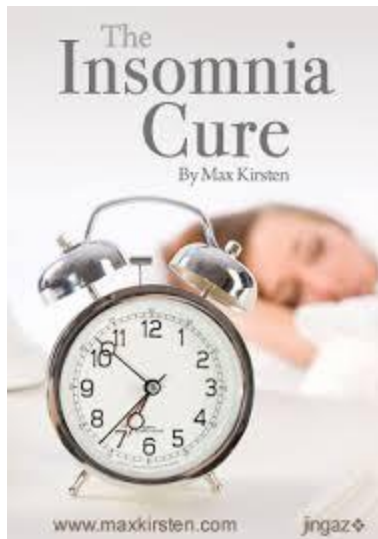
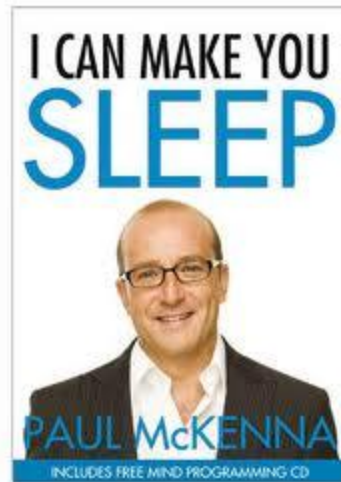
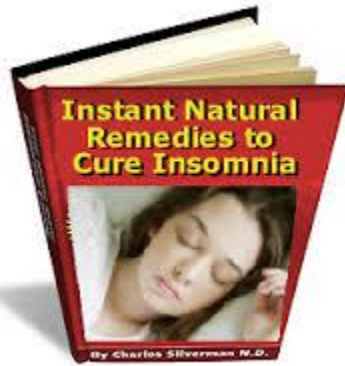
# Attention-Intention Effort (AIE) pathway

Espie, Broomfield, MacMahon, Macphee & Taylor (2006)

Normal and automatic sleep processes become disrupted when individuals selectively focus on:



# We are led to believe we can control sleep.



Cure insomnia through  
essential oils & herbal tea

[www.HealthAndCare.in](http://www.HealthAndCare.in)

## How To Sleep Better



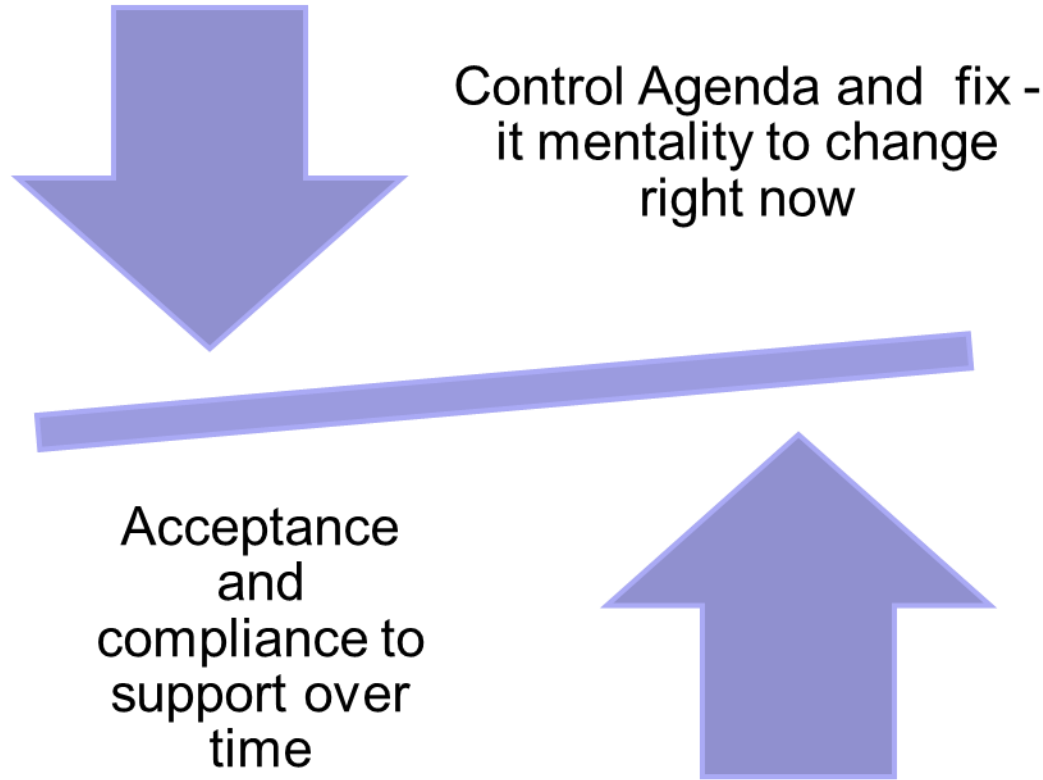
How To Sleep Well By Fixing Common Sleeping Problems To Relieve Sleep Insomnia  
26 Super Tips To Help You Get The Sleep You REALLY Need!  
by Chris Barnaby

# We cannot control sleep.

Frank and Ernest

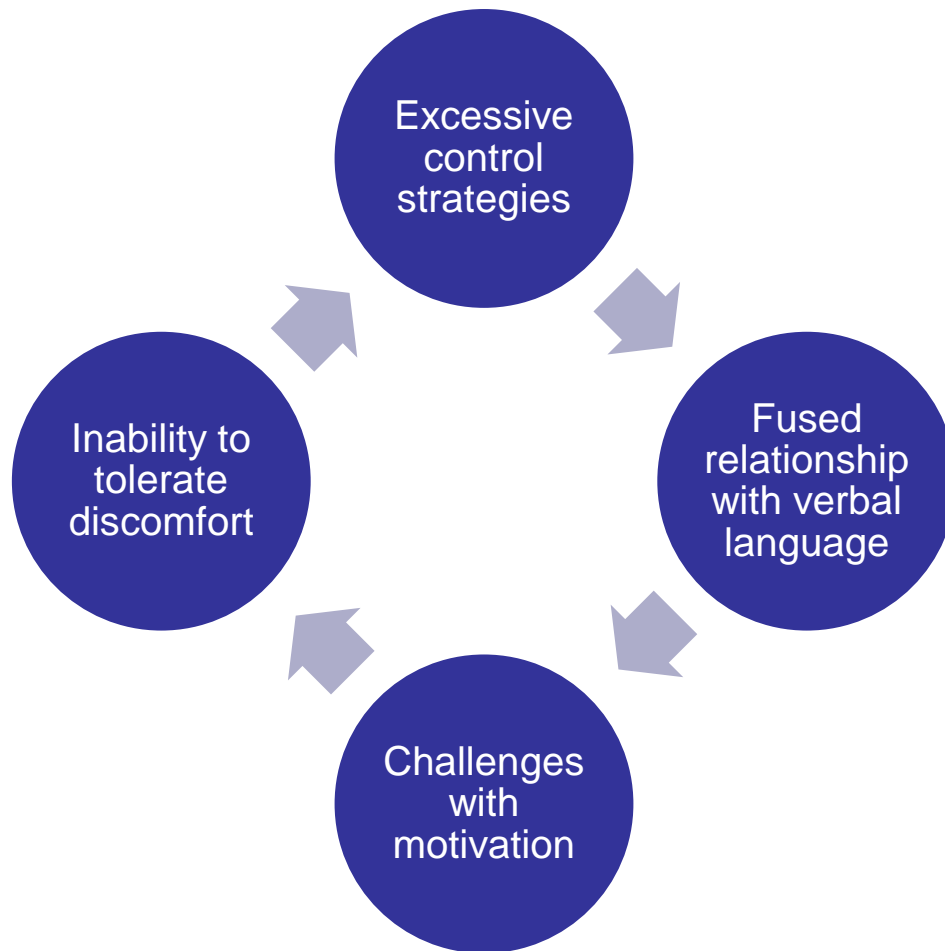


# ACT supports a flexible relationship with CBT-I.





# ACT addresses challenges of CBT-I



# Context optimizes the model.



**Identify the contextual nature of:**

- 1. sleep**
- 2. resistance**
- 3. CBT-I interventions**

**Use psychological flexibility to navigate personalized CBT-I plan.**

# A person's relationship with CBT-I matters.



I WONDER IF I WOULD BE HAPPIER IF I PUT AS MUCH EFFORT INTO ACCEPTING MYSELF AS I DO INTO CHANGING MYSELF?

# A Model of Chronic Insomnia

## Predisposing Factors

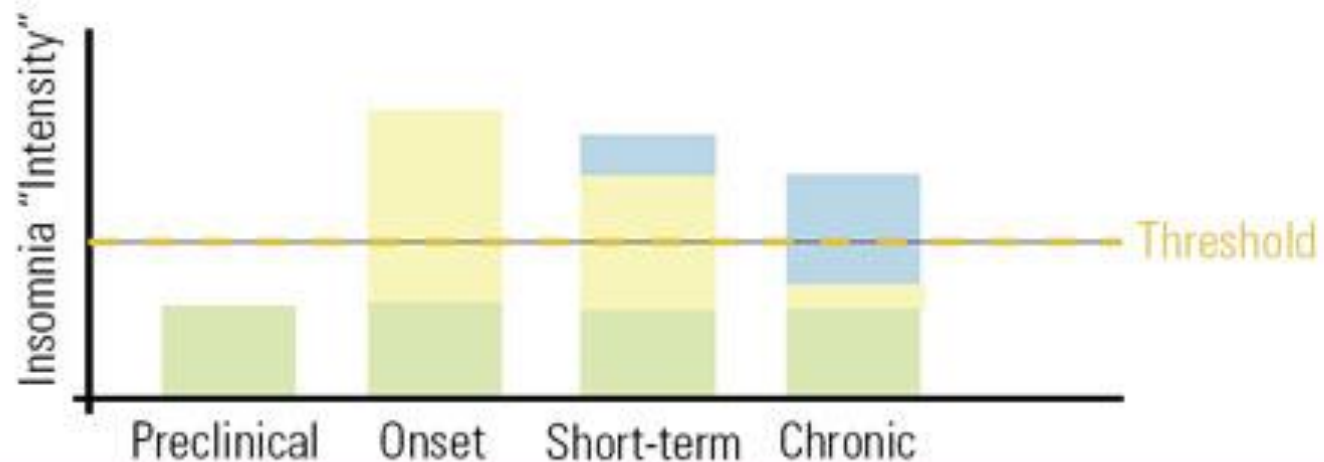
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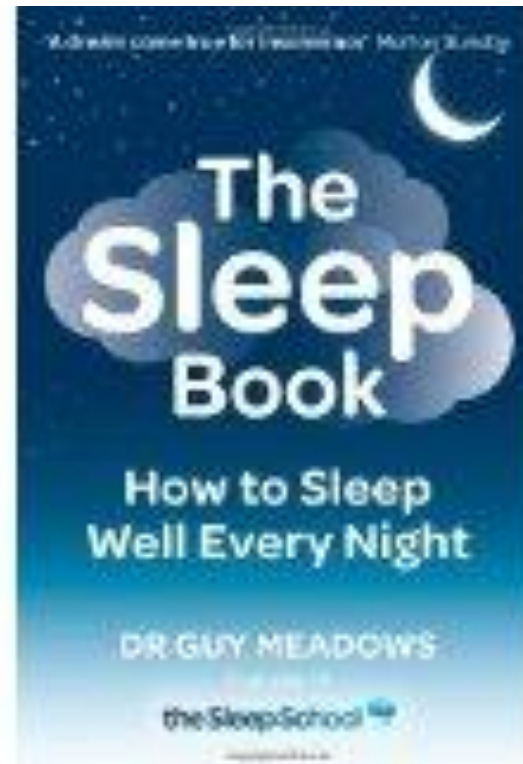


# Perpetuating Factors can be addressed via ACT/ACT-I.

**Awareness** to  
experience

**Openness** to  
uncomfortable  
experiences

**Engagement** with  
values



# Current trial on ACT for insomnia

Quality of Life Improvements after Acceptance and Commitment  
Therapy in Primary Insomnia

Department of Psychiatry and Psychotherapy, University of Freiburg  
Medical Center, Germany; Interdisciplinary Pain Center,  
University of Freiburg Medical Center, Germany

**The results suggest that ACT may improve important patient-centered outcomes in patients with PI. Specifically, a significant improvement of sleep-related QoL and subjective sleep quality was observed in non-responders to CBT-I with chronic PI directly after 6 weekly outpatient sessions of ACT and at three month follow-up.**

# We need research on the role of ACT in CBT-I.

Coming together is a  
beginning;  
keeping together is  
progress;  
working together is  
success.

Henry Ford



# Challenges

Dissemination & Implementation on a large scale

...how to make the medical & psychological disciplines aware

...how to make the public aware

...how to make the required training & credentialing available



# Want more?

## Next steps...

- I'm kinda curious...
  - SBSM, books, articles
- I want to get training
  - Manuals
  - Practice ground, U Penn
  - Supervision 5-10 cases

# Parting Words

Open opportunity clinically & research

Let's continue this conversation

*[tinyurl.com/cbtiresources](http://tinyurl.com/cbtiresources)*

*[srower@portlandpsychotherapyclinic.com](mailto:srower@portlandpsychotherapyclinic.com)*

*[ehrnstromc@gmail.com](mailto:ehrnstromc@gmail.com)*

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