

### IS THERE A ROLE FOR HYPNOTHERAPY IN TREATING INSOMNIA?

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### Objectives

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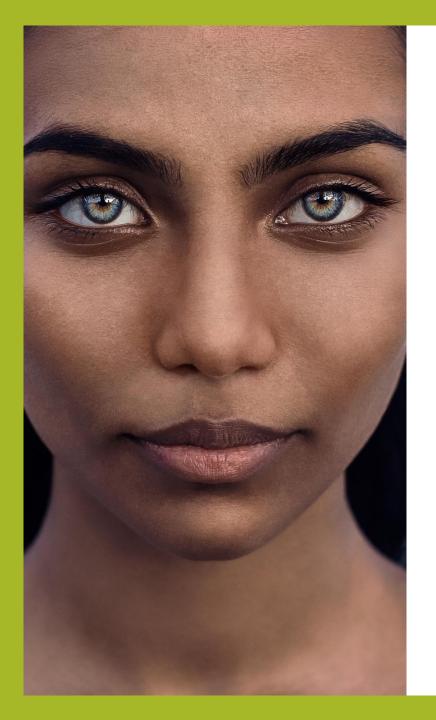
List the risk factors for Insomnia in the general population. 2

Define
Hypnotherapy and
it's relevancy to the
Insomniac.

3

Describe the role of Hypnotherapy in Mindfulness training. 4

Describe how Hypnotherapy can treat Insomnia and maintain sleep health.



### What is Hypnosis?

Hypnosis is a state of consciousness involving focused attention and reduced peripheral awareness characterized by a capacity for response to suggestion.

Everyone has been in a level of Hypnosis through intensely focused activity.

Ability to be actively hypnotized is individual, although most people can be.

Alpha, Theta, Delta, and Gamma brain activity present.

### Brain Activity and States of Consciousness

- Beta (14-40Hz) = Normal waking consciousness and reasoning wave.
- Alpha (7.5-14 Hz) = Gateway to your subconscious mind and intuition. Deep physical and mental relaxation, eyes open or closed, daydreaming, or light meditation.
- Alpha-theta border (7-8 Hz) = Optimal range for visualization, mind programming and using the creative power of your mind. You are conscious of your surrounding, however your body is deeply relaxed. Most commonly used in Hypnosis.
- Theta (4-7.5Hz) = Hypnosis, deep meditation, light sleep, and REM. The realm of your subconsciousness.
- **Delta (o.5-4Hz)** = Deep, dreamless sleep or very deep transcendental meditation and hypnosis states. Awareness is fully detached and complete subconscious is experienced. Linked to deep healing.
- **Gamma waves (above 40Hz)** = The Insight Wave. Most recently discovered. Initial research shows association with bursts of insight and high–level information processing.



# Progression of Consciousness: Hypnosis or Meditation

**Beta Wave Activity-** Use Somatic exercises (Progressive Muscle Relaxation, Breathing Exercises) to drop from high Beta, 40Hz (Fear mentality) into low Beta, 14Hz (problem solving/reasoning).

**Alpha Wave Activity –** Gateway to subconscious mind, optimal space for neurolinguistic programming (NLP), learning, concentration.

Alpha-theta border – State of conscious creation. Hypnosis, Imprinting, Timeline Therapy.

**Theta Wave Activity -** Complete Subconscious, Highest Suggestibility state. Strong in Internal focus, meditation, prayer

**Delta Wave Activity –** Somnambulism for healing/regeneration or surgical procedures.

**Gamma Wave Activity** – Intense focus due to years of practice (monks).

**Return to consciousness** = Reverse of process.

### Progression of Consciousness: Falling Asleep

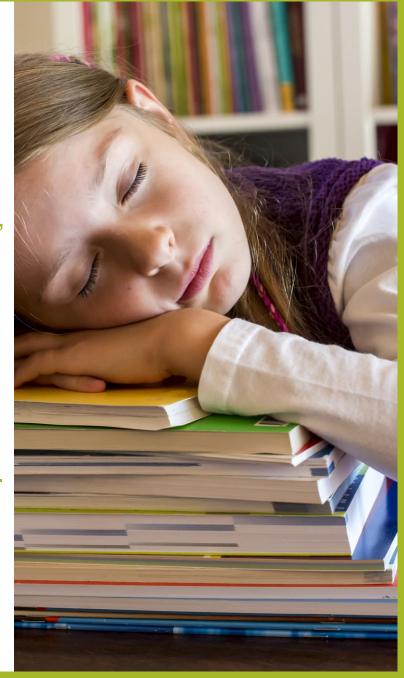
**Beta Wave Activity-** Realm of Insomnia. High Beta = ruminating, planning, prior to sleep; Low Beta = quiet conversation

**Alpha Wave Activity -** Induces calm for anxiety, use within flow state for creativity, bridge into sleep.

Alpha-theta border Stage 1 Sleep

Theta Wave Activity - Stage NREM2 Sleep, Stage REM Sleep.

**Delta Wave Activity –** Stage NREM3 Sleep, Growth Hormone secretion for body repair and regeneration.





# Subjective Experience of Brain Activity

**High Beta -** very focused, Alert, or Agitated (mind-body functions)

**Low Beta - Integrated Focus and Relaxed (inhibited by movement)** 

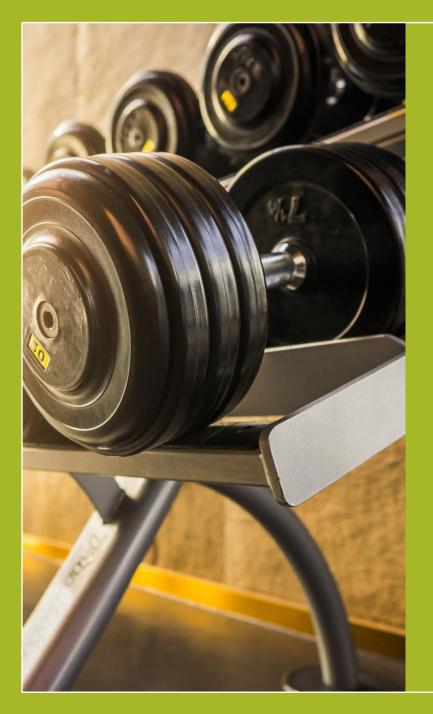
**Alpha -** Induces calm for anxiety, creativity and mental resourcefulness are at their peak.

**Alpha-Theta border -** Abstract thinking, sensations (NLP), and self-control.

**Theta -** Intuition, recall, imagery, daydreaming, drowsy; "oneness"

**Delta –** Deep body relaxation, no conscious awareness.

**Gamma –** Calm, intense focus, "spiritual awakening", listening to music.



### Training the Brain

**High Beta -** Increased focus, alertness, or agitation (++ in ADD)

**Low Beta –** Relaxed focus and attention.

**Alpha -** Low alpha: 8-10: inner-awareness of self, mind/body integration, balance; High alpha: 10-12: centering, healing, mind/body connection

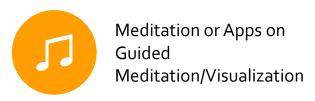
**Alpha-theta border -** increase in sensation, abstract thinking and self-control.

**Theta Wave Activity -** Enhanced: drifting, trance-like state; Suppressed: improve concentration, attentiveness.

**Delta Wave Activity –** Deep Relaxation Growth Hormone secretion for body repair and regeneration.

### Making the mental switch...











Taking a bath



Gentle stretching

### From Wake to sleep: Bridging the Gap.

Hypnosis and Mindfulness facilitate ease of consciousness shift.

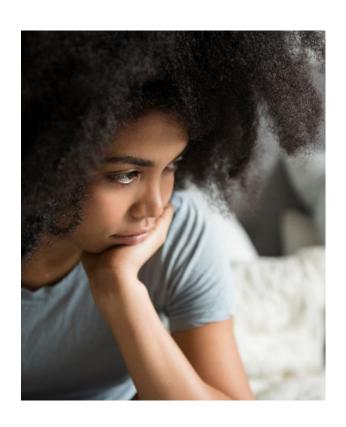
Low Beta and Alpha become more frequent states of consciousness.

Alpha and Low Beta widen one's perspective, positivity, and problem-solving ability.

Wider perspective increases mental resources and confidence, leading to increased resiliency and lower stress levels.

Lower stress levels allow more time in low Beta state.

#### Insomnia Disorder

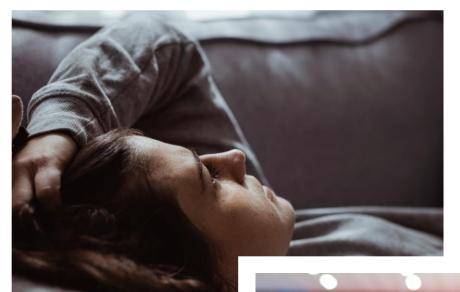


Defined in the ICSD-3 as a complaint of trouble initiating or maintaining sleep...associated with daytime consequences and is not attributable to environmental circumstances or inadequate opportunity to sleep.

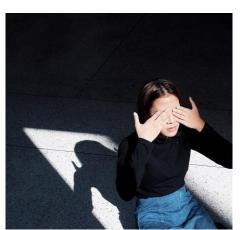
Includes both Acute and Chronic Insomnia. Chronic = 3x/week > 3mths

Daytime sleepiness, fatigue, and decreased immune function.

Impaired cognitive process, depression/anxiety, and memory deficits









### Insomnia Prevalence

Prevalence of Acute and Chronic Insomnias among general population is estimated at 5–15%.

Among HCW's it is estimated much higher due to the multiple stressors involved with the nature and structure of the work.

Insomnia is a component or result of many other sleep disorders.

Advanced age and female gender are risk factors for chronic or acute models, suggesting hormonal and brain structure components.

### Insomnia in Healthcare Workers

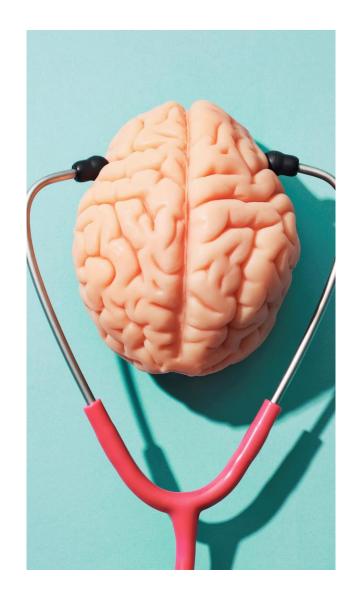
Fight/Flight "Emergent Response mentality is always on.

Focus is on patient outcome as opposed to self-care.

Fatigue culture seen as normal and familiar.

Daily coping of loss of life or threat.

Extrinsic CRSWD prevalent.





### Managing Sleep Disturbances

In general, the first order of addressing sleep difficulties or extreme fatigue is to address current sleep hygiene practices and bring attention to timing, quality and quantity of sleep.

From a CBT-I point of view. Education, Holistic Approach of Patient Care, and Psych/Behavioral Therapies are implemented.

They suggest several activities that alleviate stress load prior to bed, optimize hormonal pressure to sleep, and minimize extrinsic stressors/stimuli.

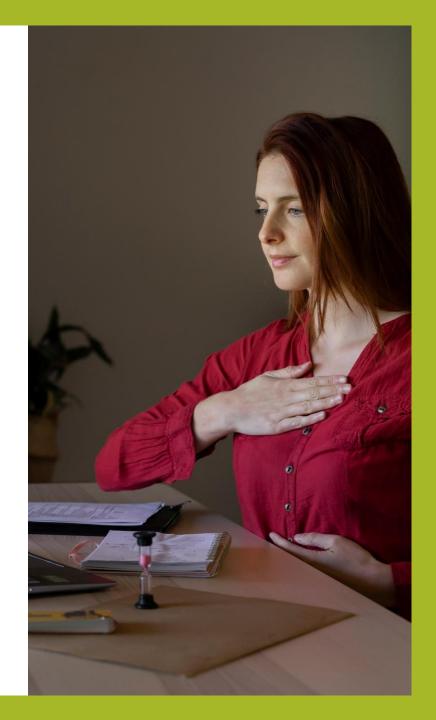
#### Insomnia Interventions

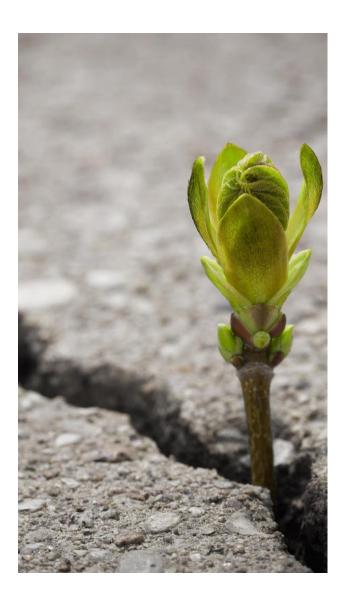
Psychological and Behavioral Interventions are Primary Interventions for all ages and chronic hypnotic users.

CBT-I is the recommended, first-line treatment, BTI is the alternative when availability is a factor

**BTI**: An abbreviated version of CBT-I, emphasizing the behavioral components.

Behavioral Therapy = Stimulus Control Therapy, Relaxation Therapy, and Education re behaviors that influence sleep.





### Cognitive Behavioral Therapy for Insomnia (CBT-I)

CBT-I = Cognitive Therapy, Stimulus Control, Sleep Restriction, Sleep Hygiene and Relaxation.

Based on the idea that the way you think and feel about something can affect what you do. (perception)

Ex. Stress leads to poor, uncharacteristic decisions or calm leads to characteristic, balanced decisions.

Key concept of CBT is that these thought and behavior patterns can be changed.

Availability and cost can be an issue due to training needed.

### Pharmacotherapy

Dependent upon comorbidities, availability, cost, patient preference, and treatment goal.

Often used in combination with CBT-I to boost effectiveness of treatment.

### Sleep Restriction Therapy

Popular method used to enhance sleep drive and consolidate sleep.

Unpopular with patients due to increase in sleepiness to start.

Concerns for safety critical occupations.

Contraindicated for mood disorders and seizures.



## Stimulus Control: breaking old patterns...

Predictive human nature + Negative Experience = Insomnia

Reassociate sleep with fatigue and bed leads to favorable response and creation of positive Trigger.

Stimulating "wake" activities activate High Beta activity, unfavorable to sleep.

Re-associating bed with positive in a repetitive way utilizes Law of Repetition essential in Hypnosis.



### Relaxation Therapy

Somatic tension reduction - Abdominal breathing, Progressive muscle relaxation and Autogenic training

Cognitive Arousal Reduction – Guided Imagery Training and Meditation (further reduction would be in Hypnosis range)

Depending on one's suggestibility, one method will be more effective than the other.

People with PTSD or ADD need guidance in person or through media to relax on their own.





# Autogenic Training and Hypnosis

Developed by Psychologist JH Schultz in the 1920's after observing the relaxing effects on the body during hypnosis.

Targets the physical expression of stress by using Alpha and Beta states of consciousness and direct suggestions of physical and mental calm.

Very effective Induction technique for Self-Hypnosis for physically suggestible clients.

### **Autogenic Training**

Prep

• Prepare your space and get comfortable.

Breathe

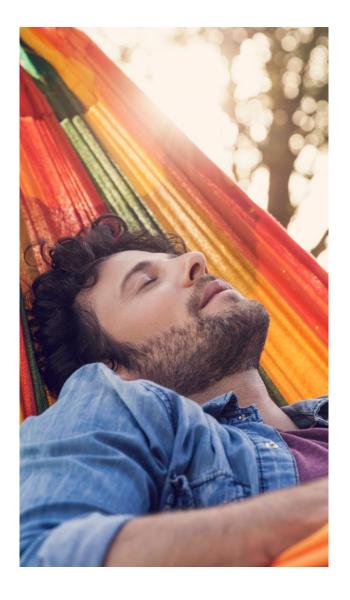
 Abdominal or slow and deep; "I am completely calm."

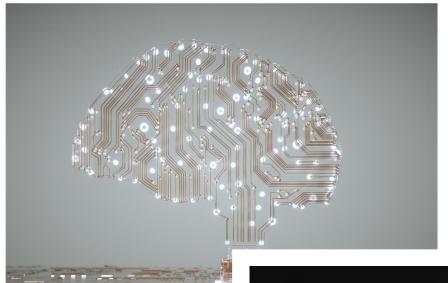
Focus

• On each area of the body with heavy or warm suggestions, "I am completely calm."

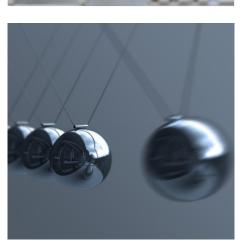
Heartbeat

• Breathe deep, "My heart is calm and regular." and end with "I am completely calm."











## What is Hypnotherapy?

Definition: The use of hypnosis for treatment of a medical or psychological disorder or concern.

Effectively used with perception issues such as sleep, addictions, trauma, pain, and anxiety.

Typically, the last line of therapy used due to availability, regulation, and acceptance.

### Menopause

Insomnia, sleep disordered breathing, restless leg syndrome, and circadian disruptions.

28%–63% report sleep problems during menopause and postmenopausal transitions, mostly related to hot flashes.

All stages of sleep are affected.

Problems with the overuse and abuse of prescription of sleep medications in women in this population..



### Self-Hypnosis for Sleep Disturbances in Menopausal Women

<u>J Womens Health (Larchmt)</u> March 2020; 29(3): 461–463. Published online 2020 Mar 17. doi: <u>10.1089/jwh.2020.8327</u> PMCID: PMC7097677 PMID: 32186967

#### Self-Hypnosis for Sleep Disturbances in Menopausal Women

Julie L. Otte, RN, PhD, FAAN, Janet S. Carpenter, PhD, RN, FAAN, Lynae Roberts, MA, and Gary R. Elkins, PhD2

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- "...hypnosis to treat symptom clusters... and sleep is needed along with better integration as a treatment into practice settings..."
- "..significant reduction of poor sleep quality in all groups with a significant increase in minutes slept.."
- "...clinically meaningful improvements in reducing the perception of poor sleep quality in 50%–77% of women across time."
- "Phone delivery...is just as effective as doing in-person sessions..intervention can be more widely accessed..."

#### Hypnosis and Slow Wave Sleep

### **communications** biology

**ARTICLE** 

https://doi.org/10.1038/s42003-022-03643-y



Hypnotic enhancement of slow-wave sleep increases sleep-associated hormone secretion and reduces sympathetic predominance in healthy humans

Luciana Besedovsky (1,2<sup>™</sup>), Maren Cordi (1,2 <sup>™</sup>), Laura Wißlicen (1,2 <sup>™</sup>), Estefanía Martínez-Albert<sup>2</sup>, Jan Born (1,2 <sup>™</sup>), Björn Rasch (1,3 <sup>™</sup>)

- "...listening to hypnotic suggestions to sleep deeper while falling asleep increased the time spent in SWS and SWA power, without having any negative side effects."
- "Hypnotic suggestions induced a more than fourfold increase in GH levels, and a distinct shift of the sympathovagal balance toward reduced sympathetic predominance."
- "...this simple to use hypnotic technique...also impacts the major downstream mediators of the peripheral effects of sleep, demonstrating the physiological significance and validity of this method of SWS enhancement."
- "...the affected parameters serve various essential physiological functions, including regulation of growth, metabolism, immunity, tissue repair, and cardiovascular activity, the present findings open up a wide range of potential applications of the employed hypnotic suggestions."

#### Patience required for CBT-I.

https://doi.org/10.5664/jcsm.10044



#### COMMENTARY

### Patience required: increasing sleep duration in the months to years following CBT-I

Commentary on Scott H, Cheung JMY, Muench A, et al. Does total sleep time substantially increase after cognitive behavioral therapy for insomnia? *J Clin Sleep Med*. 2022;18(7):1823–1829. doi: 10.5664/jcsm.10004

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Mental Illness Research, Education and Clinical Center (MIRECC), VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania; Center for Health Equity Research and Promotion (CHERP), VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania

- "What is your treatment goal?"
- "I would love to sleep through the night for 7–8 hours."
- "...treatment gains for TST, up to 24 months were impressive...these gains do not occur during the 6 weekly sessions of CBT-I. Also, the TST gains did not occur for all participants..."
- "Does total sleep time substantially increase after CBT-I?": Yes, with the key phrase being "after."

### Summary

- Many basic components of Hypnosis and Hypnotherapy are currently utilized in aspects of routinely accepted Insomnia treatments already.
- Hypnotherapy familiarizes the client with Alpha state and facilitates transition into deeper levels of consciousness, including sleep.
- Hypnotherapy has many parallels to sleep in terms of levels of consciousness and benefits to overall health.
- Promising studies around the affected parameters of sleep illustrate the significant, potential impact on one's overall health.
- Hypnotherapy is becoming more widely accepted due to it's low risk factors and many positive outcomes in sleep disorders as well as cognitive and physical diseases.

### References

- 1. Besedovsky, L., Cordi, M., Wilicen, L. *et al.* Hypnotic enhancement of slow-wave sleep increases sleep-associated hormone secretion and reduces sympathetic predominance in healthy humans. *Commun Biol* **5**, 747 (2022).
- 2. Otte JL, Carpenter JS, Roberts L, Elkins GR. Self-Hypnosis for Sleep Disturbances in Menopausal Women. J Womens Health (Larchmt). 2020 Mar;29(3):461-463.
- 3. Edinger JD, Arnedt JT, Bertisch SM, et al. Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine systematic review, meta-analysis, and GRADE assessment. *J Clin Sleep Med.* 2021;17(2):263–298.
- 4. Bramoweth, Adam D., Patience required: increasing sleep duration in the months to years following CBT-I. *J Clin Sleep Med* 2022;18(7): 1729-1730.