INSOMNIA: EVIDENCE FOR PHARMACOLOGICAL AND NON PHARMACOLOGICAL THERAPIES

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3/4/2021

FACULTY/PRESENTER DISCLOSURE

Faculty: Norah Vincent

Relationships with commercial interests:

- Receive royalties for licensed website called RestEd

MITIGATING POTENTIAL BIAS

NO DISCUSSION OF RESTED

OBJECTIVES

1. Learn what constitutes Cognitive Behavioral Therapy for Insomnia (CBT-i)

2. Learn about barriers to use of CBT-i in clinical practice

3. Learn about resources for CBT-i

SLEEP PROBLEMS ARE COMMON

33% →（arrow）40%

1/3 sleep < 7 hours per night

Evolve into Insomnia Disorder (10-15%)

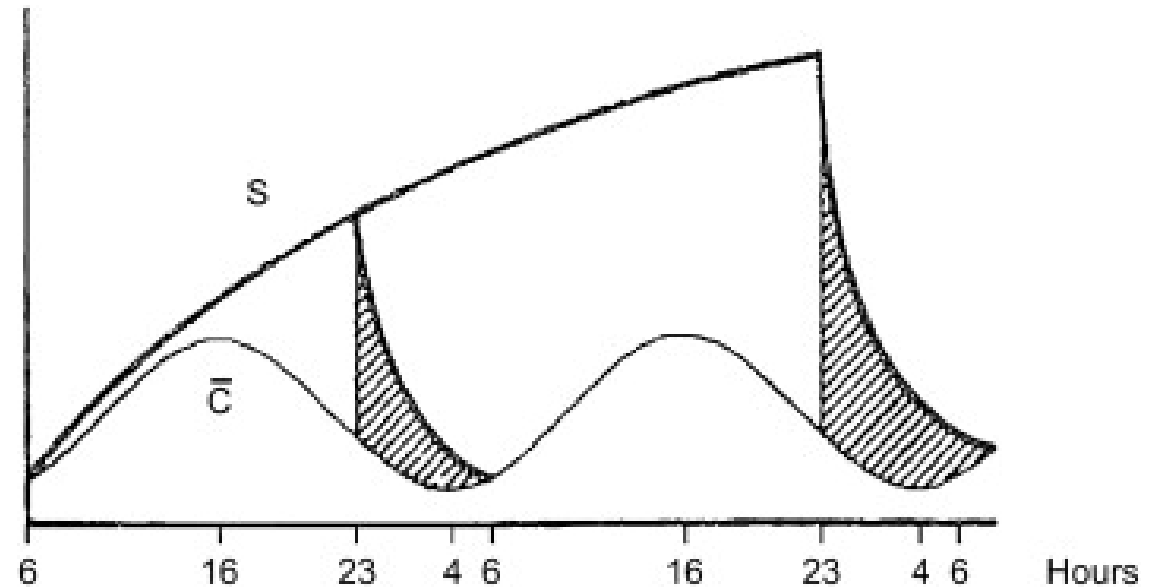# INSOMNIA: TWO PROCESS MODEL OF SLEEP

Worries about outbreaks

Quarantining

Job Loss
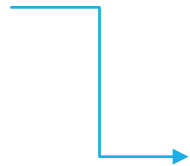
Reduced Support due to social distancing
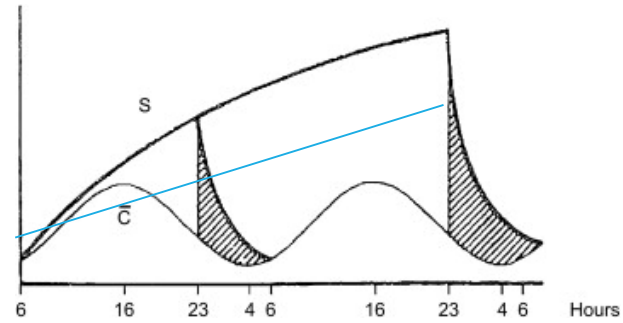
More social media coverage

Borbély, A. A. A two-process model of sleep regulation. *Hum. Neurobiol.*, 1982, **1**: 195– 204.CAS PubMed Web of Science®Google Scholar

CV-19 IMPACTS ON PROCESS S

Less Commuting
Lingering in Bed in am
Less Exercising

More
opportunities
to sleep
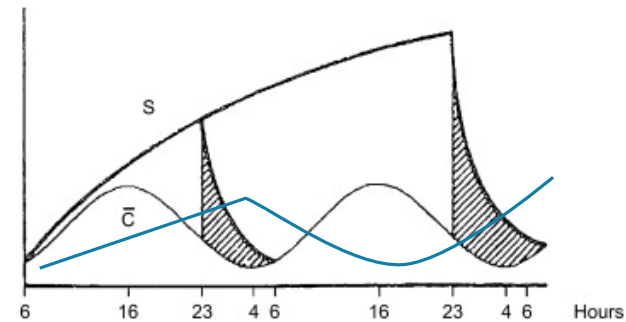
CV-19 IMPACTS ON PROCESS C

More time indoors
(less bright sunlight)

More evening screen
time*

More electronics in
bedroom*

Less consistency in
bedtime/arise time
(>30 min)

Delay in
release of
melatonin

Duncan, M. J., Kline, C. E., Rebar, A. L., Vandelanotte, C., & Short, C. E. (2016). Greater bedand wake-time variability is associated with less healthy lifestyle behaviors: A crosssectional study. *Journal of Public Health*, 24(1), 31-40.

PRACTICE GUIDELINES FOR INSOMNIA DISORDER

American College of Physicians: CBT-i as the initial treatment (GRADE: strong, moderate-quality evidence)

Medication only considered after a discussion of harms, benefits, and costs and only when CBT-I is unsuccessful (GRADE: weak, low-quality evidence)

American Academy of Sleep Medicine (GRADE: strong, moderate-quality evidence)

British Association for Psychopharmacology Consensus Statement

Australian Sleep Association

European Sleep Research Society

Edinger et al., 2021; Qaseem et al., 2016; Ree et al., 2017; Riemann et al., 2017; Wilson et al., 2019;
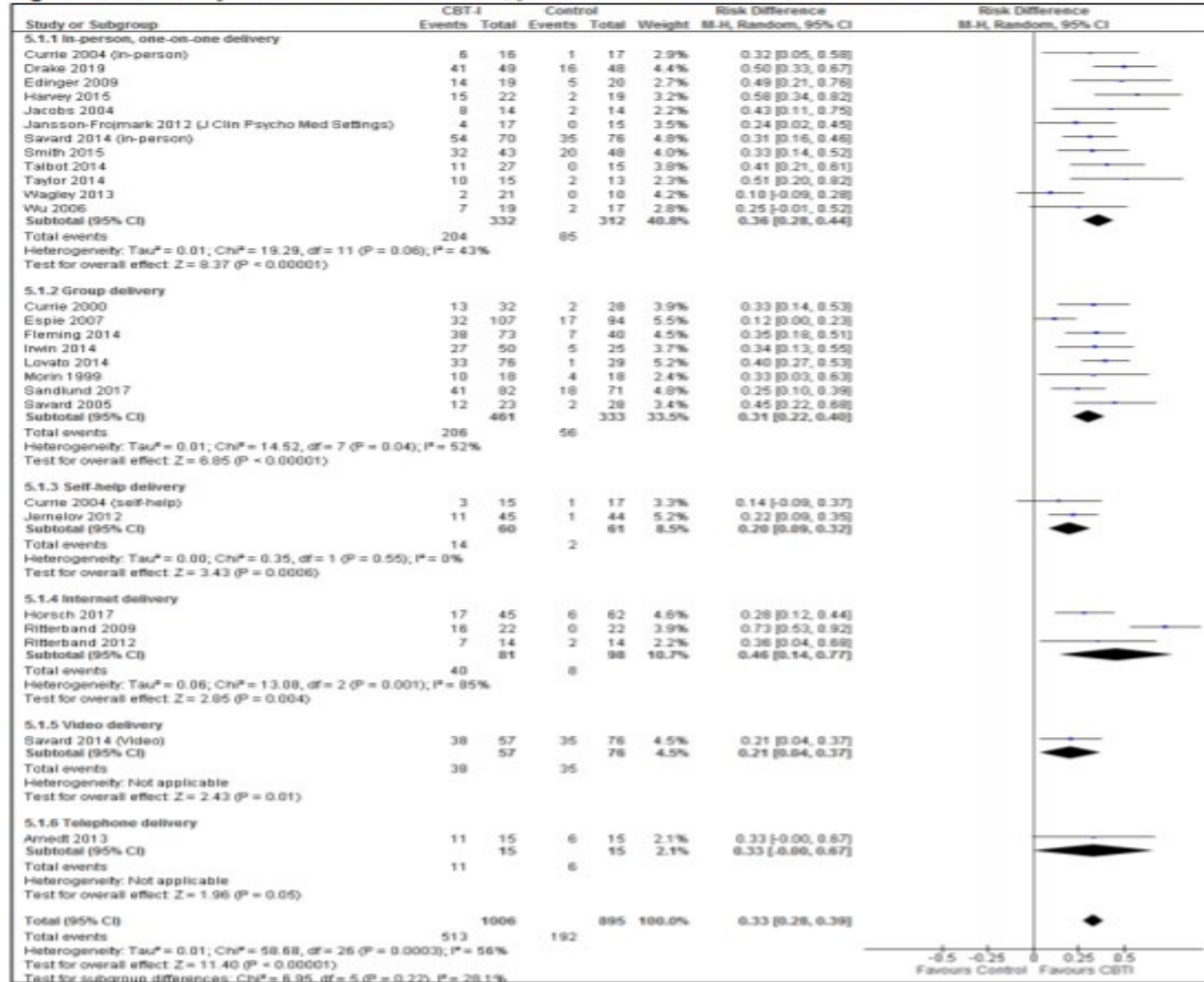
REMISSION RATES WITH CBT-I

Defined as:

< 30 minutes to fall asleep

< 30 minutes of wake time during sleep period

Remission rates

Figure S25. ISI/Diary-determined remission rate, post treatment differences, CBT-I vs. control
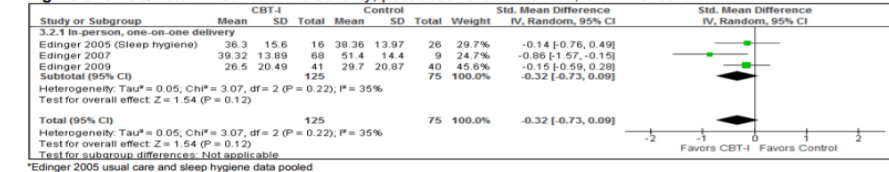
In-person 1:1

33% higher

Group

Self-help

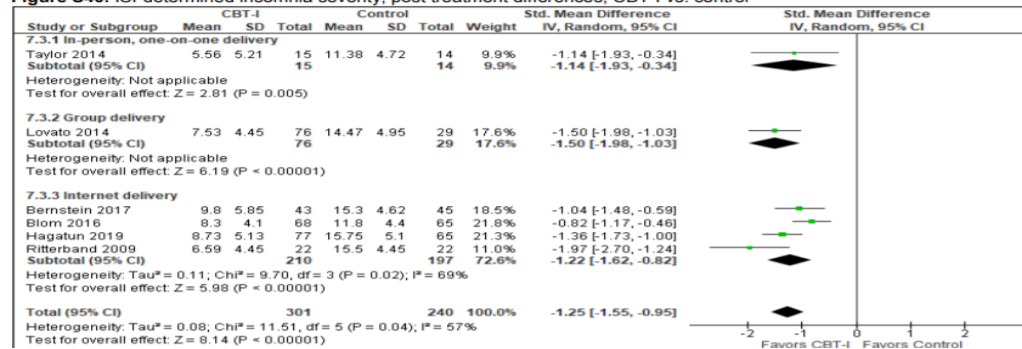Internet-Delivered

Video-Delivered

Telephone-Delivered

EFFECTIVENESS OF CBT-I

Insomnia vs Control (no comorbidities)

Insomnia vs Control (comorbid medical conditions)

Insomnia vs Control (comorbid psychiatric conditions)

Edinger et al., 2021 Jn Clin Sleep Med, 17, 263-298.

COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA (CBT-I)

6 evidence based techniques:

- Sleep Restriction Therapy
- Stimulus Control
- Relaxation training
- Cognitive Therapy
- Education
- Self-Monitoring of Sleep
- (Sleep Hygiene)

Not a one-time delivery
Focuses more on behavior than cognition
Requires 4-8 weeks

1. SLEEP RESTRICTION

1. Agree on a fixed wake up time

2. Determine average total sleep time

3. Schedule a sleep window that accommodates both

4. Open the window after 3-7 nights, in ½ hr increments

5. Stop when sleep problems return

Sleep < 4 hours/night
Untreated sleep apnea
Mania/hypomania
Parasomnias
Poorly controlled seizure disorder
Rotating shift workers

SLEEP RESTRICTION EXAMPLE

Bob: wake up time 6:00am

Current total sleep time: 5 hours

Calculate Sleep Window

	Days 1-3	Days 4-6	Days 7-10
Bedtime	1:00am	12:30am	12:00am
Wakeup Time	6:00am	6:00am	6:00am

SLEEP RESTRICTION SCHEDULE

Day	Bedtime	Wakeup Time	Result
Days 1-3			
Days 4-6			
Days 7-9			
Days 10-12			

2. STIMULUS CONTROL

Limit pairing wakefulness with the bedroom

- Electronics
- Office work
- Arguing with spouse
- Eating
- Television
- Reading

Safety behaviors

Go to bed when sleepy
Get out of bed when awake

3. RELAXATION TRAINING

Hypnotherapy (Worriers)

Progressive Muscle Relaxation (Type A person)

Abdominal Breathing

Imagery induced

(Meditation)

4. COGNITIVE THERAPY

What, Me Worry?

Calm the mind leading up to sleep period

1. Worry Schedule
2. Consider nature of worry, perspective-take

Face rather than avoid problems

Thought suppression interferes with sleep

WORRY SCHEDULE

Worry/ concern	Possible Solutions	How can I accept this better?	Did this help?

COGNITIVE THERAPY EXAMPLES

1. Awareness and perspective taking

"If I don't fall asleep now, I am going to have to cancel my plans tomorrow"

-Perspective: I may not sleep at all tonight, and I'll be tired and achey tomorrow. Best to go ahead with plans, and remind myself to look forward to sleepiness the next night.

5. EDUCATION ABOUT SLEEP

Range of sleep per night varies

People differ in their ability to detect sleep/wake

	Total Sleep Time	Sleep Efficiency	Light	Deep
Actiwatch	.87	.30		
Basis	.84	.26	.30	.27
Fitbit	.97	.21		
Misfit	.76	-.20	.31	.20
Withings	.84	.17	.34	.36

Mantua, J.; Gravel, N.; Spencer, R.M.C. Reliability of Sleep Measures from Four Personal Health Monitoring Devices Compared to Research-Based Actigraphy and Polysomnography. *Sensors* 2016, *16*, 646.

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EDUCATION ABOUT SLEEP

Healthy sleepers require 20-30 minutes to fall asleep and to fully awaken in am

Healthy sleepers awake 4-5 times during night (and often more)*

You can develop insomnia by attempting to force yourself to sleep longer than your body requires

You can't force sleep

Don't over-attribute fatigue/mood/concentration problems to sleep
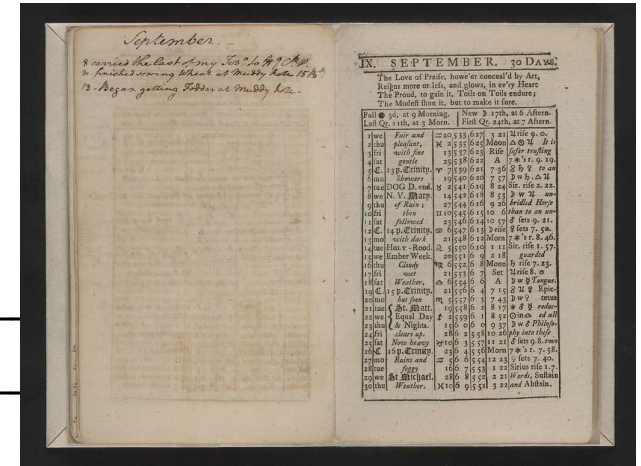
Develop tolerance for sleep loss

6. SELF-MONITORING
SLEEP DIARY

Name _____

Week Beginning _____

MEASURING THE PATTERN OF YOUR SLEEP

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
What time did you wake up this morning?							
What time did you get out of bed this morning?							
At what time did you go to bed last night?							
How long did it take you to fall asleep (minutes)?							
How many times did you wake up during the night?							
How long were you awake during the night (in total)?							
About how long did you sleep altogether (hours/minutes)?							
How much alcohol did you take last night?							

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PROVIDER BARRIERS TO USE OF CBT-I IN CLINICAL PRACTICE

Providers lack familiarity and are unsure about effectiveness

Difficulty describing treatment in compelling manner

Tend to rely on medication and sleep hygiene education (>70%)

View insomnia as a symptom and prioritize treatment of anxiety, depression, pain

Believe patients will be reluctant

Believe that patients will bring up (but they don't)

< 10% of patients referred for CBT-I

Conroy & Ebben (2015). Behavioural Neurology

PROVIDER BARRIERS TO CLINICAL PRACTICE

Providers think patients want/expect medication (30%)

Anticipate non-compliance with CBT-I (21%)

Too difficult to motivate patients for CBT-I (49%)

NOT SUPPORTED:

Patients view CBT-I as healthier and preferable to medication

Very few are offered CBT-I

Most learn about CBT-I through self-research

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PATIENT BARRIERS TO CLINICAL PRACTICE

52% of patients in UK think sleeping pills are only treatment

Should be able to self-manage

Hard to find time for CBT-I

Techniques more challenging than taking a pill

Persuasive advertising of pharmaceutical companies ("magic bullet")

HOWEVER, 70-90% of those that complete CBT-i significantly improve

MANITOBA: COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA

Holmqvist, Vincent, & Walsh (2013). *Sleep Medicine*, 15, 187-195.

Vincent, & Lewycky (2009). *Sleep, 32, 807-815*.

Clinical Health Psychology program: **(fax: 204 787-3755**)

Private Practice Psychologists **(List of providers: mps.ca)**

Health Sciences Centre
Winnipeg

UNIVERSITY OF **MANITOBA**

Pre-Assessment

2 Week One
  Welcome to week one of the Insomnia Study
    Week One Video
    Sleep Goals
    Treatment Questionnaire
    The Cycles of Sleeping and Waking

3 Week Two
  Welcome to week two of the Insomnia Study
    Week Two Review
    Week Two Video
    List of Sleep Hygiene Rules

4 Week Three
  Welcome to week three of the insomnia inter...
    Week Three Review
    Week Three Video
    Instructions for Progressive or Deep Mus...
    Instructions for Paced Breathing
    Instructions for Imagery-Induced Relaxation
    Instructions for Self-Hypnosis

IS101: Week One Video

CYCLE OF INSOMNIA

PROBLEM HABITS

USE OF SLEEP MEDICATIONS

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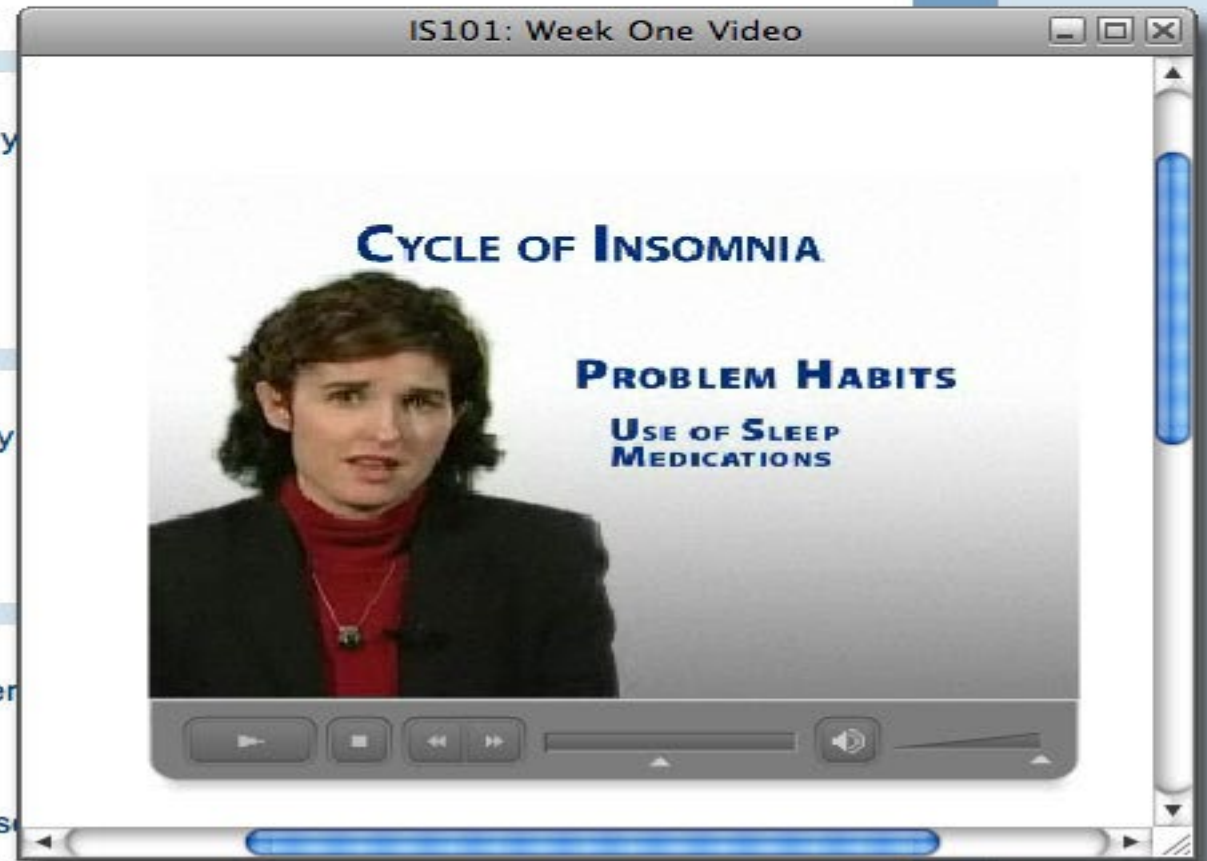
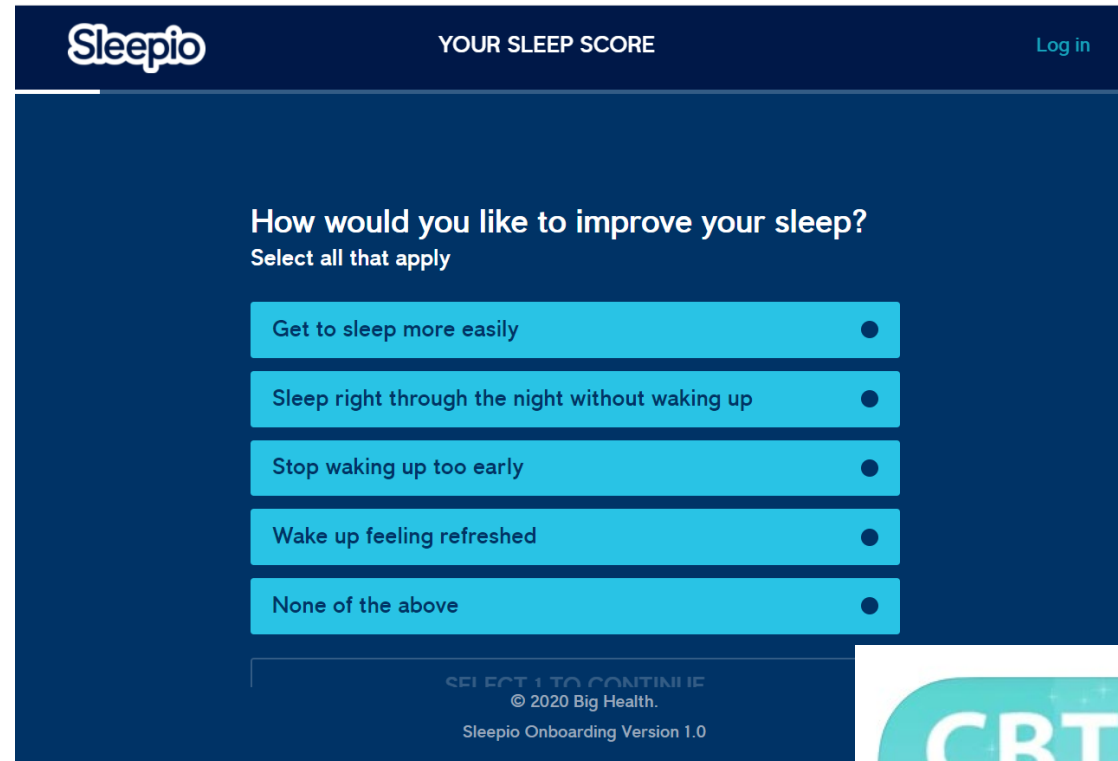# SLEEP CALCULATOR TO ASSIST WITH CHOICE OF BEDTIME

PROGRESS WITH SLEEP EFFICIENCY AND SLEEP QUALITY
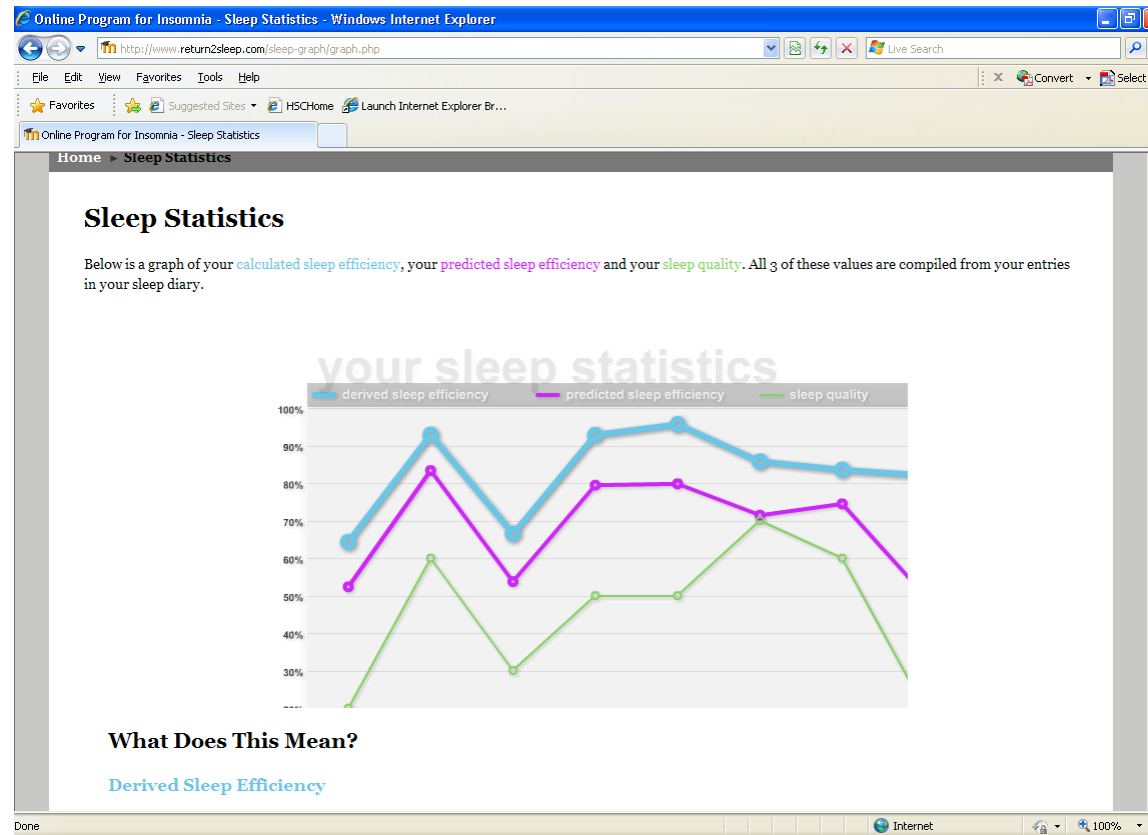
WEBSITES AND APPS

$350/year

WORKBOOKS

Restful Nights: An Insomnia Workbook
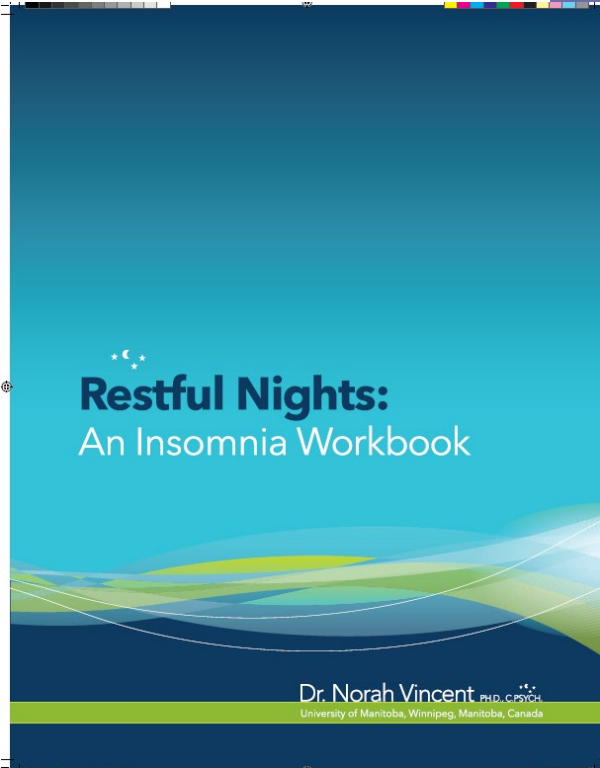Dr. Norah Vincent PH.D., C.PSYCH.
University of Manitoba, Winnipeg, Manitoba, Canada

Parasomnias
Dr. Norah Vincent PH.D., C.PSYCH.
University of Manitoba, Winnipeg, Manitoba, Canada

the insomnia workbook

SINK INTO SLEEP

A STEP-BY-STEP WORKBOOK FOR REVERSING INSOMNIA

JUDITH R. DAVIDSON, PhD

MANITOBA: COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA

Holmqvist, Vincent, & Walsh (2013). *Sleep Medicine*, 15, 187-195.

Vincent, & Lewycky (2009). *Sleep, 32, 807-815*.

Group Therapy (6 weeks)

Individual Therapy
- parasomnias
- CPAP adherence
- Circadian rhythm sleep-wake

Consultation

END