Integrating Evidence-Based Insomnia and Fatigue Strategies into Depression Treatment

10-12 pm

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Ryerson University
Disclosure

• I am on the Scientific Advisory Board of the General Sleep Corporation, but this will not influence the information presented at today’s lecture.

• I have current grant funding for a clinical trial from the Canadian Institute for Health Research which is a CBT-I trial, but unrelated to this talk.
Learning Objectives

1. Learn how to implement CBT for insomnia: focus on stimulus control and sleep restriction.

2. Troubleshoot common problems:
   - staying-up to the prescribed bedtime
   - difficulty getting out of bed in the morning
   - (pre-sleep) rumination strategies
   - beliefs about sleep and fatigue

3. Integrate/discuss the overlap of insomnia and depression strategies
Insomnia is an important target

- Insomnia confers two-fold risk to develop depression (Baglioni et al., 2011)
- Insomnia predicts MDD-treatment resistance (Buysse et al., 1999; Thase, Simons, & Reynolds, 1996)
- No CBT-D or PT difference on residual insomnia after MDD remission (about 50% have residual sleep problems; Carney et al., 2007)
Combining depression and sleep therapies

- Fava et al 2006: 33% SSRI + placebo, 42% SSRI + sleep tx
- Manber et al 2008: 33% SSRI + placebo, 63% SSRI + sleep tx
What is insomnia?

• We will define it as:
  – Difficulty sleeping (initiating and/or maintaining sleep*)
  – Difficulty functioning: contemporary views of insomnia conceptualize it as a 24-hour disorder (daytime component) and/or distress
  – ≥3 months duration (DSM5)

*Most CBT trials focus on these types of complaints. There is some controversy with quantitative criteria (e.g., Lineberger, Carney, Means & Edinger, 2006)
Chronic Insomnia

Precipitating factor(s)

Coping with the sleep disruption

Homeostatic Disruption
Reduced sleep drive

Circadian Disruption
Improper Sleep Scheduling

Arousal
Cognitive Poor sleep habits Conditioned arousal

Chronic Insomnia

(Spielman, 1987; Webb, 1988)
Homeostatic Mechanism Balances Sleep and Wakefulness

Sleep drive determines the quantity of deep sleep and the quality
Lingering in the morning
Effects of naps
“I spend about 8 hours in bed every night”

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Bedtime</strong></td>
<td>11:00 pm</td>
<td>11:30 pm</td>
<td>11:05 pm</td>
<td>10:35 pm</td>
<td>10:55 pm</td>
<td>12:15 am</td>
<td>10:15 pm</td>
</tr>
<tr>
<td><strong>Time to fall asleep</strong></td>
<td>25</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>35</td>
<td>15</td>
<td>95</td>
</tr>
<tr>
<td><strong>Time awake during night</strong></td>
<td>20</td>
<td>25</td>
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<td>35</td>
<td>20</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td><strong>Wake time</strong></td>
<td>7 am</td>
<td>7 am</td>
<td>7 am</td>
<td>7 am</td>
<td>7 am</td>
<td>8:40 am</td>
<td>7:50 am</td>
</tr>
<tr>
<td><strong>Rise time</strong></td>
<td>7:15 am</td>
<td>7:20 am</td>
<td>7 am</td>
<td>7:25 am</td>
<td>7:15 am</td>
<td>10:50 am</td>
<td>11:45 am</td>
</tr>
</tbody>
</table>
## Daily Activity Record

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-7 am</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed awake</td>
</tr>
<tr>
<td>7-8 am</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed awake</td>
</tr>
<tr>
<td>8-9 am</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
</tr>
<tr>
<td>9-10 am</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>In bed asleep</td>
<td>In bed</td>
<td>In bed</td>
<td>In bed</td>
</tr>
<tr>
<td>10-11 am</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>In bed awake</td>
<td>Internet</td>
<td>In bed awake</td>
</tr>
<tr>
<td>11-12 am</td>
<td>Internet</td>
<td>bath</td>
<td>Internet</td>
<td>shower</td>
<td>Internet</td>
<td>Internet</td>
<td>Internet</td>
</tr>
<tr>
<td>12-1 pm</td>
<td>Internet</td>
<td>Internet</td>
<td>Groceries</td>
<td>Internet</td>
<td>Reading</td>
<td>Back to bed</td>
<td>Internet</td>
</tr>
<tr>
<td>1-2 pm</td>
<td>Internet, newspaper</td>
<td>Internet</td>
<td>Breakfast</td>
<td>Internet, pay bills</td>
<td>Coffee</td>
<td>Resting</td>
<td>Back to bed</td>
</tr>
<tr>
<td>2-3 pm</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
</tr>
<tr>
<td>3-4 pm</td>
<td>Reading</td>
<td>Internet</td>
<td>In bed</td>
<td>Internet nap</td>
<td>computer</td>
<td>shower</td>
<td></td>
</tr>
<tr>
<td>4-5 pm</td>
<td>Reading</td>
<td>on phone (bed)</td>
<td>tv</td>
<td>Internet lunch</td>
<td>Computer</td>
<td>lunch</td>
<td></td>
</tr>
<tr>
<td>5-6 pm</td>
<td>Reading</td>
<td>tv</td>
<td>Internet</td>
<td>lunch</td>
<td>reading</td>
<td>cook</td>
<td>Visit Mom</td>
</tr>
<tr>
<td>6-7 pm</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>tv</td>
<td>dinner</td>
<td>Visit Mom</td>
<td></td>
</tr>
<tr>
<td>7-8 pm</td>
<td>Reading</td>
<td>Internet</td>
<td>In bed</td>
<td>Internet nap</td>
<td>computer</td>
<td>dinner</td>
<td></td>
</tr>
<tr>
<td>8-9 pm</td>
<td>dinner</td>
<td>tv</td>
<td>In bed</td>
<td>Internet dinner</td>
<td>computer</td>
<td>tv</td>
<td></td>
</tr>
<tr>
<td>9-10 pm</td>
<td>tv</td>
<td>tv</td>
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<td>tv</td>
<td>tv</td>
<td>tv</td>
<td></td>
</tr>
<tr>
<td>10-11 pm</td>
<td>In bed</td>
<td>Internet</td>
<td>In bed</td>
<td>Internet</td>
<td>In bed</td>
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<td>In bed</td>
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</table>
Homeostatic Disruption as a Perpetuating Factor

• If we need to “build” sleep drive to have continuous and quality sleep, behaviors that have a negative impact on this build-up are:
  – Spending increased time in bed relative to how much sleep you can currently produce
    • Napping; Sleeping-in; Going to bed early
  – Inactivity (Carney et al., 2006)
Circadian/Body Clock Essentials

1. TIMING
   • Clock determines timing of sleep especially REM sleep timing AND timing of alertness

2. MANAGING DRIFT
   • There is drift in our clock because it is longer than 24 hours
     – Regular bedtimes, regular rise times and regular light exposure “set” the clock and manage drift
Circadian alerting signals (24-hours)

Time

Strength of Alerting Signal

Wake

Rest
“I go to bed around 11 and get up at 6 every morning”

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<thead>
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<td>95</td>
</tr>
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<td>35</td>
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<td>45</td>
<td>60</td>
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</tr>
</tbody>
</table>
Delayed and Advanced Chronotypes

Normal Sleep Phase

Delayed Sleep Phase

Advanced Sleep Phase
Circadian disruption as a perpetuating factor

• If optimal sleep is produced during a dynamic, idiosyncratic timing window, the following behaviors have a negative impact on sleep:
  – Variable timing of going to bed and getting out of bed
  – Sleeping outside of the optimal window (i.e., keeping late hours if you are a lark or getting up early if you are an owl)
The Third Process: The Arousal System

- The arousal system can trump the sleep promoting system
  - allows us adequate respond to dangerous threats
- When overactive, the arousal system interferes with the processes controlling sleep. Hyperarousal issues:
  1. Conditioned arousal
  2. Cognitive arousal
  3. Physiological arousal
Conditioned Arousal

• Ask about “the switch”

   Bed (bedroom, bedtime routine)
   +
   Sleeplessness, tossing, turning, upset
   = conditioned arousal
Two basic (transdiagnostic) core beliefs

Defective
• There is something wrong with me

Helpless
• There is nothing I can do about it

Consequences
And I need to exert effort to fix it (Espie et al., 2006)
Subsequent anxiety about failed attempts to fix it

(Beck, 1999)
Physiologic Hyperarousal on Multiple Sleep Latency Test

- Insomnia
- Hyperaroused good sleepers (caffeine)
- Sleep-deprived insomnia (yoked)

Propensity to nap

Perpetuating Factors and CBT-I

Chronic Insomnia

Homeostatic Disruption
Reduced sleep drive

Circadian Disruption
Improper/irregular Sleep Scheduling

Arousal
Cognitive
Poor sleep habits
Conditioned arousal

Cognitive Therapy

Relaxation

Stimulus Control

Sleep Restriction

Sleep Hygiene

Adapted from Webb (1988)
Perpetuating Factors in MDD-I?

Insomnia only = MDD-I on:

- Unhelpful beliefs about sleep (Carney et al., 2007)
- Belief that effort is needed for sleep (Kohn & Espie, 2005)
- Excessive time spent in bed (Kohn & Espie, 2005)
- Schedule variability (Carney et al., 2006; Kohn & Espie, 2005)
- Arousal (Kohn & Espie, 2005)
Selected Evidence for CBT-I in MDD-I

- **Mixed psychiatric disorders**
  - Lichstein et al., 2000
  - Edinger et al., 2007; 2009

- **Depression**
  - Morawetz (2001) Case series bibliotherapy
  - Kuo et al. (2001) Case series group CBT
  - Manber and colleagues (2008) RCT CBT
  - BBIT helps with refractory depression and residual insomnia (Watanabe et al., 2011)
### Empirically Supported Insomnia Treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th># of studies</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus control*</td>
<td>6</td>
<td>Well-established</td>
</tr>
<tr>
<td>Relaxation*</td>
<td>8</td>
<td>Well-established</td>
</tr>
<tr>
<td>Paradoxical Intention*</td>
<td>3</td>
<td>Well-established</td>
</tr>
<tr>
<td>Sleep Restriction*</td>
<td>3</td>
<td>Well-established</td>
</tr>
<tr>
<td>CBT (no relaxation) *</td>
<td>6</td>
<td>Well-established</td>
</tr>
<tr>
<td>CBT + relaxation*</td>
<td>6</td>
<td>Well-established</td>
</tr>
<tr>
<td>EMG Biofeedback</td>
<td>4</td>
<td>Probably efficacious</td>
</tr>
<tr>
<td>Other Multi-component</td>
<td>3</td>
<td>Probably efficacious</td>
</tr>
<tr>
<td>Cognitive Therapy</td>
<td>0</td>
<td>Not supported</td>
</tr>
<tr>
<td>Sleep Hygiene</td>
<td>3</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

Morin et al. (1999; 2006)
Contraindications for CBT-I?

- Current substance use disorder
- Psychologically unstable
- Medically unstable, including epilepsy
- Bipolar illness*
- Circadian Rhythm Disorders
- Excessive daytime sleepiness**
  - Narcolepsy, Sleep-Disordered Breathing, Voluntary Sleep Restriction, Periodic Limb Movement Disorder

**you have an Epworth slide in your handouts (refer ≥10)
For assessment, see Manber & Carney (2015)
CBT-I delivery in MDD-I

TREATMENT COMPONENTS
Stimulus Control

If wakefulness and the bed have become associated, re-associate bed with sleep by:

1. Going to bed only when sleepy
2. Getting out of bed when unable to sleep
3. Getting out of bed at a consistent time each morning (irrespective of how you slept)
4. Using the bed and bedroom only for sleep (and sex)
5. Refraining from daytime naps

Bootzin (1972)
Stimulus control: Putative sleep mechanisms

- Unpair bed and wakefulness
- Contribute to sleep drive
- Steady input to the clock (regular rise time)
Possible mood mechanisms for SC? Complements CBT-D?

- Increasing time out of bed in the 24 hour period
- Engaging alternative coping strategies during stress
- Behavioral experiment that tests whether ↑ or ↓ effort is most helpful
- Challenges learned helplessness (CT)
Sleep Restriction Therapy (SRT) or Time-in-Bed Restriction

To restore homeostatic sleep drive:

- Match time-in-bed with current average sleep production (add 30 minutes for normal sleep onset latency)

- Once sleep normalizes and there is sleepiness (self-reported or a mean sleep onset latency 10 min or less or a sleep efficiency above 90%) we extend time-in-bed in 15 or 30 minute increments

Spielman et al., 1987
Sleep Restriction: Putative mechanisms

- Increases sleep drive
- Sleep deprivation can reduce rumination

How is it complementary to CBT-D?
- ↑ time out of bed in the 24 hour period (BA)
- Challenges learned helplessness (CT), i.e., it increases self-efficacy
- Behavioral experiment that tests whether ↑ or ↓ effort is most helpful (CT)
Sleep Hygiene: Focus on Lifestyle Factors

• Caffeine – timing and reduction
• Nicotine reduction/elimination
• Prescribed exercise - timing
• Light bedtime snack (milk, peanut butter)
• Avoid middle of the night eating
• Reduce alcohol, marijuana & other substances
• Optimize environment: light, noise, temperature
Counterarousal strategies

- Buffer zone
- Relaxation therapies
- Cognitive therapy
Create a “buffer zone”

- Time to unwind (~1 hour) before bedtime
- Transition between goal-oriented activities of the day and quiet, more peaceful time of sleep
  - Those who have hard time staying awake until designated bedtime may have shorter “buffer zone” (e.g., older adults)
  - Those who are delayed sleep phase/teens may have to lengthen their buffer zone
Relaxation*

- Progressive muscle relaxation
- Diaphragmatic breathing
- Breathing meditation
- Guided imagery

*Relaxation therapy is a well-established therapy with mod. ES Morin et al, 1999; Morin et al, 2006
COGNITIVE THERAPY

Thought Records
Socratic questioning
Behavioral experiments
# Cognitive Therapy: Thought Records

<table>
<thead>
<tr>
<th>Situation</th>
<th>Mood (Intensity 0-100%)</th>
<th>Thoughts</th>
<th>Evidence for the thought</th>
<th>Evidence against the thought</th>
<th>Adaptive/Coping statement</th>
<th>Do you feel any differently?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coming back to the office from my lunch break and noticed how tired I was</td>
<td>Tired (100%) Upset (100%) Worried (80%)</td>
<td>I’m going to get sick if I keep going like this I can’t keep going on like this Something really terrible is going to happen if this doesn’t get resolved I could get fired and eventually become homeless</td>
<td>I’m not exercising any longer I don’t feel like doing things I got into trouble for coming to work late last month.</td>
<td>I usually start to feel a little better later in the afternoon 99.9% of the time I am on-time and have no problems at work My sleep problems have been going on for years and nothing bad has happened My job is secure—I am not going to be fired</td>
<td>Although I tend to feel lousy at different times during the day, the reality is that I always make it through and nothing bad has ever happened as a result of the insomnia</td>
<td>Tired (90%) Upset (50%) Worried (45%)</td>
</tr>
</tbody>
</table>
Worry about Consequences

• What other factors affect your mood or functioning during the day?
• Focus on positive instances of coping; what are some of your successful coping strategies?
• Orient towards coping: Sounds like you anticipate being tired this week, what strategies should we put into place?” (More on this in behavioral experiments)
• Could cancelling activities/plans have a negative effect on your sleep? (Avoidance figures prominently in BA)
• Could focusing on the negative consequences of sleep have a negative effect on your sleep?
Explore what contributes to how one feels during the day

- Jetlag
- Level of activity
- Hydration
- Caffeine withdrawal
- Residual symptoms of sleep or antidepressant medication
- What fatigue management strategies could help?
## Cognitive Therapy

### Behavioral Experiment

<table>
<thead>
<tr>
<th>Belief</th>
<th>Alternative?</th>
<th>Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a limited store of energy</td>
<td>Conserving energy may increase fatigue</td>
<td>Expend versus conserve</td>
</tr>
<tr>
<td>Poor sleep is dangerous</td>
<td>I may be able to cope reasonably after poor sleep</td>
<td>Restrict sleep and monitor coping</td>
</tr>
<tr>
<td>I can’t control sleep because my mind is too active</td>
<td>Perhaps because there isn't time to process the day?</td>
<td>Constructive worry in evenings versus status quo</td>
</tr>
<tr>
<td>Being tired makes me look bad</td>
<td>Perhaps others are not particularly attuned to this</td>
<td>Took series of photos and tested people’s ratings</td>
</tr>
<tr>
<td>Monitoring how I feel helps me to keep track, in case I have to make an adjustment</td>
<td>Monitoring increases the likelihood that you will perceive minor changes in energy</td>
<td>Monitor external stimuli and mood for two hours and then internal stimuli for 2 hours</td>
</tr>
<tr>
<td>I need to nap to get through the day</td>
<td>If I don’t nap, my nighttime sleep will improve, and I can cope</td>
<td>Monitor napping, tiredness and coping for one week of naps and one week without</td>
</tr>
</tbody>
</table>

Ree & Harvey, 2004
<table>
<thead>
<tr>
<th>Week 1</th>
<th>Psychoeducation, Stimulus Control, Sleep Restriction Therapy, Sleep Hygiene (if needed), Buffer zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>At-home implementation</td>
</tr>
<tr>
<td>Week 3</td>
<td>Troubleshoot adherence, determine if changes necessary to schedule, add counterarousal and cognitive therapy</td>
</tr>
<tr>
<td>Week 4</td>
<td>At-home implementation</td>
</tr>
<tr>
<td>Week 5</td>
<td>Troubleshoot adherence, determine if changes necessary to schedule, continue with cognitive therapy, introduce termination issues, relapse prevention homework</td>
</tr>
<tr>
<td>Week 6</td>
<td>At-home implementation</td>
</tr>
<tr>
<td>Week 7</td>
<td>Troubleshoot adherence, determine if changes necessary to schedule, cognitive therapy, termination issues and relapse prevention</td>
</tr>
</tbody>
</table>

Edinger & Carney, 2015
My plan for better sleep

Over the next two weeks, I will do the following:

1. I will use a standard get-up-out-of-bed time, seven days per week, regardless of the sleep I obtain on any particular night. My latest time out of bed is: **5:30 AM**. I will set an alarm for every morning at this time.

2. I will go to bed only when I am sleepy, but never before my earliest possible bedtime. My earliest bedtime is **11:30 PM**.

3. I will get up out of bed when I can’t sleep. I will give up the effort to sleep, and go to another room until I feel sleepy enough to fall asleep quickly before returning to bed.

4. If I still cannot fall asleep when I return to bed, repeat step 3.

5. I will avoid doing wakeful things while in bed. In other words, I will use the bed for sleeping only. If sexual activity is not alerting, this can be an exception to the rule.

6. If I find myself worrying, problem-solving, ruminating, planning in bed, or engaging in sleep effort, I will get up and stay out if bed until this thinking dissipates and I feel sleepy enough to return to bed. **This includes if I wake up because of a hot flash**.

7. I will avoid daytime napping or spending time lying down throughout the day, unless it is for safety.

8. I will protect an hour before bed as a wind-down period.

9. I will fill out my sleep diary each morning, preferably within an hour of rising, so that I can track the impact of this plan on my sleep.

Other helpful hints:

10. I will limit caffeine to one drink as far away from bedtime as possible, and attempt to refrain from alcohol and smoking, including marijuana. I will ensure my bedroom is quiet, dark, and cool. I will attempt to exercise, although not right before bed.

I agree to limit my caffeine to: one cup of coffee in the morning and one after lunch.
CBT-I delivery in MDD-I

TROUBLESHOOTING
Case Study

• Dan is a 33 year old male graduate student participating in CBT for depression treatment complaining of daytime fatigue, decreased motivation and sleeping difficulties.

• He spends an average of 10 hours in bed and his total sleep time is 7.9 hours.

• His Epworth Sleepiness Scale is within normal limits (ESS = 4). You review his sleep logs.
<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedtime</td>
<td>9:00 pm</td>
<td>11:30 pm</td>
<td>11:05 pm</td>
<td>10:35 pm</td>
<td>10:55 pm</td>
<td>11:15 pm</td>
<td>11:15 pm</td>
</tr>
<tr>
<td>Time to fall asleep</td>
<td>25</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>35</td>
<td>15</td>
<td>95</td>
</tr>
<tr>
<td>Time awake during night</td>
<td>20</td>
<td>25</td>
<td>15</td>
<td>35</td>
<td>20</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Wake time</td>
<td>8:30 am</td>
<td>7:30 am</td>
<td>7:30 am</td>
<td>7:15 am</td>
<td>7:20 am</td>
<td>8:40 am</td>
<td>8:50 am</td>
</tr>
<tr>
<td>Rise time</td>
<td>9:15 am</td>
<td>8:20 am</td>
<td>8:15 am</td>
<td>8:25 am</td>
<td>7:35 am</td>
<td>8:50 am</td>
<td>11:45 am</td>
</tr>
</tbody>
</table>

Mean Time in Bed = 10 hours
Mean Total Sleep Time = 7.93 hours; Sleep onset latency = 42 minutes
Mean Wakefulness after sleep onset (WASO) = 32 minutes
Sleep Efficiency (Time asleep/time in bed) = 79%
Plan

• You want to eliminate jetlag with a set schedule (stimulus control) and want to limit his time-in-bed to 8.5 hours (sleep restriction)

• Problem: he says that he can’t get up at a regular time in the morning because this is when his mood is at its worst.
<table>
<thead>
<tr>
<th>Time</th>
<th>MON</th>
<th>TUES</th>
<th>WED</th>
<th>THURS</th>
<th>FRI</th>
<th>SAT</th>
<th>SUN</th>
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<tbody>
<tr>
<td>7 am</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
</tr>
<tr>
<td>8 am</td>
<td>SLEEP</td>
<td>IN BED 8</td>
<td>IN BED 7</td>
<td>IN BED 8</td>
<td>CAFÉ 2</td>
<td>SLEEP</td>
<td>SLEEP</td>
</tr>
<tr>
<td>9 am</td>
<td>IN BED 7</td>
<td>LAPTOP 8</td>
<td>GYM 3</td>
<td>LAPTOP 8</td>
<td>WALK 3</td>
<td>SHOWER 5</td>
<td>IN BED 8</td>
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<tr>
<td>10 am</td>
<td>SHOWER 5</td>
<td>LAPTOP 8</td>
<td>BRFT 6</td>
<td>PHONE 5</td>
<td>SHOP 3</td>
<td>IN BED 8</td>
<td>IN BED 8</td>
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<tr>
<td>11 am</td>
<td>BRFT 7</td>
<td>TV 8</td>
<td>GAMING 6</td>
<td>SHOWER 4</td>
<td>BILLS 5</td>
<td>TV IN BED 8</td>
<td>READING 8</td>
</tr>
<tr>
<td>12 pm</td>
<td>SCHOOL 5</td>
<td>SCHOOL 5</td>
<td>GAMING 7</td>
<td>SCHOOL 5</td>
<td>SHOWER 4</td>
<td>GAMING 7</td>
<td>SHOWER 6</td>
</tr>
<tr>
<td>1 pm</td>
<td>SCHOOL 5</td>
<td>SCHOOL 5</td>
<td>GAMING 7</td>
<td>SCHOOL 5</td>
<td>LUNCH 5</td>
<td>GAMING 6</td>
<td>BRFT 7</td>
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<td>SCHOOL 5</td>
<td>GAMING 7</td>
<td>SCHOOL 5</td>
<td>TV 8</td>
<td>GAMING 7</td>
<td>NAP 7</td>
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<td>GAMING 7</td>
<td>SCHOOL 5</td>
<td>COUCH 8</td>
<td>LAPTOP 8</td>
<td>NAP</td>
</tr>
<tr>
<td>4 pm</td>
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<td>READING 7</td>
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<td>GAMING</td>
<td>GAMING 8</td>
<td>LAPTOP 8</td>
<td>DINNER 4</td>
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<tr>
<td>7 pm</td>
<td>DINNER 5</td>
<td>GAMING 8</td>
<td>NAP 6</td>
<td>GAMING</td>
<td>GAMING 8</td>
<td>GAMING 7</td>
<td>GAMING 5</td>
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<tr>
<td>8 pm</td>
<td>GAMING 8</td>
<td>DINNER 4</td>
<td>DINNER 5</td>
<td>DINNER 4</td>
<td>DINNER 5</td>
<td>READING 6</td>
<td>PHONE 3</td>
</tr>
<tr>
<td>9 pm</td>
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<td>GAMING 7</td>
<td>GAMING 6</td>
<td>GAMING 6</td>
<td>GAMING 7</td>
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<td>GAMING 6</td>
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<tr>
<td>10 pm</td>
<td>IN BED 6</td>
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<td>LAPTOP 6</td>
<td>IN BED 7</td>
<td>GAMING 7</td>
<td>DINNER 7</td>
<td>READING 8</td>
</tr>
<tr>
<td>11 pm</td>
<td>TV IN BED 6</td>
<td>TV IN BED 6</td>
<td>TV IN BED 6</td>
<td>TV IN BED 6</td>
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<td>12 am</td>
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<td>TV IN BED 6</td>
<td>TV IN BED 7</td>
<td>TV IN BED 6</td>
<td>TV IN BED 7</td>
<td>TV IN BED 8</td>
<td>IN BED 8</td>
</tr>
<tr>
<td>1 am</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>SLEEP</td>
<td>TV IN BED 8</td>
<td>SLEEP</td>
<td>SLEEP</td>
</tr>
</tbody>
</table>

DAN: diurnal mood worsening
“I can’t get up at the designated rise time”

Find out why:

  - Rationale not compelling/understood? Go over it multiple times
  - Comfort? Consider a transition plan to address comfort
  - Anhedonia? Devise a plan.
  - Plan activities (that involve commitment to others)
  - Use multiple, staggered alarm clocks
  - Elicit help from significant others
  - Activities that involve light are helpful
    - Light sets the clock and increases alertness
“I don’t feel like getting up in the morning.”

Martell, Dimidjian, & Herman-Dunn (2010)
Coping Card Example

**Thought**

- “I cannot get out of bed at 7:30 AM”

**Coping Card**

- I know this will help improve my sleep.
- I will go the coffee shop around the corner and read the paper. I **enjoy** doing this.
- I will meet with Joe at the Gym at 8:00AM on Mondays and Wednesdays.
- It is hard, but I have to do it if I want to sleep better.
- I can handle getting out of bed at 7:30AM.
Martell, Dimidjian, & Herman-Dunn (2010)

Don’t leave work

OUTSIDE

→ IN

PLAN

CONTINGENCIES

ACTION

Increase light
Movement: stretch, move
Scheduled breaks
Hydration
Healthy meals and snacks
Coping card: the post lunch dip is normal and will pass
Excessive mentation: Rumination

• Rumination – try to suppress
• Use rumination as a cue for an alternative response
  – Day: rumination as a cue for activation
  – Night: rumination as a cue for Stimulus Control
Out of a TRAP → Back on TRAC

Martell, Dimidjian, & Herman-Dunn (2010)

TRAP

TRIGGER
LOW ACTIVITY

RESPONSE
FEEL LOW, NEGATIVE THOUGHTS

AVOIDANCE PATTERN
RUMINATION (DISENGAGEMENT)

OUTCOME
FEEL HORRIBLE

TRAC

TRIGGER
LOW ACTIVITY

RESPONSE
FEEL LOW, NEGATIVE THOUGHTS

ALTERNATIVE COPING
ACTIVATE

OUTCOME

? GATHER DATA
“I can’t stay up until this bedtime. I’m too sleepy”

- Acknowledge it is difficult
- Ensure they know the difference between sleepiness and fatigue/sluggish/low mood
- Develop positive association with sleepiness and their sleep system working (hidden benefits to sleep deprivation).
- Other solutions include: light, activity, enlisting others
- Collaborate on whether earlier bedtime is needed
Sleep/the Bed as an escape

- Avoidance maintains low mood
- Limits access to positive reinforcement
- Escape becomes confining (world shrinks)
  Explore pros and cons (and ambivalence) with isolation
- Psychoeducation: poor sleep drive, ↑fatigue, conditioned arousal
Behavioral Activation + Behavioral Insomnia Therapy (BABIT)

- Sleep restriction and stimulus control
- Behavioral activation with concentration in morning or evening
- Employing a behavioral formulation and strategy for rumination
- Increased activation for fatigue management and to challenge avoidance
Summary

• Insomnia and depression are linked
• Treating insomnia is important, not just for sleep, but also for depression outcomes
• Sleep medications and CBT-I are important adjuncts to depression therapy
• There may be larger and more durable treatment effects with CBT-I versus a sleep medication
• Most CBT-I problems can be addressed
QUESTIONS?