Diagnostic and treatment challenges for patients with insomnia and major depression

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<th>Type of Potential Conflict</th>
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<tbody>
<tr>
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3. The material presented in this lecture has no relationship with any of these potential conflicts, OR

4. This talk presents material that is related to one or more of these potential conflicts, and the following objective references are provided as support for this lecture:


Diagnostic challenges

- Insomnia = depression (Krupinski & Tiller, 2001)
- Uncertain nosologies: Did MDD swallow-up ID?
  - Very few discriminating items on depression measures (Carney et al., 2009)
  - Comorbidity can affect psychometrics (e.g., PSQI; Hartmann et al., 2015)
- Comorbidity tends to preclude consideration insomnia diagnosis or consideration of psychophysiological factors (Nowell et al., 1997).
Assessment Solutions

• Continue psychometric work (e.g., Insomnia Severity Index, Depression, Anxiety and Stress Scale)
• Diagnose insomnia when ID criteria are met
• Utility for MDD Criteria A i.e., depressed mood and anhedonia are discriminating items (Carney et al., 2009)
• Don’t make assumptions
Chronic Insomnia

Homeostatic Disruption
Reduced sleep drive

Circadian Disruption
Improper Sleep Scheduling

Hyperarousal
Cognitive arousal
Conditioned arousal

Precipitating factor(s)

Coping with the sleep disruption

Spielman, 1987; 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)
Perpetuating Factors and CBT-I

Adapted from Webb (1988)
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
  ▪ Brief Behavioral Insomnia Therapy helps with refractory depression and residual insomnia (Watanabe et al., 2011)
The Tall Order of CBT-I Session 1

1. Each morning, get out of bed no later than **5:30 am.** Get up at this time, regardless of the previous night’s sleep.
2. Use the bed only for sleeping.
3. Get up when you cannot sleep and return only when you feel sleepy.
5. Go to bed when you are sleepy but never before **11 pm.**
6. Schedule quiet time an hour or so before bed.

See any potential problems for your clients with MDD?
Treatment Challenges

• Examples: Adherence with schedule, aversion to fatigue, rumination
• Solutions within your existing treatment
  – Behavioral activation: analyze avoidance patterns and propose experiments/tests of alternative coping behaviors
  – Cognitive Therapy for depression (CT-D): challenge thinking that gets in the way of behavior change
Two basic core beliefs (transdiagnostic?)

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)
## Behavioral Experiments

<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>
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Ree & Harvey, 2004
“I can’t get up at the designated rise time”

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Possible plans</th>
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<tbody>
<tr>
<td>Rationale not understood</td>
<td></td>
</tr>
<tr>
<td>Comfort</td>
<td></td>
</tr>
<tr>
<td>Anhedonia</td>
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**Alarm**

**Eveningness**
- Light sets the clock and increases alertness
- Activities that involve light are helpful
“I don’t feel like getting up in the morning.”

Adapted from 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.

Carney & Manber (2010)
“I can’t do this. I feel tired.”

• When clients act in accordance with a mood, they are acting from the inside-out (Martell et al., 2010)
• Suffering is linked to experiential avoidance (Hayes, Stroshal & Wilson, 2011)
• What do people with insomnia avoid? Fatigue (Hood, Carney, & Harris, 2011)
• Fatigue also avoidance in the form of rumination (Carney et al., 2006; 2010; 2013)
• Acting from the outside-in changes reactivity
• Fatigue avoidance makes things worse; reinforces helplessness
Worry about Fatigue

• Use Socratic questioning or behavioral experiments to explore: What other factors affect your mood or functioning during the day?
  – Jetlag
  – Level of activity
  – Hydration/nutrition
  – Caffeine withdrawal
  – Too few breaks/boredom/eye strain
  – Residual symptoms of medications

• Orient towards coping: Sounds like you anticipate being tired this week, what strategies should we put into place?”
Outside-in approach to fatigue

Don’t leave work

OUTSIDE → IN

PLAN

+ CONTINGENCIES

ACTION

Martell, Dimidjian, & Herman-Dunn (2010) Don’t leave work

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Excessive mentation: Rumination

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

**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:**
- **OUTCOME:**

Martell, Dimidjian, & Herman-Dunn (2010)
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
Case Study

• Ali 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><strong>Bedtime</strong></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><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>
<td>15</td>
<td>35</td>
<td>20</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td><strong>Wake time</strong></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><strong>Rise time</strong></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>
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</tbody>
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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.
• What do you do?
What about the overscheduled client?

• What are you NOT doing?
  – Where is the leisure? The re-fueling? The connection with people?
• What is the function of the scheduled activities? Are these activities avoidance?
  – Avoidance of what?
  – How do you feel when you see your schedule? Fulfilled?
• Pleasurable Activities worksheet
“I can’t stay up until this bedtime. I’m too sleepy”

- 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).
- Check for avoidance, excessive wind-down period
- Other solutions include: light, activity, enlisting others
- Collaborate on whether earlier bedtime is needed
How would you handle using the bed as an escape?
Reference list

Selected references of relevance to the workshop


