Treating Insomnia in Primary Care

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Disclosure statement

• Nothing to disclose
A ruffled mind makes a restless pillow.

~ Charlotte Brontë
Prevalence

Prevalence of sleep trouble in general adult population: 15-25%
Epidemiology of Insomnia
Morin et al., 2006
N=2,001 Quebec

N=2001

Satisfied with their sleep
n=1493, 74.7%

Without insomnia symptom
n=1228, 61.7%

With insomnia symptom
n=265, 13.0%

Dissatisfied with their sleep
n=507, 25.3%

Without insomnia symptom
n=163, 8.4%

With insomnia symptom
n=344, 16.9%

For at least one month
n=269, 13.2%

With daytime consequences or excessive preoccupation
n=194, 9.5%
Insomnia Syndrome
Prevalence

• Higher prevalence in women
• Higher prevalence with older age
• Higher prevalence with medical conditions e.g., respiratory illness, heart disease, chronic pain
• Higher prevalence with psychological distress e.g., anxiety, depression
What patients who have sleep difficulty think

• Sleep is important

• Sleep difficulty needs greater recognition by health professionals

• Wish to receive more information about sleep and sleep difficulty

• Reluctance to report

• Integrate the assessment of sleep difficulties into the health care system

Cancer patients: Davidson et al., 2007
The health professional most likely to hear *first* about a patient's sleep difficulties is the family physician.
Outline
Treating Insomnia in Primary Care

- Hypnotic medication
- “Stepped care”
- 3 levels of intervention
- Sleep disorders other than insomnia
Hypnotic Medication

Recent Trends

• Benzodiazepines
• Atypical benzodiazepines
• Sedating anti-depressants, especially trazodone
• OTC antihistamine sleep aids
• melatonin
Optimal Interventions for Improvement in Sleep by Time

Immediate
Pharmacologic

Short-term
Pharmacologic
2-4 weeks
Non-Pharmacologic
or Combination

Long-term
Non-Pharmacologic
“Stepped Care”

Model of health-care delivery

a. Simplest first
b. More intensive help as needed
Stepped Care for Sleep Problems in Primary Care

1. Person is interested in getting good sleep, preventing sleep problems.

2. Person is starting to develop a pattern of poor sleep. Some nights are bad. Starting to affect daytime functioning.

3. Person has sleep difficulty almost every night. There is interference with daytime functioning. Has persisted for \( \geq 1 \) month.
Stepped Care for Sleep Problems

1. Person interested in getting good sleep, preventing sleep problems.

Sleep tips = “Sleep hygiene” education
Top Ten Sleep Tips!

1. Make your **bedroom** conducive to sleep. Consider the comfort of your bed, the air temperature, and levels of noise and light. Minimize interference with your sleep by bed partner, children, or pets.

2. **Caffeine** is a stimulant and should be discontinued 6 hours before bedtime. Know the foods, drinks and medications that contain caffeine.

3. **Nicotine** is a stimulant and should be avoided near bedtime.

4. **Alcohol** is a depressant; although it may help you get to sleep, it causes awakenings later in the night. Do not drink alcohol later than 4 hours prior to bedtime.
Top Ten Sleep Tips!

5. **Sleeping pills** after the quality of sleep, and if used for several weeks or months will cause disturbed sleep when discontinued.

6. A light snack may be sleep inducing, but a heavy **meal** close to bedtime interferes with sleep. Avoid consuming chocolate, large amounts of sugar, and excessive fluids close to bedtime.

7. Do not **exercise** vigorously within 3 – 4 hours of bedtime. Regular exercise in the late afternoon may deepen sleep.

8. Take time to unwind in the evening.

9. Have a regular bedtime and rise time, even on weekends.

10. If you can’t sleep, get out of bed, go to another room and do a quiet activity until you are sleepy. Return to bed when sleepy.
• Sleep Tips Handout, Bookmark

Newest tip:
• Remove electronic devices from bedroom!
Stepped Care for Sleep Problems

2. Person is starting to develop a pattern of poor sleep. Some nights are bad. Starting to affect daytime functioning.

Emphasize most powerful principles
Most Powerful Sleep Principles

Keep sleep diary – 7 nights

- Constant rise time
- Don’t go to bed too early (Stay up Late!)
- Get out of bed when not sleeping
- Do something with racing thoughts
<table>
<thead>
<tr>
<th>SLEEP DIARY</th>
<th>WEEK OF: __________________________</th>
<th>NAME: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAY</strong> <em>(morning, upon awakening)</em></td>
<td><strong>DATE</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1. I had __ naps yesterday.  
   *Note the time of day and duration of the nap(s).* |                     |                     |                     |                     |
| 2. I went to bed at _____ *(time)* and  
   turned out the lights at _____ *(time)*. |                     |                     |                     |                     |
| 3. After turning out the lights, I fell asleep in ____ minutes. |                     |                     |                     |                     |
| 4. My sleep was interrupted ____ time(s).  
   *Specify duration, in minutes, of each awakening.* |                     |                     |                     |                     |
| 5. I woke up at _____ *(time of last awakening)*. |                     |                     |                     |                     |
| 6. I got out of bed at _____ *(time)*. |                     |                     |                     |                     |
| 7. How rested do you feel this morning?  
   *(1 = exhausted; 5 = very refreshed)* |                     |                     |                     |                     |
| 8. Rate the quality of last night’s sleep.  
   *(1 = very restless; 5 = very sound)* |                     |                     |                     |                     |
| 9. Alcohol  
   *Time and amount* |                     |                     |                     |                     |
| 10. Sleeping medication  
   *Time and amount* |                     |                     |                     |                     |
SLEEP PROPENSITY

HOMEOSTATIC

CIRCADIAN

TIME OF DAY
3. Person has sleep difficulty almost every night. There is interference with daytime functioning. Has persisted for $\geq 1$ month

Formal treatment with CBT-I
Insomnia

- a complaint of difficulty initiating or maintaining sleep, or of non-restorative sleep

- causes clinically significant distress or impairment in functioning

- often associated with fatigue

American Psychiatric Association (DSM-IV, 1994)
American Sleep Disorders Association (ICSD-R, 1997)
Chronic Insomnia

> 1 month

• Important to treat
Mental Health Risk

• Insomnia can be an early marker for psychiatric disorders.

• Longitudinal studies: insomnia is associated with higher risk of developing depression and an anxiety disorder.

Mellinger et al., 1985; Ford and Kamerow, 1989; Breslau et al., 1996; Chang et al., 1997; Roberts et al., 2000; Eaton et al., 1995
Primary care patients with insomnia

Greater use of health care resources:

- Visits to family physician
- Phone calls
- More lab tests
- More sick days

Terzano et al., 2004
Cognitive Behavioural Therapy for Insomnia (CBT-I)

- Insomnia specific techniques
- Based on reducing interference with biological processes that regulate sleep and wakefulness
- and learned associations
CBT-I treatments produce significant improvements in sleep that are reliable and sustainable for adults with insomnia

Morin et al., 1994
Murtagh & Greenwood, 1995
Morin et al., 1999
Chesson et al., 1999
Morin et al., 2006
Morgenthaler et al., 2006
Cognitive Behavioural Treatment for Insomnia

- **Stimulus control therapy**
  Bootzin *et al.*: learned associations: bed and sleep tendency; sleep-wake scheduling

- **Sleep restriction therapy**
  Spielman *et al.*: restrictive sleep scheduling

- **Relaxation-based approaches**
  progressive relaxation, imagery, meditation, autogenic training

continued
• **Cognitive restructuring**
  Examining and altering dysfunctional beliefs about sleep

• **Paradoxical intention**
  Try to stay awake!
Kingston Family Health Team
Sleep Therapy Program

• Information / education
• Sleep scheduling
  Stimulus control therapy with sleep restriction
• What to do with your mind
  Cognitive restructuring - addressing concerns about insomnia
  Clear-your-head time
  Some relaxation, visualization training
## Sleep Therapy Program

Wednesdays 1:00-3:00 p.m.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 8</td>
<td>Introduction to Sleep and Sleep Therapy</td>
</tr>
<tr>
<td>June 15</td>
<td>Reconnecting your Bed with Sleep</td>
</tr>
<tr>
<td>June 22</td>
<td>Relaxing your Mind and Body</td>
</tr>
<tr>
<td>June 29</td>
<td>Putting it All Together</td>
</tr>
<tr>
<td>July 6</td>
<td>Keeping it All Together</td>
</tr>
<tr>
<td>July 13</td>
<td>Maintaining your Progress</td>
</tr>
</tbody>
</table>
Sleep Therapy Program

• 6-10 patients
• 6 sessions
• psychologist, nurse-practitioner, assistant
Special ancillary program

For insomnia patients who are chronic users of benzodiazepines or atypical benzodiazepines:

Hypnotic medication withdrawal program involves psychologist, pharmacist, family physician

Offered in advance or concurrently with CBT-I
KFHT Experience with CBT-I

- 30 patients with chronic insomnia
- 25 women, 5 men
- Age: Mean = 54.4 yrs, s.d. = 11.2 yrs
  Range = 30-78 yrs
- Most had concurrent medical conditions
Kingston Family Health Team
Insomnia Group All Sessions
Mean Sleep Outcomes Before the Program
N = 30

<table>
<thead>
<tr>
<th></th>
<th>Sleep onset latency</th>
<th>Time awake during nighttime awakenings</th>
<th>Early morning awakening duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>55</td>
<td>57</td>
<td>55</td>
</tr>
</tbody>
</table>

Sleep onset latency: 55 minutes
Time awake during nighttime awakenings: 57 minutes
Early morning awakening duration: 55 minutes
Kingston Family Health Team
Insomnia Group All Sessions
Mean Sleep Outcomes Before and After the Program
N = 30

<table>
<thead>
<tr>
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<th>Sleep onset latency</th>
<th>Time awake during nighttime awakenings</th>
<th>Early morning awakening duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre</strong></td>
<td>55</td>
<td>57</td>
<td>55</td>
</tr>
<tr>
<td><strong>Post</strong></td>
<td>19</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Measure</td>
<td>Pre Mean (S.D.)</td>
<td>Post Mean (S.D.)</td>
<td>( p )</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Sleep Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Sleep Time (min)</td>
<td>350 (94)</td>
<td>369 (69)</td>
<td>.089</td>
</tr>
<tr>
<td>Sleep Efficiency (percent)</td>
<td>65% (13%)</td>
<td>87% (8%)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td># Awakenings</td>
<td>2.32 (1.54)</td>
<td>1.46 (0.78)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Rating of Restedness (1 - 5, 5 = best)</td>
<td>2.59 (0.72)</td>
<td>3.09 (0.72)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Rating of Sleep Quality (1 - 5, 5 = best)</td>
<td>2.71 (0.74)</td>
<td>3.18 (0.67)</td>
<td>.014</td>
</tr>
<tr>
<td>Insomnia Severity Index *N=23</td>
<td>17.9 (4.0)</td>
<td>9.8 (4.3)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Medication (number of times taken per week)</td>
<td>1.40 (2.42)</td>
<td>0.47 (1.48)</td>
<td>.012</td>
</tr>
<tr>
<td><strong>Mood Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HADS Anxiety</td>
<td>8.21 (3.54)</td>
<td>6.57 (2.97)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>HADS Depression</td>
<td>6.47 (4.12)</td>
<td>4.47 (3.10)</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>
“I wanted to thank you for the opportunity to attend your sleep clinic. I was a little sceptical at first but the outcome has been very successful. The quality of my sleep has improved and I feel so much better.”
Other Sleep Disorders
• 52-year-old woman
• depressed mood
• not sleeping at night
• falling asleep during the afternoon at work
To the Sleep Lab?

- Sleep apnea, restless legs syndrome, periodic limb movement disorder, night terrors, sleep walking, REM sleep behaviour disorder, narcolepsy

- Epworth Sleepiness Scale
How likely are you to doze off or fall asleep in the situations described below, in contrast to feeling just tired? This refers to your usual way of life in recent times.

Use the following scale to choose the most appropriate number for each situation:

- 0 = would never doze
- 1 = Slight chance of dozing
- 2 = Moderate chance of dozing
- 3 = High chance of dozing

<table>
<thead>
<tr>
<th>Situation</th>
<th>Chance of dozing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting and reading</td>
<td></td>
</tr>
<tr>
<td>Watching TV</td>
<td></td>
</tr>
<tr>
<td>Sitting, inactive in a public place (e.g. a theatre or a meeting)</td>
<td></td>
</tr>
<tr>
<td>As a passenger in a car for an hour without a break</td>
<td></td>
</tr>
<tr>
<td>Lying down to rest in the afternoon when circumstances permit</td>
<td></td>
</tr>
<tr>
<td>Sitting and talking to someone</td>
<td></td>
</tr>
<tr>
<td>Sitting quietly after a lunch without alcohol</td>
<td></td>
</tr>
<tr>
<td>In a car, while stopped for a few minutes in the traffic</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

0 – 10 Normal range / 10 - 12 Borderline / 12 – 24 Abnormal
To the Sleep Lab?

Epworth Sleepiness Scale > 10

Excessive daytime sleepiness:
• Sleep disorder other than insomnia
• Medical condition
• Substance/ medication