Comorbidities and the Transdiagnostic Approach

I. Medical Disorders (Verster, Pandi-Perumal, & Streiner, 2010)

A. Sarsour, et al., 2010
   i. n = 2,086
      a) insomnia group (51.6%)
      b) comparison group (48.4%)
   ii. phone survey measures
      a) Insomnia Severity Index
      b) self-reported depression
   iii. claims-based measures
      a) demographics
      b) chronic medical conditions
      c) psychiatric co-morbidities
   iv. insomnia severity is independently associated with
      chronic medical conditions and with psychiatric illnesses

<table>
<thead>
<tr>
<th>Insomnia Severity</th>
<th>Psychiatric Disorders</th>
<th>Medical Disorders</th>
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<tbody>
<tr>
<td>Sub-Threshold (8-14)</td>
<td>1.70</td>
<td>1.55</td>
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<tr>
<td></td>
<td>(1.30-2.23)</td>
<td>(1.25-1.92)</td>
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<tr>
<td>Moderate (15-21)</td>
<td>2.63</td>
<td>2.34</td>
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<tr>
<td></td>
<td>(1.97-3.51)</td>
<td>(1.83-2.99)</td>
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<tr>
<td>Severe (22-28)</td>
<td>5.04</td>
<td>2.83</td>
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<tr>
<td></td>
<td>(3.24-7.84)</td>
<td>(1.84-4.35)</td>
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B. National Sleep Foundation, 2005
   i. n = 1,506 telephone interviews
   ii. asked if they have ever been told by a doctor that they have a list of medical conditions
   iii. Those who had at least 1 condition
      a) slept less than 6 hours / night (18% vs 12%)
      b) had at least one symptom of insomnia (59% vs 46%)
      c) thought they had a sleep problem (27% vs 11%)
      d) report they get “a good night’s sleep” a few nights a month or less (31% vs 20%)
      e) take more than 30 minutes to fall asleep (27% vs 14%)
      f) experience daytime sleepiness at least 3 times a week (35% vs 19%)

C. Headache Pain (Ong, Stepanski, & Gramling, 2009)
   i. n = 65 college undergraduates
      a) 32 with tension type headaches
         • International Headache Society criteria
      b) 33 controls
   ii. Headache and Facial Pain Screening Questionnaire
   iii. Multidimensional Pain Inventory
   iv. stress triggers headache in both groups
   v. sleep problems trigger headaches in headache group
   vi. headache group used sleep to cope with headache
II. Psychiatric Disorders

A. Mood Disorders: Peterson & Benca, 2006
   i. Glozier, et al., 2010: shorter sleep duration is associated with psychological distress in young adults
   ii. 65% of patients with major depressive disorder report a disturbance of sleep
   iii. insomnia, hypersomnia, or both * X 10 – 20 lifetime prevalence of major depression
   iv. disturbed sleep signals onset of bipolar disorder
   v. most common residual symptom

B. Anxiety Disorders
   i. “… links between anxiety and sleep disturbances may be relevant to understanding mechanisms and dysfunctions of arousal regulation that underlie both types of problems.” (Mellman, 2006, p. 1047)
   ii. Benca, et al., 1992: multiple sleep disturbances

C. Schizophrenia
   i. symptom relapse (Chemerinkski, et al., 2002)
      a) prior insomnia level * severity of psychotic symptoms
      b) terminal insomnia * disorganized symptoms
   ii. Sleep Architecture Changes (Benson, 2006)
      a) * insomnia and REM sleep eyemovement * psychosis, emotionality, and positive symptoms
      b) * SWS * cognitive dysfunction and negative symptoms
   iii. Neuro-developmental model of schizophrenia (Feinberg, 1983)
      a) poor synaptic elimination
      b) sleep homeostat

D. Alcoholism
   i. Roehrs & Roth, 2001
      a) heavy drinking
         • rapid onset
         • short duration
         • primarily NREM
      b) acute discontinuation
         • decreased SWS
         • fragmented REM
      c) endured up to 2 years
   ii. Foster & Peters, 1999
      a) higher PSQI
      b) sleep disturbance best predictor of relapse
         • “sleeping badly at night”
         • “taking long to fall asleep”

E. Nighttime Eating Disorders (Howell, Schenck, & Crow, 2009)

<table>
<thead>
<tr>
<th>Evening Hyperphagia</th>
<th>Night Eating Syndrome</th>
<th>Sleep-Related Eating Disorder</th>
</tr>
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<tbody>
<tr>
<td>Excessive wakeful eating after the last meal and prior to falling asleep</td>
<td>Wakeful eating after the last meal and prior to final awakening</td>
<td>Eating that occurs after an arousal from sleep, with reduced consciousness and/or atypical eating, prior to final awakening</td>
</tr>
</tbody>
</table>
i. Night Eating Syndrome (DSM-5)
   a) de Zwaan, et al., 2006
      • 77% duration greater than 5 yrs
      • 20% BMI less than 25
      • wide spectrum
   b) distinguished from other eating disorders
      • sleep patterns
      • eating patterns
      • circadian delay of food intake
   c) foods similar to daytime consumption

ii. Sleep Related Eating Disorder
   a) Diagnostic criteria (AASM, 2005)
      • Recurrent episodes of involuntary eating and drinking that occur during the main sleep period.
      • One or more of the following:
         • consumption of peculiar forms or combinations of food or inedible or toxic substances,
         • insomnia related to sleep disruption from repeated episodes of eating, with a complaint of non-restorative sleep, daytime fatigue, or both,
         • sleep related injury,
         • dangerous behaviors performed while in pursuit of food or while cooking food,
         • morning anorexia, or
         • adverse health consequences from recurrent binge eating of high-caloric foods
   b) ICSD-2 Demographics
      • 66% - 83% female
      • onset 22 - 29 years of age

III. Transdiagnostic Approach

A. Mansell, et al., 2009
   i. "... the transdiagnostic approach to CBT hypothesizes that there is a range of cognitive and/or behavioral maintenance processes shared across psychological disorders, that is, processes that are elevated in a wide range of psychological disorders relative to nonpsychiatric controls and that causally contribute to the development and/or maintenance of symptoms (p. 7)."
   ii. key points of comparison
      a) common processes
      b) scientific approach

B. Harvey, et al., 2010
   i. sleep disturbance is aetiologically linked to psychopathology
      a) reciprocal relationship with emotion regulation
      b) neurobiological substrates
         • genetics
         • dopaminergic functions
         • serotonergic functions

C. Barlow, et al., 2011
   i. maladaptive emotion regulation strategies
   ii. self monitoring
   iii. mindfulness

D. "...targeting treatment specifically to insomnia along with usual psychiatric treatment may result in improvements not only in sleep but also in the response of non-sleep aspects of a psychiatric disorder.” (Krystal, 2006, p. 1115)
IV. Kessler Psychological Distress Scale

A. Kessler, et al., 2002
B. Glozier, et al., 2010 • shorter sleep duration is associated with psychological distress in young adults

V. Case and Demonstration

A. association between RLS symptoms and SSRIs

VI. Key Points

A. bidirectional relationship
B. treating co-morbid sleep problems improve treatment outcomes by addressing shared maintenance processes
REFERENCES


