SLEEPLESS @ KU LEUVEN

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Background

Impaired sleep is a frequent and important health problem in college students

• Prevalence rates
  o Up to 60% report bad sleep quality
  o 14.9% report sleep onset insomnia
  o 25.9% report sleep maintenance problems
  o 7.7% fulfill ICSD-II criteria for insomnia

• Daytime consequences
  o Fatigue
  o Concentration
  o Memory
  o Mood

Lund et al., 2010; Schlarb et al. 2012
Background

Serious impact on academic performance
- reduced neurocognitive functioning
- lower academic performance
- more stimulant use

Serious impact on general quality of life
- more health risk behaviours
- lower life satisfaction
- higher risk for mental health problems, lower self-efficacy and suicidal ideation

Not only sleep *disorders* but even sleep *problems* and *reduced sleep duration* impair college students’ lives and their academic career significantly!
Background

Why are college students a **vulnerable** population regarding sleep?

→ life is filled with challenges in all areas

• living arrangements
• social life
• biological developments
• more responsibilities
Aims

• to illustrate the two-stepped care model at KU Leuven

• to briefly overview the key components of CBT-I

• to discuss the effectiveness of psychological interventions
Two-stepped care model at KU Leuven

- Start to Sleep: the basics
- Start to Sleep: the training
START to SLEEP: THE BASICS

• What?
  - psycho-education on normal sleep, sleep pathologies, sleep hygiene, sleep medication, ...

• For whom?
  - everybody with a need on information on sleep

• Why?
  - high prevalence of sleep disturbances
  - good sleep hygiene can make a difference
  - preventive aspect

• How?
  - evening sessions
  - ex cathedra lectures
  - large groups
START to SLEEP: THE TRAINING

• What?
  -cognitive behavioral therapy for insomnia (CBT-I)

• For whom?
  -chronic insomnia

• Why?
  -large body of scientific evidence

• How?
  -group (up to 8 students)
  -6 sessions
  -2 hours
  -weekly basis
CBT-I: key components

• Behavioral component
  o Sleep hygiene
  o Sleep restriction
  o Stimulus control
  o Relaxation

• Cognitive component
  o Psycho-education
  o Cognitive restructuring
  o Worry management
Psycho-education

- 3 P model (Spielman, 1991)
Psycho-education

- 3 P model (Spielman, 1987)
Arousal
- Emotional (fear, sadness)
- Cognitive (thoughts, images)
- Physiologic (pain, muscular tension)

Consequences
- Fatigue
- Performance impairments
- Mood disturbances
- Social discomfort

Beliefs and Attitudes
- Worry over sleep loss
- Unrealistic expectations
- Focus on sleep, misattributions
- Control over sleep

‘Maladaptive habits’
- Excessive time spent in bed
- Irregular sleep schedule
- Daytime napping
- Sleep-incompatible activities
- Inappropriate use of hypnotics

The vicious cycle of chronic insomnia (Morin)
The vicious cycle of chronic insomnia

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Psychoeducation
Cognitive therapy
Anti-worry

Relaxation

Sleep hygiene
Sleep restriction
Stimulus control

KU LEUVEN
Sleep hygiene

Lifestyle → Sleep hygiene → Bedroom

Caffeine inside
Sleep restriction

**Sleep restriction rules**

1. Determine the patient’s average sleep time from a sleep diary.
2. Use this average sleep time as the new time allowed in bed each night.
3. Set a consistent wake time based upon the type of insomnia and patient need.
4. Have patient avoid daytime naps.
5. If sleep efficiency increases above 90 percent (85 percent for patients over 65 years of age), then increase time in bed by 15 to 30 minutes.
6. If sleep efficiency decreases below 85 percent (80 percent for patients over 65 years of age), then decrease time in bed by 15 to 30 minutes.

Sleep restriction
### Stimulus control therapy rules

1. Go to bed only when sleepy.
2. Do not watch television, read, eat, or worry while in bed. Use bed only for sleep and sex.
3. Get out of bed if unable to fall asleep within twenty minutes and go to another room. Return to bed only when sleepy. Repeat this step as many times as necessary throughout the night.
4. Set an alarm clock to wake up at a fixed time each morning including weekends.
5. Do not take a nap during the day.

Cognitive restructuring

• Why?
  • To correct misconceptions of insomnia causes and consequences
  • To alter unrealistic sleep expectations
  • To enhance perceptions of control and predictability
  • To dispel myths about good sleep practices

• How?
  o Identifying dysfunctional beliefs
  o Exploring and challenging the validity of cognitions
  o Working towards more adaptive and rational cognitions about sleep
Worry management

- Insomnia ⇔ Worry
  - Worry time
  - Being very strict and self-disciplined about not worrying in bed
  - Distraction techniques
    - Bodyscan
    - Imagery
Relaxation

- Insomnia ↔ Tension
  - Breathing exercise (abdominal breathing; 4-7-8)
  - Progressive muscle relaxation
  - Autogenic relaxation
  - Imagery
**Recent meta-analysis of psychological interventions on sleep in college students**

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Friedrich A. & Schlarb, A.A. (June 2017, Journal of Sleep Research)
Conclusions

• Insomnia is an important problem in college students
• Insomnia affects academic performance as well as general quality of life
• Several psychological interventions are evidence-based
• Recent meta-analysis shows largest effect-sizes for CBT-I
Take home message

A good laugh and a long sleep are the two best cures for anything.
Irish proverb.
Thank you for your wakefull attention!