### Sammenligning nr 1

**Summary of findings:**

**Sleep education leaflet compared to comparison for sleeping problems in high school students**

**Patient or population:** Sleeping problems in high school students

**Setting:** High school (age 15-18)

**Intervention:** Sleep education leaflet

**Comparison:** Not specified

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Impact</th>
<th>No of participants (studies)</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep knowledge assessed with: 20 item sleep knowledge test, self report follow up: 1 month</td>
<td>Significantly higher sleep knowledge in experimental groups over control groups in ages 15-17. No difference in age 18.</td>
<td>(1 RCT)</td>
<td>★★★★</td>
</tr>
</tbody>
</table>

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).*

CI: Confidence interval; RR: Risk ratio; OR: Odds ratio;

**GRADE Working Group grades of evidence**

**High quality:** We are very confident that the true effect lies close to that of the estimate of the effect

**Moderate quality:** We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different

**Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

**Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Unclear risk of bias
2. One study with 1200 participants. No data reported.
Summary of findings:

STEPS sleep treatment and education program for students compared to unrelated presentation for sleeping problems in university students

**Patient or population:** Sleeping problems in university students

**Setting:** University (Mean age 19.4 years)

**Intervention:** STEPS sleep treatment and education program for students

**Comparison:** Unrelated presentation

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Sleep hygiene practices assessed with: different scales, self report follow up: 6 weeks</td>
<td>Sleep hygiene practices significantly improved in experimental group over control. (1 RCT)</td>
<td></td>
<td>☐ ☐ ☐ ☐ VERY LOW</td>
</tr>
<tr>
<td>Sleep quality assessed with: 19 item sleep quality index, self report follow up: 6 weeks</td>
<td>Significantly better overall sleep quality in experimental group over control group. (1 RCT)</td>
<td></td>
<td>☐ ☐ ☐ ☐ VERY LOW</td>
</tr>
</tbody>
</table>

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).*

CI: Confidence interval

**GRADE Working Group grades of evidence**

- **High quality:** We are very confident that the true effect lies close to that of the estimate of the effect
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- **Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect
- **Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Unclear risk of bias
2. One study with a total of 177 participants. No data reported.
## Summary of findings:

**Motivational interviewing-based sleep education program compared to control for sleeping problems in secondary school students**

<table>
<thead>
<tr>
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<th>Impact</th>
<th>Quality of the evidence (GRADE)</th>
<th>Ne of participants (studies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep patterns assessed with: questionnaire, self report follow up: 6 weeks</td>
<td>No difference in sleep patterns between the groups.</td>
<td>⚫⚪⚪⚪</td>
<td>(1 RCT)</td>
</tr>
<tr>
<td>Daytime sleepiness assessed with: Daytime sleepiness scale, self report follow up: 6 weeks</td>
<td>No difference in daytime sleepiness between groups.</td>
<td>⚫⚪⚪⚪</td>
<td>(1 RCT)</td>
</tr>
<tr>
<td>Sleep knowledge assessed with: 16 item sleep knowledge quiz, self report follow up: 6 weeks</td>
<td>Significant increase in sleep knowledge in experimental group over control group.</td>
<td>⚫⚪⚪⚪</td>
<td>(1 RCT)</td>
</tr>
</tbody>
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*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).*

**GRADE Working Group grades of evidence**

- **High quality:** We are very confident that the true effect lies close to that of the estimate of the effect.
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- **Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect.
- **Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect.

1. Unclear risk of bias
2. One study with 104 participants. No data reported.
Summary of findings:
Interactive sleep education course compared to comparison for sleeping problems in secondary school students

Patient or population: Sleeping problems in secondary school students

Setting: Secondary school (age 17-19)

Intervention: Interactive sleep education course

Comparison: Comparison not specified

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sleep knowledge assessed with: 10 item sleep knowledge questionnaire, self report follow up: 3 months</td>
<td>Within group analyses only. a) Experimental group showed significant mean score increase from pre to post-test, and pre-test to 3 months, but a significant decrease from post-test to 3 months. B) Control group showed no mean score change from pre-test to 3 months.</td>
<td>(1 RCT)</td>
<td>⬤ ⬤ ⬤ ⬤ VERY LOW 1 2</td>
</tr>
</tbody>
</table>

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CI: Confidence interval

GRADE Working Group grades of evidence
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Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Unclear risk of bias.
2. One study with a total of 425 participants. No data reported.
**Sammenligning nr 5**  
**Summary of findings:**

**ACES (Australian center for education in sleep) compared to usual curriculum for sleeping problems in secondary school students**

**Patient or population:** Sleeping problems in secondary school students  
**Setting:** Secondary school (mean age 14.7 years)  
**Intervention:** ACES (Australian centre for education in sleep)  
**Comparison:** Usual curriculum

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Impact</th>
<th>Nr of participants (studies)</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep duration</td>
<td>Experimental group obtained more daily sleep than control at 6 and 12 weeks, but no difference over time.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: self report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>follow up: 12 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep hygiene</td>
<td>No significant effects.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: Sleep hygiene index, self report follow up: 12 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep problems</td>
<td>No significant effects.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: self report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>follow up: 12 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical activity level</td>
<td>No significant effects.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: self report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>follow up: 12 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).*

CI: Confidence interval
### Summary of findings:

**ACES (Australian center for education in sleep) compared to usual curriculum for sleeping problems in secondary school students**

**Patient or population:** Sleeping problems in secondary school students  
**Setting:** Secondary school (mean age 14.7 years)  
**Intervention:** ACES (Australian centre for education in sleep)  
**Comparison:** Usual curriculum

<table>
<thead>
<tr>
<th>Outcomes</th>
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<th>Nr of participants (studies)</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unclear risk of bias</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. One study with a total of 28 participants. No data reported.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GRADE Working Group gradefortsds of evidence**  
**High quality:** We are very confident that the true effect lies close to that of the estimate of the effect  
**Moderate quality:** We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different  
**Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect  
**Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect
Sammenligning nr 6: Cognitive behavioral Therapy

Summary of findings:

CBT sleep related program compared to classes as usual for sleeping problems in secondary school students

- **Patient or population:** Sleeping problems in secondary school students
- **Setting:** Secondary school (mean age 15.6 years)
- **Intervention:** CBT sleep related program
- **Comparison:** Classes as usual

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Sleep patterns</td>
<td>No significant effects.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: Sleep patterns questionnaire, self report, follow up: 6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime sleepiness</td>
<td>No significant effects.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: 8 item daytime sleepiness scale, self report, follow up: 6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep knowledge</td>
<td>Within group analysis only. Experimental group showed an increase pre-test to post-test.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>assessed with: 25 item quiz, self report, follow up: 6 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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**CI:** Confidence interval

**GRADE Working Group grades of evidence**

- **High quality:** We are very confident that the true effect lies close to that of the estimate of the effect
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- **Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect
- **Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Unclear risk of bias
2. One study with a total of 81 participants. No data reported.
# Summary of findings:

**CBT based sleep smart program compared to comparison for sleeping problems in school students**

**Patient or population:** Sleeping problems in school students  
**Setting:** School (mean ages 12.8 and 12.5 years)  
**Intervention:** CBT based sleep smart program  
**Comparison:** Comparison not specifies

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Sleep patterns assessed with: 1 week sleep pattern actigraph follow up: 5 weeks</td>
<td>Non significant trend towards more consistent sleep pattern and duration in experimental group.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.2</td>
</tr>
<tr>
<td>Sleep habits assessed with: self report follow up: 6 weeks</td>
<td>In one study the experimental group showed a non significant earlier and more consistent bedtimes and an increase in sleep duration. The other study showed no difference between groups in sleep habits during school week, but experimental group showed significant better sleep habits during weekends.</td>
<td>(2 RCTs)</td>
<td>VERY LOW 1.3</td>
</tr>
<tr>
<td>Daytime sleepiness assessed with: self report follow up: 6 weeks</td>
<td>Experimental group reported significantly less daytime sleepiness on weekends than control.</td>
<td>(1 RCT)</td>
<td>VERY LOW 1.4</td>
</tr>
</tbody>
</table>

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).*

CI: Confidence interval
Summary of findings:

CBT based sleep smart program compared to comparison for sleeping problems in school students

Patient or population: Sleeping problems in school students

Setting: School (mean ages 12.8 and 12.5 years)

Intervention: CBT based sleep smart program

Comparison: Comparison not specifies

<table>
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<tr>
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GRADE Working Group grades of evidence

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Low quality: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Unclear risk of bias
2. One study with a total of 26 participants. No data reported.
3. Two studies with a total of 53 participants. No data reported.
4. One study with a total of 27 participants. No data reported.