

## 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

Outcomes	Impact	№ of participants (studies)	Quality of the evidence (GRADE)
Sleep knowledge assessed with: 20 item sleep knowledge test, self report follow up: 1 month	Significantly higher sleep knowledge in experimental groups over control groups in ages 15-17. No difference in age 18.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\*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.

## Sammenligning nr 2

### 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

Outcomes	Impact	Ne of participants (studies)	Quality of the evidence (GRADE)
Sleep hygiene practices assessed with: different scales, self report follow up: 6 weeks	Sleep hygiene practices significantly improved in experimental group over control.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep quality assessed with: 19 item sleep quality index, self report follow up: 6 weeks	Significantly better overall sleep quality in experimental group over control group.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\*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

**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 a total of 177 participants. No data reported.

### Sammenligning nr 3

#### Summary of findings:

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

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

**Setting:** Secondary school (mean age 16.2)

**Intervention:** Motivational interviewing-based sleep education program

**Comparison:** Control not specified

Outcomes	Impact	Ne of participants (studies)	Quality of the evidence (GRADE)
Sleep patterns assessed with: questionnaire, self report follow up: 6 weeks	No difference in sleep patterns between the groups.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Daytime sleepiness assessed with: Daytime sleepiness scale, self report follow up: 6 weeks	No difference in daytime sleepiness between groups.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep knowledge assessed with: 16 item sleep knowledge quiz, self report follow up: 6 weeks	Significant increase in sleep knowledge in experimental group over control group.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\*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

**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 104 participants. No data reported.

## Sammnenligning nr 4

### 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

Outcomes	Impact	№ of participants (studies)	Quality of the evidence (GRADE)
Sleep knowledge assessed with: 10 item sleep knowledge questionnaire, self report follow up: 3 months	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.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\*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

**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 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 fo education in sleep)

**Comparison:** Usual curriculum

Outcomes	Impact	Nº of participants (studies)	Quality of the evidence (GRADE)
Sleep duration assessed with: self report follow up: 12 weeks	Experimental group obtained more daily sleep than control at 6 and 12 weeks, but no difference over time.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep hygiene assessed with: Sleep hygiene index, self report follow up: 12 weeks	No significant effects.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep problems assessed with: self report follow up: 12 weeks	No significant effects.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Physical activity level assessed with: self report follow up: 12 weeks	No significant effects.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\***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

## Sammenligning nr 5

### Summary of findings:

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

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

**Setting:** Secondary school (mean age 14.7 years)

**Intervention:** ACES (Australian centre fo education in sleep)

**Comparison:** Usual curriculum

Outcomes	Impact	Nº of participants (studies)	Quality of the evidence (GRADE)
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1. Unclear risk of bias
2. One study with a total of 28 participants. No data reported.

#### GRADE Working Group grade forsteds 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

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## 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

Outcomes	Impact	Nº of participants (studies)	Quality of the evidence (GRADE)
Sleep patterns assessed with: Sleep patterns questionnaire, self report follow up: 6 weeks	No significant effects.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Daytime sleepiness assessed with: 8 item daytime sleepiness scale, self report follow up: 6 weeks	No significant effects.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep knowledge assessed with: 25 item quiz, self report follow up: 6 weeks	Within group analysis only. Experimental group showed an increase pre-test to post-test.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>

\*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

**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 a total of 81 participants. No data reported.

## Sammneligning nr 7

### 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

Outcomes	Impact	Nº of participants (studies)	Quality of the evidence (GRADE)
Sleep patterns assessed with: 1 week sleep pattern actigraph follow up: 5 weeks	Non significant trend towards more consistant sleep pattern and duration in experimental group.	(1 RCT)	⊕○○○ VERY LOW <sup>1,2</sup>
Sleep habits assessed with: self report follow up: 6 weeks	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.	(2 RCTs)	⊕○○○ VERY LOW <sup>1,3</sup>
Daytime sleepiness assessed with: self report follow up: 6 weeks	Experimental group reported significantly less daytime sleepiness on weekends than control.	(1 RCT)	⊕○○○ VERY LOW <sup>1,4</sup>

\*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:

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

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**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

Outcomes	Impact	Nº of participants (studies)	Quality of the evidence (GRADE)
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#### 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

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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.