

Supplementary Table S1. Evaluation of the treatment by participants in the i-Sleep condition (n=45).

| | <i>M (SD)</i> |
|----------------------------------|-------------------------------|
| Overall grades (1-10) | |
| website | 7.67 (.98) |
| feedback | 7.91 (.87) |
| i-Sleep treatment | 7.91 (.82) |
| Website characteristics (0-100%) | |
| clarity | 75.69 (11.17) |
| speed | 82.11 (15.88) |
| navigation | 73.6 (14.21) |
| layout | 78.3 (11.91) |
| Feedback evaluation (1-5) | |
| quality | 4.29 (.55; lowest rating = 3) |
| length | 4.31 (.47; lowest rating = 4) |
| frequency | 4.13 (.55; lowest rating =3) |
| waiting time | 4.12 (.69; lowest rating = 2) |
| i-Sleep treatment (1-5) | |
| explanations | 4.27 (.50; lowest rating = 3) |
| examples | 4.20 (.51; lowest rating = 3) |
| exercises | 4.27 (.45; lowest rating = 4) |
| method | 4.27 (.54; lowest rating = 3) |
| length | 4.11 (.68; lowest rating = 2) |
| novelty | 2.09 (.60; range 1-3) |

Note. M = mean, SD = standard deviation. Overall grade is scored on a 1-10 scale, evaluation of feedback and treatment are scored on a 1-5 scale.

Supplementary Table S2. Multilevel regression models for all questionnaire measures

| | PHQ-9 | PHQ-S | ISI | DC | PTQ | HADS-A | FSS |
|---|----------|----------|----------|----------|----------|----------|----------|
| <i>F</i> 's and associated significance | | | | | | | |
| Model | 25.04*** | 20.28*** | 79.66*** | 73.33*** | 75.09*** | 34.83*** | 26.32*** |
| Time | 61.50*** | 36.44*** | 89.82*** | 41.28*** | 23.93*** | 3.69 | 6.19* |
| Condition | 5.01* | 5.60* | 33.38*** | 3.11 | .13 | 2.75 | 1.36 |
| Time × Condition | 20.54*** | 14.38*** | 51.94*** | 18.44*** | 9.48** | 8.42** | 1.43 |
| Age | 19.63*** | 24.32*** | .01 | 3.09 | .41 | 4.57* | .019 |
| PTQ | 23.29*** | 29.04*** | 2.28 | 1.35 | - | 7.52* | 1.96 |
| PHQ-S | - | - | 51.68*** | 46.97*** | 23.70*** | 32.14*** | 22.54*** |
| TST | 4.64* | 3.59 | 14.23*** | 1.94 | .86 | .87 | .08 |

Note. DC = daytime consequences; FSS = Fatigue Severity Scale; HADS-A = Hospital Anxiety and Depression Scale-anxiety subscale; I = i-Sleep treatment condition; ISI = Insomnia Severity Index; PHQ-9 = Patient Health Questionnaire-9; PHQ-S = Patient Health Questionnaire minus Sleep item; PTQ = Perseverative Thinking Questionnaire.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Supplementary Table S3. Multilevel regression models for all diary measures

| | SE | SOL | WASO | TST | Mood |
|---|----------|----------|----------|----------|----------|
| <i>F</i> 's and associated significance | | | | | |
| Model | 11.11*** | 28.35*** | 41.63*** | 2.74** | 22.59*** |
| Time | 70.65*** | 25.08*** | 65.75*** | 15.81*** | .35 |
| Condition | 2.53 | 1.06 | 8.53** | 3.78 | 6.28* |
| Time * Condition | 8.86** | 20.12*** | 22.59*** | .04 | 13.34** |
| Age | .10 | 1.99 | 4.52* | 3.93* | 3.79 |
| PTQ | .03 | .00 | 1.07 | .00 | 1.04 |
| PHQ-S | 13.61*** | 15.45*** | 26.43*** | 4.90*** | 17.95*** |
| TST | 59.40*** | 8.55** | 28.51*** | - | 3.41 |

Note. SE = Sleep Efficiency; SOL = Sleep Onset Latency; TST = Total Sleep Time; WASO = Wake After Sleep Onset. * $p < .05$; ** $p < .01$; *** $p < .001$.

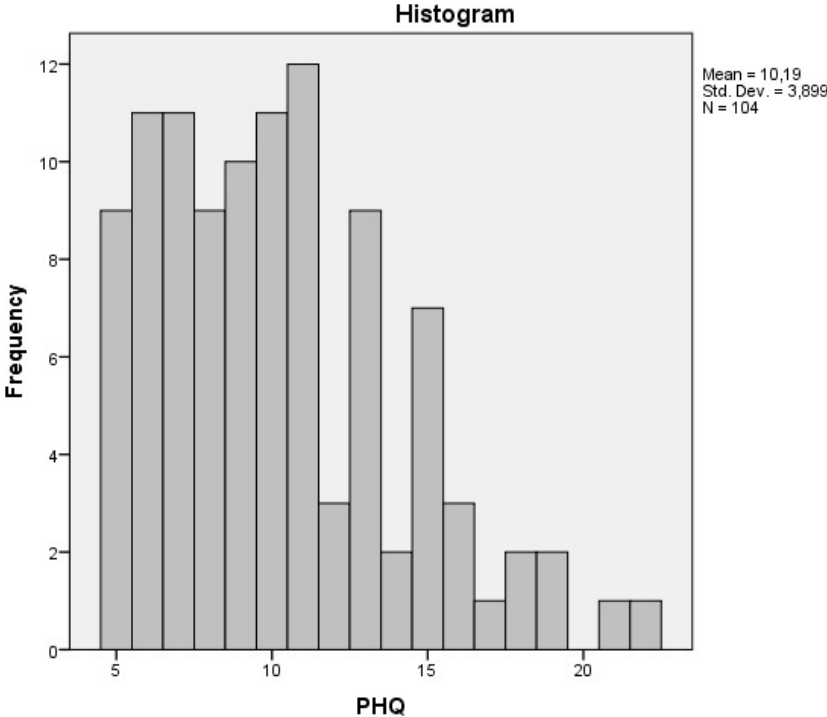
Supplementary Table S4. Baseline differences between drop-out vs. completers in both conditions

| | i-Sleep (n=52, drop-out =7) | | Control (n=52, drop-out =6) | |
|---------------------------|-----------------------------|-------------------------|-----------------------------|------------------------|
| | mean (SE) | statistic | mean (SE) | statistic |
| Age | | $t(50)=2.527, p=.015^*$ | | $t(50)=-.705, p=.484$ |
| Dropout | 35.14 (3.46) | | 43.33 (4.31) | |
| Completers | 46.71 (1.72) | | 47.28 (1.94) | |
| Duration insomnia (cons.) | | $t(45)=-.742, p=.462$ | | $t(40)=-1.462, p=.152$ |
| Dropout | 13.5 (5.74) | | 14.4 (4.35) | |
| Completers | 9.90 (1.65) | | 8.41 (1.39) | |
| PHQ | | $U=70, p=.017^*$ | | $U=117.5, p=.57$ |
| Dropout | 14.29 (1.74) | | 10.33 (1.75) | |
| Completers | 9.53 (.56) | | 9.43 (.51) | |
| PHQ-S | | $U=71.5, p=.019^*$ | | $U=126.5, p=.748$ |
| Dropout | 11.43 (1.70) | | 7.50 (1.69) | |
| Completers | 6.98 (.54) | | 7.04 (.50) | |
| ISI ¹ | | $U=131, p=.494$ | | $U=188, p=.160$ |
| Dropout | 20.14 (1.58) | | 17.33 (1.09) | |
| Completers | 18.96 (.55) | | 19.02 (.48) | |
| DC ² | | $U=96, p=.103$ | | $U=139.5, p=.967$ |
| Dropout | 16.71 (1.11) | | 13.50 (1.98) | |
| Completers | 14.44 (.41) | | 13.89 (.44) | |
| HADS-A ³ | | $U=147.5, p=.793$ | | $U=87, p=.152$ |
| Dropout | 7.71(1.32) | | 8.67 (1.09) | |
| Completers | 7.44 (.47) | | 6.70 (.43) | |
| FSS ⁴ | | $U=116.5, p=.278$ | | $U=133.5, p=.900$ |
| Dropout | 44.71(3.08) | | 41.33 (4.61) | |
| Completers | 39.64 (1.49) | | 40.24 (1.38) | |
| PTQ ⁵ | | $t(50)=-.241, p=.811$ | | $t(46)=-.689, p=.494$ |
| Dropout | 33.29 (1.68) | | 33.33 (9.06) | |
| Completers | 32.20 (3.69) | | 28.38 (1.77) | |
| TST | | $t(50)=2.137, p=.038^*$ | | $t(49)=-1.509, p=.138$ |
| Dropout | 319.43 (32.03) | | 388.67 (39.25) | |
| Completers | 365.13 (6.94) | | 340.53 (10.48) | |

| | | | | |
|------------|----------------|-----------------------|---------------|------------------------|
| SE | | $U=214.5, p=.128$ | | $U=101.5, p=.327$ |
| Dropout | 61.57 (6.72) | | 73.48 (6.35) | |
| Completers | 71.49 (1.30) | | 69.24 (1.96) | |
| TIB | | $t(50)=-.531, p=.598$ | | $t(49)=-1.569, p=.123$ |
| Dropout | 521.14 (15.18) | | 530.5 (19.46) | |
| Completers | 511.58 (6.69) | | 492.64 (8.40) | |
| WASO | | $U=139.5, p=.636$ | | $U=158.5, p=.502$ |
| Dropout | 114.43 (31.05) | | 85.96 (36.75) | |
| Completers | 86.36 (6.08) | | 91.15 (8.08) | |
| Mood | | $t(50)=1.539, p=.13$ | | $t(49)=-.430, p=.669$ |
| Dropout | 5.27 (.40) | | 6.15 (.45) | |
| Completers | 5.94 (.16) | | 5.96 (.15) | |

Note: DC = Daytime Consequences; FSS = Fatigue Severity Scale; HADS-A = Hospital Anxiety and Depression Scale-Anxiety subscale; I = i-Sleep treatment condition; ISI = Insomnia Severity Index; PHQ-9 = Patient Health Questionnaire-9; PHQ-S = Patient Health Questionnaire minus Sleep item; PTQ = Perseverative Thinking Questionnaire; SE = Sleep Efficiency; SOL = Sleep Onset Latency; TST = Total Sleep Time; WASO = Wake After Sleep Onset. * $p<0.05$, ** $p<.01$. Standard errors are between parentheses. If assumptions for parametric tests were violated, non-parametric *Mann-Whitney* test was conducted. For dichotomous variables, Chi-square tests were carried out. ¹ ISI 0-7 = no clinically significant insomnia, 8-14 = sub threshold insomnia, 15-21 = clinical insomnia (moderate severity), >21 = severe clinical insomnia. ² Daytime Consequences scores range 0-24, higher scores indicating more severe consequences. ³HADS-A subscale scores range from 0-21, normal = 0-7, mild 8-10, moderate 11-14 and severe 15-21. ⁴FSS mean total score is reported. Scores >36 are commonly interpreted as reason to seek physician's evaluation. ⁵PTQ scores range 0-60. Means differ for healthy student populations (M=28.63, SD=9.67) and depressed patients (M=37.56, SD=9.99) (Ehring et al., 2011).

Supplementary figure SF1. Frequencies of baseline PHQ-9 scores in the sample (n=104).



Supplementary Table S5. Observed means and SD (in parentheses) for all outcome measures

| Questionnaires | | Pre-assessment | | Post-assessment | | 3-months | | 6-months | |
|--------------------|---|----------------|----------------|-----------------|----------------|----------|----------------|----------|----------------|
| | | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> | <i>n</i> | <i>M (SD)</i> |
| PHQ-9 | I | 52 | 10.1 (4.19) | 45 | 4.20 (3.57) | 39 | 3.85 (2.93) | 39 | 4.9 (3.77) |
| | C | 52 | 9.54 (3.53) | 47 | 7.89 (4.67) | | | | |
| PHQ-S | I | 52 | 7.58 (3.99) | 45 | 3.07 (3.09) | 39 | 2.74 (2.40) | 39 | 3.54 (3.30) |
| | C | 52 | 7.10 (3.44) | 47 | 5.74 (4.22) | | | | |
| ISI | I | 52 | 19.16 (3.76) | 45 | 9.24 (5.41) | 39 | 9.00 (5.50) | 39 | 11.69 (6.50) |
| | C | 52 | 18.83 (3.19) | 47 | 17.09 (5.17) | | | | |
| HADS-A | I | 52 | 7.48 (3.16) | 45 | 5.84 (4.10) | 39 | 5.28 (2.70) | 39 | 6.26 (4.15) |
| | C | 52 | 6.92 (2.91) | 47 | 7.11 (4.03) | | | | |
| DC | I | 52 | 14.75 (2.83) | 45 | 10.20 (3.89) | 39 | 8.90 (4.16) | 39 | 10.72 (4.15) |
| | C | 52 | 13.85 (3.19) | 47 | 12.98 (3.71) | | | | |
| PTQ | I | 52 | 32.35 (11.00) | 45 | 23.4 (12.88) | 39 | 23.85 (12.08) | 39 | 26.51 (14.48) |
| | C | 48 | 28.69 (11.99) | 47 | 26.60 (11.00) | | | | |
| FSS | I | 52 | 40.33 (9.83) | 45 | 36.31 (10.89) | 39 | 33.92 (10.23) | 39 | 35.97 (10.79) |
| | C | 52 | 40.37 (9.48) | 47 | 39.06 (10.36) | | | | |
| Sleep diary | | | | | | | | | |
| SE | I | 52 | 70.15 (10.68) | 42 | 85.57 (7.03) | 19 | 84.50 (7.71) | 25 | 78.72 (10.71) |
| | C | 51 | 69.71 (13.35) | 41 | 74.15 (11.05) | | | | |
| SOL | I | 52 | 64.04 (39.90) | 42 | 28.14 (28.75) | 18 | 25.08 (18.51) | 28 | 46.77 (45.50) |
| | C | 51 | 60.31 (50.50) | 41 | 51.00 (42.34) | | | | |
| WASO | I | 52 | 90.13 (48.19) | 42 | 38.05 (23.30) | 17 | 43.72 (30.43) | 27 | 49.24 (41.56) |
| | C | 51 | 90.51 (58.25) | 41 | 73.71 (47.45) | | | | |
| TST | I | 52 | 358.98 (54.45) | 42 | 386.71 (47.97) | 19 | 379.49 (54.91) | 27 | 379.41 (53.89) |
| | C | 51 | 346.20 (74.31) | 41 | 355.73 (56.98) | | | | |
| Mood | I | 52 | 5.85 (1.09) | 42 | 6.33 (1.28) | 18 | 6.93 (.81) | 26 | 6.66 (1.51) |
| | C | 51 | 5.98 (1.02) | 41 | 5.74 (1.11) | | | | |

Note. C = Control condition; DC = Daytime Consequences; FSS = Fatigue Severity Scale; HADS-A = Hospital Anxiety and Depression Scale-Anxiety subscale; I = i-Sleep treatment condition; ISI = Insomnia Severity Index; PHQ-9 = Patient Health Questionnaire-9; PHQ-S = Patient Health Questionnaire minus Sleep item; PTQ = Perseverative Thinking Questionnaire; SE = Sleep Efficiency; SOL = Sleep Onset Latency; TST = Total Sleep Time; WASO = Wake After Sleep Onset.