Results: The mean (SD) score of ISI, ESS and STOP were 10.6 (5.9), 8.6 (4.5) and 0.87 (0.8) respectively. There were significant differences in ISI, ESS and STOP scores between shift workers and non-shift workers ($P < 0.001$) which were more clinically important in ISI scores with the mean difference of 3.67. Among 405 shift workers, 164 (40.5%) had moderate and severe insomnia with a significant difference with non-shift workers (OR= 3.5, $CI_{95\%}$: 2.58–4.76).

Conclusions: The overall scores of sleep disturbances were not high in the workers of the natural gas refinery. However, moderate and severe insomnia was more prevalent among shift workers in this population.

Disclosure: Nothing to disclose.

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Self-help for insomnia in the mobile era

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Objectives: Evaluate a mobile Insomnia management service.

Methods: Data analysis from an app that offers sleep assessment based on questionnaires and 7 days collection:

(1) Measured sleep schedule including bedtime, wake up time, intended wake up time.

(2) Reported sleep latency, wake time after sleep onset, total sleep time, perceived sleep quality upon awakening, previous day napping, stress, and daytime sleepiness.

(3) Measured sleep architecture based on validated Heart Rate Variability analysis: Sleep Latency (SO), NREM I and II, NREM III, REM, and Wake After Sleep Onset (WASO), Total Sleep Time, Sleep Efficiency (SE), fragmentation (autonomic arousals), and stress (sympatho-vagal balance).

(4) Ambient noise and snoring.

The evaluation is followed by a personalized Cognitive Behavioral Therapy for Insomnia administered automatically and adjusted in weekly cycles.

Results: During 15 months, starting November 2014, 130 subjects (age 49.8 ± 13.1, 58% men) completed a sleep assessment based on both objective and subjective data. Only 109 started the offered CBTI, and completed at least 1 week of therapy. The adherence to therapy decreased with time: 76% completed 2 weeks, 49% did 3 weeks, only 21% did 4 weeks. SO and WASO were overestimated, and SE was underestimated during the initial assessment. Both subjective and objective SO, WASO, and SE improved significantly with CBTI, while objective-subjective discrepancies decreased, suggesting that objective sleep monitoring may improve Insomnia management.

Conclusions: Mobile technology may facilitate efficient large scale self-help for Insomnia. Objective sleep measures should be considered in Insomnia management. Engagement with therapy presents a great challenge.

Disclosure: The authors are employees of HypnoCore, the company that has developed SleepRate, a mobile service for sleep assessment and improvement.

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Depressed insomniac patients benefit from group cognitive behavioural therapy for insomnia (CBT-I)

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Cognitive behavioral therapy for insomnia (CBT-I) originally adressed primary insomnia. However, a large proportion of outpatients in sleep clinics suffer from comorbid insomnia, and most prominently depression. In this study, we investigated whether the outcome of group CBT-I on sleep symptoms depended on the depression status and, conversely, whether the CBT-I improved depression.

Method: 91 patients (67 women, 24 men; 48.8 ± 1.2 yrs) with chronic insomnia received a therapeutic program (cognitive, behavioural and educational components) delivered by two therapists in groups of 6 to 10 patients, for 6 consecutive weekly sessions. Sleep characteristics from agendas were assessed before, during and at 2 months follow-up. Insomnia (Insomnia Severity Index: ISI, visuo-analogic scales), the depression severity (Beck Depression Inventory) and anxiety symptoms (Beck anxiety scale) were assessed before and after treatment, and at 2 months and 1 year follow-up.

Results: At baseline, the ISI was significantly higher in all groups of depressed patients (mild: 18.5 ± 0.6, $n = 32$; moderate: 20.1 ± 0.8, $n = 17$; and severe: 20.1 ± 0.8, $n = 10$) than in non-depressed ones (16.0 ± 0.6, $n = 32$). The treatment outcome was significantly different depending on the depressive state (anova for ISI: F $(3,91) = 98.3$, $P < 0.0001$), with less efficacy in patients with severe depression. These benefits were maintained after 2 months, but less consistently in the severely depressed group.

Conversely, CBT-I induced a significant decrease of the depression score in all patients at the end of the treatment and at 2 months follow-up.

Conclusion: Insomniac patients with depressive comorbidity benefit from the group CBT-I therapy that alleviates not only insomnia but also depression.

Disclosure: Nothing to disclose.

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Familial aggregation of insomnia

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Objective: A positive family history of insomnia has been suggested as a predisposing factor of new onset insomnia. This study examined the evidence of familial aggregation of insomnia by showing that the risk of insomnia in biological relatives related to cases (with insomnia) exceeds that of relatives related to controls (without insomnia).