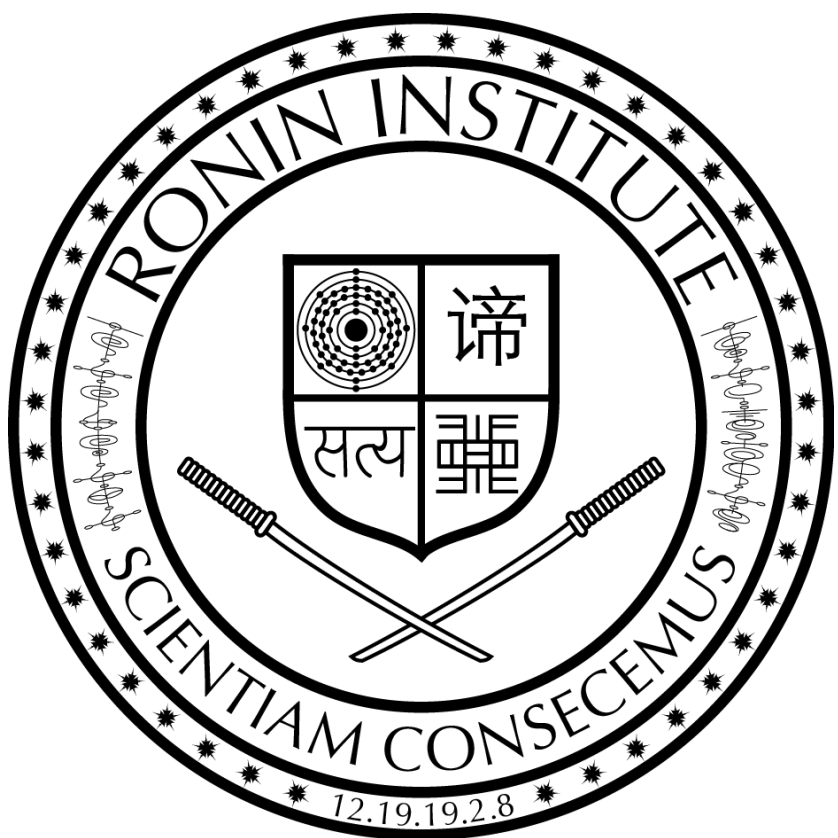


Sleep in bipolar disorder outpatients with chronic insomnia

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Aims

Chronic insomnia is a common complaint in bipolar disorder (BD), and patients report clinically that it causes considerable distress and impairment. Controlling chronic insomnia is also important because it can induce or exacerbate mania.

- Aim 1: Document the characteristics of chronic insomnia in a clinic population of BD outpatients.**
- Aim 2: Compare subjective sleep in BD outpatients with and without chronic insomnia, but matched on age and gender (I=Insomniacs vs. NI=Non-insomniacs).**

Methods

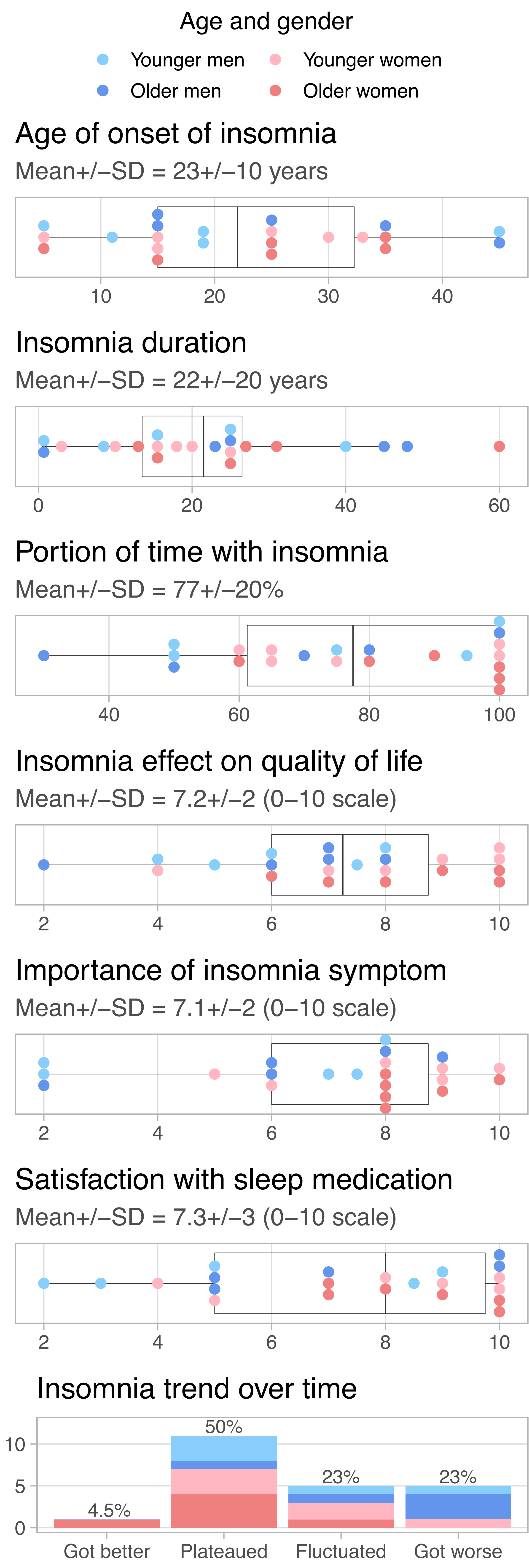
We recruited 44 adult BD outpatients of a private outpatient clinic in Sacramento, California, who were in various stages of treatment and clinical status. Twenty-two of the patients had chronic insomnia (I) treated with daily hypnotic medications for at least 6 months. Each insomniac was pair-matched with a BD patient of the same gender and similar age (+/- 11 years), but without chronic insomnia, to assemble a group of 22 non-insomniac (NI) controls. Twelve pairs of women and 10 pairs of men participated, and their average age was 52.

The insomniacs completed a questionnaire reporting the characteristics of the chronic insomnia they experience. Both groups completed several standard questionnaires about sleep quality and sleep disturbance.

We report descriptive statistics from these questionnaires along with the results of univariate conditional logistic regression analyses of the comparison between matched I and NI on subjective sleep measures.

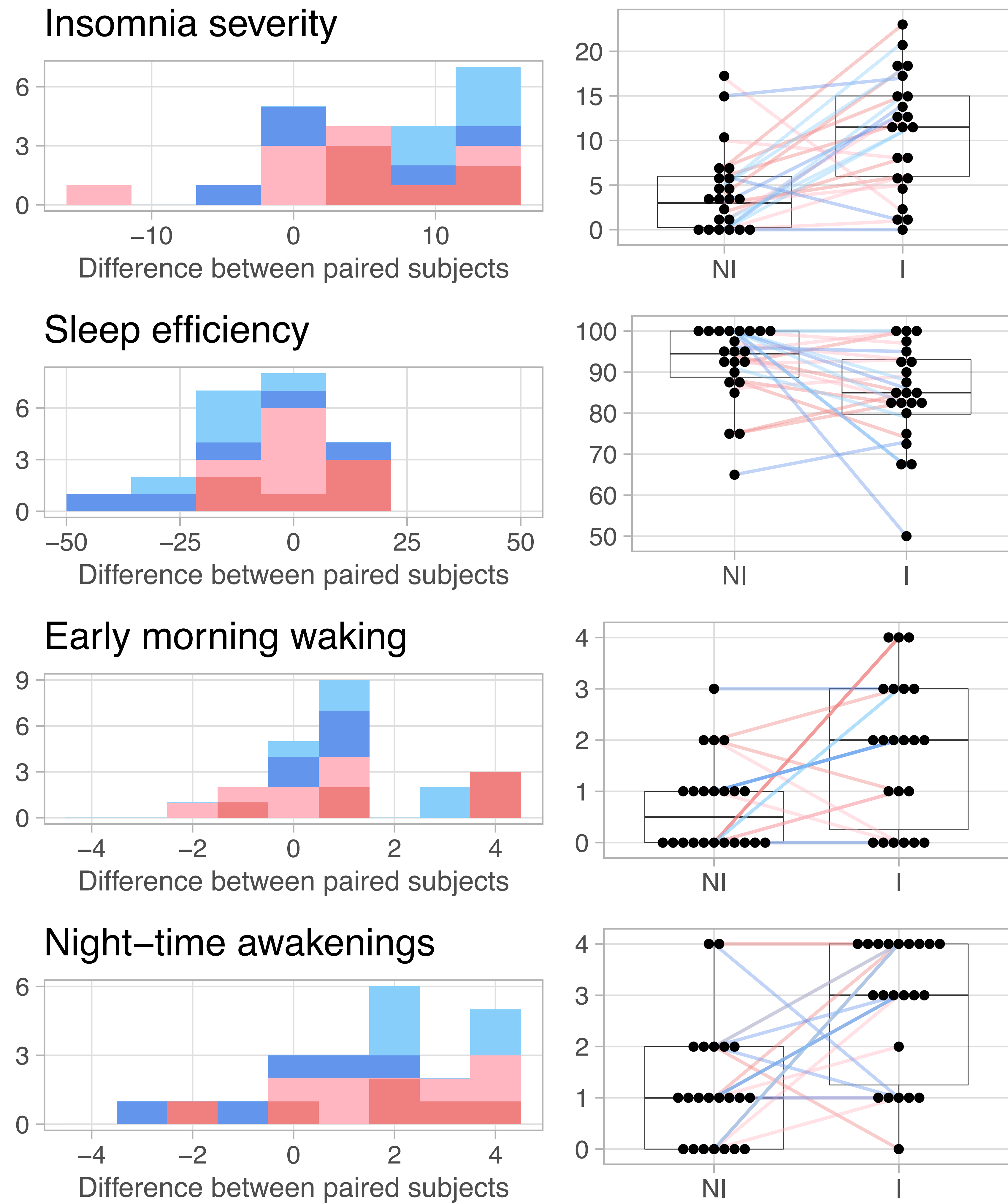
Results

Characteristics of chronic insomnia reported by BD outpatients in the insomniac (I) group.



Comparison of subjective sleep between paired BD outpatients with (I), and without (NI), chronic insomnia, but matched on age and gender: descriptive statistics and odds ratios.

Questionnaire and Variable	I mean +/-SD	Paired I-NI mean+/-SD	OR(CI)	p ¹
Pittsburg Sleep Quality Index (PSQI)				
Global score (0:best-21:worst)	9.2+/-4	4.6+/-5	6.7(2-30)	.0003*
Sleep duration (hours/night)	7.0+/-1	-.60+/-2	.42(.2-1)	.06
Sleep efficiency (%)	84+/-10	-8.0+/-20	.23(.05-1)	.01*
Sleep latency (minutes)	30+/-30	15+/-30	2.5(.8-7)	.02*
Bedtime (hours after 12am)	-1.3+/-1	.034+/-1	1.1(.4-3)	.9
Risetime (hours after 12am)	6.9+/-2	-.015+/-2	1.0(.4-2)	1
Insomnia Severity Index (ISI)				
Insomnia severity (0-28)	11+/-7	6.5+/-8	8.5(2-50)	.0009*
Difficulty falling asleep (0-4)	1.3+/-1	.91+/-1	4.6(1-20)	.001*
Difficulty staying asleep (0-4)	1.6+/-1	1.1+/-2	5.5(1-30)	.004*
Waking too early (0-4)	1.3+/-1	.68+/-2	2.9(.9-9)	.05
Women's Health Initiative, Insomnia Rating Scale (WHI-IRS)				
Global score (sum: 0-20)	9.2+/-5	5.1+/-6	6.9(1-30)	.0005*
Overall restlessness (0-4)	2.1+/-1	.91+/-1	2.5(1-6)	.005*
Trouble falling asleep (0-4)	1.4+/-1	.77+/-2	3.2(.9-10)	.03*
Night-time awakenings (0-4)	2.8+/-1	1.6+/-2	5.0(1-20)	.001*
Early morning waking (0-4)	1.8+/-1	1.0+/-2	6.5(1-40)	.004*
Not getting back to sleep (0-4)	1.3+/-1	.77+/-1	6.2(.9-40)	.01*



Conclusion

BD outpatients with chronic insomnia reported that they experienced insomnia most of the time, even though they were treated with daily hypnotic medications that they found beneficial. Their insomnia began at a relatively young age and continued for decades in most cases, with severity that stayed the same, fluctuated, or got worse over time. Chronic insomnia had a substantial impact on their quality of life and most considered it important in comparison to their other symptoms.

Compared to non-insomniac BD patients similar on age and gender, the insomniacs scored dramatically worse on overall measures of subjective sleep disturbance. Specific components of sleep on which they displayed the most notable deficits included sleep efficiency (the percent of time in bed spent asleep), frequency of early morning waking, and middle-of-the-night awakenings.

These findings demonstrate that BD outpatients with chronic insomnia live with substantial ongoing sleep disturbance, which they consider to be a major problem — and daily hypnotic medications are only partially effective for treating it. More research is needed to identify mechanisms that contribute to chronic insomnia in BD and develop more effective treatments.

Note: ¹Due to small sample size, p-values are from the likelihood-ratio test. So they don't have the usual relationship with the odds ratio 95% confidence intervals, which are from the Wald test.
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