Poster Number: 105

Understanding the Assessment and Management of Insomnia Symptoms in Patients With Major Depressive Disorder Using Patient-Provider Conversations From the Verilogue Database

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Background

- The estimated prevalence of a major depressive episode among adults aged 18 or older in the United States for 2021 was 21 million adults or ~8% of all US adults[1]
- As a common symptom of MDD, insomnia[2-4] is associated with:
 - Poorer remission outcomes and higher relapse rates[5]
 - Increased healthcare resource use[6]
 - Impaired health-related quality of life[2]
- While insomnia is one of the key symptoms of MDD[7,8], little is known about how often HCPs and patients mention or discuss insomnia during clinical visits

Objective

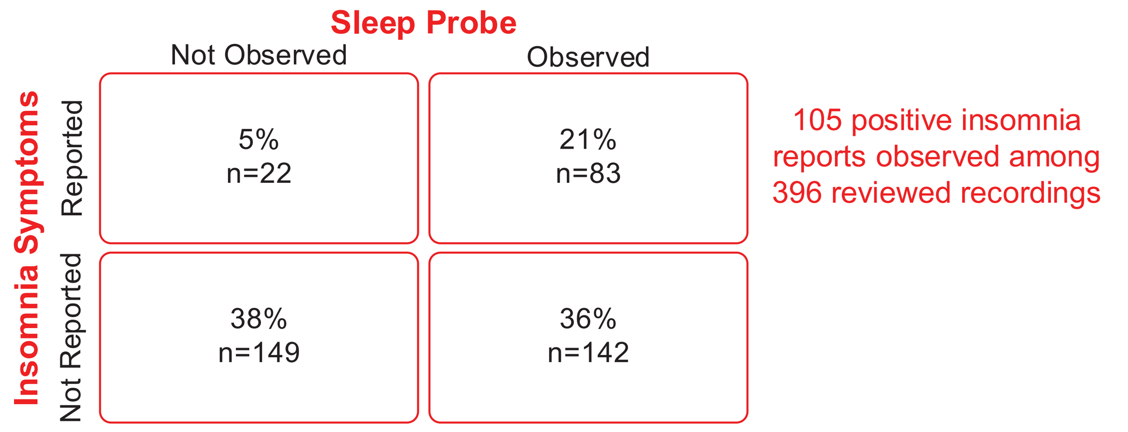
- Characterize discussions of insomnia, related symptoms, and treatments among adults with MDD and their psychiatrists/PCPs

Methods

- Dialogues gathered from Verilogue's HCP/patient conversation database were used for a retrospective analysis
 - The database consisted of >238,000 US, anonymized, and syndicated recordings since 2006, including >1700 HCPs and >211,000 patients; recordings span community, academic, hospital, and telehealth settings
 - For this study, eligible visits were recorded in community-based settings (US only) between January 1, 2022, and February 28, 2026 (inclusive). Patients were required to be diagnosed with MDD, ≥18 years old, and not diagnosed with bipolar disorder or schizophrenia. HCP specialties included primary care and psychiatry
- Recordings with potential positive insomnia reports were identified via keyword search and confirmed by human review of the full transcript
 - Keywords used to identify potential insomnia symptom reports included: ***Insomnia, Sleep, Asleep, Slept, Sleepless, Restless, Night, Nighttime, Wake, Waking, Woke, Awoke, Awoken***
- Qualitative and quantitative analyses, grounded in the principles of sociolinguistics and conversation analysis were performed; qualitative variables were coded using a mix of inductive and deductive coding approaches

Results

Figure 1: Insomnia and General Sleep-Related Symptom Assessment Across 396 Recordings


Sleep Probe
Not Observed
Observed
Insomnia Symptoms
Reported
Not Reported
5%
n=22
21%
n=83
38%
n=149
36%
n=142
105 positive insomnia reports observed among 396 reviewed recordings

- Recordings (N=396) were classified along 2 conditions: whether an insomnia or general sleep-related probe was observed during the encounter and whether a positive insomnia symptom report was observed
- Recordings with positive insomnia symptoms (n=105) were carried forward for further analysis
- The analysis included 105 recordings from 25 unique physicians (50 PCP and 55 psychiatrist visits)
- Most visits were in person (n=89/105; 85%), including all PCP visits (50/50), while the 16 telemedicine visits (15%) were conducted exclusively by psychiatrists (n=16/55; 29%)

Figure 2: Time Since Diagnosis of Depression

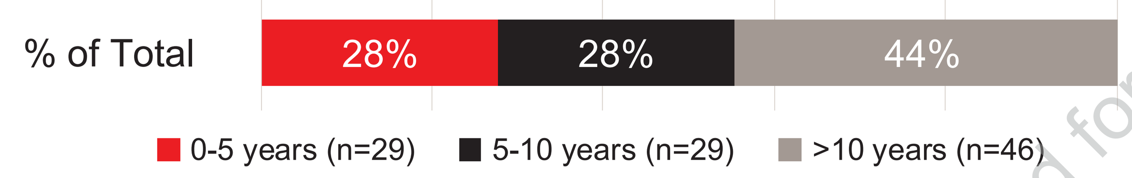

% of Total
28%
28%
44%
0-5 years (n=29)
5-10 years (n=29)
>10 years (n=46)

Figure 3: Who First Brought Up the Topic of Insomnia or General Sleep-Related Symptoms?

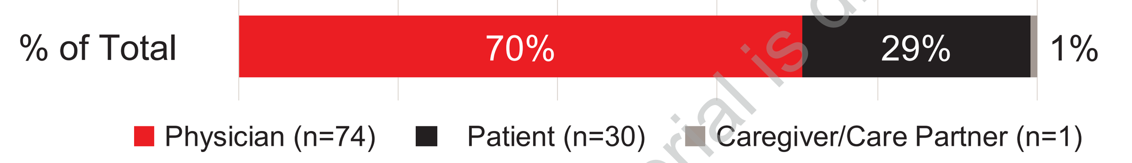
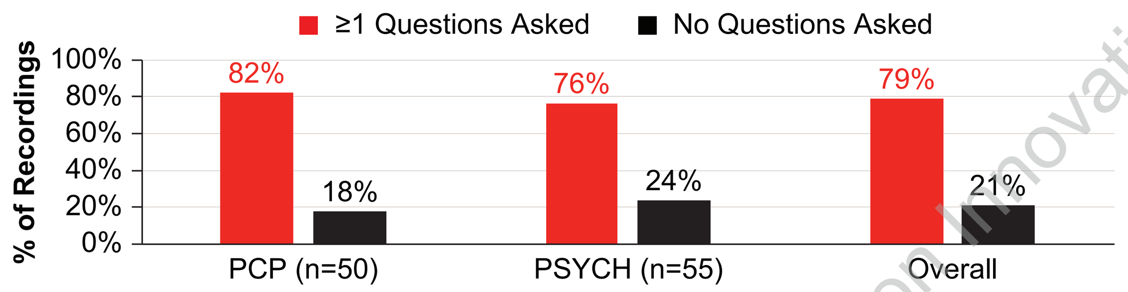
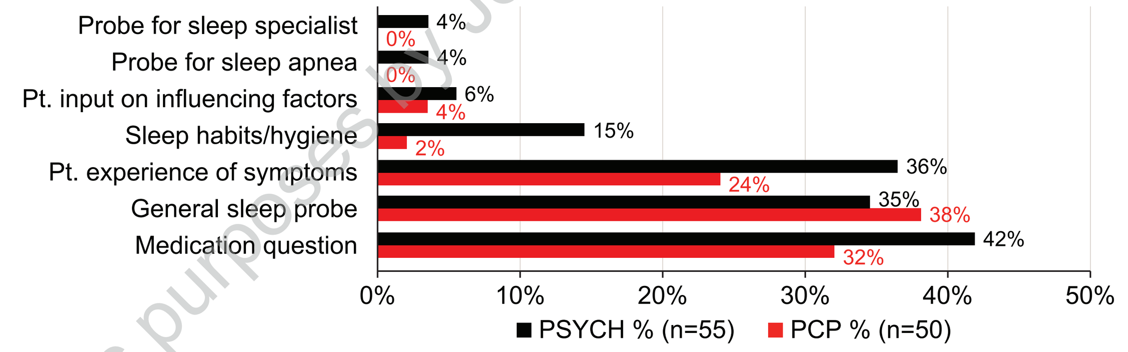

% of Total
70%
29%
1%
Physician (n=74)
Patient (n=30)
Caregiver/Care Partner (n=1)

Figure 4: Recorded Visits Including ≥1 Insomnia or General Sleep-Related Probe (N=105)


≥1 Questions Asked
No Questions Asked
% of Recordings
100%
80%
60%
40%
20%
0%
82%
18%
76%
24%
79%
21%
PCP (n=50)
PSYCH (n=55)
Overall

- Physicians asked at least 1 insomnia or general sleep-related question in 83 of 105 recordings (79%)
- In <1% of visits (n=1), the physician described any relationship between MDD and insomnia

Figure 5: Types of Probes Used to Assess Insomnia and General Sleep-Related Symptoms

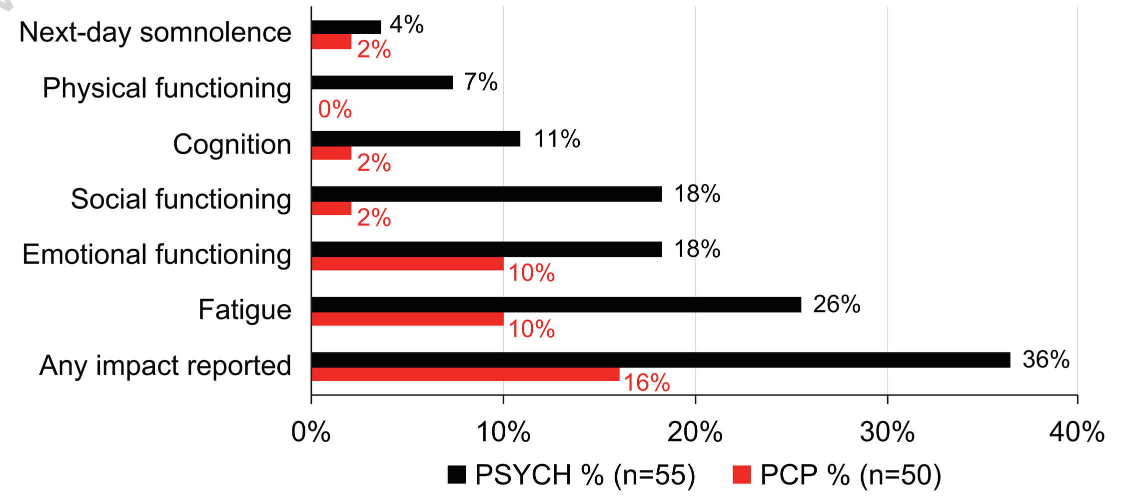

Probe for sleep specialist
4%
0%
Probe for sleep apnea
4%
0%
Pt. input on influencing factors
6%
4%
Sleep habits/hygiene
15%
2%
Pt. experience of symptoms
36%
24%
General sleep probe
35%
38%
Medication question
42%
32%
0%
10%
20%
30%
40%
50%
PSYCH % (n=55)
PCP % (n=50)

- Percentages represent the proportion of recordings containing each identified probe type, stratified by psychiatrists and primary care physicians. A single recording may have included more than one probe type
- The mean number of assessment probes per recording was higher among psychiatrists than primary care physicians (2.3 vs 1.2, respectively)

Table 1: Examples of Questions Used to Assess Insomnia or General Sleep-Related Symptoms

Probe Topic	Verbatims
Medication	*Does the trazodone help you sleep at all?*
General sleep	*Are you sleeping well?*
Pt. experience	*Do you have trouble falling asleep or staying asleep?*
Sleep habits/hygiene	*Do you take some naps during the day?*
Pt. input on influencing factors	*Do you feel like the sleep is because of the moving out or not?*

Figure 6: Daily Life Impact Reported by Patients

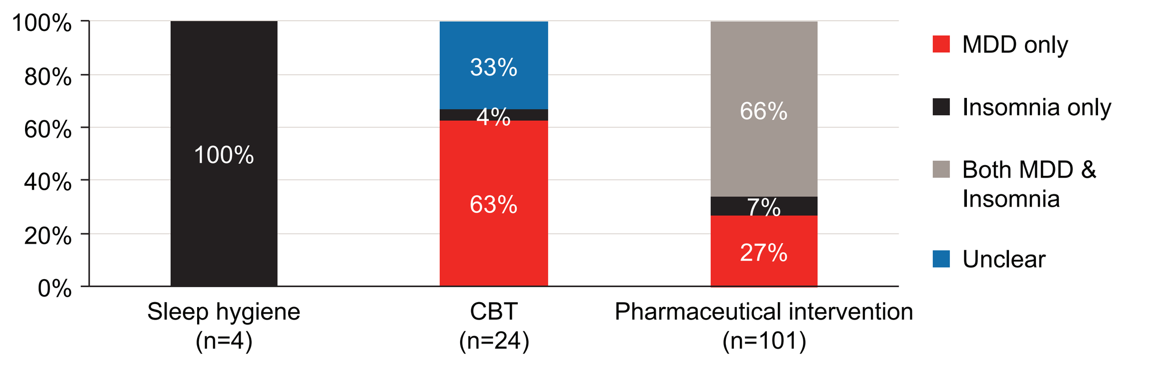

Next-day somnolence
4%
2%
Physical functioning
7%
0%
Cognition
11%
2%
Social functioning
18%
2%
Emotional functioning
18%
10%
Fatigue
26%
10%
Any impact reported
36%
16%
0%
10%
20%
30%
40%
PSYCH % (n=55)
PCP % (n=50)

- Graph shows patient-reported daily life impacts of MDD and/or insomnia symptoms during routine clinical visits

Table 2: Examples of Daily Life Impact Reported by Patients

Impact Type	Verbatims
Fatigue	*I still do feel kinda tired though, even when I do get rest.*
Emotional functioning	*I just cry all the time … at the drop of a hat.*
Social functioning	*I feel … like I literally just want to be left alone. I don't want to talk to nobody. I just want to lock myself in the room and not bother anybody and nobody bothers me.*

Figure 7: Percentage Distribution of Discussed Treatments by Therapeutic Target


100%
80%
60%
40%
20%
0%
100%
33%
4%
63%
66%
7%
27%
Sleep hygiene
(n=4)
CBT
(n=24)
Pharmaceutical intervention
(n=101)
MDD only
Insomnia only
Both MDD & Insomnia
Unclear

- Only treatment options and targets mentioned by the physician were included in this analysis; patient-only mentions were not counted
- A single recording could include mentions of multiple treatment types
- Treatment was not discussed in 4% (n=4) of the 105 recordings

Key Takeaway

These results underscore opportunities to improve the education, detection, assessment, and management surrounding insomnia symptoms in MDD

Conclusions

- Although insomnia is a core symptom of MDD, an insomnia or general sleep-related probe was observed in only 57% of MDD conversations (N=396), indicating inconsistent assessment of insomnia in routine clinical practice
- Patient-reported daily-life impacts were infrequent and uneven across specialties (36% psychiatry vs 16% PCP)
- Discussion of any link between MDD and insomnia was rare
- Nearly all treatment discussions involved pharmacologic interventions, indicating that medication-based management remains the predominant focus of routine MDD and insomnia symptom treatment

Strengths and Limitations

Strengths

- Directly recorded, in-person visits avoid recall bias inherent to interviews/journaling
- HCP-led consenting/recording minimizes researcher observer effects

Limitations

- Findings should be interpreted as directional, given that the analysis was based on secondary Verilogue market research data from a non-representative sample
- While inductive coding enables data-driven insights, it may pose consistency challenges, and the findings may be limited to conversations of a similar nature

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Disclosures

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Abbreviations:

MDD, major depressive disorder; CBT, cognitive behavioral therapy; HCP, healthcare provider; PCP, primary care physician; PSYCH, psychiatrist; Pt., patient.

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