

Patient Characteristics and Healthcare Resource Utilization of Cognitive Symptoms among Patients with Schizophrenia in the Veterans Affairs Administration System

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BACKGROUND

- Individuals with cognitive symptoms from schizophrenia struggle with memory, attention, and executive functioning, impairing ability to plan, adapt, solve problems, or engage in social interactions.^{1,2}
- There is a lack of understanding on the impact of patients with schizophrenia experiencing cognitive symptoms (CS), including prevalence, the health burden imposed, and their broader health consequences.

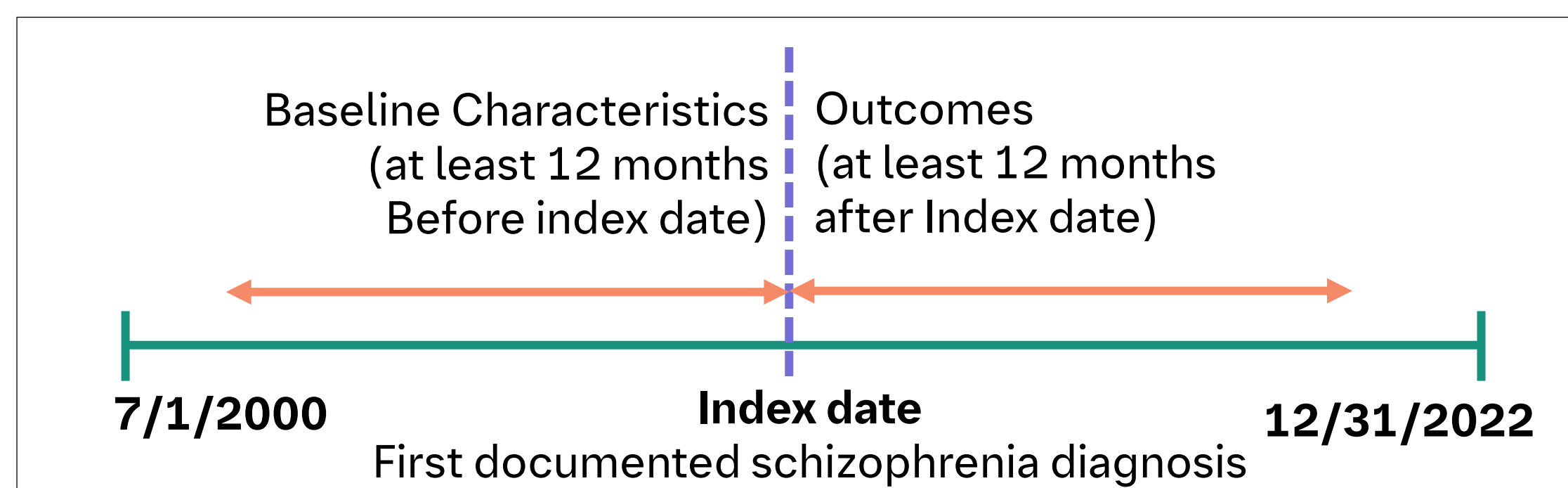
OBJECTIVE

- To describe the clinical and demographic characteristics, treatment modalities, and healthcare resource utilization (HCRU) related to cognitive symptoms (CS) among Veteran Affairs (VA) patients with schizophrenia.

METHODS

- Study design:** Retrospective cohort study
- Data source:** VA Informatics and Computing Infrastructure (VINCI) from January 2000 to December 2022
- Study population:** adults with at least two diagnoses of schizophrenia without neurocognitive disorders who have 12-month and post-index data available
- CS Identification:** CS cases were identified based on VA Health Factors Data, diagnosis/procedural codes, and medication use.
- Variables:** Patient characteristics were described during the 12-months prior the first schizophrenia diagnosis. The outcomes (i.e. pattern of care, and health care resource utilization) during the 12-months post the first schizophrenia diagnosis (Figure 1)
- Analysis:** Propensity score matching (PSM) was used to match the groups of CS and no CS based on date of first schizophrenia diagnosis, age, sex, race, BMI and CCI. Descriptive statistics were used to report patient demographics, treatment patterns, health care resource utilization and humanist burden.

Figure 1. Study Time Window



CONCLUSION

- Cognitive symptoms were documented in over a quarter of veterans with schizophrenia and was associated with significantly increased healthcare resource utilization and clinical burden in VA patients with schizophrenia.
- These findings highlight the importance of advancing and improving CS management in patients with schizophrenia.

RESULTS

- Prevalence and Characteristics of Cognitive Symptoms (Table 1):**
 - CS was identified in 21.5% of the study population.
 - After PSM, baseline variables were relatively balanced between cohorts.
- Healthcare Resource Utilization (Figure 3):**
 - Higher utilization of psychotherapy services with CS.
 - Average per patient per month (PPPM) hospitalizations 4.4 times higher with CS.
 - Nearly triple the average PPPM number of emergency department visits with CS.
- Medication Usage (Figure 4):** Higher utilization of anxiety medications, depression medications, 1st generation and 2nd generation antipsychotics across CS.
- High Risk Conditions (Figure 5):** Higher percentage of suicide ideation and homicide ideation with CS.

Figure 2. Sample Selection and Attrition

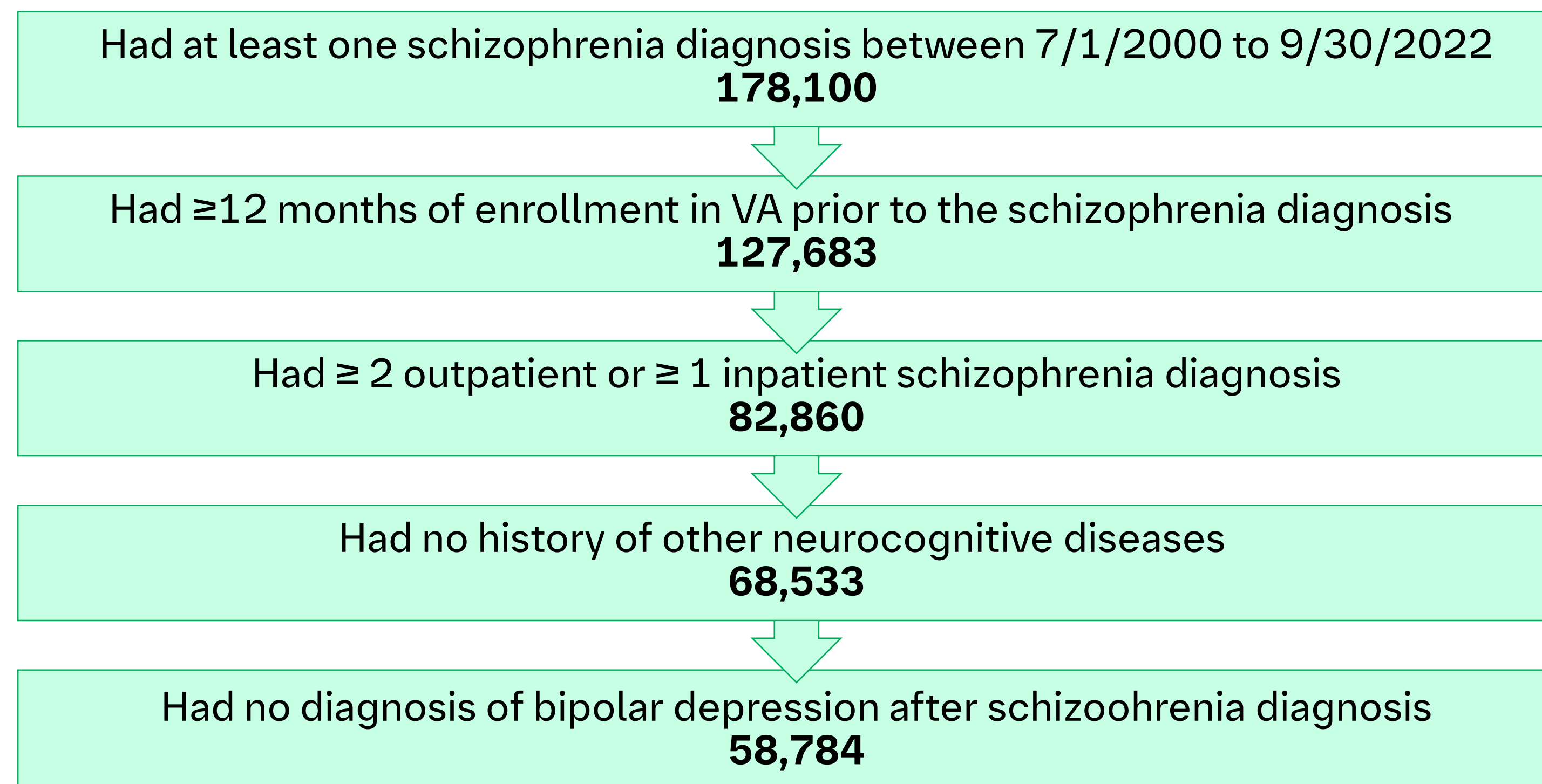
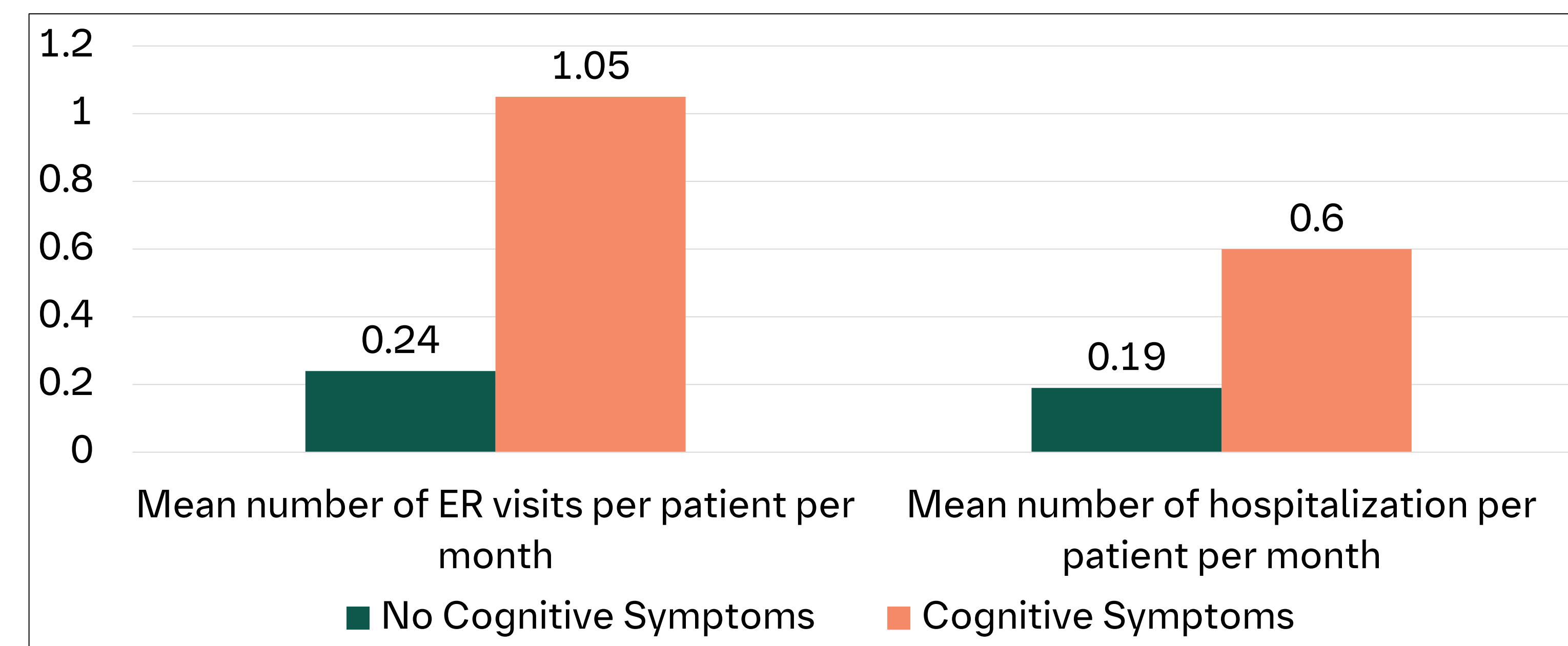


Table 1. Clinical and Demographic Characteristics Stratified by Cognitive Symptoms

Description, n (%)	Overall Schizophrenia (n=58,776)	Cognitive Symptoms (n=12,639)*	No Cognitive Symptoms (n=46,137)*	p-values
Age, mean (SE)	52.5 (13.3)	55.11 (12.8)	51.81 (13.5)	<0.001
Sex: female	4,465 (7.6)	1,117 (8.8)	3,348 (7.3)	<0.001
Race				
White	31,069 (52.9)	7,108 (56.2)	23,961 (51.9)	<0.001
Black	20,016 (34.1)	4,578 (36.2)	15,438 (33.5)	
Other/Unknown	7,691 (13.1)	953 (7.5)	6,738 (14.6)	
CCI, mean (SE)	1.2 (2.0)	1.49 (2.2)	1.06 (1.9)	<0.001
BMI**				
Underweight	1,461 (2.5)	322 (2.6)	1,139 (2.47)	<0.001
Normal	16,579 (28.2)	3,352 (26.5)	13,227 (28.7)	
Overweight	19,120 (32.5)	3,980 (31.5)	15,140 (32.8)	
Obese	20,048 (34.1)	4,917 (38.9)	15,131 (32.8)	

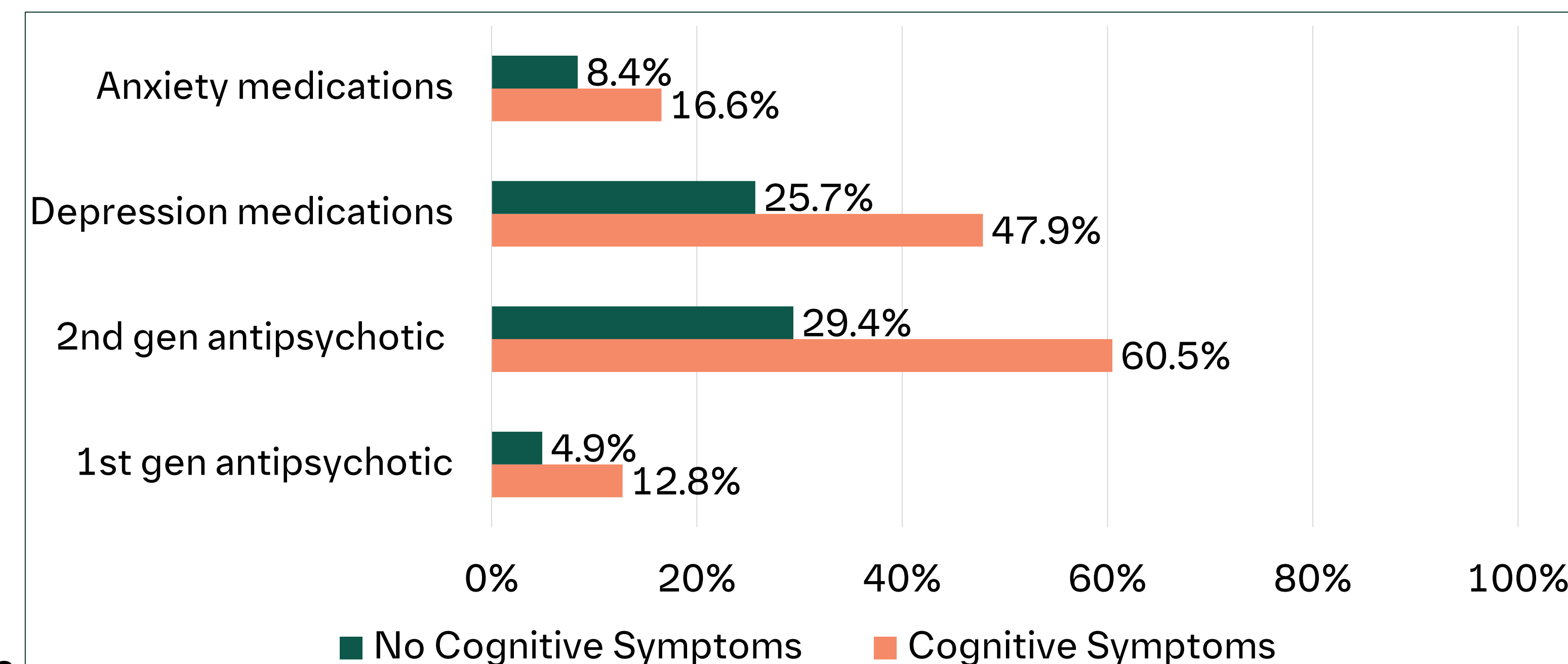
*Using pre-index data for the no cognitive symptom group, and post-index data for cognitive symptom group; **Missing category not included in the table; n: number; SE: standard error; CCI: Charlson Comorbidity Index; BMI: body mass index

Figure 3. Healthcare Resource Utilization Stratified by Cognitive Symptoms



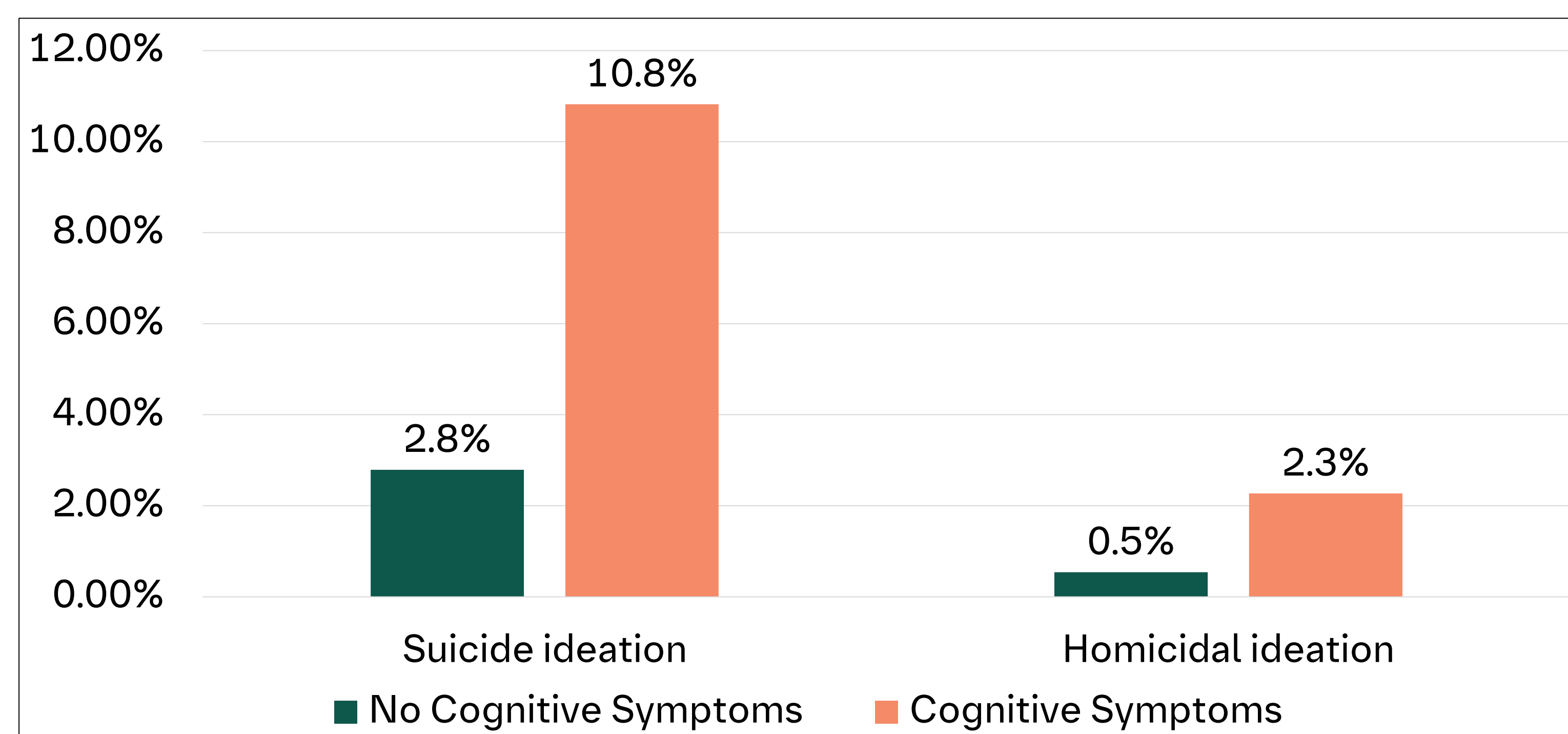
*All the reported values are after propensity score matching based on baseline characteristics of two study cohorts

Figure 4. Medication Use Stratified by Cognitive Symptoms



*All the reported values are after propensity score matching based on baseline characteristics of two study cohorts; gen: generation

Figure 5. High Risk Conditions Stratified by Cognitive Symptoms



*All the reported values are after propensity score matching based on baseline characteristics of two study cohorts

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DISCLOSURES

This work is funded by Boehringer Ingelheim Pharmaceuticals, Inc (BIPI). The content of this poster is solely the responsibility of the authors and does not necessarily represent the official views of the US Department of Veterans Affairs, nor does mention of trade names, commercial products or organizations imply endorsement by the US government. This paper represents, in part, original research conducted using data from the Department of Veterans Affairs and is the result of work supported with resources and the use of facilities at the Dorn Research Institute, Columbia VA Health Care System, Columbia, South Carolina.