RESEARCH LETTER

Use of Medications for Alcohol Use Disorder in the US: Results From the 2019 National Survey on Drug Use and Health

Treatment rates for alcohol use disorder (AUD) are low[1] (eg, 7.6% in 2019[2]). The US Food and Drug Administration has approved 4 evidence-based medications for treating AUD (MAUD) since 1949.[3] To improve use of MAUD, the American Psychiatric Association released guidelines for pharmacological treatments of patients with AUD in 2017.[4] However, little is known about prevalence and associations of using MAUD among US adults with AUD.

Methods | Data were from 42 739 adults 18 years and older who participated in the 2019 National Survey on Drug Use and Health (NSDUH), providing representative data among US civilian, noninstitutionalized populations,[2] including sociodemographic characteristics, past-year emergency department (ED) visits, illicit drug use, alcohol use, and receipt of mental health care and any alcohol use treatment (eg, at a specialty facility, ED, private physician's office, self-help group). Using *DSM-IV* diagnostic criteria, NSDUH assessed past-year illicit drug use disorder, AUD (*DSM-IV* dependence or abuse category), and major depressive episode. NSDUH data collection (through personal visits, using audio computer-assisted self-administered interviews) was approved by the institutional review board at RTI International. Respondents provided verbal informed consent.

The 2019 NSDUH is the first nationally representative survey asking respondents with past-year receipt of alcohol use treatment to report whether they used medications (eg, acamprosate, disulfiram, naltrexone oral/long-acting injectable formulations) prescribed by a physician or other health care

Table. Multivariable Multinomial Logistic Regression Results Among 3107 US Adults With Alcohol Use Disorder

Characteristic	AOR (95% CI)		
	MAUD vs no alcohol use treatment	Nonmedication alcohol use treatment vs no alcohol use treatment	MAUD vs nonmedication alcohol use treatment
Respondents, No.	2915	3069	230
Age, y			
18-25	1 [Reference]	1 [Reference]	1 [Reference]
26-34	1.1 (0.2-5.4)	2.5 (1.3-5.0)[a]	0.4 (0.1-2.3)
35-49	1.1 (0.4-3.2)	1.9 (0.9-3.9)	0.6 (0.2-1.7)
≥50	1.1 (0.2-5.4)	1.6 (0.7-3.5)	0.7 (0.1-3.6)
Sex			
Male	2.2 (0.8-5.9)	1.1 (0.7-1.7)	2.0 (0.7-5.9)
Female	1 [Reference]	1 [Reference]	1 [Reference]
Race/ethnicity[b]			
Non-Hispanic			
White	1 [Reference]	1 [Reference]	1 [Reference]
Black	0.5 (0.1-2.6)	1.3 (0.6-2.6)	0.4 (0.1-2.9)
Other	0.4 (0.1-1.9)	1.0 (0.5-2.2)	0.4 (0.1-1.8)
Hispanic	1.0 (0.2-4.6)	1.1 (0.6-2.2)	0.8 (0.2-4.0)
Education			
<High school	0.5 (0.1-3.1)	2.1 (1.0-4.5)	0.3 (0-1.6)
High school	1 [Reference]	1 [Reference]	1 [Reference]
Some college	0.7 (0.2-2.4)	2.4 (1.4-3.9)[a]	0.3 (0.1-1.2)
College graduate	0.9 (0.2-3.7)	1.4 (0.7-2.9)	0.6 (0.1-3.2)
Employment status			
Full-time	1.0 (0.2-4.5)	1.3 (0.6-3.1)	0.7 (0.1-4.1)
Part-time	1 [Reference]	1 [Reference]	1 [Reference]
Unemployment	2.2 (0.4-10.9)	3.4 (1.2-9.4)[a]	0.6 (0.1-3.4)
Other	0.9 (0.2-4.3)	2.6 (1.4-4.7)[a]	0.3 (0.1-1.8)

(continued)

Table. Multivariable Multinomial Logistic Regression Results Among 3107 US Adults With Alcohol Use Disorder (continued)

Characteristic	AOR (95% CI)		
	MAUD vs no alcohol use treatment	Nonmedication alcohol use treatment vs no alcohol use treatment	MAUD vs nonmedication alcohol use treatment
Health insurance			
Private only	0.6 (0.2-1.9)	1.0 (0.4-2.8)	0.5 (0.1-2.2)
Medicaid	0.9 (9.2-3.5)	0.9 (0.4-2.1)	1.1 (0.2-5.1)
Other	1.3 (0.3-5.8)	0.8 (0.3-2.4)	1.5 (0.3-9.3)
Uninsured	1 [Reference]	1 [Reference]	1 [Reference]
Family income, $			
<20 000	1 [Reference]	1 [Reference]	1 [Reference]
20 000-49 999	1.2 (0.4-3.8)	0.8 (0.4-1.5)	1.6 (0.5-5.6)
50 000-74 999	1.9 (0.4-9.1)	1.3 (0.6-2.9)	1.5 (0.3-7.7)
≥75 000	1.7 (0.5-6.3)	0.9 (0.4-2.2)	1.9 (0.5-8.1)
Metropolitan statistical area			
Large metro	6.2 (1.6-24.0)[a]	1.1 (0.5-2.1)	5.9 (1.3-26.2)[a]
Small metro	2.7 (0.7-10.3)	1.2 (0.6-2.5)	2.2 (0.5-9.5)
Nonmetro	1 [Reference]	1 [Reference]	1 [Reference]
Past year			
No. of ED visits			
0	1 [Reference]	1 [Reference]	1 [Reference]
1	2.0 (0.6-6.3)	1.9 (1.1-3.2)[a]	1.1 (0.3-3.6)
2	1.2 (0.3-4.9)	1.1 (0.5-2.4)	1.1 (0.2-5.5)
≥3	6.6 (1.7-25.5)[a]	0.8 (0.3-1.7)	8.9 (2.0-38.6)[a]
Receipt of mental health care			
Yes	10.6 (3.1-35.9)[a]	2.5 (1.6-3.9)[a]	4.3 (1.2-15.8)[a]
No	1 [Reference]	1 [Reference]	1 [Reference]
DSM-IV alcohol use disorder category			
Abuse	1 [Reference]	1 [Reference]	1 [Reference]
Dependence	16.1 (1.8-149.2)[a]	2.6 (1.4-4.9)[a]	6.1 (0.7-57.1)
Illicit drug use disorder			
Yes	1.7 (0.6-4.7)	2.8 (1.7-4.6)[a]	0.6 (0.2-1.8)
No	1 [Reference]	1 [Reference]	1 [Reference]

Abbreviations: AOR, adjusted odds ratio; ED, emergency department; MAUD, medications for alcohol use disorder.

[a] Statistically significantly different ($P < .05$) from the estimate of the reference group.

[b] Race/ethnicity was National Survey on Drug Use and Health respondent's self-classification of racial and ethnic origin and identification based on the classifications developed by the US Census Bureau.

professional to help reduce or stop alcohol use. The weighted response rate of the 2019 NSDUH was 45.8%.[2]

We estimated prevalence of MAUD among US adults with AUD. Multivariable multinomial logistic regression modeling was applied to examine associations of using MAUD and differences between using MAUD and receiving non-MAUD alcohol use treatment. We used 2-sided *t* tests to calculate *P* values, and significance was set at a *P* value less than .05. SUDAAN software version 11.0.1 (RTI International) was used to conduct analyses, accounting for NSDUH's complex design and sampling weights.

Results | Of 42 739 included adults, 22 807 (53.4%) were female. Among US adults in 2019, past-year prevalence of AUD was 5.6% (95% CI, 5.3-6.0), or 14.1 million persons (95% CI, 13.2-15.1). Among the 14.1 million adults with past-year AUD, 7.3% (95% CI, 5.8-8.8), or 1.0 million persons (95% CI, 0.8-1.2), reported receiving any alcohol use treatment in the past year, and 1.6% (95% CI, 0.9-2.3), or 223 000 persons (95% CI, 127 000-319 000), reported using MAUD. Among the 7.9 million adults with past-year alcohol dependence, 2.7% (95% CI, 1.6-3.8) reported using MAUD.

Among adults with past-year AUD, compared with those with no alcohol use treatment, using MAUD was associated with residing in large metropolitan areas (adjusted odds ratio [AOR], 6.2; 95% CI, 1.6-24.0), frequent ED visits (3 or more times; AOR, 6.6; 95% CI, 1.7-25.5), alcohol dependence (AOR, 16.1; 95% CI, 1.8-149.2), and receiving mental health care (AOR, 10.6; 95% CI, 3.1-35.9) (**Table**). Compared with receiving nonmedication alcohol use treatment, receiving MAUD was associated with residing in large metropolitan areas (AOR, 5.9; 95% CI, 1.3-26.2), frequent ED visits (3 or more times; AOR, 8.9; 95% CI, 2.0-38.6), and receiving mental health care (AOR, 4.3; 95% CI, 1.2-15.8). Receiving nonmedication alcohol use treatment was

associated with having an ED visit (AOR, 1.9; 95% CI, 1.1-3.2), alcohol dependence (AOR, 2.6; 95% CI, 1.4-4.9), receiving mental health care treatment (AOR, 2.5; 95% CI, 1.6-3.9), and having illicit drug use disorder (AOR, 2.8; 95% CI, 1.7-4.6).

Discussion | Although guidelines suggest that patients with AUD should be prescribed MAUD and brief counseling as initial therapy or referred for more intensive psychosocial interventions,[3,4] we found that among an estimated 14.1 million adults with past-year AUD in 2019, only 1.6% (or 223 000 persons) used MAUD. Thus, despite the availability of medications with demonstrated efficacy, MAUDs are rarely prescribed to and used by adults with AUD.

Use of MAUD may be associated with greater AUD severity. Adults receiving MAUD were more likely to report receiving mental health care and having more frequent ED visits, consistent with the associations of cooccurring psychiatric and medical disorders with greater AUD severity.[5,6] Adults with AUD who receive mental health care or ED services or who reside in large metropolitan areas may have greater access to MAUD. For those receiving nonmedication alcohol use treatment, using MAUD may improve treatment effectiveness. Although NSDUH is subject to recall and social-desirability biases, our results highlight the urgent need for improving access to and use of MAUD among adults with AUD.

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Accepted for Publication: April 23, 2021.

Published Online: June 16, 2021. doi:10.1001/jamapsychiatry.2021.1271

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Statistical analysis: Han.
Administrative, technical, or material support: Han, Jones, Einstein.

Conflict of Interest Disclosures: Dr Powell reports stock holdings in Pfizer. Dr Compton reports long-term stock holdings in General Electric, 3M, and Pfizer. No other disclosures were reported.

Funding/ Support: This study was jointly sponsored by the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health and the US Centers for Disease Control and Prevention of the US Department of Health and Human Services.

Role of the Funder/Sponsor: The funders reviewed and approved the manuscript but had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation of the manuscript; and decision to submit the manuscript for publication.

Disclaimers: The findings and conclusions of this study are those of the authors and do not necessarily reflect the views of the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health, the US Centers for Disease Control and Prevention, and the US Department of Health and Human Services.

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COMMENT & RESPONSE

Challenges to Behavioral Health and Injury Surveillance During the COVID-19 Pandemic

To the Editor The study by Holland et al[1] reports trends in emergency department (ED) visits involving mental health and substance use, including deliberate self-harm, unintentional overdose and other injuries, and assault, before and during the COVID-19 pandemic. The authors report 2 metrics for each time period, using data from the National Syndromic Surveillance Program (NSSP) at the US Centers for Disease Control and Prevention (CDC): the absolute number of ED visits of a given type and the rate of ED visits of a given type per 100 000 ED visits of all types.

We share the authors' interest in assessing the possible effects of the pandemic on behavioral health and injury outcomes. But we find it difficult to draw clear inferences from the present findings for 2 main reasons. First, as the authors mention briefly, the number of hospitals reporting to the NSSP rose across the study period. The study did not adjust for this by restricting to a common set of hospitals, as the authors suggest future research should do, or by standardizing for or at least reporting for readers the number of hospitals participating each month. This makes it difficult to interpret trends in absolute visit counts, particularly for outcomes such as deliberate self-harm, for which absolute counts remained below prepandemic levels for most or all of the study period (despite the number of hospitals reporting to NSSP rising).

Second, we see no clear way to draw inferences between the type of rate the study reports—for example, ED visits for self-harm per 100 000 total ED visits—and the rates of most immediate public health interest, that is, ED visits and events associated with self-harm per unit population. In particular, while it might have been plausible before March 2020 to assume that general patterns of ED care-seeking were mainly con-