Missing Opportunities in the Screening of Alcohol Use and Problematic Use, and the Provision of Brief Advice and Treatment Information Among Individuals With Alcohol Use Disorder

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Objectives: The aim of this study was to identify sociodemographic and substance-related factors associated with being screened, receiving advice or treatment information from healthcare providers, among individuals who met the criteria for the past 12-month alcohol use disorder (AUD).

Methods: The 2015–2019 National Survey on Drug Use and Health data were analyzed to identify factors associated with being (1) asked about alcohol used among adults with AUD, who visited a healthcare provider within the past 12 months, and were not receiving AUD treatment (sample 1, n = 13,321); (2) asked about problematic use; (3) advised to reduce consumption; and (4) offered alcohol treatment information, among those in sample 1 who were asked about their use (n = 6,905).

Results: About half (52.9%) in sample 1 were asked about their alcohol use. Among them, 21.6% were asked about problematic use, 17.7% were advised to reduce alcohol consumption, and 7.6% were offered information. The odds of being asked about alcohol use among male participants were 0.72 times the odds of female participants; however once asked, male participants showed greater odds of being asked about problematic use (adjusted odds ratio [aOR] = 1.53, 95% confidence interval [CI] = 1.29–1.82), advised to reduce consumption (aOR = 1.64, 95% CI = 1.24–2.16), and offered treatment information (aOR = 1.77, 95% CI = 1.34–2.35). As compared with non-Hispanic White participants, other racial/ethnic groups were less likely to be asked about alcohol use; however, once asked, no differences were observed for other outcomes.

Conclusions: Significant gaps in the screening and provision of advice or treatment information were identified, particularly for racial/ethnic and sex subgroups. Reducing barriers for effective screening could help address AUD-related disparities.

Key Words: alcoholism, healthcare advice, healthcare disparities, females, substance-related disorders

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In 2021, approximately 11% of US individuals aged 18 years old and older met the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*) criteria for an alcohol use disorder (AUD) in the 12 months preceding the survey, and about 7% received treatment for alcohol or any other substance use disorder in the past year.[1] AUD remains a significant public health issue that requires a continuum of treatment.[2] However, treatment access and utilization patterns are complex. Based on a search of the current literature, we have identified barriers to treatment for substance use disorders, including AUD, into 5 categories.[3] The first category is related to the perception of the person with the use disorder (ie, embarrassment about obtaining treatment vs self-managing their disorder).[3] The second is resource-related (ie, high costs of treatment, lack of insurance coverage or no insurance at all, time constraints, and limited reimbursement from insurers or commercial payers).[4] The third category includes barriers that are associated with adverse experiences from previous AUD treatment (ie, discomfort with personal questions, fear of being admitted for treatment without consent).[3] The fourth category includes provider-related barriers (ie, lack of training and incentives for screening and referral, concerns regarding who should provide treatment, perceptions on treatment effectiveness stigmatizing attitude toward alcohol and drug use, physicians' lack of self-efficacy in managing AUD and other drug use disorders, and lack of knowledge and time to address potential pharmacological interactions for drugs not prescribed).[4] The fifth category considers structural barriers, including difficult working hours, lack of childcare, lack of transportation, stigma in healthcare settings, and language barriers.[3,5]

Although individuals with AUD often experience several of the identified barriers to treatment, females, low income, and racial/ethnic minoritized and underserved subgroups[6,7] may be more prone to experiencing them. Although alcohol consumption

by women is increasing,[8] screening, referral, and access to services for women experiencing drinking problems are limited.[9,10] For example, among people with alcohol-related cirrhosis, women are less likely to receive face-to-face AUD treatment and medication to prevent relapse compared with men.[11] Studies have also indicated that men with less severe AUD are more likely to receive treatment than women with a similar condition.[12] Women may also be more likely to believe their drinking habits will resolve on their own, hence not seeking treatment, or to report social stigmatization or legal pressures, as treatment barriers.[10,13] These views could stem from a lack of communication about drinking behaviors with their healthcare provider (HCP).[14] Primary care providers are often the first point of care for patients who use alcohol (PWUA) and are responsible for screening as a first step for linkage to AUD treatment. Available evidence regarding access to screening, referral, and access to AUD treatment for racial/ethnic minoritized and underserved populations indicates that Black respondents predominantly experience material barriers to access care, whereas other groups report psychological and social barriers. Hispanic respondents were less likely to perceive a need for treatment than White respondents.[15] Other studies delineate that, although individuals of various racial/ethnic groups showed no significant differences in the number of barriers to AUD treatment, Black individuals were more likely to receive nonprofessional services (ie, church-support groups) compared with White individuals.[3] Furthermore, these differences were pervasive in all barrier categories, including lacking health insurance, not having information about available treatments, and being fearful of treatment services. Treatment utilization by underserved subgroups can also be affected by proximity of services and by potential barriers such as loss of income while in treatment, or childcare and transportation availability/expenses.[16] Although AUD-related recommendations, such as screenings, brief interventions, and providing referrals to treatment (SBIRT) are available,[17] they have limited efficacy[18] (eg, efficacy among more unhealthy use; have been excluded from studies) and are not widely implemented in primary care settings.[19]

Providers may use the 5 As (ask, advise, assess, assist, and arrange) to initiate conversations regarding alcohol use, which was recommended by the Agency for Health Care Policy and Research in 2000 and has since been widely implemented in training programs.[20] Applied to AUD, the model would include "ask" (ask about alcohol use), "advise" (advise PWUA to quit), "assess" (assess the willingness of PWUA to quit), "assist" (assist willing patients with quitting), and "arrange" (arrange follow-up). Systematic implementation of alcohol screening, while finding ways to include people with more severe unhealthy alcohol use,[18] and brief interventions, as well as provision of referrals to treatment in adult primary care, can potentially reduce drinking among people with unhealthy drinking issues.[17] Therefore, identifying missing opportunities for screening and treatment recommendations is a public health priority. Taking the 5 As framework into consideration, this study explored patient-level sociodemographic and health- and substance-related factors associated with screening and treatment advice given by HCPs to participants who met the criteria for AUD. Complementing prior studies on general or special (eg, veterans) populations,[6,7,21] and based on

the barriers identified,[3,5] we hypothesized that among individuals who met the criteria for AUD, females,[6,9] individuals from marginalized, and underserved and stigmatized populations (ie, racial-ethnic minorities, individuals living in poverty or rural communities, individuals uninsured, and those who misuse other drugs)[21,22] would be less likely to be screened or to receive advice or treatment information by their HCPs than their counterparts.

METHODS

Study Sample

For this study, we conducted secondary data analyses of the 2015–2019 National Survey on Drug Use and Health (NSDUH) data, which provides nationally representative estimates for various substance use and mental health problems, including AUDs.[23] All participants were 18 years old or older, noninstitutionalized, and living in the United States. Data were collected via face-to-face interviews, using computer-assisted personal interviewing and audio computer-assisted self-interviewing.[23]

For outcome 1, "being asked about frequency/quantity of alcohol used," our first subsample of NSDUH participants composed of adults (18+ years old) who met *DSM-IV* criteria for AUD,[8] had visited 1 or more providers within the past 12 months, and were not currently receiving treatment for AUD, herein sample 1 (n = 13,321). For the second set of analyses on the second, third, and fourth outcomes (outcome 2: "being asked about problematic use"; outcome 3: "being advised to cut down on alcohol consumption"; and outcome 4 "offered information about treatment"), our second subsample included those participants in sample 1 who were asked about the frequency/quantity of alcohol used, herein sample 2 (n = 6,905).

Measures

Outcome Variables

There were 4 outcomes studied, which were based on 1 NSDUH survey question that followed these instructions, "Please think about all the talks you have had with a doctor or other healthcare professional during the past 12 months when answering these questions." The item inquired about past 12-month conversations with any provider or providers about alcohol use. The first outcome considered whether participants were asked about their alcohol use frequency/quantity by their HCP(s). This was based on 2 statements: (a) doctor asked how much you drink; and (b) doctor asked how often you drink. Respondents who answered affirmatively to either or both were classified as being asked about frequency/quantity of alcohol use.[23]

The remaining 3 binary outcomes were assessed among those who replied affirmatively to the first outcome (ie, those who were asked about their alcohol use by a provider). The second outcome was being asked about problematic use. This was based on the statement "doctor asked if any drinking problems." The third outcome was being advised to cut down on alcohol consumption. This was based on the statement "doctor advised you to cut down on drinking." The fourth outcome was being offered information about treatment. This was based on the statement "doctor offered information about alcohol treatment."

TABLE 1. Sociodemographic and Health- and Substance Use–Related Characteristics of the Study Populations

	Adults With Past 12-Month DSM-IV AUD Who Visited a HCP and in Need of Treatment (Sample 1)[a]										Adults in Sample 1 Who Were Asked about Frequency and Quantity of Alcohol Use (Sample 2)[b]									
	Asked About Frequency and Quantity of Alcohol Use						Asked About Problematic Use				Advised to Reduce Consumption				Offered Information about Treatment				Total	
	No (n=6,416)		Yes (n=6,905)		Total (n=13,321)		No (n=5,382)		Yes (n=1,523)		No (n=5,868)		Yes (n=1,037)		No (n=6,394)		Yes (n=511)		(n=6,905)	
Characteristic	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Sex																				
Males	68.9	66.9, 70.7	59.6	57.2, 61.9	64.0	62.3, 65.6	57.7	55.2, 60.2	66.4	62.5, 70.1	57.3	54.5, 59.9	70.4	65.1, 75.2	58.6	56.1, 61.0	71.5	65.7, 76.8	59.6	57.2, 61.9
Females	31.1	29.3, 33.1	40.4	38.1, 42.8	36.1	34.4, 37.7	42.3	39.8, 44.9	33.6	29.9, 37.5	42.8	40.1, 45.5	29.6	24.8, 34.9	41.4	39.0, 43.9	28.5	23.2, 34.3	40.4	38.1, 42.8
Self-identified race-ethnicity																				
Non-Hispanic Whites	65.9	64.0, 67.7	77.0	75.6, 78.4	71.8	70.7, 72.9	77.0	75.4, 78.6	77.1	73.5, 80.3	77.1	75.5, 78.7	76.7	72.4, 80.6	77.1	75.6, 78.5	76.3	70.4, 81.3	77.0	75.6, 78.4
Non-Hispanic Blacks	13.2	12.1, 14.5	9.6	8.5, 10.7	11.3	10.5, 12.1	9.7	8.5, 11.1	9.1	7.4, 11.1	9.7	8.6, 11.0	8.8	7.0, 11.0	9.5	8.5, 10.7	10.2	7.3, 13.9	9.6	8.5, 10.7
Hispanics	20.9	19.6, 22.3	13.4	12.2, 14.8	16.9	16.0, 17.9	13.3	11.9, 14.5	13.9	11.4, 16.8	13.2	11.9, 14.5	14.5	11.1, 18.7	13.4	12.2, 14.7	13.6	8.9, 20.2	13.4	12.2, 14.8
Age group																				
18–23	17.9	16.8, 19.1	15.9	14.9, 16.9	16.9	16.1, 17.6	15.7	14.6, 17.0	16.5	14.4, 18.8	17.1	15.9, 18.3	10.6	9.2, 12.2	15.8	14.8, 16.8	17.8	14.1, 22.1	15.9	14.9, 16.9
24–34	30.4	28.6, 32.2	30.3	28.5, 32.2	30.3	29.1, 31.6	29.9	27.9, 31.9	31.9	28.9, 35.0	31.4	29.4, 33.4	25.5	22.2, 29.1	30.4	28.6, 32.3	29.6	25.0, 34.6	30.3	28.5, 32.2
35–49	27.8	26.2, 29.4	24.7	23.2, 26.3	26.2	25.1, 27.3	24.1	22.4, 25.9	26.9	23.6, 30.5	24.0	22.4, 25.6	28.2	24.3, 32.5	24.8	23.3, 26.4	23.7	19.1, 29.1	24.7	23.2, 26.3
50+	24.0	22.1, 25.9	29.1	26.9, 31.2	26.7	25.3, 28.1	30.2	27.7, 32.9	24.69	20.9, 28.9	27.6	25.3, 30.0	35.7	30.8, 40.9	29.1	26.9, 31.3	29.0	21.6, 37.7	29.1	26.9, 31.3
Urbanicity																				
Large metropolitan	55.9	54.2, 57.7	59.6	57.7, 61.4	57.9	56.5, 59.3	60.1	58.0, 62.0	58.0	54.9, 60.9	59.4	57.5, 61.3	60.5	56.1, 64.7	60.1	58.0, 62.1	53.8	48.2, 59.3	59.6	57.7, 61.4
Small metropolitan	30.8	29.5, 32.2	29.6	28.0, 31.3	30.2	29.0, 31.3	29.3	27.4, 31.2	30.8	28.1, 33.6	29.5	27.8, 31.2	30.1	26.1, 34.4	29.2	27.4, 31.1	34.3	29.1, 40.0	29.6	27.9, 31.3
Nonmetropolitan	13.3	12.1, 14.5	10.8	9.9, 11.8	12.0	11.2, 12.8	10.7	9.6, 11.8	11.3	9.4, 13.6	11.1	10.1, 12.2	9.5	7.6, 11.7	10.7	9.7, 11.8	11.9	9.3, 15.1	10.8	9.8, 11.8
Income level																				
Lower	17.1	15.9, 18.4	12.7	11.6, 13.9	14.8	13.9, 15.7	12.3	11.2, 13.6	14.2	11.8, 16.9	12.7	11.5, 14.1	12.8	10.2, 15.8	12.2	11.1, 13.4	18.9	14.7, 24.1	12.7	11.6, 14.0
Middle	21.3	20.0, 22.7	15.5	14.1, 17.0	18.2	17.3, 19.2	15.9	14.1, 17.9	13.9	12.0, 16.2	15.4	13.8, 17.2	15.6	13.1, 18.5	15.5	13.9, 17.2	15.1	12.1, 18.8	15.5	14.1, 16.9
Higher	61.6	59.9, 63.2	71.8	70.0, 73.6	67.0	65.6, 68.4	71.8	69.5, 74.0	71.9	68.7, 74.9	71.9	69.7, 73.9	71.7	68.1, 75.0	72.3	70.2, 74.3	66.0	60.4, 71.1	71.8	69.9, 73.6
Insurance																				
Yes	80.0	78.5, 81.5	91.5	90.7, 92.3	86.1	85.2, 86.9	91.5	90.5, 92.4	91.5	89.8, 93.0	91.6	90.6, 92.5	91.2	89.0, 93.0	91.7	90.8, 92.5	89.4	86.5, 91.8	91.5	90.7, 92.3
No	20.0	18.5, 21.5	8.5	7.7, 9.3	13.9	13.1, 14.8	8.5	7.6, 9.5	8.5	7.0, 10.2	8.4	7.5, 9.4	8.8	7.0, 11.0	8.3	7.5, 9.2	10.6	8.2, 13.5	8.5	7.7, 9.3
Self-reported health status																				
Poor	13.6	12.5, 14.7	13.4	11.9, 15.1	13.5	12.5, 14.5	13.4	11.7, 15.2	13.7	11.5, 16.3	12.5	10.9, 14.4	17.6	14.8, 20.9	13.0	11.4, 14.7	19.0	15.0, 23.9	13.4	11.9, 15.1
Excellent to good	86.5	85.3, 87.5	86.6	84.9, 88.1	86.5	85.5, 87.5	86.7	84.8, 88.3	86.3	83.7, 88.5	87.5	85.7, 89.1	82.4	79.1, 85.2	87.0	85.3, 88.6	81.0	76.1, 85.1	86.6	84.9, 88.1
Past 12 mo of nicotine use																				
No use	36.3	34.5, 38.2	42.5	40.6, 44.5	39.6	38.1, 41.1	43.4	41.2, 45.7	39.3	35.9, 42.8	43.9	41.8, 46.0	36.2	31.6, 41.1	43.6	41.6, 45.7	29.3	22.1, 37.6	42.5	40.6, 44.5
Use without dependence	41.8	39.9, 43.6	42.8	40.7, 45.0	42.3	40.9, 43.8	42.2	40.0, 44.4	45.1	41.7, 48.5	42.0	39.7, 44.2	46.9	42.0, 51.7	42.6	40.3, 44.9	45.8	38.9, 53.1	42.8	40.7, 45.0
Nicotine dependence	21.9	20.6, 23.3	14.6	13.3, 16.1	18.1	17.2, 19.0	14.4	13.0, 15.9	15.6	12.9, 18.8	14.2	12.7, 15.8	16.9	14.4, 19.9	13.8	12.5, 15.2	25.0	19.8, 31.0	14.6	13.3, 16.0
Past 12 mo of cannabis use																				
No use	55.1	52.8, 57.3	56.0	54.2, 57.8	55.6	54.3, 56.8	57.1	55.1, 59.1	51.9	48.3, 55.4	56.3	54.3, 58.3	54.5	49.9, 59.1	56.5	54.9, 58.4	47.8	41.4, 54.4	56.0	54.2, 57.8
Use without disorder	35.9	34.0, 37.8	36.9	35.2, 38.7	36.5	35.3, 37.6	36.0	34.0, 38.1	40.3	37.2, 43.4	36.4	34.3, 38.5	39.5	35.3, 43.9	36.4	34.6, 38.3	43.3	37.8, 49.1	37.0	35.2, 38.7
Abuse or dependence	9.0	8.2, 9.9	7.1	6.5, 7.7	8.0	7.5, 8.6	6.9	6.2, 7.7	7.9	6.5, 9.6	7.3	6.7, 8.1	5.9	4.6, 7.7	7.0	6.4, 7.6	8.8	6.2, 12.4	7.0	6.5, 7.7
Past 12 mo of cocaine use																				
No use	88.3	87.1, 89.5	87.3	86.3, 88.2	87.8	87.0, 88.5	87.6	86.5, 88.7	86.0	83.6, 88.1	87.5	86.4, 88.4	86.5	83.9, 88.8	87.5	86.5, 88.5	84.4	80.1, 87.9	87.3	86.3, 88.2
Use without disorder	8.6	7.6, 9.7	10.0	9.2, 10.8	9.3	8.7, 10.0	9.8	8.9, 10.8	10.7	9.0, 12.7	9.8	8.9, 10.7	11.1	9.2, 13.4	9.8	9.0, 10.7	11.9	8.8, 15.9	10	9.2, 10.8
Abuse or dependence	3.1	2.5, 3.8	2.7	2.3, 3.3	2.9	2.5, 3.4	2.6	2.1, 3.2	3.3	2.3, 4.7	2.4	1.5, 3.8	2.4	1.5, 3.8	2.6	2.2, 3.2	3.7	2.5, 5.6	2.7	2.3, 3.3
Past 12 mo of prescription pain relievers																				
No use	58.2	56.1, 60.2	51.8	50.3, 53.3	54.8	53.4, 56.2	51.9	50.1, 53.8	51.3	47.8, 54.8	52.4	50.7, 54.2	49.0	43.7, 54.5	52.2	50.5, 53.8	47.3	40.8, 53.9	51.8	50.3, 53.3
Use	27.6	25.8, 29.5	33.6	32.2, 35.0	30.8	29.5, 32.1	34.5	32.7, 36.3	30.1	27.2, 33.2	33.8	32.2, 35.5	32.4	28.3, 36.8	33.7	32.1, 35.3	32.0	27.1, 37.4	33.6	32.2, 35.0
Nonmedical use	11.3	10.3, 12.5	12.1	11.1, 13.2	11.7	11.0, 12.5	11.4	10.4, 12.5	14.6	11.9, 17.9	11.7	10.7, 12.7	14.1	11.9, 16.6	11.9	10.9, 13.0	14.3	9.5, 20.9	12.1	11.1, 13.2
Abuse or dependence	2.9	2.4, 3.6	2.5	2.0, 3.2	2.7	2.4, 3.1	2.2	1.7, 2.7	4.0	2.4, 6.5	2.1	1.7, 2.7	4.5	2.6, 7.5	2.2	1.8, 2.7	6.4	3.3, 12.3	2.5	2.0, 3.2

(Table 1, continued — rotated on page. Row labels with estimates and 95% confidence intervals across the study columns.)

Past 12 mo of sedative or tranquilizer use																				
No use	74.1	72.3, 75.9	66.8	64.7, 68.7	70.2	68.7, 71.7	67.7	65.4, 69.9	63.3	59.5, 66.9	67.5	65.4, 69.5	63.4	58.6, 67.8	67.1	65.0, 69.2	62.4	56.4, 68.1	66.7	64.7, 68.7
Use	16.2	14.9, 17.7	21.5	19.8, 23.2	19.0	17.8, 20.3	21.1	19.2, 23.2	22.8	20.1, 25.8	21.1	19.4, 22.9	23.4	19.8, 27.4	21.6	19.8, 23.4	20.4	15.8, 25.8	21.5	19.8, 23.2
Nonmedical use	8.4	7.6, 9.3	10.2	9.3, 11.1	9.4	8.7, 10.1	9.8	8.8, 10.9	11.5	9.4, 14.1	9.8	8.9, 10.8	11.8	9.0, 15.3	9.9	8.9, 10.9	13.6	9.3, 19.5	10.2	9.3, 11.1
Abuse or dependence	1.2	0.1, 1.5	1.6	1.3, 2.0	1.4	1.2, 1.6	1.4	1.1, 1.8	2.4	1.8, 3.1	1.5	1.3, 2.1	1.5	1.0, 2.2	1.7	1.2, 1.8	3.6	2.3, 5.7	1.6	1.3, 2.0
Past 12 mo of stimulant use																				
No use	83.3	81.8, 84.6	80.0	78.5, 81.3	81.5	80.5, 82.5	80.1	78.6, 81.6	79.4	76.0, 82.3	79.8	76.6, 84.3	80.7	78.4, 81.1	80.2	78.7, 81.7	76.9	72.4, 80.9	79.9	78.5, 81.3
Use	7.9	6.9, 9.0	8.8	7.9, 9.9	8.4	7.7, 9.1	8.9	7.8, 10.1	8.6	6.9, 10.7	8.8	6.2, 12.2	8.7	7.8, 10.0	8.8	7.7, 9.9	10.2	7.4, 13.8	8.8	7.9, 9.9
Nonmedical use	7.7	7.0, 8.5	9.4	8.6, 10.2	8.6	8.0, 9.2	9.4	8.6, 10.2	9.2	7.5, 11.2	9.7	6.3, 9.8	9.3	8.9, 10.6	9.4	8.6, 10.2	9.6	7.6, 12.0	9.4	8.6, 10.2
Abuse or dependence	1.1	1.0, 1.5	1.9	1.5, 2.4	1.5	1.2, 1.9	1.6	1.2, 2.1	2.9	2.1, 3.9	1.7	1.8, 4.1	1.8	1.3, 2.2	1.8	1.4, 2.2	3.4	1.9, 5.8	1.9	1.5, 2.4
Year of survey participation																				
2015	21.6	20.6, 22.7	21.2	19.8, 22.7	21.4	20.6, 22.2	20.6	19.7, 23.1	20.6	17.9, 23.6	21.1	18.6, 25.3	21.7	19.4, 22.8	21.7	20.2, 23.2	15.6	11.6, 20.7	21.2	19.8, 22.7
2016	20.4	18.9, 21.9	20.2	18.8, 21.7	20.3	19.2, 21.5	19.8	19.1, 21.7	19.8	16.8, 23.1	20.7	14.1, 22.5	17.9	19.3, 22.3	20.4	19.0, 21.8	18.8	13.9, 24.8	20.2	18.8, 21.7
2017	19.8	18.4, 21.2	19.3	17.7, 21.0	19.5	18.6, 20.5	19.8	17.4, 21.2	19.8	17.4, 22.4	18.6	15.1, 22.6	19.2	17.7, 20.4	21.0	17.5, 21.0	21.2	16.1, 27.3	19.3	17.7, 21.0
2018	19.4	18.2, 20.8	19.4	18.2, 20.6	19.4	18.6, 20.2	18.7	17.5, 20.1	21.7	18.8, 24.9	19.0	17.7, 24.8	18.7	17.8, 20.4	20.3	17.7, 20.3	24.5	18.9, 31.0	19.4	18.2, 20.6
2019	18.8	17.4, 20.2	19.9	18.5, 21.3	19.4	18.2, 20.5	18.2	18.2, 20.5	18.2	15.1, 21.7	19.7	17.3, 24.8	20.8	18.1, 21.3	21.4	18.4, 21.4	20.1	14.9, 26.4	19.9	18.5, 21.

Sociodemographic and health- and substance use–related characteristics of US adults with past 12-month *DSM-IV* AUD that visited 1 or more HCPs in the past 12 months and in need of treatment, across 4 outcomes: (1) asked about alcohol used, (2) asked about problematic use, (3) advised to reduce consumption, and (4) offered alcohol treatment information.

Descriptive analyses of the 2015–2019 National Survey of Drug Use and Health.

aSample 1: adults (18+ years old) who met *DSM-IV* criteria for AUD, had visited 1 or more providers within the past 12 months, and were not currently receiving treatment for AUD (n = 13,321).

bSample 2: participants in sample 1 who were asked about the frequency/quantity of alcohol used (n = 6,905).

Sociodemographic and Health- and Substance Use–Related Factors

Independent variables of interest included the following: sex (male/female, as described in the NSDUH), self-identified race/ethnicity (non-Hispanic White only [NHW], non-Hispanic Black only [NHB], and Hispanic [HI] of all races), county status (large, small, and nonmetropolitan), income level (low, middle, and high, determined by considering the age, family size, children in the household, and total family income[23]), health insurance coverage (yes/no), and substance use–related factors. Specifically, we explored the associations between the outcomes and tobacco use (no use, use without dependence, dependence based on 1 item of the Fagerstrom Nicotine Dependence Scale —first cigarette smoked within 30 minutes of waking up on the days they smoked) within the past month, past 12-month use of cannabis or cocaine (no use, use without *DSM-IV* disorder, *DSM-IV* use disorder), and past 12-month use of prescription pain relievers (PPRs), sedatives/tranquilizers, or stimulants (no use, use, nonmedical use, *DSM-IV* use disorder). Misuse of prescription medications was defined as use (a) without a prescription; (b) in greater amounts, more often, or longer than told to take a drug; or (c) in any other way a doctor did not tell respondents to take a drug.

In addition, all models were adjusted by age (18–23, 24–34, 35–49, and 50+ years), self-reported health status (poor and excellent/good), and year of survey participation.

Statistical Analyses

The χ^2 tests of independence identified significant differences in sociodemographic and health-related statistics, stratified by each of the 4 outcome variables. Unadjusted and adjusted logistic regression models examined the association between sociodemographic and substance use covariates and the 4 outcome variables. Analysis weights provided by NSDUH were applied to account for the multistage nested cluster sampling design. A Holm-Sidak correction was used to control multiple comparisons in all the models. Adjusted *P* values of less than 0.05 were considered to indicate statistical significance.[24] Multicollinearity was assessed for every model by estimating the variance inflation factors. All variance inflation factors were lower than 4, indicating minimal multicollinearity.[25]

RESULTS

Characteristics of the Study Populations

Characteristics of sample 1 and sample 2 across the 4 outcomes of interest are presented in Table 1. Two thirds of participants were male, and the majority were NHW (70%) and most had health insurance (~90%). Weighted analyses indicated that 1 in 2 (52.9%) participants with AUD was asked about their alcohol use by their providers. Among those asked, 21.6% were asked about problematic use, 17.7% were advised to reduce alcohol consumption, and 7.6% were offered treatment options.

Factors Associated With Being Asked About Alcohol Use

Results of univariate and multivariable logistic regression models are described in Tables 2 and 3, respectively. The adjusted

models and corrected *P* values among sample 1 participants revealed that the odds of being asked about the frequency/quantity of alcohol among those who identified as NHB (adjusted odds ratio [aOR] = 0.73, 95% confidence interval [CI] = 0.61–0.87) and HI (aOR = 0.63, 95% CI = 0.53–0.75) were lower than the odds of individuals who identified as NHW. The odds of being asked about the frequency/quantity of alcohol use among male participants were 0.72 times (aOR = 0.72, 95% CI = 0.64–0.82) the odds reported by female participants. The odds of being asked about the frequency/quantity of alcohol among those in the lower (aOR = 0.81, 95% CI = 0.71–0.92) and middle (aOR = 0.80, 95% CI = 0.69–0.91) levels of income were lower than the odds of individuals in the highest levels of income. The odds of being asked about the frequency/quantity of alcohol among those with nicotine dependence were 0.62 times (aOR = 0.62, 95% CI = 0.53–0.71) the odds of those who have not used tobacco. Individuals with health insurance coverage (aOR = 2.13, 95% CI = 1.85–2.44), those who live in large metropolitan areas (aOR = 1.32, 95% CI = 1.12–1.55), and those who had used PPRs in the past 12 months (aOR = 1.32, 95% CI = 1.19–1.46) showed greater odds of being asked about the frequency/quantity of alcohol use than uninsured, those living in metropolitan areas, or those who did not use PPR in the past 12 months, respectively.

Factors Associated With Being Asked About Problematic Use, Advised to Reduce Consumption, and Offered Information About Treatment

Adjusted analyses conducted among sample 2 participants indicated that the odds of being asked about problematic use (aOR = 1.53, 95% CI = 1.29–1.82), advised to cut down on alcohol consumption (aOR = 1.64, 95% CI = 1.24–2.16), and offered information about alcohol treatment (aOR = 1.77, 95% CI = 1.34–2.35) among male participants were greater than the odds reported by female participants. Compared with people who were 50 years and older, those who were 24–34 years (aOR = 1.37, 95% CI = 1.07–1.76) and 35–49 years (aOR = 1.41, 95% CI = 1.05–1.89) showed greater odds of being asked about problematic use. However, the odds of being asked to reduce alcohol consumption among individuals 18–23 years (aOR = 0.44, 95% CI = 0.32–0.60) and 24–34 years (aOR = 056, 95% CI = 0.41–0.76) were lower than the odds of individuals in the oldest age group. Other findings did not reach statistical significance at the desired corrected *P* value level.

DISCUSSION

Our results indicated that approximately half of US adults, who met the criteria for *DSM-IV* AUD diagnosis, needed treatment, and had visited an HCP within the past 12 months, were asked about their alcohol use by their providers. Among them, 21.6% were asked about problematic use, 17.7% were advised to reduce consumption, and 7.6% were offered information about treatment.

During healthcare visits, patient-provider conversation usually begins with asking about health issues, such as problematic alcohol use, which is also the first "A" of the 5 As framework.[20] If the providers do not ask about this, they miss out on identifying

potential intervention points for their patients. Results from this study indicated that half of the participants who met the criteria for AUD and were in need of treatment were not asked about their alcohol use while they visited a provider. This suggests that 1 of the leading barriers to AUD treatment and intervention may begin with a dearth of these conversations between providers and their patients. This leads to missed opportunities for intervention. The United States Preventive Services Task Force recommends adults to be screened for alcohol use in primary care settings, including pregnant women; however, multitudes of barriers to effective screening are cited in the literature, including perceived stigma, lack of resources, adverse experience, provider-level barriers, and structural barriers.[3] Overcoming these barriers will be instrumental in the road to achieving the Healthy People 2030 target to "reduce the proportion of people who had AUD in the past year" to 3.9% by 2030.[26]

Providers' discomfort in asking their patients about substance use could result in overlooking the alcohol assessment. A qualitative study indicated that primary care providers do not feel comfortable having discussions related to alcohol use with their patients.[27] Future interventions could benefit providers by increasing their awareness and comfort surrounding these conversations. Other identified barriers include the time constraint involved in consultation and visits and overburdening of HCPs.[28] Providers have a limited period to interact with their patients, and often patients present competing concerns that limit time to discuss alcohol consumption. Interventions may consider implementing brief digital screenings that can be either self-administered or completed with the help of other staff members or navigators while patients are waiting to see their providers and can lead to effective referral.[28]

Consistent with our hypothesis, there was also evidence of sex disparities in being asked about alcohol use. The results indicated that female participants showed greater odds than male participants to be asked about alcohol use by HCPs. However, once asked, the odds of being asked about associated problems, advised to reduce consumption, and offered information about treatment were greater in male participants. This might be because alcohol use screening and counseling is typically a part of routine health checkups for women (also known as "Well Woman Care").[29] Universal prenatal screening for alcohol is recommended by professional organizations, which might also contribute to the presented findings.[30] However, the odds of being asked about problematic use, advised to reduce consumption, and offered information about treatment were lower among women with AUD. This may stem from providers' perceptions that females are not likely to be heavy drinkers or have alcohol-related problems, and/or higher levels of stigma surrounding drinking behaviors among female, when compared with males.[31] Our results are in line with findings of a prior study, where women who used substances were 5 times less likely than men to receive warm hand-off referrals to rehabilitation services from the emergency department.[32] Historically, AUD-related studies have focused more on men than women, contributing to the lack of information about AUD among women. However, recent evidence suggests that trends of alcohol use, binge drinking, and alcohol-related harms are increasing, driven largely by increases among women in

TABLE 2. Sociodemographic and Health- and Substance Use–Related Factors (Unadjusted Estimates)

Characteristic	Asked About Frequency or Quantity of Alcohol Use in Sample 1[a]		Asked About Problems With Alcohol in Sample 2[a]		Advised to Reduce Consumption in Sample 2[a]		Offered Information About Alcohol Treatment in Sample 2[a]	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Sex								
Females (ref)	1		1		1		1	
Males	**0.67**	**0.59, 0.75**	**1.42**	**1.20, 1.67**	**1.78**	**1.34, 2.35**	**1.78**	**1.37, 2.30**
Self-identified race-ethnicity								
Non-Hispanic Whites (ref)	1		1		1		1	
Non-Hispanic Blacks	**0.62**	**0.53, 0.73**	0.93	0.71, 1.21	0.92	0.70, 1.53	1.08	0.76, 1.52
Hispanics	**0.55**	**0.47, 0.64**	1.04	0.80, 1.35	1.11	0.80, 1.53	1.02	0.64, 1.62
Age group								
18–23	**0.73**	**0.62, 0.86**	1.29	0.97, 1.70	**0.47**	**0.38, 0.60**	1.13	0.73, 1.75
24–34	0.83	0.69, 0.99	1.3	1.04, 1.64	**0.65**	**0.49, 0.84**	0.99	0.67, 1.45
35–49	**0.74**	**0.62, 0.87**	1.4	1.06, 1.85	0.93	0.72, 1.20	0.99	0.65, 1.52
50+ (ref)	1		1		1		1	
Urbanicity								
Nonmetropolitan (ref)	1		1		1		1	
Large metropolitan	**1.31**	**1.13, 1.52**	0.91	0.72, 1.16	1.19	0.93, 1.53	0.77	0.56, 1.07
Small metropolitan	**1.18**	**1.02, 1.37**	0.99	0.74, 1.31	1.25	0.94, 1.67	1.04	0.73, 1.50
Income level								
Lower	**0.64**	**0.56, 0.72**	1.14	0.90, 1.43	0.98	0.73, 1.30	1.67	1.20, 2.33
Middle	**0.62**	**0.54, 0.71**	0.89	0.69, 1.16	1	0.79, 1.25	1.08	0.79, 1.47
Higher	1		1		1		1	
Insurance								
No (ref)	1		1		1		1	
Yes	**2.69**	**2.34, 3.09**	1	0.81, 1.28	0.97	0.72, 1.28	0.77	0.57, 1.04
Self-reported health status								
Excellent to good (ref)	1		1		1		1	
Poor	0.99	0.84, 1.17	1.04	0.83, 1.30	**1.45**	**1.14, 1.84**	**1.56**	**1.16, 2.10**
Past 12 mo of nicotine use								
No use (ref)	1		1		1		1	
Use without dependence	**0.88**	**0.79, 0.98**	**1.18**	**1.02, 1.36**	**1.35**	**1.07, 1.70**	**1.67**	**1.11, 2.51**
Nicotine dependence	**0.57**	**0.50, 0.65**	1.22	0.93, 1.59	**1.5**	**1.16, 1.94**	**2.87**	**1.90, 4.33**
Past 12 mo of cannabis use								
No use (ref)	1		1		1		1	
Use without disorder	1.01	0.89, 1.16	**1.21**	**1.05, 1.39**	1.11	0.90, 1.37	**1.39**	**1.09, 1.76**
Use disorder	**0.77**	**0.66, 0.90**	1.28	0.98, 1.67	0.87	0.64, 1.18	1.41	0.92, 2.14
Past 12 mo of cocaine use								
No use (ref)	1		1		1		1	
Use without disorder	1.18	1.00, 1.40	1.09	0.88, 1.35	1.14	0.89, 1.45	1.26	0.88, 1.80
Use disorder	0.89	0.68, 1.16	1.37	0.89, 2.12	0.9	0.56, 1.47	1.53	0.99, 2.36
Past 12 mo of prescription pain relievers								
No use (ref)	1		1		1		1	
Use	**1.37**	**1.24, 1.51**	0.88	0.74, 1.05	0.99	0.77, 1.26	1.05	0.79, 1.40
Nonmedical use	**1.20**	**1.02, 1.40**	**1.31**	**1.02, 1.70**	**1.26**	**1.01, 1.58**	1.32	0.83, 2.10
Use disorder	0.98	0.69, 1.37	**1.87**	**1.12, 3.14**	**2.17**	**1.18, 3.98**	**3.18**	**1.58, 6.43**
Past 12 mo of sedative or tranquilizer use								
No use (ref)	1		1		1		1	
Use	**1.47**	**1.28, 1.68**	1.13	0.92, 1.39	1.17	0.93, 1.46	1.01	0.74, 1.38
Nonmedical use	**1.34**	**1.16, 1.54**	1.22	0.93, 1.59	1.28	0.92, 1.77	1.49	0.98, 2.28
Use disorder	**1.50**	**1.05, 2.14**	**1.72**	**1.22, 2.45**	0.89	0.55, 1.42	**2.52**	**1.48, 4.30**
Past 12 mo of stimulant use								
No use (ref)	1		1		1		1	
Use	1.16	0.95, 1.42	0.99	0.77, 1.28	0.96	0.65, 1.41	1.25	0.86, 1.83
Nonmedical use	**1.26**	**1.10, 1.46**	0.95	0.76, 1.19	0.8	0.61, 1.05	1.08	0.81, 1.43
Use disorder	**1.74**	**1.23, 2.46**	**1.8**	**1.22, 2.66**	1.52	0.93, 2.48	**1.94**	**1.06, 3.56**
Year of survey participation								
2015 (ref)	1		1		1		1	
2016	1.01	0.87, 1.18	0.99	0.78, 1.24	0.84	0.60, 1.18	1.25	0.81, 1.94
2017	1.00	0.85, 1.17	1.05	0.84, 1.30	0.94	0.70, 1.26	1.52	0.99, 2.35
2018	1.02	0.88, 1.18	1.16	0.91, 1.48	1.08	0.81, 1.45	**1.78**	**1.15, 2.75**
2019	1.08	0.93, 1.25	0.9	0.69, 1.17	1.03	0.78, 1.36	1.41	0.93, 2.14

Sociodemographic and health- and substance use–related factors associated with being: (1) asked about alcohol used, (2) asked about problematic use, (3) advised to reduce consumption, and (4) offered alcohol treatment information among selected samples of individuals who met the criteria for AUD.

Results of univariate logistic regression models: 2015–2019 National Survey of Drug Use and Health.

Sociodemographic and health- and substance use–related factors included the following: sex (male, female), self-identified race/ethnicity (NHW, NHB, and HI), county status (large metropolitan, small metropolitan, and nonmetropolitan), income level (determined by the age, family size, the number of children in the household, and total family income and categorized into living in poverty—called "low" in this manuscript, income up to 2× Federal poverty threshold—called "middle," and income more than 2× Federal poverty threshold—called "highest"), health insurance coverage (yes, no), self-reported health status (poor, excellent/good), year (2015, 2016, 2017, 2018, 2019), *DSM-IV* Alcohol Abuse or Dependence (abuse, dependence), past 12-month use of tobacco (no use, use without dependence, dependence), past 12-month use of cannabis (no use, use with disorder, *DSM-IV* use disorder), past 12-month use of cocaine (no use, use without disorder, use disorder), past 12-month use of prescription pain relievers (no use, use as prescribed, nonmedical use, *DSM-IV* use disorder), past 12-month use of sedative/tranquilizer (no use, use as prescribed, nonmedical use, *DSM-IV* use disorder), and past 12-month use of stimulants (no use, use as prescribed, nonmedical use, *DSM-IV* use disorder).

[a]Sample 1: adults (18+ years old) who met *DSM-IV* criteria for AUD, had visited 1 or more providers within the past 12 months, and were not currently receiving treatment for AUD (n = 13,321).
[b]Sample 2: participants in sample 1 who were asked about the frequency/quantity of alcohol used (n = 6905).

TABLE 3. Sociodemographic and Health- and Substance Use–Related Factors (Adjusted Estimates)

Characteristic	Asked About Frequency or Quantity of Alcohol Use in Sample 1[a]		Asked About Problems With Alcohol in Sample 2[a]		Advised to Reduce Consumption in Sample 2[a]		Offered Information About Alcohol Treatment in Sample 2[a]	
	aOR	95% CI	aOR	95% CI	aOR	95% CI	aOR	95% CI
Sex								
Females (ref)	1		1		1		1	
Males	**0.72****	**0.64, 0.82**	**1.53***	**1.29, 1.82**	**1.64***	**1.24, 2.16**	**1.77****	**1.34, 2.35**
Self-identified race-ethnicity								
Non-Hispanic Whites (ref)	1		1		1		1	
Non-Hispanic Blacks	**0.73***	**0.61, 0.87**	0.95	0.72, 1.27	0.91	0.68, 1.22	1.02	0.69, 1.50
Hispanics	**0.63****	**0.53, 0.75**	1.01	0.76, 1.32	1.19	0.87, 1.63	1.05	0.69, 1.60
Age group								
18–23	0.8	0.66, 0.96	1.35	0.97, 1.88	**0.44****	**0.32, 0.60**	1.08	0.65, 1.78
24–34	0.95	0.79, 1.15	**1.37****	**1.07, 1.76**	**0.56***	**0.41, 0.76**	0.97	0.65, 1.47
35–49	0.8	0.67, 0.96	**1.41***	**1.05, 1.89**	0.87	0.64, 1.17	0.99	0.63, 1.55
50+ (ref)	1		1		1		1	
Urbanicity								
Nonmetropolitan (ref)	1		1		1		1	
Large metropolitan	**1.32***	**1.12, 1.55**	0.93	0.71, 1.20	1.35	1.03, 1.77	0.96	0.67, 1.37
Small metropolitan	1.20	1.03, 1.39	1.01	0.77, 1.34	1.34	0.98, 1.82	1.21	0.82, 1.77
Income level								
Lower	**0.81***	**0.71, 0.92**	1.12	0.84, 1.48	1.03	0.76, 1.39	1.35	0.93, 1.95
Middle	**0.80***	**0.69, 0.91**	0.89	0.66, 1.18	1.05	0.83, 1.33	0.92	0.62, 1.37
Higher (ref)	1		1		1		1	
Insurance								
No (ref)	1		1		1		1	
Yes	**2.13****	**1.85, 2.44**	1.13	0.90, 1.42	1.04	0.80, 1.36	1.02	0.73, 1.44
Self-reported health status								
Excellent to good (ref)	1		1		1		1	
Poor	1.26	1.05, 1.50	1.02	0.79, 1.32	1.24	0.94, 1.64	1.19	0.80, 1.77
Past 12 mo of nicotine use								
No use (ref)	1		1		1		1	
Use without dependence	0.94	0.82, 1.08	1.01	0.86, 1.18	1.44	1.11, 1.87	1.38	0.91, 2.08
Nicotine dependence	**0.62****	**0.53, 0.71**	1.04	0.78, 1.38	1.3	0.95, 1.76	2.18	1.34, 3.54
Past 12 mo of cannabis use								
No use (ref)	1		1		1		1	
Use without disorder	1.01	0.87, 1.16	1.16	1.00, 1.35	1.16	0.90, 1.48	1.24	0.92, 1.68
Use disorder	**0.83**	**0.71, 0.98**	1.08	0.78, 1.50	0.87	0.59, 1.27	1.11	0.71, 1.73
Past 12 mo of cocaine use								
No use (ref)	1		1		1		1	
Use without disorder	1.19	0.99, 1.45	0.92	0.72, 1.18	1.15	0.86, 1.53	0.93	0.61, 1.40
Use disorder	1.01	0.74, 1.35	0.96	0.60, 1.54	0.67	0.39, 1.15	0.81	0.43, 1.50
Past 12 mo of prescription pain relievers								
No use (ref)	1		1		1		1	
Use	**1.32****	**1.19, 1.46**	0.87	0.72, 1.07	0.93	0.70, 1.24	1.0	0.74, 1.36
Nonmedical use	1.16	0.99, 1.36	1.21	0.89, 1.63	1.24	0.94, 1.64	1.09	0.62, 1.92
Use disorder	0.95	0.63, 1.43	1.55	0.85, 2.84	2.27	1.21, 4.25	2.01	0.89, 4.53
Past 12 mo of sedative or tranquilizer use								
No use (ref)	1		1		1		1	
Use	1.18	1.02, 1.37	1.24	0.98, 1.58	1.13	0.89, 1.45	1.0	0.70, 1.43
Nonmedical use	1.24	1.04, 1.47	1.15	0.83, 1.59	1.17	0.80, 1.72	1.26	0.75, 2.12
Use disorder	1.65	1.09, 2.50	1.35	0.83, 2.20	0.61	0.34, 1.08	1.4	0.62, 3.13
Past 12 mo of stimulant use								
No use (ref)	1		1		1		1	
Use	0.99	0.81, 1.22	0.91	0.69, 1.21	1.1	0.71, 1.70	1.19	0.79, 1.80
Nonmedical use	1.14	0.98, 1.33	0.82	0.64, 1.06	0.91	0.66, 1.24	0.88	0.61, 1.27
Use disorder	1.55	1.06, 2.25	1.44	0.91, 2.27	1.81	1.02, 3.21	1.36	0.59, 3.16
Year of survey participation								
2015 (ref)	1		1		1		1	

414

Year	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
2016	0.98	0.84, 1.14	0.99	0.78, 1.26	0.87	0.60, 1.24	1.28	0.79, 2.05
2017	0.94	0.79, 1.11	1.07	0.85, 1.36	0.95	0.69, 1.32	1.61	0.99, 2.62
2018	0.99	0.85, 1.16	1.18	0.90, 1.54	1.06	0.78, 1.44	1.81	1.13, 2.90
2019	1.06	0.91, 1.23	0.94	0.71, 1.24	1.05	0.77, 1.42	1.51	0.96, 2.38

Sociodemographic and health- and substance use–related factors associated with being: (1) asked about alcohol used, (2) asked about problematic use, (3) advised to reduce consumption, and (4) offered alcohol treatment information among selected samples of individuals who met the criteria for AUD.

Results of multivariable logistic regression models: 2015–2019 National Survey of Drug Use and Health.

Sociodemographic and health- and substance use–related factors included: sex (male, female), self-identified race/ethnicity (NHW, NHB, and HI), county status (large metropolitan, small metropolitan, and nonmetropolitan), income level (determined by the age, family size, the number of children in the household, and total family income and categorized into living in poverty—called "low" in this manuscript, income up to 2× Federal poverty threshold—called "middle," and income more than 2× Federal poverty threshold—called "highest"), health insurance coverage (yes, no), self-reported health status (poor, excellent/good), year (2015, 2016, 2017, 2018, 2019), *DSM-IV* Alcohol Abuse or Dependence (abuse, dependence), past 12-month use of tobacco (no use, use without disorder, use disorder), past 12-month use of cannabis (no use, use with disorder, use without disorder, *DSM-IV* use disorder), past 12-month use of prescription pain relievers (no use, use as prescribed, nonmedical use, use disorder), past 12-month use of cocaine (no use, use without disorder, *DSM-IV* use disorder), and past 12-month use of stimulants (no use, use as prescribed, nonmedical use, *DSM-IV* use disorder).

[a] Sample 1: adults (18+ years old) who met *DSM-IV* criteria for AUD, had visited 1 or more providers within the past 12 months, and were not currently receiving treatment for AUD (n = 13,321).

[b] Sample 2: participants in sample 1 who were asked about the frequency/quantity of alcohol used (n = 6,905).

*P < 0.05, **P < 0.01 after Holm-Sidak corrections.

their 30s and 40s.[8,33] All these statistics point to the need for additional screening for alcohol use among women.

Documentation of disparities in alcohol-related assessments and AUD treatment based on race/ethnicity is complex. Findings from this study indicated that the odds of being asked about the frequency/quantity of alcohol use were lower among racial/ethnic minorities than among their NHW counterparts. However, racial/ethnic differences did not exist among the subsequent questions once the analysis was focused on individuals who were asked about the frequency/quantity of alcohol use. Results were consistent with recent analyses by Pinedo and Villatoro, wherein Latino adults were found to be less likely to receive information about alcohol treatment than their White adult counterparts, but no disparities existed in the use of alcohol treatment among participants who received the information about treatment.[34] Further, literature on implicit racial/ethnic biases among HCPs could offer valuable insights into explaining our findings. For instance, in a previous study assessing the impact of HCPs' racial implicit bias, results indicated that providers were more likely to perceive that their White patients with severe osteoarthritis would be more medically cooperative to receive a total knee replacement compared with their Black patients.[35] A recent systematic review showed that compared with White patients, Black patients reported worse patient-provider communication, including information given and participatory decision-making.[36] In addition, language barriers may also contribute to disparities in being asked about alcohol use among minorities. For example, frustration toward getting proper medical care due to language barriers has been documented among Latino patients, especially pertaining to discussing sensitive issues, such as substance use.[37,38]

Evidence of disparities in being asked about alcohol use based on the use of other substances was also found. People with tobacco dependence showed lower odds of being asked about their alcohol use, compared with those who did not use tobacco. Further, the odds of being asked about alcohol use were greater among people who used PPR compared with the ones who did not use PPR, reflecting increased efforts to make the public and HCPs aware of PPR nonmedical use and dependence concerns and the resulting changes in risk analysis of people who use PPR and visit their HCPs.[39] The alcohol use screenings' association with PPR use, but not with other nonprescribed drugs, might reflect an active intention from providers to inquire about alcohol use to avoid adverse events among prescribed patients. Research suggests that co-use of PPR and alcohol results in more serious outcomes, including death.[40] In fact, research indicates that 22.1% of opioid pain reliever-related deaths involved alcohol use as well.[40]

Potential Clinical Relevance

Being asked about alcohol use frequency/quantity is the first step toward identifying those that would benefit from AUD treatment. If this first step is missed, there are chances of losing the patients in the treatment continuum. This would mean not just losing the opportunity to prevent the worsening of AUD, but also missing the chance to treat patients at a higher risk of experiencing serve AUD-related outcomes, which in primary care settings could be achieved by advising

patients to reduce alcohol consumption, addressing other alcohol-related comorbidities, or offering referrals to AUD treatment. Ultimately, these efforts require the removal of structural, cognitive, and attitudinal barriers to screening of alcohol use among healthcare providers who serve patients with AUD, particularly females, racial/ethnic minority patients, and underserved populations.

The results of this study need to be interpreted with consideration for the cross-sectional nature of the data, which limits any causal inferences. Being a nonnormative behavior, alcohol use might be underreported. Specifically, since NSDUH is a household survey, it might exclude more severe cases of AUD.[23] It is also important to note that our sample excluded those who did not have contact with HCP in the past 12 months, who might have experienced different barriers to care. The type of provider/encounter (eg, primary care vs ER) was not differentiated, which might influence the experience with alcohol screening. We did not explore language issues affecting the interaction between providers and patients that could potentially explain the results. AUD diagnosis was based on *DSM-IV* criteria, which included legal problems and excluded craving.[2] Lastly, our findings showed that most participants with AUD had past 12-month insurance coverage, which could limit the generalizability of our findings.

CONCLUSIONS

Being asked about alcohol use frequency/quantity is the first step toward conversations around AUD treatment. Results indicate that there might be significant gaps in alcohol treatment continuum, especially for those identifying as females or racial/ethnic minority or individuals who misuse other drugs. Strategies that might help address these gaps and hence reduce the individual and societal burden of alcohol include the following: increasing provider awareness on the need to ask their patients about alcohol use, incorporating implicit bias-related training in medical school curriculum and as continuing medical education, providing access to alcohol screening tools previsit and incorporating the results to inform consultations, promoting SBIRT outside clinical settings or online, and reducing language barriers by providing translators or translation services to those with limited English proficiency.

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