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Treatment Seeking and Barriers to Treatment for Alcohol Use in Persons with Alcohol Use Disorders and Comorbid Mood or Anxiety Disorders

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Abstract

PURPOSE—This study compared the prevalence and patterns of treatment seeking and barriers to alcohol treatment among individuals with alcohol use disorders (AUD) with and without comorbid mood or anxiety disorders.

METHODS—We used data from the National Epidemiologic Survey on Alcohol and Related Conditions to examine alcohol treatment seeking, treatment settings and providers, perceived unmet need for treatment and barriers to such treatment. Our sample consisted of 5,003 individuals with AUD with a comorbid mood or anxiety disorder and 6,734 individuals with AUD but without mood or anxiety disorder comorbidity.

RESULTS—Overall, the group with mood or anxiety disorder comorbidity was more likely to seek alcohol treatment than the group without such comorbidity (18% vs. 12%, $p<0.001$). The comorbid group was also more likely to perceive an unmet need for such treatment (8% vs. 3%, $p<0.001$) and to report a larger number of barriers (2.81 vs. 2.20, $p=0.031$). Individuals with AUD with comorbid mood or anxiety disorders were more likely than those without to report financial barriers to alcohol treatment (19% vs. 10%, $p=0.032$).

CONCLUSIONS—Individuals with AUD and comorbid mood or anxiety disorders would likely benefit from the expansion of financial access to alcohol treatments and integration of services envisioned under the Affordable Care Act.

Keywords

substance use services; alcohol use disorders; barriers; perceived need

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CONFLICTS OF INTEREST

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INTRODUCTION

It is widely recognized that patients in psychiatric and substance disorder treatment settings commonly present with comorbid substance and psychiatric disorders [1–5]. For example, 44% of patients in psychiatric clinics in U.K. urban settings were also diagnosed with a substance use disorder, and 75% of patients in drug disorder services as well as 85% of patients in alcohol disorder services also had a mood or anxiety disorder [6]. The comorbidity is also common in community settings. For example, Grant and her colleagues reported that 20% of individuals with a mood disorder and 18% of individuals with an anxiety disorder in the National Epidemiologic Survey on Alcohol and Related Conditions also had a substance use disorder [3]. The comorbidity of these disorders makes treatment more challenging due to competing treatment needs of these individuals [7]. In addition, state policies and reimbursement restrictions have historically made it difficult for treatment services for substance and psychiatric disorders to offer integrated care [8, 9]. As a result, many patients with substance disorders and comorbid psychiatric disorders fail to receive the quality care that they need and are at increased risk for relapse and other adverse health outcomes [10–12].

The risk for relapse and adverse outcomes is especially a concern for individuals who misuse alcohol, a substance which is readily available and is the most common substance of abuse in the United States after nicotine [13]. For example, in the National Comorbidity Survey-Replication, about 13% of the US adult population were estimated to have a lifetime history of alcohol abuse and over 5% were estimated to have a lifetime history of alcohol dependence [14].

Substance disorder treatments, especially when integrated with psychiatric treatments, have shown promising results in improving the outcomes of patients with comorbid substance and psychiatric disorders [15, 16]. However, relatively little is known about the usual pattern of care and barriers to care for these comorbid conditions in community settings. Past research has found a higher prevalence of treatment seeking among individuals with comorbid disorders [17], perhaps reflecting the greater severity of substance use disorders in these individuals. Past research has also identified a higher prevalence of perceived unmet need for care in individuals with comorbid conditions [18, 19], suggesting that individuals with these comorbid conditions may either face a different set of barriers or a greater number of barriers to treatment.

In this study we examined the prevalence of treatment seeking and types of treatment settings and providers accessed for alcohol problems. We also examined perceived unmet need and barriers to such treatments among individuals with alcohol use disorders (AUD) with and without comorbid mood or anxiety disorders in the National Epidemiologic Study on Alcohol and Related Conditions (NESARC)—a large representative survey of the US general population.

Our study draws on Andersen’s Model of health service utilization [20] to determine the influence of predisposing factors (e.g., socio-demographic and clinical characteristics), enabling factors (e.g., health insurance, financial resources to seek treatment), and need

factors (e.g., type of substance disorder), on alcohol use treatment utilization. The study further builds on two previous studies of treatment seeking and barriers to treatment among NESARC participants with alcohol disorders [21, 22]; and extends the findings from these studies by comparing service settings and providers accessed, perceived unmet need for treatment and barriers to treatment in participants with and without comorbid mood or anxiety disorders.

METHODS

Data Source

The NESARC is a nationally representative survey of the US general population sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Details of the study design and sampling are provided elsewhere [3, 23, 24]. The survey was conducted in two waves 3 years apart. In this report we only used data from wave 1 conducted in 2001–2002. The purpose of the NESARC was to explore the prevalence and correlates of AUD and other substance use and psychiatric disorders in a diverse nationally representative sample of the US population. The NESARC oversampled racial/ethnic minorities and young adults, and weighted the data to adjust for the unequal probabilities of selection and to provide nationally representative estimates. The response rate for NESARC wave 1 was 81%.

Study Sample

The sample for this study included 11,737 NESARC wave 1 participants who met *DSM-IV* diagnostic criteria for a lifetime AUD (i.e., alcohol abuse and/or dependence) and had responded to questions about seeking alcohol treatment. Of these, 5,003 (42%) also met the criteria for at least one comorbid lifetime *DSM-IV* mood or anxiety disorder.

Measurements

NESARC used the Alcohol Use Disorder and Associated Disabilities Interview Schedule–DSM-IV Version (AUDADIS-IV) to ascertain diagnoses of mood, anxiety, and substance use disorders. For this study, lifetime mood and anxiety disorders included major depressive episode, manic episode, dysthymia, hypomanic episode, panic disorder with or without agoraphobia, social phobia, specific phobia, and generalized anxiety disorder. The AUDADIS-IV is a structured interview that is designed to produce diagnoses of common mental and substance disorders and can be administered by lay interviewers [25–28]. To receive a DSM-IV diagnosis, participants had to endorse the DSM-IV symptom criteria for that disorder as well as affirming distress or social/occupational dysfunction as a result of the disorder. The AUDADIS-IV assesses both lifetime and past-year DSM-IV Axis I and substance use disorders, as well as lifetime history of select personality disorders (antisocial, avoidant, dependent, obsessive compulsive, paranoid, schizoid and histrionic personality disorders). The reliability and validity of AUDADIS-IV has been previously reported [23, 25–31].

This study focused on individuals with lifetime history of alcohol disorders. In addition, alcohol disorder type (abuse only, dependence with/without abuse), and non-alcohol drug use disorders (any, none) were included in the analyses. Non-alcohol drugs included

amphetamines, opioids, sedatives, tranquilizers, cocaine, inhalants/solvents, hallucinogens, cannabis, heroin, and other drugs. Lifetime history of personality disorders was dichotomized (any vs. none).

NESARC participants who reported ever having drunk alcohol were asked whether they had "ever sought help" because of drinking. Those who gave an affirmative answer were subsequently asked about their use of a number of treatment settings and providers commonly used in treatment of alcohol disorders. These included: Alcoholics Anonymous, family services, alcohol detoxification clinics, inpatient wards, outpatient clinics, alcoholism rehabilitation services, emergency rooms, halfway houses, crisis centers, employee assistance programs, clergy, health professionals, or other services.

To assess perceived unmet need for treatment, NESARC participants who reported ever having drunk alcohol were asked, "Have you ever thought you should seek help for drinking, but you didn't go?" Those giving an affirmative response were queried about the reasons for not seeking treatment. Based partly on past research [21, 32], we categorized these barriers into financial, structural, attitudinal, and other.

We also used a number of demographic and clinical characteristics in our analyses, including gender, age (18–29, 30–39, 40–49, 50+ years), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, other), annual income (<$20,000, $20,000-$34,999, $35,000-$69,999, $70,000+), urban/rural setting, education (high school diploma or lower, greater than a high school diploma), marital status (married/living with partner, widowed/divorced/separated, never married), and health insurance (any, none).

Statistical Analyses

We compared three mutually exclusive groups of individuals: those who did not seek alcohol treatment and did not perceive a need, those who did not seek treatment and perceived a need for such treatment (perceived unmet need), and those who sought treatment whether or not they also reported perceiving a need for such treatment.

Comparisons of socio-demographic characteristics were conducted in the group of participants with AUD with and without comorbid mood or anxiety disorders separately. Treatment-seekers as well as those with perceived unmet need were each compared to the non-treatment-seekers as the reference category using separate logistic regression models. Both unadjusted and adjusted analyses were conducted. Adjusted models controlled for gender, age, race/ethnicity, income, urban/rural setting, education, marital status, health insurance, personality disorders, alcohol disorder type, and any non-alcohol drug use disorder.

Next, the use of different alcohol treatment settings and providers were compared among participants with AUD with and without comorbid mood or anxiety disorders using logistic regression models. Unadjusted and adjusted analyses similar to the ones described above were conducted. Adjusted analyses controlled for the same variables as previously mentioned. These analyses were limited to participants who reported having sought treatment.

Finally, we used logistic regression models to compare the barriers to treatment among participants with AUD with and without comorbid mood or anxiety disorders. These analyses were limited to participants who reported having perceived an unmet need for alcohol treatment.

RESULTS

Socio-demographic and psychiatric characteristics of participants with alcohol use disorder

Of the 11,737 individuals with AUD in our sample, 58% (N=6,734) met the criteria for AUD without mood or anxiety disorder comorbidity, and 42% (N=5,003) additionally met the *DSM-IV* criteria for at least one mood or anxiety disorder. The majority of participants with AUD without mood or anxiety comorbidity were male, 40 years old or older, white, had an income greater or equal to $35,000, lived in an urban environment, had a high school diploma or more advanced schooling, were married or lived with a partner, and had health insurance. Individuals with AUD with comorbid mood or anxiety disorders were more likely than those without such comorbidity to be female, to be widowed, divorced or separated, to have no health insurance, to meet the criteria for a personality disorder, for comorbid non-alcohol drug use disorders, and to meet the criteria for alcohol dependence rather than only abuse. Those with comorbid mood or anxiety disorders were also less likely to be age 50 years or older, to be non-Hispanic black or Hispanic, and to have an income greater than $20,000 per year (data not shown).

Prevalence of alcohol use and perceived unmet need for treatment

Only 15% (N=1,831) of individuals with AUD reported seeking alcohol treatment, and 4% (N=469) reported perceiving an unmet need for such treatment. Figure 1 presents the patterns of treatment seeking and perceived unmet need for treatment in adults with AUD according to type of AUD and comorbidity. Compared to individuals with AUD without mood or anxiety comorbidity, those with such comorbidity were both more likely to seek alcohol treatment (18% vs. 12%, odd ratio [OR] = 1.61, 95% confidence interval [CI] = 1.40–1.85, $p<0.001$) and to report unmet need for such treatment (8% vs. 3%, OR = 2.71, 95% CI = 2.12–3.46, $p<0.001$).

Treatment seeking also varied according to the type of AUD (i.e., abuse vs. dependence). Compared to individuals with alcohol abuse, those with alcohol dependence were more likely to seek alcohol treatment (25% vs. 7%, OR = 4.07, 95% CI = 3.53–4.69, $p<0.001$), and to perceive an unmet need for such treatment (11% vs. 2%, OR = 6.76, 95% CI = 5.02–9.09, $p<0.001$).

Correlates of treatment seeking and perceived unmet need for treatment

Analyses were conducted separately among individuals with AUD with and without mood or anxiety comorbidity. Among individuals with AUD without comorbid mood or anxiety disorders, those who perceived an unmet need for alcohol treatment were more likely than those who did not perceive such need or did not seek treatment to be in the 40–49 years age range, to have a personality disorder, and to have alcohol dependence compared to alcohol

abuse; but less likely to make $70,000+ per year (Tables 1 and 2). Also, among individuals with AUD without comorbid mood or anxiety disorders, those who sought treatment were less likely to be female, to make $35,000+ annually, and to have more than a high school education, but were more likely to be in the 30+ years age group, to be widowed, divorced, or separated, to have a personality disorder, to meet the criteria for alcohol dependence vs. abuse, and to have a comorbid non-alcohol drug-use disorder (Tables 1 and 2). Similar patterns with minor differences were observed in participants with AUD with comorbid mood or anxiety disorders.

Treatment settings and providers

Analysis of types of treatment settings and providers accessed was limited to participants who reported seeking any treatment for their alcohol problem. Compared to individuals with AUD without comorbid mood or anxiety disorders, those with AUD with mood or anxiety disorder comorbidity were overall more likely to use most types of settings and providers (Table 3). After adjusting for potential confounders, individuals with AUD and comorbid mood or anxiety disorders reported a higher prevalence of use of inpatient services, outpatient clinics, halfway houses, employee assistance programs, religious counselors, and private physicians or other medical/mental health professionals. Alcoholics Anonymous (AA) was the most commonly used type of service in both groups (Table 3). In unadjusted analyses, AA was more commonly used by the comorbid group than the group without mood or anxiety disorder comorbidity. However, this difference did not persist in adjusted analysis (Table 3).

Barriers to alcohol treatment among participants who perceived an unmet need

Reasons for not seeking alcohol treatment in the two groups are presented in Table 4. On average, participants with AUD without mood or anxiety disorder comorbidity experienced a mean of 2.20 barriers, while the comorbid group experienced a mean of 2.81 barriers (β=0.61, SE=0.26, p=0.031). The most common barriers to alcohol treatment were attitudinal barriers for both the AUD with and without comorbid mood or anxiety disorder groups. Individuals with comorbid disorders were significantly more likely to experience financial barriers than individuals without mood or anxiety comorbidity (Table 4). While all other barriers assessed were more commonly reported in the comorbid group, no other barriers were more commonly reported at a statistically significantly level (Table 4).

DISCUSSION

This study assessed differences in alcohol treatment-seeking, treatment settings and providers accessed, perceived unmet need for treatment and barriers to alcohol treatment among individuals with AUD with and without a comorbid mood or anxiety disorder. We found that individuals with AUD and a comorbid mood or anxiety disorder were more likely to seek alcohol treatment. This finding is consistent with past research [17, 33] and suggests that individuals with comorbid AUD and common mood or anxiety disorders may experience a more severe form of AUD, a possibility that is borne by the finding of a higher prevalence of alcohol dependence vs. abuse, comorbid non-alcohol drug use disorders and

personality disorders in individuals with comorbid AUD and mood or anxiety disorder compared with the AUD group without such comorbidity.

We also found a higher prevalence of perceived unmet need for treatment in the AUD with comorbid mood or anxiety disorder group. This finding is also consistent with past research and suggests that while experiencing a greater level of need for alcohol treatment, individuals with comorbid AUD and mood or anxiety disorders also experience a greater number or different types of barriers. A finding of a specific profile of barriers to treatment among individuals with AUD with mood or anxiety disorder comorbidity would have implications for design of services and policies to improve access to alcohol treatment in the large group of individuals with comorbid disorders. Indeed, socio-demographic differences between the AUD groups with and without mood or anxiety disorder comorbidity suggest possible differences in barriers. Individuals without mood or anxiety comorbidity were more likely to be male, belong to the white racial/ethnic group, have a higher education, earn $35,000 or more annually, live in an urban setting and have health insurance. In contrast, individuals with AUD with mood or anxiety comorbidity were more likely to be female, earn less than $20,000 and to have other psychiatric and substance disorder comorbidity. These differences in predisposing (gender, race/ethnicity), enabling (insurance, income, urbanicity), and need factors (type of AUD, other comorbid conditions) suggest different patterns of treatment seeking behavior and different barriers to treatment [20]. Individuals with lower income and no health insurance as well as those who live in rural areas face a greater number of barriers to substance disorder services and other health services. Indeed, we found a larger number of barriers among the comorbid group. However, the association of comorbidity with perceived unmet need persisted in the adjusted model controlling for socio-demographic and clinical characteristics. It is possible that the persisting difference among the AUD groups with and without comorbidity is due to unmeasured differences between the two groups in severity or impairment in functioning.

Despite the marked difference in the level of perceived unmet need between the individuals with AUD with and without mood or anxiety comorbidity, and the differences in the number of barriers, the types of barriers reported by the two groups were for the most part similar, with the exception of financial barriers which were more commonly reported by the comorbid group. This difference is likely at least partly attributable to the larger percentage of participants without insurance in the comorbid group. In total, 30.9% of individuals with AUD and comorbid mood or anxiety disorders who reported a perceived unmet need for substance disorder treatment indicated that they did not have health insurance, compared to 15.9% of those without such comorbidity (Table 1). Improved financial access to AUD treatments through expansion of Medicaid insurance as envisioned in the Affordable Care Act and expansion of coverage to substance disorder treatments through the Mental Health Parity Act would likely reduce the level of unmet need for treatment due to financial barriers among participants with AUD and comorbid mood or anxiety disorders.

Past research has suggested that individuals with substance disorders are much more likely to receive treatment in mental health treatment settings than in substance disorder treatment settings [34], pointing to potential benefits of integrating substance disorder treatments in mental health care services. The results from the present study further highlight the need for

integration of these services. Over the years, a number of states have initiated such integrated programs [35–37]. However, there are financial, structural and attitudinal barriers to integration of these services [8]. Successful integration of mental health and substance disorder services as well as general medical services for patients with comorbid conditions remains a challenge for the upcoming reform of the health care system in the US.

The findings from this study should be interpreted in the context of its limitations. First, data gathered from the NESARC are based on self-reports by participants and therefore subject to recall and social desirability bias. Second, the small sample size of participants who reported barriers to treatment may have reduced the power to detect meaningful differences between the AUD groups with and without mood or anxiety disorder comorbidity. More targeted studies about barriers to treatment among individuals with AUD are warranted to fully understand differences in barriers faced by those with comorbidity and those without. Third, the list of barriers probed was limited and some barriers that may be especially important for individuals with comorbid disorders were likely missing. For example, many individuals with AUD with comorbid mood or anxiety disorders might have decided not to use services because the types of services that they desired or found helpful (e.g., integrated mental health and AUD services) were not available to them.

Despite these limitations, this study extends findings from previous studies [21, 22] on treatment-seeking and treatment barriers in substance disorders and furthers our knowledge of the use of alcohol treatments among individuals with comorbid alcohol and psychiatric disorders. This large subgroup of individuals with AUD reports a greater level of unmet need for alcohol treatment, faces a greater number of barriers to such treatment, and is especially faced with financial barriers to needed care. These individuals likely stand to benefit most from integration of psychiatric and substance disorder services [15, 34]. As the health care system of the country evolves, it would be important to continue monitoring treatment use and treatment barriers in this group of individuals.

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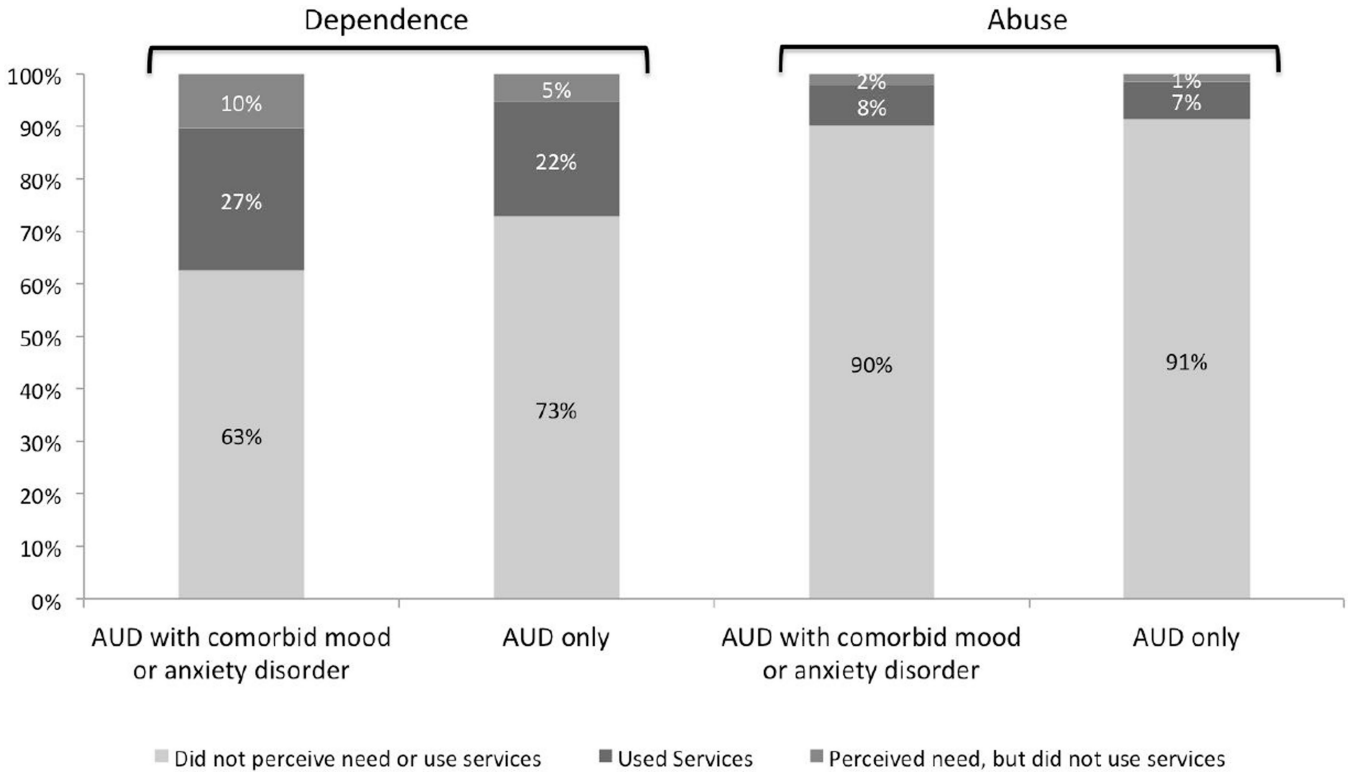

Figure 1.

Service use and perceived unmet need for substance use services among participants with alcohol use disorders (AUD) with or without comorbid mood or anxiety disorders in the National Epidemiologic Survey of Alcohol and Related Conditions, 2001–02

Table 1

Characteristics of individuals with alcohol use disorders (AUD) with and without comorbid mood or anxiety disorders who sought alcohol treatment or perceived an unmet for such treatment in the National Epidemiologic Survey on Alcohol and Related Conditions, 2001–02.

	Lifetime AUD without comoribid mood or anxiety disorders (N=6,734)						Lifetime AUD with comorbid mood and anxiety disorders (N=5,003)					
	Did not seek treatment or perceive unmet need (N=5,689)		Perceived unmet need (N=175)		Sought treatment (N=870)		Did not seek treatment or perceive unmet need (N=3,748)		Perceived unmet need (N=294)		Sought treatment (N=961)	
Demographic	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**
Gender												
Male	4,061	74.1	131	78.9	710	84.6	1,774	51.5	158	55.8	574	62.9
Female	1,628	26.0	44	21.1	160	15.4***	1,974	48.5	136	44.2	387	37.1***
Age												
18–29	1,165	21.7	26	17.2	130	17.4	848	23.9	70	25.0	154	17.6
30–39	1,371	24.0	45	25.0	209	24.1	949	24.3	70	26.2	220	23.2*
40–49	1,286	23.5	48	29.1	249	29.0**	928	25.8	72	23.1	281	30.0**
50+	1,867	30.8	56	28.8	282	29.5	1,023	26.0	82	25.8	306	29.6**
Race/ethnicity												
Non-Hispanic white	3,875	80.3	104	74.8	530	73.7	2,667	81.1	184	75.7	659	79.2
Non-Hispanic black	805	7.7	27	8.1	155	10.7**	426	6.6	48	7.8	117	7.1
Hispanic	819	8.1	32	10.0	156	10.9*	502	7.2	45	9.2	127	7.0
Other	190	3.9	12	7.2*	29	4.7	153	5.2	17	7.2	58	6.8
Income												
<$20,000	1,079	16.4	44	20.0	249	24.3	851	19.3	83	23.7	358	31.8
$20,000-$34,999	1,114	17.7	40	20.7	221	25.5	814	20.0	65	18.8	204	20.5***
$35,000-$69,999	1,935	33.9	54	35.9	262	30.8***	1,239	33.6	86	34.3	267	30.5***
$70,000+	1,561	32.1	37	23.6	138	19.4***	844	27.2	60	23.2	132	17.1***
Urban/Rural												
Urban	4,568	78.9	146	81.1	725	80.5	2,996	77.7	227	76.0	758	76.4

	Lifetime AUD without comoribid mood or anxiety disorders (N=6,734)						Lifetime AUD with comorbid mood and anxiety disorders (N=5,003)					
	Did not seek treatment or perceive unmet need (N=5,689)		Perceived unmet need (N=175)		Sought treatment (N=870)		Did not seek treatment or perceive unmet need (N=3,748)		Perceived unmet need (N=294)		Sought treatment (N=961)	
Demographic	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**	**N**	**%[a]**
Rural	1,121	21.2	29	18.9	145	19.5	752	22.3	67	24.0	203	23.6
Education												
≤High School Diploma	2,231	37.7	83	44.8	460	54.1	1,391	36.6	143	48.9	456	46.4
>High School Diploma	3,458	62.3	92	55.2	410	45.9***	2,357	63.4	151	51.1**	505	53.6***
Marital Status												
Married/Living with Partner	3,278	66.3	99	66.4	416	56.6	1,858	60.0	137	57.5	359	46.1
Widowed/Divorced/Separated	1,067	12.4	41	13.5	247	21.7***	946	18.1	90	22.7	360	31.1***
Never Married	1,344	21.3	35	20.1	207	21.7	944	21.9	67	19.7	242	22.9***
Health Insurance												
Any[b]	4,782	84.1	142	84.1	658	77.0	3,067	81.7	219	69.1	741	78.0
None	907	15.9	33	15.9	212	23.0**	681	18.3	75	30.9***	220	22.0*
Personality Disorders												
None	5,014	88.2	134	76.7	709	80.7	2,338	62.6	142	49.0	458	45.6
Any[c]	675	11.8	41	23.3**	161	19.3***	1,410	37.4	152	51.0**	503	54.4***
Alcohol Disorder Type												
Abuse Only	4,165	72.1	61	35.3	376	40.8	2,125	55.7	51	14.4	207	20.0
Dependence with/without abuse	1,524	27.9	114	64.7***	494	59.3***	1,623	44.3	243	85.6***	754	80.0***
Any Non-Alcohol Drug use Disorder												
No	4,665	81.9	131	74.5	556	62.1	2,622	69.4	148	51.8	417	40.8
Yes	1,024	18.1	44	25.6	314	37.9***	1,126	30.6	146	48.2***	544	59.3***

Note: Stars indicate statistical significance levels from unadjusted logistic regression models. The “perceived unmet need” and “sought treatment” groups are both separately compared to the “did not seek treatment or perceive unmet need” group

* p<0.05

** p<0.01

*** p<0.001

[a] Percentages are weighted to be representative of the total U.S. population and account for the complex study design.

[b] Any health insurance includes Medicare, Medicaid, military related, or private insurance.

[c] Any personality disorder includes antisocial, avoidant, dependent, obsessive-compulsive, paranoid, schizoid, and histrionic personality disorders.

Table 2

Adjusted comparison of individuals with alcohol use disorders (AUD) with and without comorbid mood or anxiety disorders who sought alcohol treatment or perceived an unmet need for such treatment in the National Epidemiologic Survey on Alcohol and Related Conditions, 2001–02.

	Lifetime AUD without comoribid mood or anxiety disorders (N=6,734)		Lifetime AUD with comorbid mood and anxiety disorders (N=5,003)	
	Perceived unmet need vs. did not perceive unmet need or seek treatment	Sought treatment vs. did not perceive unmet need or seek treatment	Perceived unmet need vs. did not perceive unmet need or use services	Sought treatment vs. did not perceive unmet need or use services
Demographic	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**
Gender				
Male	Ref	Ref	Ref	Ref
Female	0.91 (0.54–1.55)	0.59 (0.46–0.75)***	1.02 (0.73–1.42)	0.72 (0.59–0.89)**
Age				
18–29	Ref	Ref	Ref	Ref
30–39	1.76 (0.87–3.57)	1.76 (1.21–2.57)**	1.24 (0.82–1.87)	1.87 (1.36–2.57)***
40–49	2.48 (1.28–4.84)**	2.25 (1.54–3.30)***	1.11 (0.72–1.71)	2.54 (1.82–3.53)***
50+	2.06 (0.97–4.35)	2.05 (1.36–3.08)**	1.86 (1.18–2.91)**	3.62 (2.53–5.18)***
Race/ethnicity				
Non-Hispanic white	Ref	Ref	Ref	Ref
Non-Hispanic black	0.97 (0.59–1.58)	1.15 (0.90–1.47)	1.22 (0.81–1.83)	0.89 (0.64–1.24)
Hispanic	1.16 (0.70–1.91)	1.28 (0.95–1.73)	1.15 (0.72–1.82)	0.96 (0.65–1.41)
Other	1.78 (0.86–3.66)	1.03 (0.64–1.68)	1.48 (0.76–2.89)	1.25 (0.77–2.02)
Income				
<$20,000	Ref	Ref	Ref	Ref
$20,000-$34,999	0.86 (0.44–1.69)	1.06 (0.78–1.42)	0.88 (0.58–1.35)	0.68 (0.52–0.89)**
$35,000-$69,999	0.75 (0.42–1.33)	0.71 (0.55–0.93)*	1.22 (0.79–1.89)	0.69 (0.53–0.90)**
$70,000+	0.52 (0.28–0.97)*	0.53 (0.38–0.75)***	1.29 (0.81–2.04)	0.56 (0.41–0.76)***
Urban/Rural				
Urban	Ref	Ref	Ref	Ref
Rural	0.75 (0.48–1.18)	0.79 (0.60–1.03)	1.02 (0.72–1.46)	1.01 (0.80–1.29)
Education				
≤High School Diploma	Ref	Ref	Ref	Ref
>High School Diploma	0.87 (0.55–1.37)	0.66 (0.53–0.82)***	0.68 (0.47–0.98)*	0.79 (0.64–0.97)*
Marital Status				
Married/Living with Partner	Ref	Ref	Ref	Ref
Widowed/Divorced/Separated	0.89 (0.56–1.42)	1.67 (1.33–2.11)***	1.18 (0.81–1.72)	1.77 (1.38–2.28)***
Never Married	0.79 (0.46–1.37)	0.98 (0.71–1.36)	0.72 (0.48–1.07)	1.34 (1.02–1.76)*

	Lifetime AUD without comoribid mood or anxiety disorders (N=6,734)		Lifetime AUD with comorbid mood and anxiety disorders (N=5,003)	
	Perceived unmet need vs. did not perceive unmet need or seek treatment	Sought treatment vs. did not perceive unmet need or seek treatment	Perceived unmet need vs. did not perceive unmet need or use services	Sought treatment vs. did not perceive unmet need or use services
Demographic	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**	**AOR[a] (95% CI)**
Health Insurance				
Any[b]	Ref	Ref	Ref	Ref
None	0.83 (0.47–1.44)	1.15 (0.88–1.50)	1.65 (1.16–2.36)**	0.90 (0.71–1.14)
Personality Disorders				
None	Ref	Ref	Ref	Ref
Any[c]	1.85 (1.08–3.18)*	1.26 (1.00–1.59)*	1.30 (0.93–1.84)	1.45 (1.19–1.77)***
Alcohol Disorder Type				
Abuse Only	Ref	Ref	Ref	Ref
Dependence with/without abuse	5.03 (3.17–7.97)***	3.50 (2.85–4.29)***	7.48 (5.02–11.14)***	4.66 (3.79–5.74)***
Any Non-Alcohol Drug use Disorder				
No	Ref	Ref	Ref	Ref
Yes	1.14 (0.67–1.93)	2.21 (1.77–2.77)***	1.65 (1.23–2.22)**	2.73 (2.26–3.30)***

*Note: p<0.05

**p<0.01

***p<0.001

[a]Odds ratios are weighted to be representative of the total U.S. population and account for the complex study design. All odds ratios are adjusted for all other variables in the table.

[b]Any health insurance includes Medicare, Medicaid, military related, or private insurance.

[c]Any personality disorder includes antisocial, avoidant, dependent, obsessive-compulsive, paranoid, schizoid, and histrionic personality disorders.

Table 3

Alcohol treatment settings and providers accessed by individuals with alcohol use disorders (AUD) with and without mood or anxiety disorders in the National Epidemiologic Survey on Alcohol and Related Conditions, 2001–02.

	Lifetime AUD without comorbid mood and anxiety disorders (N=870)		Lifetime AUD with comorbid mood and anxiety disorders (N=961)		Bivariate Analysis	Adjusted Analysis
Treatment settings and providers	**N**	**%[a]**	**N**	**%[a]**	**OR[a] (95% CI)**	**AOR[a] (95% CI)**
Alcoholics Anonymous, Narcotics or Cocaine Anonymous meeting, or any 12-step meeting	641	72.6	752	78.0	1.34 (1.02–1.76)*	1.26 (0.94–1.69)
Family services or other social service agency	151	17.5	259	26.5	1.70 (1.27–2.27)**	1.35 (0.94–1.94)
Alcohol or drug detoxification ward or clinic	245	28.7	384	38.3	1.55 (1.18–2.02)**	1.23 (0.92–1.65)
Inpatient ward of a psychiatric or general hospital or community mental health program	129	14.2	327	33.3	3.03 (2.25–4.08)***	2.12 (1.52–2.96)***
Outpatient clinic, including outreach programs and day or partial patient programs	190	21.0	345	35.6	2.07 (1.58–2.72)***	1.62 (1.23–2.15)**
Alcohol or drug rehabilitation program	351	41.0	477	50.0	1.44 (1.15–1.80)**	1.19 (0.93–1.53)
Emergency room for any reason related to your drinking	172	20.4	306	31.5	1.79 (1.36–2.35)***	1.30 (0.93–1.81)
Halfway house, including therapeutic communities	46	5.2	111	11.5	2.37 (1.51–3.74)***	2.11 (1.19–3.77)*
Crisis Center for any reason related to your drinking	14	1.7	71	5.5	3.34 (1.61–6.92)**	2.02 (0.89–4.62)
Employee Assistance Program (EAP)	47	5.3	90	9.8	1.94 (1.22–3.07)**	2.56 (1.41–3.63)**
Clergyman, priest, or rabbi for any reason related to your drinking	82	9.1	186	20.6	2.58 (1.82–3.65)***	1.81 (1.21–2.72)**
Private physician, psychiatrist, psychologist, social worker, or any other professional	213	25.0	472	51.2	3.14 (2.42–4.08)***	2.00 (1.50–2.66)***
Any other agency or professional	89	11.8	132	13.2	1.14 (0.82–1.59)	1.18 (0.81–1.70)

*Note: p<0.05

**p<0.01

***p<0.001

[a]Percentages and odds ratios are weighted to be representative of the total U.S. population and account for the complex study design. Adjusted odds ratios were adjusted for gender, age, minority status, income, urban/rural, education, marital status, health insurance, personality disorders, alcohol use type, and any drug abuse disorder.

Table 4

Barriers to alcohol treatment among individuals with alcohol use disorders (AUD) with and without depression and anxiety disorder comorbidity who perceived an unmet need for alcohol treatment in the National Epidemiologic Survey on Alcohol and Related Conditions, 2001–02.

Barrier to AUD treatment	Lifetime AUD Only (N=175) N[a] (%[bc])	Lifetime AUD with comorbid mood and anxiety disorders (N=294) N[a] (%[bc])	Bivariate Analysis OR[c] (95% CI)
Financial Barriers	**21 (9.8)**	**53 (19.2)**	**2.18 (1.08–4.41)***
Health insurance didn't cover	10	21	
Couldn't afford to pay the bill	16	45	
Structural Barriers	**36 (22.0)**	**45 (14.4)**	**0.60 (0.32–1.13)**
Didn't know where to go	15	22	
Didn't have any way to get there	5	7	
Didn't have time	17	19	
The hours were inconvenient	6	6	
Can't speak English very well	2	1	
Couldn't arrange for child care	0	2	
Had to wait too long to get into a program	0	1	
Attitudinal Barriers (Treatment)	**69 (38.3)**	**143 (48.4)**	**1.51 (0.92–2.47)**
Didn't think anyone could help	19	27	
Was afraid they would put me into the hospital	6	23	
Was afraid of the treatment they would give me	5	23	
Hated answering personal questions	10	36	
Didn't want to go	16	35	
Stopped drinking on my own	35	78	
Friends or family helped me stop drinking	5	23	
Tried getting help before and it didn't work	1	0	
Attitudinal Barriers (Disorder)	**108 (69.6)**	**211 (72.1)**	**1.13 (0.65–1.94)**
Thought the problem would get better by itself	55	89	
Thought it was something I should be strong enough to handle alone	62	145	
My family thought I should go but I didn't think it was necessary	12	17	
Wanted to keep drinking or got drunk	11	25	
Didn't think drinking problem was serious enough	27	64	
Attitudinal Barriers (Stigma)	**28 (17.8)**	**66 (22.7)**	**1.36 (0.68–2.70)**
Was too embarrassed to discuss it with anyone	24	54	
Was afraid of what my boss, friends, family, or others would think	8	17	
A member of my family objected	0	2	

Barrier to AUD treatment	Lifetime AUD Only (N=175) N[a] (%[bc])	Lifetime AUD with comorbid mood and anxiety disorders (N=294) N[a] (%[bc])	Bivariate Analysis OR[c] (95% CI)
Was afraid I would lose my job	3	4	
Other reason	12 (7.0)	17 (5.3)	0.74 (0.24–2.26)

*Note:p<0.05

**p<0.01

***p<0.001

[a]Individuals could report multiple barriers. Therefore, the number of individuals reporting each barrier adds up to more than the total number of individuals reporting barriers in each category.

[b]Percentages are only provided for category totals because of low sample sizes for each individual barrier.

[c]Percentages and odds ratios are weighted to be representative of the total U.S. population and account for the complex study design.