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After studying this article, you should be able to:

- Provide screening and, if necessary, treatment for comorbid substance use disorders in patients with mood or anxiety disorders

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# Treatment of Common Mental Disorders in the United States: Results From the National Epidemiologic Survey on Alcohol and Related Conditions-III

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**ABSTRACT**

**Objective:** This study analyzed past 12-month disorder-specific mental health treatment patterns of common *DSM-5* disorders in the United States.

**Methods:** Nationally representative face-to-face household survey data from structured diagnostic interviews of the 2012–2013 National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III) (n = 36,309) were used to estimate percentages of respondents with 12-month *DSM-5* mood, anxiety, and substance use disorders who received disorder-specific treatment during the 12 months before the interview.

**Results:** The percentage receiving treatment was highest for mood disorders (37.8%; 95% CI, 36.1%–39.6%), followed by anxiety disorders (24.1%; 95% CI, 22.6%–25.6%), and lowest for substance use disorders (18.8%; 95% CI, 17.8%–19.8%). Among anxiety disorders, panic disorder (47.9%; 95% CI, 43.9%–52.0%) had the highest treatment rate, and among substance use disorders, tobacco use disorder (20.3%; 95% CI, 19.0%–21.7%) had the highest treatment rate. Adults with mood and anxiety disorders (53.1%; 95% CI, 49.7%–56.4%) were more likely than those with only mood (32.0%; 95% CI, 29.5%–34.6%) or only anxiety (13.2%; 95% CI, 11.6%–15.0%) disorders to receive any mental health treatment. Lack of insurance coverage was associated with significantly lower odds of treatment for all disorders except specific phobia (0.55; 95% CI, 0.30–1.03), drug use disorders other than tobacco (0.80; 95% CI, 0.47–1.36), and alcohol use disorder (1.52; 95% CI, 1.12–2.07).

**Conclusions:** Most adults with common mental disorders in the United States were not treated for their disorders, and treatment rates varied considerably across disorders and sociodemographic groups, with particularly low rates of treatment for substance use disorders. Policy and clinical interventions are needed to promote greater access to treatment of adults with common substance use, anxiety, and mood disorders.

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### Clinical Points

- Most adults with substance use disorders, even those who are treated for co-occurring anxiety or mood disorders, do not receive treatment for their substance use.
- When patients present for treatment of anxiety or mood disorders, clinicians should carefully consider whether there is also an untreated comorbid substance use disorder.

**M**ental disorders impose a substantial public health burden through their adverse effects on daily function, social participation, and economic productivity.<sup>1</sup> Accurate general population data on mental health treatment patterns are required to identify underserved populations and inform health policy and service planning. Because of changes in public and personal attitudes toward mental health treatment,<sup>2</sup> shifts in the health care policy landscape,<sup>3</sup> and alterations in the clinical context within which mental health services are provided,<sup>4</sup> it is important to have timely information on national patterns of mental health treatment.

Several epidemiologic studies have reported that most adults in the United States with common mental disorders have not received treatment during the last year.<sup>5–9</sup> The nationally representative National Comorbidity Survey (NCS) (1991–1992) found that 25% of adults with past year disorders had received treatment in the 12 months before the survey.<sup>6</sup> The NCS-Replication (NCS-R) (2001–2003) reported that 41% of adults with mental disorders received some treatment in the last year.<sup>7</sup> According to Wave 1 of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) (2001–2002), there was significant variation across mental disorders in the percentage of adults with a lifetime history of disorder-specific treatment, ranging from 60.6% for major depressive disorder<sup>8</sup> to 8.0% for specific phobia.<sup>9</sup>

Although strict comparisons across these surveys are limited by variations in definitions of mental disorders, age ranges of the respondents, and definitions of mental health treatment, the findings broadly suggest expanding use of mental health care with large persisting gaps. Recent evidence further supports increasing use of psychotropic medications<sup>10</sup> and specialized mental health services<sup>11</sup> independent of specific mental disorders. However, since the early 2000s, scant nationally representative comparative information has been available concerning prevalence and treatment of common mood, anxiety, and substance use disorders among US adults.

Apart from need-related determinants, several sociodemographic characteristics are correlated with mental health care use.<sup>12</sup> In depression, for example, treatment is proportionately more common among women than men, white than nonwhite individuals, adults with more rather than less income and education, and privately and publicly insured than uninsured adults.<sup>13</sup> However, little is known about the extent and variability with which

sociodemographic factors correlate with treatment patterns across common mood, anxiety, and substance use disorders.

We characterize mental health treatment patterns of common mental disorders and combinations of disorder classes from the 2012–2013 NESARC-III.<sup>14</sup> The NESARC-III survey provides the most recent nationally representative information on the prevalence and treatment of a broad range of psychiatric disorders. Prior reports of treatment rates from NESARC-III have focused on single disorders.<sup>15–18</sup> We estimated percentages of US adults with common *DSM-5* mood, anxiety, and substance use disorders who obtained mental health treatment for their disorder in the 12 months prior to the interview. Among people with mental disorders, the analyses also evaluate the strength of associations between sociodemographic characteristics and past 12-month mental health treatment.

## METHODS

### Sources of Data

The NESARC-III was a nationally representative face-to-face interview survey of 36,309 adults residing in households and group quarters conducted by the National Institute on Alcohol Abuse and Alcoholism.<sup>14</sup> Multistage probability sampling was used to randomly select respondents. Primary sampling units were either individual counties or groups of contiguous counties, and secondary sampling units were groups of census-defined blocks from which households were selected. This sample involved random selection of eligible adults within sampled households.

The household screener response rate was 72% with a person-level response rate of 84% to yield an overall response of 60.1%, comparable to rates for other current US surveys.<sup>19,20</sup> Samples were weighted to adjust for nonresponse at the household and person levels, selection of 1 person per household, and oversampling of African Americans, Asians, and Hispanics. After weighting, the data were adjusted to be representative of the US population for variables including region, age, sex, race, and ethnicity based on the American Community Survey.<sup>21</sup> Informed consent was recorded and institutional review boards of the National Institutes of Health and Westat approved the study protocols.

### Assessments

Sociodemographic measures included age, sex, race-ethnicity, marital status, education, personal income, employment, and current health insurances by self-report. The Alcohol Use Disorder and Associated Disabilities Interview Schedule–*DSM-5* version was used.<sup>22</sup> Past year substance use disorders (alcohol use, tobacco use, cannabis use, other drug use disorders), mood disorders (major depressive disorder [MDD], persistent depression disorders, bipolar disorder), and anxiety disorders (panic, social anxiety, generalized anxiety, and specific phobia disorders) were assessed by structured diagnostic interviews. Test-retest reliability of the AUDADIS-5 for *DSM-5* disorders

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**Table 1. Past 12-Month Disorder-Specific Treatment of DSM-5 Mental Disorders in the United States<sup>a</sup>**

Disorders	Sample Size, n	Prevalence, %	Disorder-Specific Treatment Past 12 Mo		Treatment Comparisons		
			%	95% CI	Group Comparisons	Non-Overlapping Groups (P Value)	Overlapping Groups (P Value)
<b>1. Mood disorders</b>	4,849	12.8	37.8	36.1–39.6	1 vs 2	<.0001	<.0001
a. Major depressive disorder	3,963	10.4	38.2	36.3–40.2	1a vs 1b	<.0001	<.0001
b. Persistent depressive disorder	1,185	3.1	41.4	37.7–45.2	1b vs 1c	.02	NA <sup>b</sup>
c. Bipolar disorder	518	1.4	34.0	29.1–39.4	1a vs 1c	.14	NA <sup>b</sup>
<b>2. Anxiety disorders</b>	4,570	12.7	24.1	22.6–25.6	2 vs 3	.03	<.0001
a. Panic disorder	1,104	3.1	47.9	43.9–52.0	2a vs 2b	<.0001	<.0001
b. Social anxiety disorder	980	2.9	26.5	23.6–29.6	2b vs 2c	<.0001	<.0001
c. Generalized anxiety disorder	1,908	5.3	30.7	28.28–33.2	2c vs 2d	<.0001	<.0001
d. Specific phobia	2,035	5.7	9.7	8.5–11.0	2a vs 2d	<.0001	<.0001
					2b vs 2d	<.0001	<.0001
					2a vs 2c	<.0001	<.0001
<b>3. Substance use disorders</b>	10,598	29.0	18.8	17.8–19.8	1 vs 3	<.0001	<.0001
a. Alcohol use disorder	5,133	13.9	7.6	6.7–8.5	3a vs 3b	<.0001	.58
b. Tobacco use disorder	7,303	20.0	20.3	19.0–21.7	3b vs 3c	<.0001	.62
c. Other drug use disorder	1,487	3.9	10.0	7.9–12.6	3c vs 3a	.04	<.0001
d. Cannabis use disorder	972	2.5	7.2	4.9–10.3	3d vs 3e	.0003	.0001
e. Other illicit drugs	659	1.7	15.6	12.1–19.8			

<sup>a</sup>National Epidemiologic Survey on Alcohol and Related Conditions-III (n = 36,309).

<sup>b</sup>Not applicable by diagnostic hierarchy.

is good to excellent for substance use disorders ( $\kappa = 0.50$ – $0.85$ ) and fair to good for other psychiatric disorders ( $\kappa = 0.35$ – $0.54$ ).<sup>23</sup>

Respondents were considered to have received mental health treatment if they reported having gone in the past 12 months to any health professional such as a psychiatrist, other medical doctor, psychologist, social worker, other kind of counselor or therapist, self-help or support group, hospital, or emergency department for help with their disorder-specific symptoms or if they were prescribed medications for help with their disorder-specific symptoms.

### Statistical Analysis

Analyses were conducted in 3 stages. First, weighted percentages of respondents with past year disorders who received treatment were calculated. Because individuals with different disorders were partially overlapping due to comorbidity, we separately calculated differences in proportions, comparing treatment proportions for non-overlapping and overlapping samples.<sup>24</sup> For example, the proportions of respondents with panic disorder or social anxiety disorder, but not both, were compared with respect to receiving disorder-specific treatment (non-overlapping groups) and then separately the proportions of respondents with both disorders receiving disorder-specific treatment (overlapping groups) were compared (Table 1).

The second stage of the analysis compared mental health treatment rates of 7 mutually exclusive groups including combinations of the 3 major classes of mental disorders: mood, anxiety, and substance use disorders excluding tobacco use disorder (Table 2). In these analyses, treatment was defined as treatment for any disorder. For example, respondents who had mood and anxiety disorders that received treatment for their anxiety disorder were considered to have received treatment.

The third stage of the analysis focused on examining associations between sociodemographic characteristics and disorder-specific treatment within each mental disorder. For each disorder, unadjusted logistic regressions compared the odds of receiving past 12-month treatment across levels of each sociodemographic variable (Tables 3 and 4). Finally, the underlying percentages receiving past 12-month disorder-specific treatment were determined stratified by the sociodemographic variables (Table 5). All statistical analyses were performed with SAS or SUDAAN 11.0 software to accommodate the complex sample design.

## RESULTS

### Mood Disorders

Adults with mood disorders were more likely than those with anxiety or substance use disorders to have received disorder-specific treatment in the last 12 months (Table 1). As compared to adults with only mood disorders, those with mood disorders and either substance use or anxiety disorders or both were significantly more likely to have received any mental health treatment (Table 2).

Among mood disorders, adults with persistent depressive disorder were more likely than those with MDD to have received treatment (Table 1). For adults with persistent depressive disorder, odds of treatment were greater for women than men, middle aged than older adults, unemployed than employed adults, and insured than uninsured adults (Tables 3 and 4).

Over one-third (38.2%) of people with MDD received past 12-month mental health treatment. The odds of receiving treatment among adults with MDD were higher for women than men, white non-Hispanics than other racial/ethnic groups, college graduates than those with a high school education or less, unemployed than employed

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**Table 2. Any Past 12-Month Disorder-Specific Treatment of Comorbid DSM-5 Mental Disorder Groups in the United States<sup>a</sup>**

Disorder Groups	Sample Size, n	Prevalence, %	Any Disorder-Specific Treatment Past 12 Mo		Group Comparisons	
			%	95% CI	Groups	P Value
1. Mood disorders, alone	2,260	5.9	32.0	29.5–34.6	1 vs 4	<.0001
2. Anxiety disorders, alone	2,228	6.4	13.2	11.6–15.0	2 vs 4	<.0001
3. Substance use disorders, alone	3,798	10.4	5.8	5.0–6.8	3 vs 5	<.0001
4. Mood and anxiety disorders, alone	1,171	3.2	53.1	49.7–56.4	4 vs 5	.0060
					4 vs 6	<.0001
					4 vs 7	.22
5. Mood and substance use disorders, alone	839	2.1	40.5	36.4–44.7	5 vs 1	.0009
					5 vs 6	<.0001
					5 vs 7	.001
6. Anxiety and substance use disorders, alone	592	1.7	3.9	1.9–7.8	6 vs 2	<.0001
					6 vs 3	.26
					6 vs 7	<.0001
7. Mood, anxiety, and substance use disorders	579	1.5	56.9	51.7–62.0	7 vs 1	<.0001
					7 vs 2	<.0001
					7 vs 3	<.0001

<sup>a</sup>National Epidemiologic Survey on Alcohol and Related Conditions-III (n = 36,309). Substance use disorders excludes tobacco use disorder.

adults, and insured than uninsured individuals (Tables 3 and 4). Approximately one-quarter (25.9%) of adults with MDD who had no insurance reported receiving mental health treatment in the last 12 months (Table 5).

Approximately one-third (34.0%) of adults with bipolar disorder received treatment for their symptoms. Among individuals with either bipolar disorder or persistent depressive disorder, those with the bipolar disorder were less likely to have received treatment (Table 1). For adults with bipolar disorder, the odds of treatment were also greater for women than men, middle aged than older adults, and those with than without health insurance (Tables 3 and 4).

### Anxiety Disorders

People with anxiety disorders were more likely than those with substance use disorders to have received past 12-month disorder-specific mental health treatment (Table 1). In relation to adults with only anxiety disorders, those with anxiety and mood disorders were significantly more likely to have received any mental health treatment for their disorders in the last 12 months. By contrast, adults with anxiety and substance use disorders were less likely than their counterparts with only anxiety disorders to have received any treatment (Table 2).

Among anxiety disorders, the likelihood of having received treatment was highest for panic disorder followed by generalized anxiety disorder followed by social anxiety disorder and was lowest for specific phobia (Table 1). Among adults with panic disorder, the odds of receiving treatment were greater for middle aged than older adults, individuals with lower (\$0–\$19,999) than higher (\$70,000+) annual personal income, and those with than without insurance (Tables 3 and 4). For adults with social anxiety disorder, the odds of treatment were higher for younger and middle-aged adults than older adults and for insured, especially Medicaid insured, than uninsured adults. Among people with generalized anxiety disorder, the odds of receiving

treatment were greater for white than black non-Hispanics, for unemployed than employed adults, and for those with health insurance, particularly Medicaid. For adults with specific phobia, Medicaid insurance and unemployment were the only sociodemographic factors that were significantly related to treatment.

### Substance Use Disorders

Adults with substance use disorders were significantly less likely to have received past 12-month mental health treatment than were adults with either mood or anxiety disorders (Table 1). As compared to adults with only substance use disorders, those with substance use and mood disorders were significantly more likely to have received any treatment (Table 2). In a post hoc analysis, however, most of the treated adults with substance use and mood disorders (63.3%; 95% CI, 55.8%–70.3%) received treatment only for their mood disorder.

As compared to adults with alcohol or drug use disorders other than tobacco, adults with tobacco use disorders had greater odds of having received treatment, though this was true only for those with tobacco use disorder and no other substance use disorders (non-overlapping groups, Table 1). Among drug use disorders other than tobacco, adults with drug use disorders other than cannabis were significantly more likely than those with cannabis use disorder to have received treatment.

Among adults with alcohol use disorder, receiving past 12-month treatment was related to not being married or living together, having a high school education or less compared to having completed college, having lower (\$0–\$19,999) compared to higher (\$70,000+) annual personal income, being unemployed, and either lacking health insurance or having Medicaid or Medicare coverage (Tables 3 and 4). Only 4.9% of privately insured adults with alcohol use disorder reported having received treatment (Table 5). In a post hoc analysis, 59.9% (95% CI, 53.6–65.8) of those



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**Table 3. Odds of Past 12-Month Disorder-Specific Treatment of DSM-5 Mental Disorders in the United States by Demographic Groups<sup>a</sup>**

	Mood Disorders			Anxiety Disorders			Substance Use Disorders			Other Drug Use Disorder, OR (95% CI) n = 1,487
	MDD, OR (95% CI) n = 3,963	Persistent Depression, OR (95% CI) n = 1,185	Bipolar Disorder, OR (95% CI) n = 518	Panic, OR (95% CI) n = 1,104	SAD, OR (95% CI) n = 980	GAD, OR (95% CI) n = 1,908	Specific Phobia, OR (95% CI) n = 2,035	Alcohol Use Disorder, OR (95% CI) n = 5,133	Tobacco Use Disorder, OR (95% CI) n = 7,303	
Sex										
Male	0.66 (0.56-0.78)	0.57 (0.42-0.77)	0.42 (0.27-0.64)	0.76 (0.58-1.01)	0.82 (0.60-1.12)	0.81 (0.64-1.03)	0.76 (0.47-1.21)	1.21 (0.96-1.51)	0.60 (0.52-0.69)	0.64 (0.40-1.02)
Female	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Age										
18-35 y	0.87 (0.70-1.06)	1.09 (0.79-1.50)	0.92 (0.46-1.84)	1.34 (0.84-2.13)	1.75 (1.13-2.73)	1.17 (0.85-1.61)	0.94 (0.60-1.46)	0.81 (0.56-1.16)	0.32 (0.26-0.40)	1.13 (0.50-2.56)
36-54 y	1.13 (0.91-1.40)	1.52 (1.10-2.10)	3.28 (1.77-6.06)	1.56 (1.05-2.32)	2.19 (1.40-3.43)	1.37 (0.95-1.98)	1.66 (0.99-2.79)	1.11 (0.74-1.65)	0.86 (0.72-1.03)	1.44 (0.65-3.24)
55+ y	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Race/ethnicity										
White, non-Hispanic	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Black, non-Hispanic	0.45 (0.36-0.58)	0.66 (0.44-1.01)	0.60 (0.32-1.11)	0.86 (0.58-1.28)	0.85 (0.44-1.67)	0.62 (0.41-0.95)	0.82 (0.48-1.39)	1.18 (0.89-1.58)	0.56 (0.45-0.69)	0.83 (0.44-1.59)
Other, non-Hispanic	0.49 (0.32-0.74)	0.26 (0.12-0.57)	0.81 (0.26-2.57)	1.24 (0.57-2.70)	1.13 (0.41-3.15)	0.77 (0.39-1.51)	0.80 (0.42-1.50)	0.87 (0.55-1.38)	0.74 (0.56-0.43)	2.27 (0.69-7.53)
Hispanic	0.55 (0.42-0.71)	0.70 (0.44-1.11)	0.85 (0.51-1.41)	0.83 (0.52-1.34)	1.16 (0.66-2.04)	0.90 (0.65-1.24)	0.92 (0.52-1.61)	0.90 (0.64-1.27)	0.59 (0.43-0.80)	0.64 (0.30-1.38)
Marital status										
Married/live together	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Widowed/separated/divorced	1.09 (0.88-1.34)	1.02 (0.73-1.42)	0.89 (0.52-1.54)	1.18 (0.81-1.72)	1.34 (0.83-2.14)	1.30 (1.00-1.70)	1.00 (0.63-1.57)	2.26 (1.69-3.03)	1.06 (0.89-1.26)	3.37 (1.77-6.42)
Never married	0.83 (0.68-1.02)	0.84 (0.59-1.19)	0.58 (0.30-1.12)	0.82 (0.56-1.19)	1.00 (0.67-1.50)	1.26 (0.91-1.73)	1.04 (0.72-1.50)	1.65 (1.24-2.20)	1.65 (0.33-0.49)	1.17 (0.64-2.14)

<sup>a</sup>National Epidemiologic Survey on Alcohol and Related Conditions-III (n = 36,309). ORs are unadjusted odds ratios of treatment. Abbreviations: CI = confidence interval, GAD = generalized anxiety disorder, MDD = major depressive disorder, OR = odds ratio, SAD = social anxiety disorder.

who received alcohol treatment attended Alcoholics Anonymous or another self-help group.

Approximately 1 in 5 adults (20.3%) with tobacco use disorder reported having received treatment in the last 12 months. Among individuals with tobacco use disorder, treatment was related to female sex, older age, white non-Hispanic race, college graduation, higher personal income, unemployment, and insurance other than Medicaid. Approximately 1 in 10 (11.1%) young adults with tobacco use disorder reported receiving treatment in the past 12 months (Table 5). Among adults with drug use disorders other than tobacco, the odds of receiving treatment were related to widowed, separated, or divorced marital status and public insurance other than Medicare or Medicaid.

## DISCUSSION

Most US adults with common mental disorders have not received treatment for their conditions in the last year, with particularly low levels of treatment for substance use disorders. Although a substantial percentage of adults with substance use and mood disorders received some mental health treatment, most received treatment for their mood disorder but not their substance use disorder. This suggests that health care professionals often do not detect and treat comorbid substance use disorders while treating other mental disorders or that these individuals are less likely to perceive their substance use as problematic and engage in treatment for it. In keeping with these findings, prior national epidemiologic research indicates that adults with alcohol use disorders are much more likely to receive any mental health treatment<sup>7</sup> than to receive treatment specifically for their alcohol use.<sup>23</sup>

Ambivalence about stopping use of substances<sup>25</sup> and not perceiving a need for treatment<sup>26</sup> likely contribute to low rates of substance use treatment. As reward and motivational systems become reoriented toward release of dopamine produced by drugs, motivational strength may decrease for other rewards including treatment-related rewards.<sup>27</sup> In many regions of the United States, a scarcity of substance use treatment facilities further impedes access to substance use treatment.<sup>28</sup>

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**Table 4. Odds of Past 12-Month Disorder-Specific Treatment of DSM-5 Mental Disorders in the United States by Sociodemographic Groups<sup>a</sup>**

	Mood Disorders			Anxiety Disorders			Substance Use Disorders			
	MDD, OR (95% CI) n=3,963	Persistent Depression, OR (95% CI) n=1,185	Bipolar Disorder, OR (95% CI) n=518	Panic Disorder, OR (95% CI) n=1,104	SAD, OR (95% CI) n=980	GAD, OR (95% CI) n=1,908	Specific Phobia, OR (95% CI) n=2,035	Alcohol Use Disorder, OR (95% CI) n=5,133	Tobacco Use Disorder, OR (95% CI) n=7,303	Other Drug Use Disorder, OR (95% CI) n=1,487
Education										
High school or less	0.66 (0.54-0.80)	0.82 (0.58-1.16)	0.94 (0.54-1.64)	0.98 (0.71-1.35)	0.83 (0.52-1.33)	0.98 (0.77-1.26)	0.86 (0.55-1.34)	1.66 (1.20-2.30)	0.63 (0.51-0.78)	0.99 (0.61-1.61)
Some college	0.93 (0.75-1.14)	1.30 (0.92-1.83)	1.20 (0.60-2.42)	1.33 (0.89-1.98)	0.86 (0.55-1.34)	0.92 (0.68-1.24)	0.80 (0.48-1.34)	1.33 (0.95-1.86)	0.82 (0.65-1.04)	1.00 (0.51-1.96)
College or higher	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Personal income										
\$0-\$19,999	0.87 (0.63-1.21)	0.93 (0.48-1.82)	1.54 (0.42-5.75)	2.11 (1.06-4.20)	1.46 (0.67-3.19)	0.97 (0.63-1.48)	1.15 (0.53-2.51)	2.26 (1.21-4.22)	0.56 (0.42-0.76)	2.29 (0.38-13.68)
\$20,000-\$34,999	0.70 (0.49-1.00)	0.71 (0.34-1.46)	1.92 (0.49-7.61)	1.82 (0.81-4.13)	1.47 (0.67-3.24)	0.68 (0.41-1.15)	0.99 (0.41-2.36)	1.54 (0.82-2.91)	0.65 (0.47-0.90)	2.04 (0.33-12.55)
\$35,000-\$69,999	0.89 (0.63-1.26)	0.88 (0.43-1.46)	1.41 (0.29-6.82)	1.65 (0.73-3.73)	1.28 (0.53-3.12)	0.73 (0.45-1.19)	0.58 (0.22-1.51)	0.97 (0.48-1.95)	0.81 (0.59-1.10)	1.26 (0.20-8.04)
\$70,000+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Employment										
Employed	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Unemployed	1.40 (1.18-1.66)	1.48 (1.11-1.98)	1.33 (0.88-2.01)	1.29 (0.97-1.71)	1.44 (0.99-2.10)	1.31 (1.01-1.70)	1.57 (1.16-2.13)	2.13 (1.63-2.79)	1.18 (1.03-1.35)	1.58 (0.93-2.69)
Insurance										
Medicaid	1.51 (1.20-1.90)	1.42 (0.97-2.08)	2.09 (1.40-3.11)	1.69 (1.24-2.30)	2.40 (1.60-3.60)	1.98 (1.49-2.65)	2.04 (1.35-3.07)	2.92 (2.16-3.94)	1.11 (0.97-1.27)	1.68 (0.96-2.96)
Medicare	1.07 (0.87-1.32)	1.47 (1.04-2.06)	1.09 (0.50-2.19)	1.12 (0.78-1.60)	1.16 (0.71-1.90)	1.02 (0.78-1.34)	1.14 (0.72-1.81)	1.54 (1.10-2.16)	1.60 (1.38-1.84)	1.24 (0.65-2.34)
Other public	1.23 (0.91-1.67)	1.67 (1.00-2.78)	1.05 (0.50-2.19)	2.09 (1.16-3.78)	1.33 (0.73-2.43)	1.45 (0.98-2.15)	1.06 (0.67-1.67)	1.11 (0.74-1.67)	1.78 (1.39-2.29)	2.63 (1.29-5.38)
Private	1.51 (1.20-1.90)	1.03 (0.74-1.44)	1.42 (0.91-2.21)	0.90 (0.68-1.19)	0.88 (0.64-1.20)	0.94 (0.73-1.21)	0.84 (0.57-1.17)	0.39 (0.28-0.53)	1.52 (1.31-1.77)	0.78 (0.50-1.21)
None	0.49 (0.39-0.63)	0.45 (0.29-0.69)	0.43 (0.23-0.79)	0.62 (0.45-0.86)	0.50 (0.33-0.76)	0.64 (0.44-0.92)	0.55 (0.30-1.03)	1.52 (1.12-2.07)	0.43 (0.36-0.51)	0.80 (0.47-1.36)

<sup>a</sup>National Epidemiologic Survey on Alcohol and Related Conditions-III (n = 36,309). ORs are unadjusted odds ratios of treatment. Abbreviations: CI = confidence interval, GAD = generalized anxiety disorder, MDD = major depressive disorder, OR = odds ratio, SAD = social anxiety disorder.

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**Table 5. Past 12-Month Disorder-Specific Treatment of DSM-5 Mental Disorders in the United States by Sociodemographic Groups<sup>a</sup>**

	Mood Disorders				Anxiety Disorders				Substance Use Disorders			
	MDD, % (SE) n = 3,963	Persistent Depression, % (SE) n = 1,185	Bipolar Disorder, % (SE) n = 518	Panic Disorder, % (SE) n = 1,104	SAD, % (SE) n = 980	GAD, % (SE) n = 1,908	Specific Phobia, % (SE) n = 2,035	Alcohol Use Disorder, % (SE) n = 5,133	Tobacco Use Disorder, % (SE) n = 7,303	Other Drug Use Disorder, % (SE) n = 1,487		
<b>Sex</b>												
Male	31.8 (1.4)	32.8 (2.9)	24.4 (3.4)	43.2 (3.2)	24.2 (2.5)	27.8 (1.9)	8.1 (1.4)	8.1 (0.6)	16.7 (0.7)	8.4 (1.3)		
Female	41.4 (1.3)	46.3 (2.4)	43.6 (3.4)	49.9 (2.3)	28.0 (1.8)	32.2 (1.6)	10.4 (0.9)	6.8 (0.5)	25.0 (1.1)	12.5 (2.0)		
<b>Age</b>												
18–35 y	35.2 (1.6)	39.0 (2.6)	22.2 (3.6)	47.5 (2.8)	27.5 (2.6)	30.4 (2.4)	7.8 (1.0)	6.7 (0.6)	11.1 (0.8)	9.5 (1.5)		
36–54 y	41.4 (1.8)	47.2 (3.2)	50.6 (3.8)	51.4 (2.8)	32.2 (2.8)	33.8 (2.7)	13.0 (1.8)	8.9 (0.8)	25.0 (1.0)	11.8 (1.9)		
55+ y	38.5 (1.7)	37.0 (3.0)	23.8 (5.0)	40.4 (5.1)	17.8 (2.8)	27.2 (2.3)	8.3 (1.3)	8.1 (1.2)	28.0 (1.5)	8.5 (3.0)		
<b>Race/ethnicity</b>												
White, non-Hispanic	43.0 (1.4)	44.8 (2.3)	36.1 (3.5)	48.4 (2.4)	26.3 (1.8)	32.1 (1.5)	10.0 (0.8)	7.6 (0.6)	22.3 (0.9)	10.3 (1.5)		
Black, non-Hispanic	25.6 (2.0)	35.0 (4.5)	25.4 (5.1)	44.8 (4.6)	23.4 (5.8)	22.8 (3.3)	8.4 (1.8)	8.8 (1.0)	13.8 (1.1)	8.7 (2.1)		
Other, non-Hispanic	26.8 (4.0)	17.6 (5.6)	31.5 (11.3)	53.7 (9.3)	28.8 (10.4)	26.6 (6.7)	8.2 (2.3)	6.6 (1.4)	17.6 (1.9)	20.7 (9.6)		
Hispanic	29.3 (2.3)	36.2 (5.0)	32.4 (5.2)	43.8 (5.6)	29.3 (5.3)	29.8 (3.1)	9.3 (2.1)	6.9 (1.0)	14.4 (1.7)	6.8 (2.4)		
<b>Marital status</b>												
Married/live together	38.9 (1.6)	42.4 (2.9)	38.6 (4.5)	48.2 (3.3)	25.1 (2.4)	28.2 (2.0)	9.6 (1.1)	5.3 (0.6)	23.4 (0.9)	7.0 (1.7)		
Widowed/separated/divorced	40.9 (1.9)	42.8 (3.0)	35.9 (4.6)	52.3 (3.4)	31.0 (3.8)	33.8 (2.0)	9.6 (1.5)	11.3 (1.1)	24.5 (1.3)	20.2 (3.4)		
Never married	34.7 (1.7)	38.2 (3.4)	26.7 (4.8)	43.2 (3.4)	25.1 (3.0)	33.0 (2.7)	9.9 (1.2)	8.5 (0.8)	11.0 (1.0)	8.1 (1.3)		
<b>Education</b>												
High school or less	32.9 (1.6)	37.2 (2.7)	32.3 (4.2)	45.7 (3.1)	25.3 (2.7)	30.9 (2.0)	9.4 (1.0)	9.2 (0.8)	17.5 (0.7)	10.0 (1.5)		
Some college	40.9 (1.9)	48.4 (3.6)	38.0 (5.5)	53.2 (3.6)	26.1 (3.6)	29.5 (2.6)	8.8 (1.3)	7.6 (0.9)	21.6 (1.2)	10.0 (2.5)		
College or higher	42.8 (1.7)	41.9 (3.3)	33.7 (4.7)	46.1 (3.3)	29.0 (3.2)	31.3 (2.0)	10.7 (1.6)	5.8 (0.7)	25.2 (1.8)	10.1 (1.9)		
<b>Employment</b>												
Employed	34.5 (1.4)	36.1 (2.6)	30.6 (3.4)	44.5 (2.7)	22.9 (2.3)	27.9 (1.8)	7.8 (0.8)	5.7 (0.5)	19.2 (0.8)	8.0 (1.6)		
Unemployed	42.5 (1.4)	45.5 (2.5)	37.0 (3.6)	50.9 (2.7)	30.0 (2.4)	33.7 (1.9)	11.7 (1.0)	11.3 (0.9)	21.8 (1.0)	12.1 (1.6)		
<b>Personal income</b>												
\$0–\$19,999	38.8 (1.5)	42.5 (2.2)	34.3 (3.3)	50.5 (2.5)	27.4 (2.2)	32.8 (1.7)	10.9 (1.0)	9.8 (0.7)	18.2 (0.8)	10.9 (1.6)		
\$20,000–\$34,999	33.8 (2.0)	36.5 (4.1)	37.8 (5.6)	46.8 (4.6)	27.2 (3.6)	25.8 (2.7)	9.6 (1.7)	7.2 (0.7)	20.2 (1.4)	9.8 (2.5)		
\$35,000–\$69,999	39.4 (2.3)	41.7 (4.9)	30.8 (6.2)	44.3 (5.2)	24.7 (4.6)	27.1 (2.6)	5.9 (1.4)	4.6 (0.8)	23.8 (1.5)	6.3 (2.0)		
\$70,000+	42.1 (3.7)	44.9 (8.1)	24.0 (12.2)	32.5 (7.6)	20.3 (6.0)	33.8 (4.7)	9.7 (3.2)	4.8 (1.4)	27.9 (2.9)	5.1 (4.2)		
<b>Insurance</b>												
Medicaid	46.5 (2.7)	48.2 (4.1)	47.7 (4.7)	57.9 (3.4)	42.4 (4.3)	44.0 (3.4)	16.0 (2.3)	16.7 (1.9)	21.8 (1.2)	14.2 (2.8)		
Medicare	39.6 (2.2)	48.7 (3.6)	35.6 (6.9)	50.2 (4.3)	28.9 (4.4)	31.1 (2.6)	10.6 (1.8)	10.8 (1.6)	27.2 (1.3)	11.7 (3.0)		
Other public	42.9 (3.7)	53.2 (6.6)	35.1 (8.3)	64.4 (6.2)	32.0 (6.3)	38.4 (4.3)	10.1 (1.9)	8.3 (1.6)	30.3 (2.5)	20.9 (5.8)		
Private	40.2 (1.3)	41.8 (2.9)	38.2 (3.6)	46.6 (3.0)	25.4 (2.0)	30.1 (1.7)	8.9 (1.0)	4.9 (0.5)	23.9 (1.0)	8.8 (1.5)		
None	25.9 (2.2)	27.2 (4.0)	21.3 (4.6)	38.4 (3.7)	27.0 (2.8)	23.4 (3.1)	6.1 (1.6)	9.9 (1.1)	11.7 (0.9)	8.6 (1.9)		

<sup>a</sup>National Epidemiologic Survey on Alcohol and Related Conditions-III (n = 36,309).

Abbreviations: GAD = generalized anxiety disorder, MDD = major depressive disorder, SAD = social anxiety disorder, SE = standard error.

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Unlike treatment of mood and most anxiety disorders, treatment of alcohol use disorders was proportionately more common among people with lower income and less education. This pattern may reflect the dominant role of self-help groups such as Alcoholics Anonymous. People facing socioeconomic challenges may also have less ability to resist legal pressures to receive coerced substance use treatments,<sup>29</sup> especially following driving while intoxicated convictions.<sup>30</sup>

Approximately 1 in 5 adults with tobacco use disorder reported receiving treatment in the last year. Part of the explanation for this low rate may be that most people who attempt to quit smoking do so without professional assistance.<sup>31</sup> Adults with lower levels of education, no insurance, lower incomes, and those who have never been married were at increased risk of not receiving treatment of tobacco use disorder. Variations in public attitudes to quit smoking may help to explain these patterns.<sup>32</sup> Clinical barriers can further impede assessment and treatment of tobacco use disorder, including competing clinical demands and inadequate reimbursement.

The general population decline in smoking has not spread to adults with other substance use disorders.<sup>33</sup> Consistent with the challenge of modifying the smoking behavior of people with other substance use disorders, treatment of tobacco use disorder was low among people with other comorbid substance use disorders. Although co-occurrence of other substance use disorders may be associated with low perceived need for smoking cessation in community samples, patients who are receiving treatment for other substance use problems are often interested in quitting smoking.<sup>34</sup>

In line with results from the Wave 2 NESARC,<sup>35</sup> treatment for anxiety disorders in NESARC-III was highest for panic disorder and lowest for specific phobia. This difference may be driven by disorder-specific differences in how people experience and evaluate their symptoms.<sup>36</sup> Panic attacks may be more frightening than other anxiety symptoms and therefore more likely to prompt treatment seeking. Despite the low rate of treatment for phobias, the availability of brief and highly effective behavioral treatments<sup>37</sup> underscores a need for efforts to increase access for these treatments.

Across the mood and anxiety disorders, uninsured adults had particularly low odds of receiving treatment. Strong associations of insurance coverage with treatment of common mood and anxiety disorders bolster the rationale for health reform efforts aimed at increasing insurance coverage as a means of improving access to mental health treatment for these conditions.

Men were less likely than women with mood disorders to seek treatment. Many factors may account for this imbalance, including gender differences in perceived need for treatment,<sup>38</sup> attitudes toward help-seeking for mental health problems,<sup>39</sup> and willingness to report mental health problems to health care professionals.<sup>40</sup> Minority racial and ethnic groups compared to non-Hispanic white adults also had significantly lower rates of depression treatment, underscoring the importance of efforts to combat this health disparity. The public health and policy implications

of ethnic/racial disparities in mental health treatment may increase over time given the projected changing racial/ethnic composition of the US population.<sup>41</sup>

Adults with mood and anxiety disorders were more likely to receive mental health treatment than were adults with either class of disorders alone. This combination of disorders tends to increase psychological distress,<sup>42</sup> compound perceived need for treatment,<sup>36</sup> and accelerate treatment seeking behavior.<sup>43</sup> Consistent with prior research, adults with comorbid mood and substance use disorders were also more likely to receive treatment than adults with either class of disorder alone.<sup>43,44</sup> Yet, individuals with anxiety and substance use disorders, but not mood disorders, were less likely than those with only anxiety disorders to receive treatment. This pattern raises the possibility that maladaptive self-medication of anxiety disorders with alcohol or drugs<sup>45</sup> may interfere with treatment seeking for anxiety disorders.

This analysis has several limitations. First, the NESARC-III response rate was imperfect. Despite post-stratification adjustments, response could vary by mental disorders or treatment in ways that were not corrected. Second, some disorders, such as schizophrenia or obsessive-compulsive disorder, were not assessed. Third, it was not possible to corroborate self-report service delivery information and recall bias may differentially influence assessments of disorders and treatment. Fourth, the NESARC-III did not distinguish use of specific pharmacologic or evidence-based psychosocial treatments, characterize different treatment settings or providers, or capture treatment duration. A more detailed description of treatment use would enrich our understanding of community treatment patterns. Fifth, the NESARC-III does not survey homeless or incarcerated adults, who have different mental treatment patterns than other adults. Sixth, because the survey only asks about treatment of respondents who meet criteria for disorders, it does not permit evaluation of the extent to which adults are overdiagnosed or overtreated.<sup>46</sup> Finally, because the survey was fielded before several recent developments in the financing and organization of care related to the Affordable Care Act or widespread adoption of collaborative care, the results may not reflect contemporary practice.

Across common mental disorders, people with substance use disorders faced the greatest challenges in receiving treatment. Over the last several years, progress has been made in increasing treatment of adults with depression.<sup>47</sup> These gains reflect the combined efforts of policymakers, advocates, patients, and clinicians. As the opioid crisis continues, such progress should inspire broader initiatives to promote public acceptance of mental health and substance use treatment, reform payment approaches to reimburse costs of providing adequate care, and develop a behavioral health care workforce capable of narrowing gaps in unmet need for treatment.

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agents that is outside US Food and Drug Administration–approved labeling has been presented in this article.

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## POSTTEST

To obtain credit, go to [PSYCHIATRIST.COM](http://PSYCHIATRIST.COM) (Keyword: June CME) to take this Posttest and complete the Evaluation. A \$10 processing fee is required.

1. Which of the following statements about adults with comorbid anxiety and substance use disorders is true?
  - a. Most adults with comorbid anxiety and substance use disorders received mental health treatment during the past year.
  - b. The prevalence of comorbid anxiety and substance use disorders is greater than that of anxiety disorders alone among adults.
  - c. Adults with comorbid anxiety and substance use disorders are less likely to receive any mental health treatment than are adults with either anxiety disorders alone or substance use disorders alone.
  - d. The prevalence of comorbid anxiety and substance use disorders is greater than that of comorbid mood and substance use disorders among adults.
2. Many adults with common mental disorders report not having received any treatment for their disorders in the last 12 months. Which of the following statements about past-year disorder-specific treatment is true?
  - a. Adults with social anxiety disorder are more likely than adults with major depressive disorder to have received treatment for their symptoms.
  - b. Adults with tobacco use disorder are less likely than adults with alcohol use disorder to have received treatment for their symptoms.
  - c. Adults with anxiety disorders are more likely than adults with mood disorders to have received treatment for their symptoms.
  - d. Adults with substance use disorders are less likely than adults with anxiety disorders to have received treatment for their symptoms.
3. You are performing an initial evaluation of Mr A, a 45-year-old man, who presents specifically seeking relief for symptoms that are consistent with persistent depressive disorder. Which of the following steps is particularly important to include in your initial evaluation but seems, according to the results of this study, to have been too often overlooked?
  - a. Evaluate whether Mr A has co-occurring substance use problems.
  - b. Evaluate Mr A's preferences for different classes of psychotropic medications.
  - c. Seek to determine why Mr A selected to visit you rather than another mental health professional.
  - d. Seek to determine why Mr A has not sought treatment earlier for his symptoms.