Reasons for Not Seeking Substance Use Disorder Treatment: Variations by Health Insurance Coverage

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Abstract

A large number of adults with substance use disorder (SUD) do not receive treatment for their condition. Using data from the 2008–2013 National Survey of Drug Use and Health (NSDUH), this study analyzes why individuals with SUD report not receiving treatment even when they perceived a need for it. It further examines the variations in reported reasons for not receiving treatment by health insurance status and type. The results suggest that barriers such as stigma, lack of readiness to stop using substances, and not making treatment a priority are more common among the insured population, especially among those with private insurance. Financial barriers, such as not being able to afford the cost of treatment, are more prominent among the uninsured population. Efforts to improve utilization of treatment services will need to address financial as well as barriers related to stigma.

Introduction

According to the National Survey on Drug Use and Health (NSDUH), an estimated 30% of the uninsured population in the USA has a behavioral health disorder.[1] Specifically, an estimated five million uninsured individuals have a substance use disorder (SUD), eight million have a mental health disorder, and about two million have both a substance use and a mental health disorder.[2] The rate at which individuals actually access SUD treatment has consistently been shown to be extremely low, ranging from 8 to 10%.[3–5] Financial barriers, such as a lack of health insurance, can

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Journal of Behavioral Health Services & Research, 2016. 63–74. DOI 10.1007/s11414-016-9538-3

make it difficult for individuals with a SUD to access treatment.[6] By extending the availability of insurance coverage to previously uninsured populations through Medicaid and private health insurance exchanges, the Patient Protection and Affordable Care Act (ACA) in conjunction with the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) is estimated to provide approximately 32 million individual access to a wide array of health care services, including SUD treatment.[1,2,7]

An analysis of the potential impact of the ACA on the public SUD treatment system projected that overall funding would increase and that SUD treatment services would become better integrated into the mainstream of general health care.[6] The study suggested that ACA would expand the variety of SUD service providers and would shift services toward outpatient rather than residential programs, as well as toward more integrated programs or care systems rather than stand-alone providers.[6] However, even if the projected delivery system changes occur, it is not clear that they will necessarily result in increased SUD treatment utilization since the degree to which such considerations affect individuals' actual treatment-seeking behavior is unknown. As an indication of this situation, a study in Massachusetts found relatively stable rates of SUD treatment after the state's enactment of health reform in 2007, suggesting that expanded coverage alone might be insufficient to increase utilization of SUD treatment.[8]

One reason for the low rates of utilization of SUD treatment may be individuals' lack of a perceived need for SUD services.[9,10] Specifically, the literature documents that approximately 97% of adults with a SUD (and no co-occurring mental health condition) did not perceive a need for SUD treatment. Even when perceiving a need for treatment, more than 60% of individuals with a SUD did not seek any treatment.[9] Some individuals with SUD do not seek treatment because of financial reasons, or they believe they can recover on their own, or they simply do not wish to give up substance use.[11] Concerns about being viewed negatively by one's community, adverse impact on current and future employment prospects, and inconvenience of treatment were also reasons for not receiving treatment for substance use.[10] One study found that despite efforts by self-help or advocacy groups, government agencies, and the medical community to de-stigmatize and raise public consciousness regarding SUD, the stigma associated with seeking treatment remained high.[11]

A recent study reported that treatment access (such as knowing where to go, awareness of openings in treatment programs) and financial barriers play a more significant role in not seeking mental health treatment among the uninsured, while barriers such as stigma play a more significant role among the insured.[12] However, little is known about the reasons for not seeking SUD treatment and how those vary by health insurance coverage status and type. Given the recent implementation of the ACA, it is important to understand the reasons individuals do not receive SUD treatment so those reasons can be addressed. For example, if financial issues are the predominant reasons for not seeking treatment among the uninsured with SUD, then health insurance expansion that covers SUD treatment might result in more individuals utilizing treatment. On the other hand, if a barrier, such as being viewed negatively by one's community, is the predominant reason, then a different strategy that goes beyond expanding insurance coverage for treatment might be necessary. The current study is the first to examine the heterogeneity in reasons for not seeking SUD treatment by health insurance status and type using data from a large nationally representative sample of adults with SUD who perceived a need for treatment but did not receive it.

Data

This study utilizes data from the 2008 to 2013 National Survey on Drug Use and Health (NSDUH), a nationally representative survey of the non-institutionalized population in the USA, conducted annually by the Substance Abuse and Mental Health Services Administration

(SAMHSA). The NSDUH collects detailed information on the use of alcohol and illicit drugs, mental and substance use disorders, utilization of a variety of behavioral health treatments, and reasons for not seeking treatment for behavioral health conditions.[13]

The NSDUH asks respondents questions to assess symptoms of SUDs (i.e., substance dependence or abuse) during the past year, using the criteria specified within the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) during the year prior to the survey interview.[14] It includes such symptoms as withdrawal, tolerance, use in dangerous situations, trouble with the law, and interference in major obligations at work, school, or home during the past year. The variable for SUD in this study reflects whether the respondent had an alcohol use disorder or any illicit drug use disorder.

Given that the focus of the study is reasons for not getting treatment among individuals with a SUD and because the ACA's insurance expansions will primarily affect the nonelderly adult population, the sample is restricted to individuals aged 18 through 64 with SUD who felt a need for treatment but did not receive it in the past 12 months (unadjusted pooled $N = 1300$). All estimates are weighted to account for NSDUH's complex survey design and to make the estimates nationally representative (weighted pooled $N \approx 1$ million). Comprehensive information on the NSDUH data collection methods and survey design can be found elsewhere.[13]

Measures

NSDUH asked respondents with SUD whether during the past 12 months they needed treatment or counseling for their alcohol or drug use. Specifically, the NSDUH asked the respondents "during the past 12 months, did you need treatment or counseling for your alcohol or drug use." SUD treatment in this analysis is based on the NSDUH question "during the past 12 months have you received treatment or counseling for your use of alcohol or any drug, not counting cigarettes." This treatment could be received at either a hospital or a rehabilitation facility or mental health center or private physician's office or substance abuse-related emergency room visit or self-help group. Among those who reported needing treatment but not getting it, NSDUH further asked respondents to identify the reasons for not getting treatment from a list of 13 possible reasons. For this analysis, these 13 possible reasons were grouped into the following five mutually exclusive categories to construct the categorical dependent variable used in the analysis: financial, treatment access, stigma, lack of readiness to stop using, and treatment not a priority. The exact wording of the questions and how they were grouped is reported in Appendix 1. "Financial" is defined as not receiving treatment because the individual could not afford the cost or not receiving treatment because his or her insurance did not cover the treatment. "Access barriers" included not receiving treatment because the individual did not have any transportation, because no program had the type of treatment needed, because there were no openings in the program, or because the person did not know where to go for treatment. "Stigma" is defined as not receiving treatment because neighbors would have a negative opinion, or the individual did not want others to know, or thought it would have a negative effect on his or her job. "Lack of readiness to stop using" was defined as not receiving treatment because the individual was not ready to stop using the substance. Finally, "treatment not a priority" included not receiving treatment because the individual thought he or she could handle the problem without treatment or did not have time for treatment.

The primary independent variable of interest in the empirical model is health insurance status and type, which is constructed as a categorical variable with four mutually exclusive categories: private insurance, Medicaid (including those with dual eligibility also enrolled in Medicare), uninsured, and other insurance (veteran's insurance, TRICARE, etc.).

The empirical model includes a psychological distress score, measured using the K6 screening instrument,[15] which is available in the NSDUH data set for all survey participants. This is included

in the model to capture the notion that individuals with SUD might also have a co-occurring mental health condition. The six items on K6 ask how often the participant has felt nervous, restless, hopeless, worthless, and extremely sad or that everything was an effort during a 1-month period in the past 12 months during which the participant was the most depressed, anxious, or emotionally stressed. Each item is rated on a scale that ranges from none of the time (=0) to all of the time (=4), making the K6 score a range from 0 to 24.

Since some SUD treatment is court-ordered, the analysis also includes dichotomous indicators for whether the individual was on parole, supervised release, or other conditional release from prison at any time during the past 12 months and whether the individual was arrested and booked for driving under the influence of drugs or alcohol or drunkenness or other liquor law violations. In addition, variables in the analysis also include respondent's demographic characteristics, such as age, gender, race, level of education, employment status, and federal poverty level (FPL)—which is used in the analysis to divide the uninsured into groups that would qualify for Medicaid and health insurance exchange subsidies under the ACA, marital status, residence in a metropolitan statistical area, geographic region (Midwest, South, West, Northeast), and self-rated physical health status. The control variables in the analysis were chosen based on the previous literature and to make the study comparable to prior research.[9,10,12,16]

Methods

Multinomial logistic regression is utilized in the study because the dependent variable is a categorical variable of more than two unordered mutually exclusive outcomes. As noted previously, the five categories for not receiving SUD treatment are (i) financial, (ii) access barrier, (iii) stigma, (iv) lack of readiness to stop using, and (v) treatment not a priority, with financial as the reference group for the calculations of the relative risk ratios (RRRs). For each independent variable, the analysis produces four RRRs. These RRRs show how the relative risk of reporting a particular reason for not getting treatment changes relative to finances as a reason for not getting treatment as the independent variable of interest changes; for example, in the case of insurance, the coefficient estimates the association of having a particular type of insurance relative to being uninsured with reasons for not getting treatment in modeling four logit models simultaneously—(i) comparing treatment access with financial reasons for not getting treatment, (ii) comparing stigma-related reasons with financial reasons for not getting treatment, (iii) comparing lack of readiness to stop using as a reason for not getting treatment with financial reasons for not getting treatment, and (iv) comparing treatment not a priority with financial reasons for not getting treatment. Financial reason was selected as the reference category since being uninsured was the reference category for the health insurance status variable. This allows us to contextualize the analysis in terms of the ACA, which has been projected to provide health insurance coverage for the previously uninsured and which also makes SUD treatment an essential health benefit that has to be covered by certain health insurance plans.

Results

Descriptive statistics on the study sample and the variables used in the analysis are provided in Table 1. The table shows that lack of readiness to stop using substances and financial barriers were the most commonly reported reasons for not obtaining substance abuse treatment among adults with SUD who felt a need for treatment but did not get it. Specifically, 37% of all adults in the analytic sample indicated that they are not ready to stop using, and 25% of them indicated financial factors as a reason for not getting treatment. Access barriers and treatment not a priority were identified by 15 and 13% of the respondents, respectively. Approximately 10% of individuals identified stigma as a reason for not obtaining substance abuse treatment.

Table 1

Descriptive statistics for 2008–2013 NSDUH respondents 18 to 64 years old with substance use disorder (SUD) who felt a need for but did not get SUD treatment ($n = 1300$)

Variables	Weighted percentage (standard error)
Reasons for not seeking SUD treatment	
Financial	25 (0.02)
Access barriers	15 (0.02)
Stigma	10 (0.01)
Lack of readiness to stop using	37 (0.02)
Treatment not a priority	13 (0.02)
Insurance	
Private only	38 (0.02)
Medicaid only	16 (0.02)
Other only	10 (0.01)
Uninsured	36 (0.02)
Age	36.36 (0.60)
Gender	
Male	67 (0.02)
Female	33 (0.02)
Race	
Non-Hispanic White	62 (0.03)
Non-Hispanic Black	17 (0.02)
Hispanic	15 (0.02)
Asian	1 (0.02)
Other	5 (0.12)
Education	
High school	33 (0.02)
Some college	27 (0.02)
College graduate	15 (0.02)
Less than high school	24 (0.02)
Employment	
Full time	46 (0.02)
Part-time	12 (0.01)
Looking/layoff/unemployed	16 (0.01)
Disabled	12 (0.02)
Retired	2 (0.01)
Other	11 (0.02)
Current marital status	
Married	27 (0.02)
Not married	73 (0.02)
Self-rated health status	
Excellent	10 (0.01)
Very good	28 (0.02)
Good	38 (0.02)
Fair/poor	24 (0.02)
Kessler 6 score	12.74 (0.31)
Federal poverty level	

Table 1 (continued)

Variables	Weighted percentage (standard error)
<138%	38 (0.02)
138–400%	40 (0.02)
>400%	22 (0.02)
Parole/probation	
Yes	17 (0.02)
No	83 (0.02)
Arrested for DUI or drunkenness	
Yes	10 (0.01)
No	90 (0.01)
Metropolitan statistical area	
Yes	95 (0.01)
No	5 (0.01)
Geographic region	
Midwest	9 (0.01)
South	28 (0.02)
West	38 (0.02)
Northeast	24 (0.02)

There were significant differences in reasons for not obtaining treatment by insurance status and type among those who perceived a need for treatment (Table 2): 48% of privately insured individuals indicated lack of readiness to stop using and 16% indicated stigma as the reason for not obtaining SUD treatment—the highest rate when compared with the other insurance categories. Access barriers were the most prominent reason for not obtaining treatment among the Medicaid population (31%); only 3% of the Medicaid population indicated stigma as the reason for not obtaining treatment—the lowest rate when comparing stigma among the other insurance categories; 16% of the individuals with Medicaid identified treatment not a priority; and 29% identified lack of readiness to stop using as the reason for not obtaining SUD treatment. Financial barriers were the most prominent reason for not obtaining treatment among the uninsured who perceived a need for treatment. Among the uninsured with FPL <138% (i.e., individuals eligible for Medicaid expansion under the ACA) and those with FPL ≥138% (i.e., individuals eligible for subsidies for purchasing private insurance on the health insurance exchanges under the ACA), 46 and 41%, respectively, indicated financial barriers as a reason for not obtaining treatment.

Table 3 presents the estimates for the multinomial regression models that control for an extensive set of variables. Results from the fully specified model are shown in Appendix 2. Having private insurance yields a higher relative risk of identifying access barriers, stigma, lack of readiness to stop using, and treatment not a priority as reasons for not obtaining substance abuse treatment, compared to being uninsured and identifying financial reasons for not obtaining treatment. The RRR for stigma was the largest among the privately insured followed by treatment not a priority and lack of readiness to stop using. More specifically, the privately insured (relative to the uninsured) were six times more likely to identify stigma as a reason for not getting SUD treatment compared to financial factors. Privately insured individuals were also

Table 2

Reasons for not seeking SUD treatment among individuals who felt a need for but did not get SUD treatment ($n = 1300$) by health insurance status and type (weighted %, confidence interval)

	Overall	Private	Medicaid	Other	Uninsured	
Reasons for not seeking SUD treatment					**FPL <138%**	**FPL ≥138%**
Financial	25.4 [21.1,30.2]	11.0 [6.8,17.1]	20.4 [10.3,36.8]	27.0 [5.1,70.9]	45.7 [32.0,60.2]	40.7 [28.5,54.1]
Access barriers	14.5 [10.9,19.1]	10.0 [5.9,16.2]	31.2 [14.5,54.7]	4.0 [0.6,19.6]	12.2 [5.9,23.2]	18.0 [9.3,31.9]
Stigma	10.0 [7.4,13.1]	16.0 [10.8,22.8]	3.0 [0.8,12.7]	14.0 [1.1,68.2]	4.2 [1.3,12.7]	7.5 [3.4,15.6]
Lack of readiness to stop using	37.1 [31.6,41.2]	48.0 [39.4,56.2]	29.0 [15.6,46.7]	42.0 [12.7,77.5]	26.2 [15.6,40.5]	27.2 [17.7,39.3]
Treatment not a priority	13.0 [12.1,18.8]	15.0 [10.4,22.4]	16.4 [6.8,34.4]	14.0 [1.6,63.1]	11.7 [5.3,23.6]	6.60 [3.3,13.4]

Table 3

Multinomial logistic regression estimates (relative risk ratios) of reasons for not seeking SUD treatment among individuals who felt a need for but did not get SUD treatment ($n = 1300$)

Variables	Access barriers RRR [95% CI]	Stigma RRR [95% CI]	Lack of readiness to stop using RRR [95% CI]	Treatment not a priority RRR [95% CI]
Health insurance status				
Private insurance	3.49*** [1.35,7.76]	6.27*** [2.72,14.71]	5.00*** [2.70,9.40]	5.11*** [2.47,10.61]
Medicaid	3.44*** [1.39,8.53]	1.21 [0.40,3.60]	2.35* [1.08,5.09]	3.27*** [1.46,7.33]
Other insurance	0.33 [0.09,1.21]	1.33 [0.35,5.03]	2.30 [0.93,5.73]	2.79* [0.85,9.18]
Uninsured (reference)				

Notes: Models adjust for age, gender, race, education, employment, marital status, self-rated health status, K6 score, criminal justice status, federal poverty level, and location in a Metropolitan Statistical Area and geographic region

***$p < 0.001$; *$p < 0.05$

significantly more likely to report lack of readiness to stop using (RRR = 5.00; $p < 0.001$) or treatment not being a priority (RRR = 5.11; $p < 0.001$) as being the primary reasons they did not seek SUD treatment when compared to financial barriers. For the Medicaid population relative to the uninsured, the relative risk of identifying access barriers and treatment not a priority were three times higher compared to financial factors as a reason for not getting substance abuse treatment. The relative risk for identifying lack of readiness to stop using was also statistically significant for the Medicaid population, but the magnitude was lower compared to access barriers and treatment not a priority. For the individuals with other insurance relative to the uninsured, the relative risk of reporting treatment not a priority was nearly three times more compared to financial reasons.

Discussion

Using data from the 2008 to 2013 NSDUH, this study explores the reasons a substantial number of individuals with SUD do not receive any treatment even when they perceive a need for it. In addition, the study also examines the variations in reasons for not getting treatment by health insurance status and type. The analysis finds that nonfinancial barriers such as stigma, a lack of readiness to stop using, and treatment not a priority, are more common among the insured population, especially among those with private insurance. Financial barriers, such as not being able to afford the cost of treatment, were more prominent among the uninsured population. These findings are similar to Walker et al. who reported barriers such as stigma to be more common for mental health treatment among the insured population and barriers such as cost to be more common among the uninsured population.[12]

Estimates from the multinomial logistic regression indicate the particular importance of barriers such as stigma and lack of readiness to stop using as reasons for not getting SUD

treatment among those with private insurance and access barriers as reasons for not getting treatment among the Medicaid population. Even though treatment access was significant for the privately insured, the RRR was almost half that of stigma. The categories "treatment not a priority" and "lack of readiness to stop using" were important barriers to getting treatment among both the Medicaid and the privately insured groups, although the impact of not being ready to stop using was much higher among the privately insured. The importance of financial issues and access barriers as reasons for not obtaining treatment among the uninsured population suggests that the ACA (along with MHPAEA) might increase the number of uninsured individuals who seek SUD treatment. The finding that access barriers such as availability of services, geographic proximity to services, and lack of transportation are significant impediments to SUD treatment, especially among those with Medicaid, suggests that investments beyond health insurance coverage may be needed to make treatment more accessible to those with SUD.

Limitations

The findings of this study should be viewed in the context of some limitations. First, the data were cross-sectional, based on self-reported reasons for not seeking treatment, and churning could be an issue in measuring insurance status and type. However, these limitations are not unique to this study,[10,12] and the NSDUH is the only nationally representative dataset that contains information on the reasons for not seeking treatment. Second, only one measure of SUD (i.e., alcohol or illicit drug use disorder) was assessed in the study, and the results may not generalize when individuals with alcohol use disorder and illicit drug use disorder are considered separately. Third, the study was limited to individuals who perceived a need for treatment. The vast majority of individuals do not perceive a need for substance abuse treatment, which is a major barrier to treatment.[9] It would be important to know more about the barriers to treatment among those who did not perceive a need for treatment, and this could be an important direction for future research.

Implications for Behavioral Health

Besides identifying the reasons for not seeking treatment among those with SUD who perceived a need for treatment, a major finding of the study is the association between those reasons for not seeking treatment and health insurance status and type. This association has important implications for the role that structural changes to the health care system, such as increased insurance coverage as a result of the ACA, might play in influencing SUD treatment. Financial barriers, such as not being able to afford the cost of treatment, are a more common barrier among the uninsured population. The finding that the decision to not seek treatment for SUD is due to barriers such as not ready to stop using, treatment not a priority, and stigma more often among the insured population than the uninsured population suggests that targeted outreach initiatives to raise awareness about the effective role of SUD treatment may be necessary. This study suggests that in addition to addressing financial barriers, efforts aimed at influencing attitudes about SUD treatment might need to target several sectors of the population differentially and will likely involve a variety of approaches in order to increase the use of treatment for SUD.

A recent study conducted by the Board on Behavioral, Cognitive, and Sensory Sciences of the National Academies of Sciences (NAS) observed that positive change in public attitudes and beliefs about mental and substance abuse disorders has lagged behind the major progress in new treatment approaches and models of recovery that have been developed over the past 50 years.[17] The NAS study indicated that major efforts focused on understanding and changing the complex

social phenomena of stigma and discrimination surrounding mental disorders and misuse of alcohol or drugs are a critical factor in increasing the use of available treatment options (NAS, 2016). Further, the increasing availability of workplace policies and programs directed at reducing substance use, including dissemination of educational materials and access to employee assistance programs (EAPs), may serve to encourage awareness and receptivity to substance abuse treatment.[18] Efforts to improve access to substance abuse treatment will need to address financial barriers, such as cost and lack of insurance, as well as barriers such as stigma and lack of readiness to stop using substances. Greater outreach and awareness efforts will be necessary if the ACA is to reach its full potential for increasing service utilization among the population with SUD.

Compliance with Ethical Standards

Conflict of Interest The authors have no conflict of interest to declare.

Disclaimer The views expressed here are those of the authors and do not necessarily reflect the views of the Substance Abuse and Mental Health Services Administration (SAMHSA) or the US Department of Health and Human Services (DHHS).

References

1. Substance Abuse and Mental Health Services Administration. Use of behavioral health services is expected to increase under the Affordable Care Act. Rockville: Center for Behavioral Health Statistics & Quality, 2014.
2. Ali MM, Teich J, Woodward A, et al. The implications of the Affordable Care Act for behavioral health services utilization. Administration and Policy in Mental Health and Mental Health Services Research. 2016;43(1):11-22.
3. Wu LT, Kouzis AC, Schlenger WE. Substance use, dependence, and service utilization among the U.S. uninsured nonelderly population. American Journal of Public Health. 2003;93(12):2079-2085.
4. Mojtabai R. Use of specialty substance abuse and mental health services in adults with substance use disorders in the community. Drug and Alcohol Dependence.2005; 78:345-354.
5. Edlund MJ, Booth BM, Han X. Who seeks care where? Utilization of mental health and substance use disorder treatment in two national samples of individuals with alcohol use disorders. Journal of Studies on Alcohol and Drugs.2012;73:635-646.
6. Buck JA.The looming expansion and transformation of public substance abuse treatment under the Affordable Care Act. Health Affairs. 2011;30(8):1402-1410.
7. Han B, Gfroerer J, Kuramoto J, et al. Medicaid expansion under the Affordable Care Act: potential changes in the receipt of mental health treatment among low income nonelderly adults with serious mental illness. American Journal of Public Health. 2015;105(10):1982 -1989.
8. Capoccia VA, Grazier KL, Toal C, et al. Massachusetts's experience suggests coverage alone in insufficient to increase addiction disorders treatment. Health Affairs.2012; 31(5):1000-1008.
9. Ali MM, Teich J, Mutter R. The role of perceived need and health insurance in substance abuse treatment: implications for the Affordable Care Act. Journal of Substance Abuse Treatment.2015; 54:14-20.
10. Mojtabai R, Chen LY, Kaufmann CN, et al. Comparing barriers to mental health treatment and substance use disorder treatment among individuals with comorbid major depression and substance use disorder. Journal of Substance Abuse Treatment.2014;46:268-273.
11. Edlund MJ, Unutzer J, Curran GM. Perceived need for alcohol, drug, and mental health treatment. Social Psychiatry and Psychiatric Epidemiology. 2006;41:480-487.
12. Walker ER, Cummings JR, Hockenberry JM, et al. Insurance status, use of mental health services and, unmet need for mental health care in the United States. Psychiatric Services. 2015; 66(6):578-584.
13. Substance Abuse and Mental Health Services Administration. Results from the 2013 National Survey on Drug Use and Health: mental health findings. Rockville, MD: Center for Behavioral Health Statistics & Quality, 2014.
14. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-IV) (4th ed.). Washington DC 1994
15. Kessler RC, Andrews G, Cope LJ, et al. Short screening scales to monitor population prevalence and trends in non-specific psychological distress. Psychological Medicine.2002;32:184-189.
16. Mutter R, Ali MM, Smith K, et al. Factors associated with substance use treatment completion in residential facilities. Drug & Alcohol Dependence. 2015;154:291-295.
17. National Academies of Sciences, Engineering, and Medicine. Ending discrimination against people with mental and substance abuse disorders: the evidence for stigma change. Washington (DC): National Academies Press (US); 2016 Aug
18. Bush DM, Lipari RN. Workplace policies and programs concerning alcohol and drug use. The CBHSQ Report. Rockville: Substance Abuse and Mental Health Services Administration (US); 2013-. 2014 Aug 7.

Appendix 1

Table 4

Categories of reasons for not obtaining SUD treatment

Which of these following statements explain why you did not get the treatment or counseling you needed for your use of alcohol or any drug	
Did not get treatment because could not afford or health insurance did not cover	Financial
Did not get treatment because treatment was not covered under health insurance	
Did not get treatment because did not have transportation	Access barriers
Did not get treatment because treatment was not found for type wanted	
Did not get treatment because there was no opening in the program	
Did not get treatment because did not know where to get treatment	
Did not get treatment because treatment might cause neighbors to have negative opinion	Stigma
Did not get treatment because treatment might have negative effect on job	
Did not get treatment because did not want others to know	
Did not get treatment because not ready to stop using	Lack of readiness to stop using
Did not get treatment because can handle problem without treatment	Treatment not a priority
Did not get treatment because did not have time for treatment	
Did not get treatment because did not think treatment will help	

Appendix 2

Table 5

Multinomial logistic regression estimates (relative risk ratios) of reasons for not seeking SUD treatment among individuals who felt a need for but did not get SUD treatment ($n = 1300$)

Variables	Access barriers RRR [95% CI]	Stigma RRR [95% CI]	Lack of readiness to stop using RRR [95% CI]	Treatment not a priority RRR [95% CI]
Age	0.99 [0.96,1.03]	0.99 [0.97,1.03]	0.99 [0.97,1.02]	0.97* [0.95,0.99]
Female	0.92 [0.51,1.68]	0.49* [0.25,0.97]	0.98 [0.57,1.66]	0.83 [0.47,1.50]
Race				
Non-Hispanic White	0.64 [0.17,2.34]	3.94 [0.82,18.81]	1.82 [0.57, 5.77]	2.94 [0.68,12.74]
Non-Hispanic Black	0.73 [0.17,3.16]	2.70 [0.42,17.17]	1.05 [0.29,3.84]	1.62 [0.31,8.37]
Hispanic	1.77 [0.42,7.4]	1.66 [0.22,12.90]	2.67 [0.76,9.39]	2.80 [0.58,13.55]
Asian	0.37 [0.02,6.40]	0.12 [0.01,2.27]	2.35 [0.19,29.22]	7.73 [0.46,22.53]

Table 5 (continued)

Variables	Access barriers RRR [95% CI]	Stigma RRR [95% CI]	Lack of readiness to stop using RRR [95% CI]	Treatment not a priority RRR [95% CI]
Other (reference)				
Education				
High school	0.60 [0.30,1.21]	1.11 [0.43,2.87]	1.21 [0.65,2.28]	0.91 [0.36,2.29]
Some college	0.90 [0.40,2.02]	1.46 [0.54,3.92]	1.60 [0.83,3.05]	1.35 [0.64,2.87]
College graduate	0.36 [0.11,1.16]	2.15 [0.69,6.72]	1.33 [0.57,3.07]	0.90 [0.33,2.45]
< High school (reference)				
Employment				
Full time	0.40 [0.14,1.20]	1.02 [0.32,3.25]	1.01 [0.42,2.41]	0.90 [0.36,2.29]
Part-time	0.26 [0.09,0.82]	2.63 [0.67,10.37]	1.14 [0.44,2.98]	0.89 [0.32,2.41]
Looking/layoff/-unemployed	0.79 [0.28,2.23]	2.23 [0.57,8.71]	1.37 [0.54,3.48]	1.79 [0.68,4.65]
Disabled	0.46 [0.13,1.59]	0.04 [0.01,0.35]	0.79 [0.24,2.57]	1.38 [0.44,4.33]
Retired	10.58 [0.50,25.38]	22.71*** [7.05,35.39]	20.27* [1.37,29.07]	2.90 [0.12,27.72]
Other (reference)				
Married	0.80 [0.35,1.85]	0.93 [0.36,2.41]	1.09 [0.61,1.98]	1.32 [0.66,2.65]
Health insurance status				
Private insurance	3.49*** [1.35,7.76]	6.27*** [2.72,14.71]	5.00*** [2.70,9.40]	5.11*** [2.47,10.61]
Medicaid	3.44*** [1.39,8.53]	1.21 [0.40,3.60]	2.35* [1.08,5.09]	3.27*** [1.46,7.33]
Other insurance	0.33 [0.09,1.21]	1.33 [0.35,5.03]	2.30 [0.93,5.73]	2.79 [0.85,9.18]
Uninsured (reference)				
Self-rated health status				
Excellent	1.33 [0.42,4.26]	1.02 [0.25,4.13]	1.14 [0.46,2.82]	0.91 [0.33,2.47]
Very good	1.06 [0.43,2.61]	0.70 [0.26,1.89]	0.65 [0.33,1.30]	0.92 [0.42,2.04]
Good	1.34 [0.59,3.01]	1.41 [0.56,3.55]	0.72 [0.38,1.37]	0.86 [0.41,1.79]
Fair/poor (reference)				
K6 score	0.98 [0.94,1.03]	1.01 [0.95,1.07]	0.98 [0.94,1.02]	0.97 [0.94,1.01]
Probation	1.21 [0.52,2.83]	0.94 [0.32,2.82]	1.25 [0.67,2.35]	1.56 [0.74,3.30]
Arrested	1.47 [0.56,3.86]	0.60 [0.18,1.93]	0.76 [0.33,1.73]	0.29** [0.11,0.79]
Federal poverty level				
<138%	0.82 [0.22,3.10]	0.53 [0.18,1.60]	0.57 [0.26,1.26]	0.67 [0.27,1.67]
138–400%	1.46 [0.43,4.95]	1.32 [0.55,3.18]	0.97 [0.45,2.11]	0.82 [0.37,1.82]
>400% (reference)				
Metropolitan statistical area	0.67 [0.29,1.55]	0.76 [0.21,2.80]	0.69 [0.30,1.58]	3.07* [1.15,8.17]
Geographic region				
Midwest	1.21 [0.49,3.01]	1.46 [0.56,3.79]	1.64 [0.78,3.43]	1.10 [0.49,2.47]
South	1.41 [0.55,3.60]	0.78 [0.30,2.05]	1.04 [0.53,2.08]	0.68 [0.30,1.53]
West	1.36 [0.50,3.69]	0.95 [0.33,2.69]	1.29 [0.58,2.87]	0.76 [0.32,1.80]
Northeast (reference)				

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$