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The Role of Perceived Need and Health Insurance in Substance Use Treatment: Implications for the Affordable Care Act[☆]



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ABSTRACT

The expansions in insurance coverage under the Patient Protection & Affordable Care Act (ACA) that took full effect in 2014 have been projected to increase the number of users of behavioral health services. By analyzing data from the 2008–2012 National Survey on Drug Use and Health, this paper examines whether health insurance expansion may result in an increase in substance use disorder (SUD) treatment utilization. The study sample includes 18,600 adults with SUD but no diagnosable mental health condition. The analysis finds that over 80% of that population receives no treatment and 97% do not perceive a need for treatment. When they do receive treatment, they are more likely to receive mental health treatment. Using multinomial logistic regression, the study finds that having Medicaid or private insurance is associated with higher likelihood of receiving SUD treatment, but only when individuals perceive a need for it, compared to being uninsured and not perceiving a need for treatment (the reference category). These results indicate that increased service utilization is associated with perceiving a need for substance abuse treatment, implying that outreach initiatives to raise awareness about SUD and the effective role of substance use treatment are needed to enhance the impact of the structural changes to the substance abuse treatment system resulting from the ACA.

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1. Introduction

The expansions in insurance coverage under the Patient Protection & Affordable Care Act (ACA) that took full effect in 2014 are expected to result in a substantial increase in the number of users of behavioral health services (SAMHSA, 2014). Extending the availability of coverage to previously uninsured populations through Medicaid and private health insurance exchanges means that approximately 32 million individuals would potentially gain access to a wide array of health care services (Ali, Teich, Woodward, & Han, *in press*; Garfield, Zuvekas, Lave, & Donohue, 2011). According to the National Survey on Drug Use and Health (NSDUH), an estimated 5 million uninsured individuals have a substance abuse disorder, 8 million have a mental health disorder, and about 2 million have both a substance abuse and mental health disorder. Recent research on the projected impact of the ACA on behavioral health service delivery has consistently predicted a substantial increase in utilization of mental health services (Ali et al., *in press*; Busch, Meara, Huskamp, & Barry, 2013; Garfield et al., 2011). However, despite survey estimates which indicate a high prevalence of substance abuse disorders in the U.S., the rate at which individuals actually access substance abuse

services has consistently been shown to be extremely low (Edlund, Booth, & Han, 2012; Mojtabai, 2005). The literature also suggests that individuals with substance use disorders (SUDs), if they seek treatment at all, often seek mental health services rather than substance abuse treatment (Edlund et al., 2012). It is, therefore, unclear whether increased access to substance abuse services provided by the ACA coverage expansions will necessarily translate into increased utilization of substance abuse treatment.

An analysis of the potential impact of the ACA on the public substance abuse treatment system projected that overall funding will increase and substance abuse treatment services will be better integrated into the mainstream of general health care (Buck, 2011). That analysis also mentioned that ACA provisions were likely to expand the variety of substance abuse service providers and shift services away from residential and stand-alone programs toward outpatient and more integrated programs or care systems. However, it is not clear whether these changes in the delivery system will necessarily translate into an increased rate of substance abuse treatment utilization, since the degree to which these considerations affect individuals' actual treatment-seeking behavior is not known. In fact, a study based in Massachusetts found relatively stable rates of substance abuse treatment after the state's enactment of health reform, suggesting that expanded coverage alone might not be sufficient to increase treatment utilization (Capoccia, Grazier, Toal, Ford, & Gustafson, 2012).

In addition to financial and structural (e.g., not covered by insurance, lack of affordability, availability of providers, geographic accessibility of facilities, etc.) barriers to substance abuse treatment (Buck, 2011;

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Capoccia et al., 2012), one important reason for the low rates of substance abuse treatment could be individuals' lack of a perceived need for substance abuse treatment (Grella, Karno, Warda, Moore, & Niv, 2009). It is possible that individuals with SUD do not seek treatment because they do not recognize that they have a disorder, or they believe that they can recover on their own, or they simply do not wish to give up their substance use. Also, concerns about being viewed negatively by one's community, adverse impact on jobs, and inconvenience of treatment were documented as reasons for not receiving treatment for substance use (Mojtabai, Chen, Kaufmann, & Crum, 2014). A possible implication of this could be that the ACA might not necessarily lead to an increase in utilization of substance abuse services even with the expansion of coverage to include SUD treatment.

Another plausible reason for the low rate of substance abuse treatment could be that individuals with SUD may obtain mental health treatment rather than substance abuse treatment (Edlund et al., 2012; Mojtabai, 2005). Individuals with SUD might believe that their substance abuse arises from the need to self-medicate their mental health problems (Khantzian, 1997); this could be especially true if the individuals also have a co-occurring mental health condition. They could also seek mental health treatment if it is geographically or financially more accessible than SUD treatment (Mojtabai, 2005). Although Edlund et al. (2012) and Mojtabai (2005) examined these issues and found that individuals with SUD are more likely to seek mental health treatment rather than substance abuse treatment, they did not analyze the role health insurance might play in influencing substance abuse treatment-seeking behavior. Their sample also included individuals with co-occurring mental health disorders, which could be a reason for the mental health treatment finding. This paper expands on Edlund et al. (2012) by focusing on alcohol and illicit drug abuse rather than alcohol abuse alone.

The current study examines substance abuse and mental health service use among adults with SUD but no diagnosable mental health disorder in a large nationally representative sample. It examines factors associated with the treatment-seeking patterns (substance abuse treatment only; mental health treatment only; both substance abuse and mental health treatment; neither substance abuse nor mental health treatment) of that population. The findings have implications for whether expanded health insurance coverage under the ACA will necessarily translate into higher utilization of substance abuse treatment.

2. Material & methods

2.1. Data

This study utilizes data from the 2008–2012 National Survey on Drug Use and Health (NSDUH), a nationally representative survey of the non-institutionalized population in the United States conducted annually by the Substance Abuse and Mental Health Services Administration. The NSDUH collects detailed information on use of alcohol and illicit drugs, mental and substance use disorders, and behavioral health treatment utilization. Thus, the data set can be used to study correlates of substance use treatment and mental health treatment among a large population sample.

The NSDUH asks respondents questions to assess symptoms of substance use disorders (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 (APA, 1994). 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 substance use disorder in this study reflects whether the respondent has alcohol use or any illicit drug use disorder.

The NSDUH also asks respondents questions about past year psychological symptoms to determine if they had any mental illness (AMI) in

Table 1

Descriptive statistics for 2008–2012 NSDUH respondents 18 to 64 years old with substance use disorder (SUD) but no any mental illness (AMI) (n = 18,600).

| Variables | Weighted Percentage (Standard Error) | Unweighted N |
|---|---|--------------|
| Treatment | | |
| SUD Treatment Only | 0.05 (0.00) | 1100 |
| Mental Health Treatment Only | 0.10 (0.01) | 1600 |
| Both SUD & Mental Health Treatment | 0.01 (0.01) | 300 |
| No Treatment | 0.83 (0.01) | 15,600 |
| Perceived Need for SUD Treatment | | |
| Did not feel a need for SUD treatment | 0.97 (0.00) | 18,200 |
| Felt a need for SUD Treatment | 0.03 (0.00) | 400 |
| Insurance | | |
| Private Only | 0.61 (0.01) | 10,800 |
| Medicaid Only | 0.07 (0.00) | 1700 |
| Other Only | 0.06 (0.00) | 1100 |
| Uninsured | 0.26 (0.01) | 5000 |
| Age | 34 (0.18) | |
| Gender | | |
| Male | 0.73 (0.01) | 12,600 |
| Female | 0.27 (0.01) | 6000 |
| Race | | |
| Non-Hispanic White | 0.67 (0.01) | 12,500 |
| Non-Hispanic Black | 0.12 (0.01) | 1900 |
| Hispanic | 0.17 (0.01) | 2800 |
| Asian | 0.02 (0.00) | 400 |
| Other | 0.02 (0.00) | 1000 |
| Education | | |
| High School | 0.30 (0.01) | 5800 |
| Some College | 0.29 (0.01) | 6000 |
| College Graduate | 0.24 (0.01) | 3500 |
| Less than High school | 0.17 (0.01) | 3300 |
| Employment | | |
| Full time | 0.60 (0.01) | 10,000 |
| Part-time | 0.15 (0.01) | 3800 |
| Looking/Layoff/Unemployed | 0.11 (0.00) | 2000 |
| Disabled | 0.02 (0.00) | 200 |
| Retired | 0.02 (0.00) | 100 |
| Other | 0.11 (0.01) | 2500 |
| Current Marital Status | | |
| Married | 0.33 (0.01) | 3000 |
| Not Married | 0.67 (0.01) | 15,600 |
| Self-Rated Health Status | | |
| Excellent | 0.23 (0.01) | 4600 |
| Very Good | 0.42 (0.01) | 8000 |
| Good | 0.27 (0.01) | 5000 |
| Fair/Poor | 0.09 (0.01) | 1000 |
| K6 Score | 5.09 (0.05) | |
| Federal Poverty Level | | |
| <138% | 0.24 (0.01) | 5600 |
| 138%–400% | 0.41 (0.01) | 8000 |
| >400% | 0.35 (0.01) | 5000 |
| Parole/Probation | | |
| Yes | 0.09 (0.00) | 2000 |
| No | 0.91 (0.00) | 16,600 |
| Arrested for DUI or Drunkenness | | |
| Yes | 0.06 (0.00) | 1300 |
| No | 0.94 (0.00) | 17,300 |
| Metropolitan Statistical Area | | |
| Yes | 0.95 (0.00) | 17,400 |
| No | 0.05 (0.00) | 1200 |
| Geographic Region | | |
| Midwest | 0.22 (0.01) | 5300 |
| South | 0.34 (0.01) | 5400 |
| West | 0.25 (0.01) | 4200 |
| Northeast | 0.19 (0.01) | 3700 |

the past year. AMI among adults aged 18 or older is defined as having had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) of sufficient duration using the criteria in DSM-IV (APA, 1994). Because the ACA's insurance expansions will primarily affect the nonelderly population and since the focus of the study is on treatment patterns among individuals with a

substance use disorder but no mental illness, the sample is restricted to individuals aged 18 through 64 with SUD but no AMI (unadjusted pooled $N = 18,600$). All estimates are weighted to account for NSDUH's complex survey design and to make the estimates nationally representative (weighted pooled $N \approx 11$ million). Comprehensive information on the NSDUH data collection methods and survey design can be found elsewhere (SAMHSA, 2013). Descriptive statistics on the study sample and the variables used in the analysis are provided in Table 1.

2.2. Measures

The dependent variable is categorical with four mutually exclusive treatment categories: substance abuse treatment only, mental health treatment only, both substance abuse and mental health treatment, and no substance abuse or mental health treatment in the past 12 months. Substance abuse treatment in the study refers to the use of any outpatient or inpatient treatment services during the year (including substance use treatment at a private physician's office and substance abuse related emergency room visit). However, it does not categorize those who received substance use treatment through self-help groups only as receiving treatment, because self-help groups or informal treatments are not covered by health insurance and therefore not related to the insurance coverage expansion. Mental health treatment represents the use of one or more of the following types of services during the year – outpatient treatment services (clinical or non-clinical setting), inpatient treatment services (clinical or non-clinical setting) and use of any psychotropic medication.

One of the primary independent variables of interest in the empirical model is an interaction variable between perceived need for substance use treatment and health insurance status. This variable helps estimate how insurance status might relate to substance abuse treatment seeking behavior among individuals given their perceived need for treatment. Health insurance status is measured by 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.). Perceived need for substance abuse treatment was measured by the NSDUH question of whether during the past 12 months the respondents reported needing treatment or counseling for their alcohol or drug use. A response of yes was coded as 1, indicating that the individual felt a need for treatment, and a response of no was coded as 0, indicating that the individual did not feel a need for treatment.

The analytic sample includes individuals who have no diagnosable mental illness (per the DSM-IV criteria used to measure AMI in NSDUH). However, the empirical model includes a psychological distress score to reflect SUD as possible self-medication of mental health symptoms (Khantzian, 1997). This psychological distress score was measured using the K6 screening instrument (Kessler et al., 2002), which is available in the NSDUH data set for all survey participants even though they might not have any diagnosable mental health condition. The six items on K6 ask how often the participant has felt nervous, restless, hopeless, and worthless, 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 a range from 0 to 24.

Since some proportion of substance abuse 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, 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.

2.3. 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 four treatment categories are – (i) substance abuse treatment only; (ii) mental health treatment only; (iii) both substance abuse and mental health treatment; and (iv) no substance abuse or mental health treatment as the reference group for the calculations of the relative risk ratios. For each independent variable this produces three relative risk ratios (RRR); for example, in the case of psychological distress, this estimates the association of the K6 score with treatment utilization in modeling three logit models simultaneously – (i) comparing substance abuse treatment only with no substance abuse or mental health treatment; (ii) comparing mental health treatment only with no substance abuse or mental health treatment, and (iii) comparing both substance abuse and mental health treatment with no substance abuse or mental health treatment.

3. Results

3.1. Descriptive estimates of treatment use patterns among adults with SUD but no AMI

More than 80% of all adults with SUD but no AMI did not receive any substance abuse treatment in the past year (Table 2). For those with insurance, the rate of not receiving treatment was lowest for individuals having Medicaid (72.5%) and highest for those covered by private insurance (83.5%). Among uninsured individuals, more than 85% report not receiving any substance use treatment in the past year. Table 2 also shows that a larger proportion of individuals report receiving mental health treatment rather than substance abuse treatment. The exception is the uninsured, where the rate of substance abuse treatment is higher compared to mental health treatment – 9.2% vs. 4.6% among the uninsured with FPL < 138% (i.e., individuals eligible for Medicaid expansion

Table 2
Patterns of treatment among individuals with SUD but no AMI ($n = 18,600$) by health insurance status (weighted %, confidence interval).

| TREATMENT | Overall | Private | Medicaid | Other | Uninsured | |
|--|-------------------|------------------|------------------|------------------|------------------|------------------|
| | | | | | FPL < 138% | FPL \geq 138% |
| Substance Abuse Treatment Only | 5.2 [4.8,5.7] | 3.4 [2.9,3.9] | 8.4 [6.5,10.9] | 6.5 [4.4,9.6] | 9.2 [7.3,11.5] | 7.6 [6.1,9.4] |
| Mental Health Treatment Only | 10.1 [9.3,10.9] | 11.9 [10.8,13.1] | 12.9 [10.4,15.9] | 10.4 [7.8,13.8] | 4.6 [3.6,5.9] | 5.5 [4.3,6.9] |
| Both Substance Abuse & Mental Health Treatment | 1.5 [1.2,1.9] | 1.2 [0.9,1.8] | 6.1 [4.1,9.1] | 2.2 [1.0,4.6] | 1.0 [0.6,1.8] | 0.7 [0.4,1.2] |
| No Treatment | 83.2 [82.2, 84.0] | 83.5 [82.2,84.7] | 72.5 [68.6,76.2] | 80.9 [76.6,84.5] | 85.2 [82.7,87.3] | 86.2 [84.1,88.1] |

Table 3Perceived need for SUD treatment among individuals with SUD but no AMI ($n = 18,600$) by health insurance status (weighted %, confidence interval).

| | Overall | Private | Medicaid | Other | Uninsured | |
|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | | | | FPL < 138% | FPL ≥ 138% |
| Felt need for treatment | 2.8 [2.2,3.1] | 1.9 [1.5,2.5] | 4.3 [2.8,6.6] | 5.6 [3.2,9.5] | 3.2 [2.1,4.7] | 3.2 [2.3,4.5] |
| Did not feel need for treatment | 97.4 [96.9,97.8] | 98.1 [97.5,98.5] | 95.7 [93.4,97.2] | 94.4 [90.5,96.8] | 96.8 [95.3,97.9] | 96.8 [95.5,97.7] |

under the ACA) and 7.6% vs. 5.5% among the uninsured with FPL ≥ 138% (i.e., individuals eligible for subsidies for purchasing private insurance on the health insurance exchanges under the ACA). The proportion of individuals receiving both substance abuse and mental health treatment is very low across all insurance categories, with the rate being highest for those with Medicaid (6.1%).

Overall, 97% of individuals with SUD reported not feeling a need for treatment or counseling for their alcohol or drug use (Table 3). Perceived need for substance abuse treatment was less than 2% among those with private insurance and slightly above 4% for those with Medicaid. Among those who perceived a need for treatment, 21% reported receiving mental health treatment only and 11% reported receiving substance abuse treatment only (Table 4). Thus, even in this subgroup of individuals with SUD who did perceive a need for treatment, only a small fraction sought substance use treatment. Even among those who did not perceive a need for substance abuse treatment but nevertheless did get treatment (possibly as a result of a court order), a larger percentage reported receiving mental health treatment compared to substance abuse treatment (10% vs. 5%).

3.2. Multinomial logit estimates of treatment use patterns among adults with SUD but no AMI

Table 5 presents the estimates for the multinomial regression models after accounting for an extensive set of control variables. Results from the fully specified model are shown in Appendix 1. Having Medicaid or private insurance and not perceiving a need for treatment are not statistically different from being uninsured and not perceiving a need for treatment (the reference category) for receiving substance abuse treatment only, mental health treatment only, and, in the case of private insurance, receiving both SUD and mental health treatment. Having Medicaid is associated with higher relative risk of obtaining both substance abuse and mental health treatment, compared to being uninsured and not perceiving a need for treatment. Having other insurance and not feeling a need for treatment lower the relative risk of seeking mental health treatment only and seeking both mental health and substance abuse treatment by a factor of 0.64 and 0.34, respectively.

Having private insurance and perceiving a need for treatment increase the relative risk of seeking substance abuse treatment only (compared to the reference category of being uninsured and not perceiving a need for treatment) by approximately a factor of 3. In addition, perceiving a need for treatment and having private insurance increase the relative risk of seeking mental health treatment only by a factor greater than 3, and the coefficient is highly statistically significant. For Medicaid beneficiaries, perceiving a need for treatment is associated with an increased relative risk of seeking only mental health treatment by a factor greater than 3 compared to the reference group. Perceiving a need for treatment and having other type insurance are not statistically significant for receiving any type of treatment. However, perceiving a need for treatment is significantly associated with seeking substance abuse treatment only for the uninsured. The statistically significant relative risk ratio of less than 1 implies that they are less likely to seek substance abuse treatment only.

Taken together, these estimates indicate the importance of perceiving a need for treatment and imply that having insurance by itself may

not be sufficient to influence treatment seeking patterns among individuals if they do not have a perceived need for treatment. As measured by the number of statistically significant coefficients, the perception of the need for treatment and insurance have stronger associations with mental health treatment than substance abuse treatment.

Some of the other factors significantly associated with treatment-seeking behavior (as reported in Appendix 1) across treatment groups include the K6 score, being on probation/parole and whether the individual was arrested and booked for DUI or drunkenness — with the exception of mental health treatment, for which being arrested was not statistically significant. More specifically, the estimates indicate that a higher K6 score is associated with a higher relative risk of seeking substance abuse treatment only, mental health treatment only, and both mental health and substance abuse treatment by a factor slightly over 1. Being on probation/parole is associated with a higher relative risk of only seeking substance abuse treatment by a factor of 7, which is larger compared to the estimated RRR for mental health treatment only (1.5) and both substance abuse and mental health treatment (4.3). Being arrested and booked for DUI or drunkenness is associated with an increase in relative risk of substance abuse treatment by a factor of 4. Although being arrested and booked for DUI or drunkenness was not statistically significant for seeking mental health treatment only, it is associated with an increase in the relative risk of seeking substance abuse treatment only and both substance abuse and mental health treatment by a factor of over 4.

4. Discussion

Using data from the 2008–2012 NSDUH, this study explores treatment-seeking patterns of individuals with SUD but no diagnosable comorbid mental health disorder, and also examines the role health insurance plays in influencing the type of services (substance abuse treatment and/or mental health treatment) individuals might seek given their perceived need for treatment. The analysis finds that the vast majority of individuals with SUD received no treatment and less than 5% even perceive a need for SUD treatment. However, when they do receive treatment, they are more likely to receive mental health treatment rather than substance abuse treatment.

More specifically, only 17% of individuals with SUD reported receiving some form of treatment in the past year, with the rate of treatment being higher for those under Medicaid; the vast majority of individuals

Table 4Perceived need for SUD treatment among individuals with SUD but no AMI ($n = 18,600$) by treatment seeking pattern (weighted %, confidence interval).

| | FELT NEED FOR TREATMENT | DID NOT FEEL NEED FOR TREATMENT |
|--|-------------------------|---------------------------------|
| TREATMENT | | |
| Substance Abuse Treatment Only | 11.3 [7.5,16.7] | 5.1 [4.6,5.6] |
| Mental Health Treatment Only | 20.5 [14.1,28.9] | 9.8 [9.1,10.6] |
| Both Substance Abuse & Mental Health Treatment | 3.3 [1.5,7.0] | 1.5 [1.2,1.9] |
| No Treatment | 64.9 [56.4, 72.7] | 83.7 [82.7,84.5] |

Table 5

Multinomial logistic regression estimates (relative risk ratios) of treatment seeking among individuals with SUD but no AMI (n = 18,600).

| Variables | SUD Treatment Only RRR [95% CI] | Mental Health Treatment Only RRR [95% CI] | Both SUD & Mental Health Treatment RRR [95% CI] |
|--|------------------------------------|--|--|
| Perceived Need for SUD Treatment & Insurance Status | | | |
| Did not feel a Need for SUD Treatment & has Private Insurance | 0.69 [0.45, 1.08] | 1.11 [0.76, 1.62] | 0.96 [0.36, 2.57] |
| Did not feel a Need for SUD Treatment & has Medicaid | 1.07 [0.61, 1.86] | 1.37 [0.76, 1.63] | 2.82* [1.05, 7.57] |
| Did not feel a Need for SUD Treatment & has Other Insurance | 0.81 [0.50, 1.32] | 0.64* [0.42, 0.96] | 0.34* [0.13, 0.87] |
| Felt a Need for SUD Treatment & has Private Insurance | 2.93* [1.14, 7.50] | 3.26*** [1.54, 6.76] | 5.28 [0.57, 48.51] |
| Felt a Need for SUD Treatment & has Medicaid | 0.82 [0.17, 3.87] | 3.22** [0.90, 10.68] | 0.84 [0.21, 3.37] |
| Felt a Need for SUD Treatment & has Other Insurance | 0.82 [0.71, 3.87] | 2.76 [0.89, 8.50] | 3.96 [0.85, 18.39] |
| Felt a Need for SUD Treatment & is Uninsured | 0.01*** [0.01, 0.08] | 1.21 [0.50, 2.90] | 0.45 [0.11, 1.97] |
| Did not feel a Need for SUD Treatment & is Uninsured (reference) | | | |

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

*** p < 0.001.

** p < 0.01.

* p < 0.05.

with SUD (83%) reported not receiving any type of treatment. Our finding that persons covered by Medicaid or receiving other forms of public assistance were more likely to receive substance abuse treatment than the privately insured is consistent with a previous study (Wu, Kouzis, & Schlenger, 2003). Also, 97% of individuals with SUD did not perceive a need for treatment or counseling for their alcohol or drug use. This is consistent with previous research that finds that most individuals do not perceive a need for treatment for their substance use disorder (Mojtabai, 2005).

We also find that individuals with SUD who sought treatment were more likely to seek mental health treatment than substance abuse treatment. This finding is consistent with results from a previous study that included individuals with co-occurring mental illness (Edlund et al., 2012). A possible explanation for this finding could be that the wider availability of mental health services (compared to substance abuse services) influences more individuals to seek mental health treatment rather than substance abuse treatment. However, the striking rate of not perceiving a need for substance abuse treatment cannot be attributed to service availability only (Mojtabai, 2005). Another possible explanation could be that individuals perceive their substance use disorder as primarily a mental health problem and thus seek mental health treatment rather than substance abuse treatment (Khantzian, 1997). The NSDUH does not ask respondents about the reasons why they sought the type of treatment they did, or about their perceptions regarding various types of treatment. However, awareness of differences in requirements for academic qualifications of mental health versus substance abuse providers, and differences in credentialing and licensure standards between the two specialties, may also be a factor in respondents' choice of treatment. Addiction counselors are sometimes perceived as having lower status than other professionals, also perhaps because of some addiction counselors' own history of substance use disorders (DHHS, 2013).

Another major finding of the study is that there is an important interactive relationship between health insurance and perceived need for treatment and treatment-seeking behavior. This association has important implications for the role structural changes in the health care system, such as increased insurance coverage, might play in influencing substance abuse treatment. The finding that the decision to seek treatment for substance abuse is contingent on perceived need for treatment as well as insurance, suggests that outreach initiatives to raise awareness about the effective role of substance use treatment may be necessary. In fact, according to the NSDUH data, 42% of those who needed but did not receive treatment indicated that they did not do so because they are not ready to stop using alcohol or drugs. However, only 24% of those who needed treatment reported not receiving treatment because

of the lack of health care coverage or affordability or because their insurance coverage did not include substance use treatment.

It is important to note that the analysis does not include individuals who might have sought substance abuse treatment from a self-help group only, such as Alcoholics Anonymous or Narcotics Anonymous. Thus, the rate of substance abuse treatment might actually be higher than what is presented in the study. However, because self-help groups and other alternative free services (like pastoral counseling) are not dependent on health insurance coverage, it seems likely that low or unchanged rates of substance abuse treatment would persist despite an expansion in coverage and the ACA mandate to include substance abuse services as an essential benefit.

A limitation in this analysis is the lack of information from NSDUH regarding the proportion of substance abuse treatment that is court-ordered and the mechanisms by which such mandates are carried out. A study of 276 subjects recruited through a community resource center and a drug abuse research project (Hser, Maglione, Polinsky, & Anglin, 1998) reported that 45.6% of the 171 subjects who entered treatment listed "legal coercion" as one of their reasons for doing so. It would be important to know how court-ordered substance abuse treatment is funded, particularly for individuals who are uninsured, whether the court mandate designates what type of treatment (substance abuse versus mental health) must be sought, and whether this decision is contingent on local availability and accessibility of the various types of services.

In conclusion, the study highlights the high rates of not seeking any form of treatment for SUD and the high likelihood among individuals with SUD not to perceive any need for treatment for their alcohol or drug use. A substantial proportion of individuals who sought treatment were more likely to seek mental health treatment than substance abuse treatment. These findings underscore the need for better integration of substance abuse treatment into the general health care system, so that primary care providers place an increased emphasis on recommendations for lifestyle changes and referral to specialty substance abuse providers. Greater outreach, awareness and early intervention efforts will be necessary if the ACA is to reach its full potential for increasing service utilization among the population with SUD.

Disclaimer

The views expressed here are those of the authors and do not necessarily reflect the views of the Substance Abuse & Mental Health Services Administration.

Appendix 1. Multinomial logistic regression estimates (relative risk ratios) of treatment seeking among individuals with SUD but no AMI (n = 18,600)

| Variables | SUD Treatment Only RRR [95% CI] | Mental Health Treatment Only RRR [95% CI] | Both SUD & Mental Health Treatment RRR [95% CI] |
|--|------------------------------------|--|--|
| Age | 1.01 [0.99, 1.02] | 1.02*** [1.01, 1.03] | 1.04*** [1.01, 1.07] |
| Female | 0.72*** [0.55, 0.96] | 2.59*** [2.15, 3.12] | 1.04 [0.63, 1.71] |
| Race | | | |
| Non-Hispanic White | 1.51 [0.95, 2.42] | 1.10 [0.62, 1.94] | 4.59** [1.65, 12.73] |
| Non-Hispanic Black | 0.93 [0.53, 1.62] | 0.58 [0.29, 1.15] | 1.65 [0.53, 5.07] |
| Hispanic | 0.98 [0.57, 1.68] | 0.48* [0.26, 0.90] | 2.05 [0.62, 6.67] |
| Asian | 0.65 [0.30, 1.43] | 0.40* [0.18, 0.88] | 0.59 [0.07, 4.83] |
| Other (reference) | | | |
| Education | | | |
| High School | 0.84 [0.63, 1.13] | 1.16 [0.80, 1.55] | 1.09 [0.67, 1.77] |
| Some College | 0.91 [0.66, 1.24] | 1.20 [0.89, 1.62] | 0.71 [0.35, 1.27] |
| College Graduate | 0.55** [0.34, 0.85] | 1.47* [1.05, 2.05] | 0.66 [0.29, 1.52] |
| < High school (reference) | | | |
| Employment | | | |
| Full time | 0.91 [0.66, 1.26] | 1.04 [0.80, 1.34] | 0.56 [0.30, 1.02] |
| Part-time | 1.06 [0.74, 1.51] | 0.98 [0.73, 1.30] | 0.67 [0.35, 1.27] |
| Looking/Layoff/Unemployed | 1.48* [1.03, 2.12] | 1.19 [0.84, 1.69] | 1.34 [0.64, 2.80] |
| Disabled | 1.00 [0.37, 2.69] | 2.83*** [1.60, 4.99] | 1.61 [0.49, 5.29] |
| Retired | 1.53 [0.41, 5.70] | 1.29 [0.59, 2.84] | 0.08* [0.01, 0.73] |
| Other (reference) | | | |
| Married | 0.63* [0.45, 0.90] | 1.02 [0.81, 1.27] | 0.77 [0.41, 1.44] |
| Perceived Need for SUD Treatment & Insurance Status | | | |
| Did not feel a Need for SUD Treatment & has Private Insurance | 0.69 [0.45, 1.08] | 1.11 [0.76, 1.62] | 0.96 [0.36, 2.57] |
| Did not feel a Need for SUD Treatment & has Medicaid | 1.07 [0.61, 1.86] | 1.37 [0.76, 1.63] | 2.82* [1.05, 7.57] |
| Did not feel a Need for SUD Treatment & has Other Insurance | 0.81 [0.50, 1.32] | 0.64* [0.42, 0.96] | 0.34* [0.13, 0.87] |
| Felt a Need for SUD Treatment & has Private Insurance | 2.93* [1.14, 7.50] | 3.26*** [1.54, 6.76] | 5.28 [0.57, 48.51] |
| Felt a Need for SUD Treatment & has Medicaid | 0.82 [0.17, 3.87] | 3.22** [0.90, 10.68] | 0.84 [0.21, 3.37] |
| Felt a Need for SUD Treatment & has Other Insurance | 0.82 [0.71, 3.87] | 2.76 [0.89, 8.50] | 3.96 [0.85, 18.39] |
| Felt a Need for SUD Treatment & is Uninsured | 0.01*** [0.01, 0.08] | 1.21 [0.50, 2.90] | 0.45 [0.11, 1.97] |
| Did not feel a Need for SUD Treatment & is Uninsured (reference) | | | |
| Self-Rated Health Status | | | |
| Excellent | 0.80 [0.50, 1.25] | 0.92 [0.63, 1.34] | 0.79 [0.26, 2.36] |
| Very Good | 0.78 [0.51, 1.19] | 0.80 [0.57, 1.12] | 0.97 [0.39, 2.42] |
| Good | 0.88 [0.57, 1.37] | 0.89 [0.64, 1.24] | 0.91 [0.39, 2.11] |
| Fair/Poor (reference) | | | |
| K6 Score | 1.05** [1.02, 1.08] | 1.11*** [1.09, 2.14] | 1.14*** [1.04, 1.24] |
| Probation | 7.08*** [5.39, 9.28] | 1.53* [1.09, 2.14] | 4.34*** [2.70, 6.97] |
| Arrested | 4.03*** [2.97, 5.48] | 1.11 [0.74, 1.66] | 4.52*** [2.63, 7.76] |
| Federal Poverty Level | | | |
| <138% | 1.33 [0.95, 1.85] | 0.72* [0.56, 0.93] | 1.34 [0.73, 2.46] |
| 138%–400% | 1.05 [0.79, 1.41] | 0.70 [0.57, 0.87] | 1.13 [0.63, 2.04] |
| >400% (reference) | | | |
| Metropolitan Statistical Area | 1.15 [0.73, 1.80] | 1.22 [0.85, 1.75] | 1.73 [0.77, 3.89] |
| Geographic Region | | | |
| Midwest | 1.04 [0.75, 1.44] | 0.87 [0.67, 1.12] | 0.58* [0.36, 0.95] |
| South | 0.98 [0.70, 1.36] | 1.04 [0.81, 1.34] | 0.97 [0.50, 1.88] |
| West | 1.27 [0.90, 1.80] | 1.05 [0.80, 1.39] | 0.86 [0.46, 1.58] |
| Northeast (reference) | | | |

Notes: *** P < 0.001; ** p < 0.01; * p < 0.05.

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