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Longitudinal predictors of addictions treatment utilization in treatment-naïve adults with alcohol use disorders

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Abstract

Background—Despite the substantial prevalence of alcohol use disorders (AUDs), prior research indicates that most people with AUDs never utilize either formal or informal treatment services. Several prior studies have examined the characteristics of individuals with AUDs who receive treatment; however, limited longitudinal data are available on the predictors of receiving AUD services in treatment-naive individuals with AUDs.

Methods—This study utilized data from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) to identify adults in Wave 1 who met criteria for an AUD within the last 12 months and reported no prior lifetime alcohol treatment (N=2,760). These individuals were surveyed again at Wave 2, approximately three to four years later (N=2,170). This study examined the Wave 1 demographic and psychiatric conditions that were associated with receipt of AUD treatment services between Wave 1 and Wave 2.

Results—In multivariable analyses, use of AUD treatment services between Waves 1 and 2 was significantly more likely among those who were male, non-Caucasian, younger, had lower income, and who had health insurance. Additionally, those who met criteria for a baseline drug use disorder, anxiety disorder or a personality disorder were more likely to receive AUD treatment.

Conclusions—Treatment was more often utilized in those who had more severe baseline psychopathology and in those with fewer economic resources. These findings highlight the need to broaden the types of care available to individuals with AUDs to increase the appeal of AUD services.

Keywords

Addictions treatment; service utilization; alcohol dependence; alcoholism

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1. Introduction

Alcohol abuse and dependence affect approximately 17.8 million adults in the United States (Dawson et al., 2005). Not only do alcohol use disorders (AUDs) negatively impact the health and well-being of the affected individual (Dawson, 2000), but AUDs also are associated with a number of costly societal consequences (Caetano and Cunradi, 2002). Prior observational studies and randomized control trials have consistently found that participation in formal AUD treatment and/or self-help (e.g., Alcoholics Anonymous) treatment is associated with improved outcomes in those with AUDs (Dawson et al., 2006; Miller et al., 1995; Miller et al., 2001; Miller & Wilbourne, 2002; Moos and Moos, 2004, 2006; Timko et al., 2006; Weisner et al., 2003).

Despite the substantial prevalence of AUDs within the United States and consistent findings highlighting the beneficial effects of AUD treatment, most of those with AUDs never utilize any formal or informal treatment services (Cohen et al., 2007; Harris and Edlund, 2005; Mojtabai, 2005; Wu et al., 2003). When asked why they have not received AUD services, untreated individuals with AUDs cite a number of reasons including: lack of social support or health insurance, negative stigma, low confidence in the efficacy of available AUD treatments, and the belief that a person should be strong enough to handle an AUD on his/her own (Cohen et al., 2007; Edlund et al., 2009; Grant, 1996; Schober and Annis, 1996; Wang et al., 2005). These perceptions are understandable given the stigma surrounding substance misuse, and even though participation in AUD treatment is often associated with average improvements in functioning (see Miller & Wilbourne, 2002), many individuals who receive AUD treatment still report poor post-treatment outcomes. These concerns about efficacy are likely made worse by the fact that many addictions treatment programs have structural problems (cumbersome intake processes, high staff turnover) that make treatment-seeking less appealing to those with AUDs (McLellan et al., 2003; McLellan and Meyers, 2004).

Tucker and colleagues (2004) proposed that the decision to seek AUD treatment is influenced by the social context, the perceived severity of the problem, access to and cost of care, and perceived costs and benefits of care. Several studies have examined the specific characteristics of those with AUDs who engage in AUD treatment with a primary focus on the individual characteristics that influence likelihood of obtaining care. These studies have typically used cross-sectional designs to compare those with recent or lifetime treatment exposure to those without; however, the results have been inconsistent. Some prior studies found that men were more likely to utilize substance use disorder treatment services (Cohen et al., 2007; Dawson, 1996; Kaskutas, 1997; Raimo et al., 1999; Tighe and Saxe, 2006), and others found that women were more likely to receive treatment (Harris and Bowe, 2008; Weisner et al., 2001). Additionally, two prior studies found that those who utilize substance abuse treatment were more likely to be White (Tighe and Saxe, 2006; Wu et al., 2003); however Kaskutas (1997), Raimo and colleagues (1999), and Weisner and colleagues (2002) found that Blacks and Hispanics were more likely to seek alcohol treatment when compared to Whites. In a study using Wave 1 of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC, 2001–2002), Hatzenbuehler and colleagues (2008) found no difference between Blacks and Whites in terms of likelihood of receiving lifetime services for AUDs. In some instances, prior research has found that individuals with an AUD who were older were more likely to receive treatment (Cohen et al., 2007; Grella et al., 2009; Proudfoot, 2002; Tighe and Saxe, 2006; Weisner et al., 2002), but others have found that those who are younger are more likely to utilize treatment services (Harris and Bowe, 2008; Kaskutas, 1997).

Research has yielded a more consistent picture in terms of the association between other patient characteristics and AUD treatment utilization. Specifically, those who receive treatment for AUDs were found to have more lifetime co-morbid psychiatric conditions (including anxiety or mood disorders, personality, and drug use disorders) and have experienced more social consequences from drinking than those who do not utilize alcohol treatment services (Compton et al., 2007; Finney and Moos, 1995; Grella et al., 2009; Kessler, 2001; Weisner et al., 2002). Several studies have also found that individuals who have comorbid psychiatric disorders and substance use disorders are more likely to utilize any form of treatment services than those who only have substance use disorders, and recent use of mental health services was strongly associated with receiving substance abuse treatment services (Green-Hennessy, 2002; Grella et al., 2009; Mojtabai, 2005; Wu, 2003).

These findings focused on individual characteristics highlight the importance of understanding the relative contribution of psychiatric and demographic factors to the receipt of AUD treatment. However, the cross-sectional design of the prior work has not allowed for a clear determination of the extent to which patient diagnostic factors preceded or followed use of AUD treatment services. The present study extends prior work by utilizing data from a large national US population survey (the NESARC) to determine the longitudinal predictors of treatment utilization in a nationally-representative sample of treatment-naïve adults with AUDs. The choice of predictors was informed by prior cross-sectional analyses of the NESARC data (Cohen et al., 2007), and were used to examine the predictors of first time use of alcohol treatment services among individuals who met criteria for an AUD at Wave 1 and had never received any prior AUD treatment.

2. Methods

2.1 Sample

The NESARC, a prospective longitudinal survey conducted by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), collected data from the general U.S. population to determine the prevalence and stability of alcohol use disorders and associated comorbidities among U.S. adults. The survey methods and study methodology have been described in detail by Grant and colleagues (2003b). The NESARC collected data from a general population sample of civilian, non-institutionalized U.S. adults aged 18 years and older. The NESARC oversampled younger adults (age 18 to 24) as well as non-Hispanic blacks and Hispanics, and data were weighted in order to account for household and individual nonresponse. The weighted data were adjusted to provide a nationally-representative survey population based on the 2000 Census. All potential NESARC respondents were selected through multistage probability sampling from the 2000–2001 Census Supplementary Survey and the Census 2000 Group Quarters Inventory. After providing written consent, participants were interviewed by employees of the Census Bureau through face-to-face, computer-aided, home interviews. The United States Office of Management and Budget approved the NESARC research protocol, and the University of Michigan Institutional Review Board approved the current secondary data analysis.

Data collection for the NESARC occurred in two Waves. Wave 1 was conducted between 2001 and 2002, in which 43,093 individuals were interviewed for a response rate of 81.0%. Wave 2 was conducted approximately 3 years later, between 2004 and 2005, and consisted of 34,653 individuals (a response rate of 86.7%). The sample for this study (N=2,170) included all individuals in the 2001–2002 (Wave 1) NESARC who met criteria for alcohol abuse or dependence in the prior 12 months, reported that they had never received any prior AUD treatment, and provided responses to the questions about AUD treatment on the 2004–2005 (Wave 2) survey.

2.2 Assessment of participant characteristics and treatment utilization

2.2.1 Alcohol abuse and dependence—Diagnosis of last 12-month abuse or dependence on alcohol was based on the Alcohol Use Disorder and Associated Disabilities Interview Schedule – DSM-IV Version (AUDADIS-IV), a well-established structured diagnostic interview which ascertains information on all DSM-IV criteria for alcohol use disorders. Consistent with DSM-IV criteria, alcohol abuse and dependence were defined as maladaptive patterns of drinking which lead to clinically significant impairment in several domains. The AUDADIS-IV has demonstrated excellent reliability and validity in several clinical and general population samples (Grant, 2004; Grant et al., 2003a; Grant et al., 1995; Hasin et al., 1997).

2.2.2 Alcohol treatment utilization—In order to determine whether those diagnosed with alcohol abuse or dependence had ever previously participated in any formal or informal treatments for an alcohol problem, respondents were asked the question, “Have you ever gone anywhere or seen anyone for a reason that was related in any way to your drinking?” at Wave 1, and again at Wave 2. Respondents were presented with a list of potential sources for treatment including: 12-step meetings (e.g., Alcoholics Anonymous), detoxification programs, inpatient psychiatric or community mental health programs, outpatient clinics, alcohol rehabilitation programs, and appointments with private physicians, psychiatrics, social workers, or religious counselors. An affirmative answer to *any* of these questions is designated as having received treatment. The Wave 1 questions asked about the respondents’ lifetime; the Wave 2 questions focused on the interval of time between Wave 1 and Wave 2. For the present analyses, report of treatment during the interval of time between Waves 1 and 2 was the primary outcome variable.

2.2.3 Predictors of alcohol use disorder treatment—Several factors were examined as predictors of treatment utilization. Demographic variables included age, gender, race (dichotomized into white vs. non-white), marital status (dichotomized into married or unmarried), education level (categorized into less than high school, high school graduate, and more than a high school education), and income level (0–19,999 vs. 20,000–34,999 vs 35,000+). Additionally, we examined self-report of access to health insurance. Additionally, based on respondents’ responses on the AUDADIS-IV, past year drug use disorders, any diagnosis of alcohol dependence (vs. other alcohol use disorders), anxiety disorders, mood disorders, and personality disorders were coded as separate dichotomous variables. Only independent (i.e., non-substance-induced) mood and anxiety disorders were examined.

2.3 Statistical methods

After describing the prevalence of treatment utilization, as well as the types of treatment reported, in the interval between Waves 1 and 2, we describe the bivariate associations between predictors and treatment utilization using Chi-squared analyses and t-test. Additionally, a multivariable logistic regression analyses examined the relative impact of all predictors on the likelihood of receiving any AUD treatment. All analyses were conducted using Stata 11.0. This system implements a Taylor series linearization to adjust standard errors of estimates for complex survey sampling design effects including clustered data. This manuscript reports unweighted frequencies and weighted percentages for all results. As a result, some percentages may differ from what would be obtained if they were calculated by hand with the given frequencies.

3. Results

In Wave 1, 8.5% (n=3,327) of individuals met DSM-IV criteria for a diagnosis of 12-month alcohol abuse or dependence. Of those individuals, 83.5% (n=2,760) had not previously

received any form of treatment. Of these individuals, 2,245 completed the Wave 2 assessment. Of these individuals, 2,170 had valid data on the measure of treatment utilization at Wave 2 and were used for all remaining analyses. Overall, 5.2% (n=93) of treatment-naïve adults with an AUD at Wave 1 utilized some form of alcohol treatment between Wave 1 and Wave 2. The specific types of treatment utilization obtained by these 93 individuals are presented in Table 1. The most common form of treatment was 12-step treatment (endorsed by 47% of those who received treatment), followed by seeing a private physician, psychiatrist, psychologist, social worker or other professional (41%) and treatment at an alcohol or drug rehabilitation program (24%). It is important to note that these categories are not mutually exclusive and approximately 47% of treatment-naïve adults with an AUD at Wave 1 who utilized some form of alcohol treatment between Wave 1 and Wave 2 reporting use of more than one type of treatment. In the 12 months prior to Wave 2, 47.0% of treatment naive adults with alcohol use disorders at Wave 1 met criteria for an AUD. The prevalence of 12-month AUDs at Wave 2 was 76.0% in those who received treatment between Waves 1 and 2 and 45.4% in those who did not receive treatment during this interval.

Table 2 presents the unadjusted associations between Wave 1 patient characteristics and AUD treatment utilization at Wave 2. In bivariate analyses, those who received treatment were significantly more likely to be male, non-White and unmarried than those who did not receive treatment. Treatment was also significantly more likely among those who reported a lower income and lower levels of educational attainment. Individuals who utilized treatment were less likely to have insurance than those who did not receive treatment. Treatment utilization was more common in those with an anxiety disorder, alcohol dependence, a drug use disorder, and a personality disorder compared to those without each class of disorder.

Table 2 presents results of the multivariable logistic regression analysis. In this analysis, women were less likely to utilize AUD treatment services between Waves 1 and 2 when compared to men (OR = 0.39; 95% CI: 0.29–0.52). Non-white individuals were more likely to use treatment compared to Whites (OR 1.33; 95% CI: 1.08–1.65). Those who were at least 50 years old or older were less likely to obtain treatment than those between 18 and 34 years of age (OR 0.41; 95% CI: 0.25–0.65). Compared to those with an income less than $19,000, those with higher levels of income were less likely to receive treatment (those with an income between $20,000–$34,999, OR = 0.60; 95% CI: 0.39–0.90; those with an income over $35,000, OR = 0.40; 95% CI: 0.26–0.60). Those who had at least a high school education were 2.33 times more likely to receive AUD treatment at Wave 2 (95% CI: 1.36–3.98) when compared to those who had less than a high school education; however, there was no significant difference between those who had more than a high school education when compare to those with less than a high school education. Having insurance was associated with a significantly increased likelihood of receiving AUD treatment (OR = 1.41; 95% CI: 1.03–1.93). Additionally, AUD treatment utilization was more likely in those who met criteria for a baseline anxiety disorder (OR 2.26; 95% CI: 1.51–3.40) drug use disorder (OR 2.21; 95% CI: 1.51–3.25), or a personality disorder (OR 1.39; 95% CI: 1.09–1.77). Marital status, health status, and meeting criteria for a baseline mood disorder or alcohol dependence were not significantly related to AUD treatment utilization at Wave 2.

4. Discussion

To the best of our knowledge, this is the first general population-based study to examine the longitudinal predictors of alcohol treatment utilization in treatment-naïve adults with a current alcohol use disorder. Despite increasing evidence that AUD treatments are effective (Miller and Wilbourne, 2002; Moos and Moos, 2006; Timko et al., 2006), few of those with AUDs initiate new episodes of AUD treatment. The present results indicate that only 5% of

treatment-naïve adults report receiving alcohol treatment services within the three to four year interval between assessments. This highlights the discrepancy between the need for care and the proportion of U.S. adults who utilize AUD treatment services.

The findings in the present prospective study were similar to those which have been reported previously on the Wave 1 sample of the NESARC (Cohen et al., 2007) with some notable exceptions. Both the cross-sectional and longitudinal findings indicate that treatment was more likely in men, individuals who were of lower income, and those with a personality disorder, or a drug use disorder. Mood disorders were associated with greater likelihood of receiving care in the cross-sectional study but not the present study. This could partially reflect the smaller sample size in this study. It is possible that some of the relationship between depression and AUD treatment utilization in the prior work reflected the presence of a mood disorder either at the same time or following an SUD treatment episode. Perhaps the most informative difference between the cross-sectional work and this prospective data relates to age. Cohen and colleagues found that likelihood of lifetime AUD treatment increased with age whereas we found that younger adults were more likely to report new treatment utilization. It is possible that the retrospective cross-sectional findings were primarily driven by the longer period of time since onset of the AUD in older adults compared to younger which allowed from more time to obtain treatment. The present findings indicate that older adults with AUDs may be less likely to obtain new episodes of care and that this group may be appropriate to target with outreach efforts (e.g., increased screening and brief interventions in medical settings).

In this study, individuals who attend AUD treatment are more likely to be male, non-White, younger and of lower income. Prior research has found inconsistent relationships between race/ethnicity, age, income and utilization of addictions treatment services (Cohen et al., 2007; Grella et al., 2009; Harris and Bowe, 2008; Harris and Edlund, 2005; Kaskutas, 1997; Kessler et al., 1996; Mojtabai, 2005; Proudfoot, 2002; Raimo et al., 1999; Tighe and Saxe, 2006; Weisner et al., 2002; Wu et al., 2003; Wu, 2003). This may partially reflect the differences in the ways treatment utilization was assessed (e.g. lifetime vs. new episodes) as well as sample differences (e.g., health system users vs. the general population).

The findings related to race and income are consistent with a model in which potentially disadvantaged populations may be *more likely* to utilize care. This could reflect the influence of the criminal justice system or social services in connecting adults to AUD services. Similarly, those with fewer resources may be less able to insulate themselves from the negative impact of an AUD and, thus, be more likely to seek out care. However, the findings related to insurance were more complicated. In multivariable models, having insurance at Wave 1 significantly predicted increased odds of receipt of treatment by Wave 2; the relationship was reversed in bivariate analyses. The discrepancy in these findings highlight the fact that many of the factors associated with social disadvantage may obscure the potentially important relationship between having insurance and AUD treatment utilization. Because the process of receiving AUD services is multifaceted and likely to be multiply determined, outreach efforts that target certain groups without consideration of other characteristics may not effectively target those less likely to utilize care. For example, in the present study, just targeting those without insurance would actually be targeting those more likely to receive care when not taking into account other factors. The lack of consistent findings related to insurance may partially reflect that the most common type of services utilized were self-help groups. These services are free, so treatment utilization of this type of care is unlikely to change with methods of reimbursement.

The role of third party reimbursement in shaping utilization of AUD services is likely to change in the United States with new legislation expanding healthcare coverage (e.g. mental

health parity legislation and the 2010 Patient Protection and Affordable Care Act). However, the present results reinforce the fact that merely expanding coverage may not drastically increase treatment utilization. Others have drawn similar conclusions. For example, Tucker and colleagues (Tucker et al., 2004) found that 100% of community-recruited participants with alcohol dependence reported that they had access to some form of AUD treatment. As has been noted previously (McLellan et al., 2003; McLellan and Meyers, 2004), the current treatment system is not organized in a way that is well-matched to the nature of substance use disorder symptoms. Specifically, formal treatment services are often offered in discrete episodes and only provided to those with the most severe patterns of substance misuse. Staff in key roles in other medical settings, such as within Emergency Departments, are not adequately trained to screen for AUDs or conduct brief interventions or referrals to services in those with problematic alcohol use. Additionally, standard addictions treatment programs often are insufficiently staffed and deliver care in a manner that may not be appealing to potential patients. When thinking about ways to improve rates of AUD treatment utilization, it is important to focus on structural changes to the treatment system, such as providing addictions treatment services from trained medical professionals within standard medical settings that could broaden the appeal of AUD services.

In analyses that controlled for demographic characteristics, psychopathology also predicted receipt of AUD treatment. Of the four groups of psychiatric disorders examined, drug use disorders, anxiety disorders and personality disorders all increased the odds of treatment utilization; mood disorders were not associated with AUD treatment utilization in multivariable models. The positive association between most psychiatric disorders and treatment utilization may be due to the fact that these disorders increase the amount of distress experienced by the individual, increasing their motivation to seek treatment for their alcohol problem. It is also possible that adults with AUDs who also have comorbid psychiatric conditions may be more likely to come to the attention of treatment providers and receive referrals to AUD treatment. Co-occurring disorders may also serve as a proxy for greater severity of alcohol problems. However, in multivariable analyses, a diagnosis of alcohol dependence was not associated with greater likelihood of receiving treatment. It is possible that within the restricted group of individuals with alcohol use disorders, severity of the problem may not be a good predictor of receipt of treatment or, possibly, that alcohol dependence (vs. abuse) is not sufficiently sensitive to detect the association between severity and treatment utilization. The lack of association in either the bivariate or multivariable analyses between mood disorders and AUD treatment was unexpected. Perhaps mood disorders (particularly depressive disorders) may decrease the desire or follow-through to receive treatment in adults with AUDs. Assuming further replication of these findings, increased outreach to those with AUDs and mood disorders could help facilitate entry into AUD treatment.

This study has several limitations that are important to note. The rate of treatment utilization in the present sample is hard to benchmark against previously-reported rates because of differences in time-period examined (lifetime vs. past 3 years) and the unique composition of the group of interest in the present study (i.e., treatment-naïve adults with an alcohol use disorder). The assessment of AUD treatment was based on an item from the AUDADIS-IV with unknown reliability or validity. This item did not allow for quantification of the level of involvement in AUD treatment and it is likely the profile of predictors may shift when looking at greater vs. lesser involvement in AUD treatment. Additionally, the wording of the questions does not allow us to distinguish between individuals who sought treatment but were unable to obtain services and those who never sought any treatment. The study focused on broad demographic and diagnostic factors that predicted AUD treatment utilization. These findings would be strengthened with the addition of other constructs such as motivation to change alcohol use and self-efficacy to control drinking. It is important to note

that AUDs are often episodic and some individuals may have not sought out treatment because they were not experiencing significant symptoms between Wave 1 and Wave 2. This is consistent with fact that only 47% of treatment-naïve individuals with an AUD at Wave 1 still met criteria for an AUD at Wave 2. Also, the number of participants who reported AUD treatment utilization was low, limiting the power to detect predictors of treatment utilization. Similarly, predictors of formal and informal (e.g., self-help treatment services) may differ but these categories were collapsed due to the low number of respondents reporting any form of treatment.

Despite these limitations, this is the first study of which we are aware to examine predictors of first time AUD treatment prospectively in the U.S. population. Clearly, many of those who could potentially benefit from AUD treatment do not receive these services. Improved identification, referral, and treatment procedures could potentially help lessen the gap between need for services and utilization of AUD treatment. Additionally, broadening the types of care provided as well as the quality of AUD services could broaden their appeal and allow for the treatment of more individuals with AUDs.

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Table 1

Type of Alcohol Use Disorder treatment obtained at Wave 2 (N = 93).

Type of treatment	Reported use of this form of treatment %
Alcoholics/narcotics/cocaine anonymous or 12-step meeting	46.9
Private physician, psychiatrist, psychologist, social worker or other professional	40.7
Alcohol/drug rehabilitation program	24.1
Family services or other social service agency	19.4
Other agency or professional	18.4
Outpatient clinic, including outreach and day/partial patient program	14.1
Clergyman, priest or rabbi	12.5
Alcohol/drug detoxification ward/clinic	9.3
Emergency room	8.6
Inpatient ward of psychiatric/general hospital or community mental health program	5.8
Crisis center	3.0
Halfway house/therapeutic community	1.9
Employee assistance program (EAP)	1.1

Note: Categories of treatment are not mutually exclusive.

Table 2

Characteristics of those diagnosed with alcohol abuse or dependence in the 12 months prior to Wave 1 who did not report prior lifetime treatment and their weighted treatment status in Wave 2 (N=2,170).

Wave 1 Characteristics	No treatment in Wave 2 (N = 2,077) %	Received treatment in Wave 2 (N = 93) %	P-value
Gender			
Female	31.54	19.24	
Male	68.46	80.76	<0.01
Race			
Non-White	24.76	35.66	
White	75.24	64.34	<0.01
Age			
18–34 Yrs	55.97	75.68	
35–49 Yrs	30.38	19.91	
50+ Yrs	13.65	4.414	<0.01
Income			
0–19,999	38.57	59.99	
20,000–34,999	25.78	22.84	
35,000+	35.65	17.17	<0.01
Education			
Less than HS	10.74	12.48	
HS	26.57	42.38	
More than HS	62.69	45.13	<0.01
Marital Status			
No	52.25	67.52	
Yes	47.75	32.48	<0.01
Health Status			
Fair/Poor/Unknown	8.277	11.05	
Good to Excellent	91.72	88.95	0.10
Insurance			
No	22.86	29.31	
Yes	77.14	70.69	0.01
Any Anxiety Disorder			
No	77.61	61.77	
Yes	22.39	38.23	<0.01
Any Mood Disorder			
No	69.07	64.24	
Yes	30.93	35.76	0.12
Any Alcohol Dependence			
No	60.32	41.58	
Yes	39.68	58.42	<0.01

Wave 1 Characteristics	No treatment in Wave 2 (N = 2,077) %	Received treatment in Wave 2 (N = 93) %	P-value
Any Drug Use Disorder			
No	89.84	71.39	
Yes	10.16	28.61	<0.01
Any Personal Disorder			
No	75.37	57.05	
Yes	24.63	42.95	<0.01

Table 3

Multivariate logistic regression analysis for predicting treatment status in Wave 2 based on participant characteristics at Wave 1.

Characteristics	Odds Ratio	95% CI	P-value
Gender: Female vs. Males	0.39	0.29–0.52	0.000
Race: Non-White vs White	1.33	1.08–1.65	0.009
Age Groups			
35–49 Yrs vs 18–34 Yrs	0.80	0.61–1.04	0.096
50+ Yrs vs 18–34 Yrs	0.41	0.25–0.65	0.000
Income			
20,000–34,999 vs 0–19,999	0.60	0.39–0.90	0.015
35,000+ vs 0–19,999	0.40	0.26–0.60	0.000
Education			
HS vs Less than HS	2.33	1.36–3.98	0.003
More than HS vs Less HS	1.13	0.67–1.91	0.645
Married: Yes vs No	0.82	0.61–1.10	0.178
Health Status: Good to Excellent vs Fair/poor/Unknown	1.02	0.69–1.51	0.921
Insurance: Yes vs No	1.41	1.03–1.93	0.033
Any Anxiety Disorder	2.26	1.51–3.40	0.000
Any Mood Disorder	0.84	0.61–1.16	0.292
Any Alcohol Dependence	1.27	0.92–1.76	0.144
Any Drug Use Disorder	2.21	1.51–3.25	0.000
Any Personality Disorder	1.39	1.09–1.77	0.008