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Criminal Justice and Alcohol Treatment: Results from a National Sample

Brenda M. Booth, PhD[1,2], **Geoffrey M. Curran, PhD**[1,2], **Xiaotong Han, MS**[2,3], and **Mark J. Edlund, MD, PhD**[4]

[1]HSR&D Center for Mental Healthcare Outcomes and Research, Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas, 72114, USA

[2]Department of Psychiatry Division of Health Services Research, University of Arkansas for Medical Sciences, Little Rock, Arkansas, 72205, USA

[3]South-Central Mental Illness, Research, Education, and Clinical Center, Department of Veterans Affairs, Little Rock, AR

[4]Behavioral Health Epidemiology, RTI International, Research Triangle Park, NC, 27709-2194, USA

Abstract

This study investigates the associations of recent criminal justice involvement with perceived need for alcohol treatment and alcohol treatment utilization, adjusting for demographic and clinical characteristics. We examined a national sample of adults with alcohol use disorders (AUD, N=4,390) from the 2006 National Survey on Drug Use and Health (NSDUH). Almost 15% reported criminal justice involvement in the past year. Generalized logit models regressed perceived need for alcohol or drug treatment and past year treatment utilization (versus neither) on past year legal involvement, demographic, and clinical information. In general, results found stronger associations between frequency of criminal justice involvement for treatment utilization compared to perceived need for treatment alone. Treatment utilization was also associated with being on probation, arrests for drug possession/sale and DUI but perceived need was not. Study results suggest opportunities for interventions to increase treatment rates or treatment need, a major correlate of treatment utilization.

Keywords

perceived need; alcohol use disorders; alcohol treatment; treatment coercion; criminal justice

1. Introduction

Overlap between excessive alcohol use and the criminal justice system is well known and takes a variety of forms, including arrests for driving while intoxicated, alcohol involvement in homicide and other violent offenses, and property crimes (Martin, 2001). Interactions

Corresponding author: Brenda M. Booth, PhD, Department of Psychiatry Division of Health Services Research, University of Arkansas for Medical Sciences, 4301 W. Markham, #554, Little Rock, Arkansas, 72205, USA. boothbrendam@uams.edu, phone 501 526-8129 fax 501 525-8199.

with the criminal justice system by individuals with alcohol use disorders (AUDs) can result in entry into alcohol treatment in several ways. First, treatment can be specifically mandated by the criminal justice system as an alternative to incarceration (Polcin, 2001; Polcin & Weisner, 1999). Second, an interaction with the criminal justice system may change the individual's perception of the severity of the disorder, and thus, his or her perceived need for treatment, spurring an individual's decision to enter treatment even in the absence of coercion. However, it is important to note that perceived need for treatment and treatment entry are not mutually exclusive: individuals may be in treatment (potentially mandated to attend) even though they do not perceive a need for treatment, or they may be mandated into treatment but have limited means to access treatment.

There is substantial research documenting coercion by the criminal justice system as a pathway to treatment, mainly from studies of treatment participants (Brecht, Anglin, & Dylan, 2005; Burke & Gregoire, 2007; Klag, 2005; Polcin & Weisner, 1999; Sullivan et al., 2008; Sung, Belenko, Feng, & Tabachnick, 2004; Weisner, Matzger, Tam, & Schmidt, 2002; Wild, Roberts, & Cooper, 2002;). In one study, over 40% of individuals in specialty alcohol treatment in a Northern California county indicated they had received some sort of ultimatum to enter treatment, most often from family members but also from the legal system (Polcin & Weisner, 1999). In a similar study with both alcohol and drug clients in residential and outpatient programs, 73% reported some type of pressure to seek help-- 29% from personal relationships, 30% from institutions, and 14% from both (Polcin & Beattie, 2007). Another longitudinal regional study of rural stimulant users found that both perceived need and legal severity as measured by the Addiction Severity Index (McLellan et al., 1992) composite score were significantly associated with treatment participation (Carlson et al., 2010).

However, as studies from treatment settings can study only those in treatment, and not those *not* in treatment, community studies are required to investigate more broadly issues such as what percentage of individuals with AUDs experience criminal justice involvement, and among these, what percentage receive AUD treatment, or perceive a need for treatment.

Perceived need for AUD treatment is strongly associated with the decision to enter treatment (Carlson et al., 2010; Edlund, Booth, & Feldman, 2009; Kapczinski, Lima, Souza, & Schmitt, 2003). However, as noted above, the majority of individuals with alcohol and drug use disorders do not perceive a need for treatment (Edlund et al., 2009; Falck et al., 2007; Mojtabai, Olfson, & Mechanic, 2002;Substance Abuse and Mental Health Administration, 2006), even though in the same interview they often endorse multiple negative consequences of their alcohol use. A failure to perceive a need for treatment is observed across psychiatric disorders (e.g., depression, generalized anxiety disorder, bipolar disorder) yet rates are 2–5 fold higher for substance use disorders (Edlund, Unutzer, & Curran, 2006). The absence of perceived need undoubtedly accounts for much of the low rates of treatment participation among those with alcohol use disorders, around 10% a year (Booth & McLaughlin, 2000; Edlund et al., 2009; Cohen, Feinn, Arias, & Kranzler, 2007). Even among persons with AUDs who do perceive a need for help, nation-level survey data suggest that far less than half actually receive treatment (Mojtabai et al., 2002). Part of this discrepancy, of course, may reflect difficulties with accessing treatment, including geographic and financial access, as well as competing demands of work or childcare. But in general, understanding more about the correlates of perceived need for treatment and actual treatment entry is critical for designing interventions to increase treatment participation.

Prospective studies of perceived need for treatment and treatment entry have generally not specifically identified criminal justice involvement as a predictor, and the few that do have not examined specific types of legal involvement. Some have summarized DUI arrests or

other legal involvement within measures of "social consequences" but not specifically (Booth, Kirchner, Fortney, Ross, & Rost, 2000; Kaskutas, Weisner, & Caetano, 1997; Weisner, Matzger, & Kaskutas, 2003). Others have used the legal severity composite from the Addiction Severity Index (McLellan et al., 1992) to show associations with alcohol treatment participation in a sample from a northern California county (Weisner et al., 2002) and with treatment need and treatment entry in rural stimulant users (Carlson et al., 2010; Falck et al., 2007) but these reports do not specify the types of legal involvement. Information from a larger, more recent, or more representative national sample would obviously be more generalizable.

We address the relationship between past-year involvement with the criminal justice system, including type of criminal justice involvement, with perceived need for treatment and treatment entry among individuals with AUDs participating in a large nationally representative survey, the National Household Survey on Drug Use and Health (NSDUH). We previously used NSDUH data to examine demographic, mental health, and DSM-IV (American Psychiatric Association, 2000) criteria for alcohol abuse and dependence as predictors of perceived need for alcohol treatment (Edlund et al., 2009). In the current report we build on those analyses, measuring the contribution of recent involvement in the criminal justice system to perceived need for AUD treatment and actual treatment entry. While treatment need and treatment participation are not necessary mutually exclusive outcomes, NSDUH is designed so that only individuals with AUD who do not report treatment participation are queried about treatment need.

2. Materials and methods

2.1 Data Source

Data were from the 2006 National Survey on Drug Use and Health (NSDUH) administered yearly and sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) (Substance Abuse and Mental Health Services Administration (SAMSHA) Office of Applied Studies, 2007; Substance Abuse and Mental Health Services Administration, 2007). Each year roughly 80,000 individuals are selected by multistage probability sampling to be representative of the U.S. civilian, non-institutionalized population aged 12 and older. Interviews are face-to-face. A total final sample of 67,802 interviews was obtained for the 2006 survey with a weighted screening response rate of 91 percent and a weighted interview response rate for the survey of 74 percent. The final public use dataset contains 55,279 observations. Sensitive questions in the interview were asked in audio-assisted self-interview. There were 4,390 adults age 18+ meeting DSM-IV criteria (American Psychiatric Association, 2000) for an AUD, either alcohol abuse or dependence, with no missing data. Another 155 had an AUD, but at least some missing data, and thus were not included in analyses.

2.2 Measures

Dependent Variable—We created a hierarchical 3-category mutually exclusive dependent variable as "received treatment," "perceived need for treatment," and "neither." A respondent was coded as receiving past year alcohol or drug treatment if he or she reported receiving alcohol or drug treatment from a wide variety of sources (e.g., inpatient, outpatient, residential, private office, jail, or self-help group) in the past year. We included affirmative responses to drug treatment, recognizing that many individuals with AUD also have drug abuse or dependence and may actually specifically go to treatment for their drug issues rather than their problems with alcohol. A respondent was coded as having perceived need for alcohol treatment if he or she did not receive treatment in the past year, but responded that he or she needed alcohol or drug treatment in the past year. (Respondents

were only asked regarding perceived need for treatment if they had responded “no” to receiving treatment in the past year). Respondents who do did not receive treatment or perceive need for treatment were coded as “neither”.

Independent Variables—The main independent variable was criminal justice involvement in the past 12 months. NSDUH elicits lifetime history of being arrested and booked, and past 12 months information on the number of times arrested and booked (coded as none, once, twice, 3+ times); for drunkenness; for possession or sale of drugs; for fraud or stolen goods; on probation at any time; for driving under the influence (DUI); and for other arrests and bookings for activities such as motor vehicle theft, larceny/theft, burglary, aggravated assault, robbery, etc. We retained specific types of arrests and bookings with weighted frequencies greater than 1% in our sample; these were: DUI (driving while intoxicated), possession/sale of drugs, and drunkenness. For other types of arrests, we collapsed rarer reports into “property crimes” (thefts, burglary, robbery, arson, fraud) and “crimes against persons” (assaults, rape, homicide). Only five respondents reported being arrested and booked for prostitution so this type of arrest was not included in analysis. We also included two variables measuring whether (1) on probation or (2) on parole with supervised release in the past 12 months.

Demographics included in analysis were gender (male=1, female=0); not married vs. married (married=1, all other categories=0); education (less than high school, high school graduate, some college, and college graduate); income (< $20,000, $20,000–$39,999, $40,000–$74,999, and ≥ $75,000); health insurance coverage; age (18–25, 26–34, ≥ 35); and race/ethnicity (separately, white, black, Hispanic, other).

Clinical Information: We used DSM-IV diagnoses of alcohol abuse and dependence (abuse as the reference category); DSM-IV diagnoses of drug abuse or dependence (neither as the reference category); major depression in the past year; and serious psychological distress in the past year (no as reference category) measured by the K-6, a measure developed for the National Health Interview Survey (Kessler et al., 2002; Kessler et al., 2003). Also included was a self-report measure for overall health status coding “excellent” and “very good” and “good” as a “1” compared to “fair” and “poor”. We have previously shown that clinical variables were more strongly associated with perceived need for treatment compared to demographic variables in the pooled 2004 and 2005 NSDUH data (Edlund et al., 2009).

2.3 Data Analysis

Bivariate categorical analysis with Rao-Scott chi-square tests of independence examined associations between the dependent variable and separate independent variables. Unweighted frequencies, but weighted percentages, are reported in the text and tables; p-values reflect weighted analyses. We fit generalized logit regression (also known as multinomial logistic regression) models to identify the independent correlates of criminal justice involvement with perceived need for treatment and received treatment. The purpose of these multiple models was to identify whether criminal justice involvement overall, measured by number of times arrested and booked in the past year, or specific types of legal involvement such as types of arrests and being on probation, were significantly associated with perceived need and treatment utilization; and the extent to which these associations were independent of clinical variables that have been shown to be key correlates of perceived need or treatment seeking. These models all included demographic variables and clinical variables described above plus: (Model 1) criminal justice Involvement measured as number of times arrested and booked in the past 12 month, or (Model 2) criminal justice involvement measured by types of arrests as listed above, as well as being on probation and

being on parole. Design variables from NSDUH sampling were incorporated using PROC SURVEYLOGISTIC in SAS 9.3.

3. Results

Just over 350 individuals with AUD's (354/4390) or 7.8% (unweighted N, weighted %) reported receipt of either alcohol or drug treatment and 128 (3.1%) perceived a need for, but did not receive, treatment in the past year (Table 1). Only a few (N=36, 0.8%) reported treatment in prison. Significant bivariate demographic correlates of receiving treatment or having perceived need were being male, unmarried, less educated, uninsured, being black or hispanic, and having lower income (Table 1). Similar patterns were observed for individuals receiving treatment, or perceiving need for treatment, compared to neither receiving treatment nor perceiving a need for treatment. We found no associations for age group.

Almost 15% (796/4390) of individuals with AUDs reported criminal justice involvement in the past year, including being arrested and booked (one time, 8.8%, two or more times, 4.2%), on probation (6.6%), on parole or supervised release (2.4%), arrested and booked for drunkenness (3.8%), possession/sale of drugs (2.6%), DUI (4.5%), property crimes (1.9%), and crimes against people (2.6%) (see Table 2). All measures of criminal justice involvement in the past year were significantly associated with perceived need or treatment utilization in bivariate analysis ($p < 0.001$) (Table 2). For example, among those arrested and booked for possession or sale of drugs, 54.9% received treatment, 3.4% perceived a need for, but did not receive, treatment, and 41.7% reported neither, while among those with no such arrests/bookings 6.5% received treatment, 3.1% perceived a need for treatment, and 90.4% neither of those. Interestingly, while those with criminal justice involvement were more likely to perceive need or receive treatment, there was no clear pattern for the number of times arrested and booked. That is, those arrested and booked two or more times had approximately the same rates of neither receiving nor needing AUD or drug treatment as those arrested and booked once (57.9% vs 63.8%), but reported more perceived need than the rest (15.3% vs. 5.2% and 2.3% for those arrested and booked for one time and zero time respectively).

Significant bivariate clinical correlates positively associated with either receiving treatment or perceiving a need for treatment were a diagnosis of drug abuse or dependence ($p < 0.001$), diagnoses of alcohol dependence (vs abuse, $p < 0.001$), self-report of fair/poor health ($p=0.02$), and major depressive episode ($p < 0.001$) and greater psychological distress on the K-6 ($p=0.005$) (Table 2).

In model 1 using multinomial logistic regression, the odds of receiving treatment or perceiving a need for treatment were significantly greater for those with having been arrested and booked in the past year (Table 3) compared to those with none. The odds ratio for receiving treatment associated with being arrested was substantially larger for both one time vs. no and two-plus times vs. no compared to odds ratios for perceived need for treatment (8.04 and 6.06 compared to 2.69 and 5.06). Significant clinical variables were diagnosis of drug abuse or dependence versus neither (OR=3.77 for needed treatment and 2.77 for treatment utilization), and alcohol dependence vs. abuse (OR=5.01 for needed treatment and 1.89 for received treatment). Significant demographic variables were: older age, and the lowest income category compared to highest income category ($75,000+) for receiving treatment.

In Model 2 (Table 4), being arrested and booked for possession or sale of drugs, being arrested and booked for driving under the influence (DUI), and being on probation were significantly associated with treatment attendance, (OR=3.3, 2.9, and 6.1 respectively), but not with perceived need. No other types of arrests (being arrested and booked for

drunkenness, arrested and booked for property crimes and crimes against people, and being on parole/supervised release) were significantly associated with either treatment attendance or need. Similar results for clinical and demographic factors were found for clinical and demographic variables (see Table 4).

In a logistic regression one cannot assess the percent of the variance explained by a group of variables, as can be done in an ordinary least squares with a partial R^2. However, in our case the importance of the criminal justice involvement variables can be assessed by both the magnitude of the odds ratios (ORs), and the chi-square values for the criminal justice variables vs the chi-square value for the other variables. For example, in Model 1 (Table 3) analyses, the summary ORs for the criminal justice variables were large, ranging from 2.69 to 8.04. Further, the chi-square for the criminal justice variables was extremely large (Chi-square=229, 4 d.f.), and although not as large as the chi-square for the clinical and sociodemographic variables (Chi-square=328, 36 d.f.), there were many more clinical and sociodemographic variables than criminal justice variables (36 d.f. vs 4 d.f.).

4. Discussion

Involvement with the legal system was common among individuals with AUDs and independently associated with both perceived need for alcohol treatment and alcohol treatment attendance in the national NSDUH data, even when adjusting for the other strong measures of alcohol use consequences embedded in DSM-IV criteria for alcohol dependence and comorbid drug abuse or dependence. In fact, about 30% of those with arrests and bookings received treatment and about 8% perceived need for treatment, but did not receive it. Thus about 38% of the AUD sample with criminal justice involvement either received or perceived a need for AUD treatment, compared to about 7% of the AUD sample with no criminal justice involvement. Our results suggest that while overall legal involvement is strongly associated with perceived need and treatment entry (Table 3), some specific types of arrests/bookings (drug possession/sale and DUI) are also independently associated (Table 4). Furthermore, being on probation, but not on parole, was strongly associated with treatment participation. It is somewhat surprising that an arrest for drunkenness or DUI should have weaker associations compared to probation, but perhaps the degree of supervision mandated by the latter served to increase treatment participation. This is the first time, to our knowledge, that such associations have been documented and quantified from a national community sample rather than treatment samples. Furthermore, our study documents that criminal justice involvement increases *both* receipt of treatment and perceived need, a key potential step for treatment seeking.

A variety of treatment programs currently exist for offenders, not only in prisons and jails but also in the community, including short programs for DUI offenders (Friedmann, Taxman, & Henderson, 2007; Grella & Greenwell, 2007; Klag, 2005; Siegal & Cole, 1993). Only few of our sample reported receipt of treatment in prison or jail, but we do not know how many of those reporting arrests/bookings were actually in jail or prison long enough to have the opportunity for treatment. Unfortunately in-prison and in-jail substance abuse treatment is not available to substantial numbers of incarcerated individuals with treatment need (Belenko & Houser, 2011; Belenko & Peugh, 2005; Young, Farrell, Henderson, & Taxman, 2009).

It is likely that some or many of our sample with AUDs, including DUI arrestees, were mandated to treatment, but NSDUH does not elicit that information. It is also likely that many of the individuals in this sample had been at least informally advised to seek treatment if not coerced, with some actually attending treatment and others realizing a need for treatment. In contrast, most research on criminal justice involvement and substance abuse

treatment has concentrated specifically on legal coercion as a major contributor to treatment entry in treatment samples (Gregoire & Burke, 2004; Marlowe, Merikle, Kirby, Festinger, & McLellan, 2001; Stein, Kline, & Matloff, 2002; Sullivan et al., 2008), noting that legal coercion can take many forms including mandated attendance at treatment or choice between treatment or prison/jail (Klag, 2005).

Most of the debate regarding criminal justice involvement and substance abuse treatment has focused on whether legal coercion results in more active engagement and better treatment outcomes in those who do enter treatment. It is not clear whether coerced patients do better or worse than non-coerced patients (Klag, 2005) and often outcomes are similar (Polcin & Weisner, 1999). However, legal coercion itself may not guarantee that an individual perceives a need for treatment, which may contribute to lack of positive treatment outcomes. Our data suggest that it is important to understand the contribution of perceived need for treatment towards treatment engagement and retention as well as the contribution of legal coercion.

Severity of substance use (e.g., alcohol dependence vs. abuse and diagnosis of drug dependence or abuse vs. neither) was a major correlate of treatment need and treatment utilization. This finding is not surprising, given that the DSM-IV diagnoses are focused on the consequences of substance use, and these consequences have long been shown to impel individuals towards treatment. What is more surprising is the lack of findings of racial variations in treatment utilization in our multivariate analyses as several reports from the NESARC have documented such variations with non-whites being more likely to report service use (Hatzenbuehler, Keyes, Narrow, Grant, & Hasin, 2008; Ilgen et al., 2011; Perron et al., 2009;). The discrepancy with our findings may be due to one published report focused on individuals with drug use disorders (Perron et al., 2009), another on individuals with co-occurring mental health and substance use disorders (Hatzenbuehler et al., 2008), and one focused on use between Waves 1 and 2 of NESARC (Ilgen et al., 2011), or simply sampling differences between one year of NSDUH and NESARC.

This study is limited by the cross-sectional nature of the data; clearly a longitudinal study would improve the generalizability of these findings. The NSDUH survey did not include information on specific coercion to treatment, which would have increased our understanding of findings. Also, the survey did not query if the bookings resulted in convictions or incarceration. Similarly, it is important to note that community samples such as NSDUH do not include samples of incarcerated individuals who would undoubtedly report high rates of prior coercion into treatment. Furthermore, the skip pattern in NSDUH precludes understanding of the mis-match between treatment attendance and perceived need, i.e., how often treated individuals do not perceive a need.

It is important to note that, in our analyses, the odds ratios are only “relative” ratios and a majority of individuals with criminal justice involvement (approximately 62%) neither received nor perceived a need for treatment. Our results suggest there is considerable room for improvement and considerable opportunities for interventions to move individuals with AUDs from perceived need to engaging in treatment, and to move those with neither to at least recognize need for treatment, recalling again that the structure of NSDUH precluded our being able to identify individuals in treatment but no recognition of need. Results of this study suggest that criminal justice locations could better link individuals with AUD into treatment, including in-prison treatment if necessary. A recent qualitative study of past DUI offenders suggests they have mixed attitudes towards mandated treatment (Lapham & England-Kennedy, 2011), which suggests that a more motivational approach might be more effective. On-site interventions such as brief motivational interviewing (Davis, Baer, Saxon,

& Kivlahan, 2003; Lapham, 2004) need further exploration as well as linkage interventions using case management (Rapp et al., 2008).

On the other hand, increasing treatment need among individuals with criminal justice involvement may have unintended consequences. In some states, community access to alcohol and drug treatment is already limited with long wait periods. Over-representation of those with criminal justice problems has only served to increase the stigma associated with seeking help.

In conclusion, while involvement with the legal system was common among individuals with AUDs and strongly associated with both perceived need for alcohol or drug treatment and alcohol or drug treatment attendance in the national NSDUH data, the majority of individuals with AUDs with criminal justice involvement neither seek treatment nor perceive need for treatment and could benefit from interventions to increase both.

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Table 1

Bivariate associations of demographic variables with received or perceived need for alcohol or drug treatment for national sample of 4390 with alcohol use disorders. Un-weighted N (Weighted %)

Variable	Received alcohol or drug treatment 354 (7.8)	Perceived Need for alcohol or drug treatment 128 (3.1)	Neither 3908 (89.1)	P value	Total 4390 (100)
Males					
No	109 (5.68)	54 (3.13)	1531 (91.19)	0.0336	1694 (33.98)
Yes	245 (8.88)	74 (3.09)	2377 (88.03)		2696 (66.02)
Age					
18–25	236 (7.35)	81 (2.69)	2715 (89.96)	0.8853	3032 (33.49)
26–34	50 (8.71)	20 (3.15)	538 (88.13)		608 (23.00)
35+	68 (7.64)	27 (3.40)	655 (88.95)		750 (43.51)
Race					
White	241 (6.75)	77 (2.62)	2750 (90.63)	0.0118	3068 (70.87)
Black	42 (10.69)	16 (5.93)	326 (83.38)		384 (10.32)
Hispanic	45 (11.49)	23 (3.96)	526 (84.55)		594 (14.29)
Other	26 (5.75)	12 (1.61)	306 (92.64)		344 (4.51)
Marital status					
No	312 (9.70)	108 (3.66)	3173 (86.65)	<.0001	3593 (67.12)
Yes	42 (3.90)	20 (1.98)	735 (94.11)		797 (32.88)
Education					
Less than HS	102 (13.35)	30 (4.77)	656 (81.88)	<.0001	788 (17.08)
HS graduate	128 (7.93)	48 (4.10)	1238 (87.97)		1414 (30.18)
College or above	124 (5.91)	50 (2.00)	2014 (92.09)		2188 (52.74)
Income					
$19,999 or below	131 (11.28)	47 (4.88)	1186 (83.85)	<.0001	1364 (24.32)
$20,000–$39,999	134 (9.81)	47 (3.50)	1332 (86.69)		1513 (33.54)
$40,000–$74,999	44 (6.16)	20 (2.84)	557 (91.00)		621 (15.58)
$75,000 or above	45 (3.01)	14 (1.14)	833 (95.85)		892 (26.56)
Insurance					
No	109 (9.95)	46 (5.44)	989 (84.61)	0.0003	1144 (24.23)
Yes	245 (7.10)	82 (2.36)	2919 (90.54)		3246 (75.77)

Table 2

Bivariate associations of criminal justice and clinical variables with received or needing alcohol or drug treatment for national sample of 4390 with alcohol use disorders Un-weighted N (Weighted %)

Variable	Received alcohol or drug treatment 354 (7.8)	Needed alcohol or drug treatment 128 (3.1)	Neither 3908 (89.1)	P value	Total 4390 (100)
Times arrested and booked in past year					
Zero	174 (4.53)	85 (2.31)	3446 (93.16)	<.0001	3705 (87.03)
One time	119 (31.05)	20 (5.15)	309 (63.80)		448 (8.80)
Two times or more	61 (26.85)	23 (15.29)	153 (57.86)		237 (4.18)
Arrested and booked for drunkenness in past year					
Yes	58 (22.75)	10 (8.78)	155 (68.47)	<.0001	223 (3.77)
No	296 (7.21)	118 (2.88)	3753 (89.91)		4167 (96.23)
Arrested and booked for possession or sale drugs in past year					
Yes	53 (54.91)	10 (3.42)	73 (41.68)	<.0001	136 (2.59)
No	301 (6.54)	118 (3.10)	3835 (90.36)		4254 (97.41)
Arrested and booked for DUI in past year					
Yes	83 (35.31)	18 (7.66)	129 (57.03)	<.0001	230 (4.46)
No	271 (6.51)	110 (2.89)	3779 (90.60)		4160 (95.54)
Arrested and booked for property crimes in past year					
No	277 (6.22)	100 (2.44)	3919 (91.34)	0.0003	4296 (98.13)
Yes	23 (23.31)	4 (7.44)	78 (69.25)		105 (1.87)
Arrested and booked for crimes against people in past year					
No	272 (6.10)	97 (2.29)	3898 (91.61)	<.0001	4267 (97.41)
Yes	28 (23.17)	7 (11.69)	99 (65.14)		134 (2.59)
On probation at any time in past year					
Yes	121 (33.45)	16 (3.01)	241 (63.54)	<.0001	378 (6.61)
No	179 (4.63)	88 (2.50)	3756 (92.87)		4023 (93.39)
On parole or supervised release in past year					
Yes	36 (36.72)	9 (8.01)	70 (55.27)	<.0001	115 (2.41)
No	264 (5.79)	95 (2.40)	3927 (91.81)		4286 (97.59)
Alcohol dependence					
No	144 (5.21)	27 (0.99)	2311 (93.81)	<.0001	2482 (55.98)

Variable	Received alcohol or drug treatment 354 (7.8)	Needed alcohol or drug treatment 128 (3.1)	Neither 3908 (89.1)	P value	Total 4390 (100)
Yes	210 (11.08)	101 (5.80)	1597 (83.12)		1908 (44.02)
Drug abuse or dependence					
No	218 (5.77)	66 (2.10)	3242 (92.13)	<.0001	3526 (84.91)
Yes	136 (19.16)	62 (8.78)	666 (72.06)		864 (15.09)
Serious psychological distress indicator					
No	230 (6.96)	68 (2.63)	2848 (90.40)	0.0054	3146 (74.79)
Yes	124 (10.25)	60 (4.51)	1060 (85.24)		1244 (25.21)
Major depression episode					
Yes	88 (12.25)	44 (4.47)	651 (83.28)	0.0002	783 (17.25)
No	266 (6.86)	84 (2.82)	3257 (90.32)		3607 (82.75)
Overall health					
Fair/poor	47 (10.85)	19 (6.44)	272 (82.71)	0.0199	338 (9.63)
Good/very good/excellent	307 (7.47)	109 (2.75)	3636 (89.78)		4052 (90.37)

Table 3

Multi-logit Regression Model for Perceived Need and Received Alcohol or Drug Treatment (past year) in National Sample of Individuals with Alcohol Use Disorders (N=4390); Model 1: Any Criminal Justice Involvement

Variable	Received alcohol or drug treatment vs. neither		Perceived Need for alcohol or drug treatment vs. neither	
	OR	95% CI	OR	95% CI
Male	1.42	(0.98, 2.06)	0.99	(0.54, 1.80)
Age				
26–34 vs 18–25	1.74*	(1.11, 2.74)	1.64	(0.71, 3.80)
35+ vs 18–25	2.07*	(1.33, 3.21)	2.17*	(1.09, 4.35)
Race				
Black vs White	0.85	(0.47, 1.53)	1.07	(0.45, 2.56)
Hispanic vs White	0.94	(0.47, 1.87)	0.83	(0.32, 2.19)
Other vs White	0.70	(0.28, 1.74)	0.56	(0.27, 1.16)
Marital	0.53	(0.26, 1.08)	0.81	(0.36, 1.82)
Education				
HS graduate vs College or above	1.03	(0.72, 1.48)	1.47	(0.69, 3.12)
Less than HS vs College or above	1.37	(0.75, 2.49)	1.28	(0.56, 2.93)
Income				
$20,000–$39,999 vs $19,999 or below	1.15	(0.79, 1.68)	0.96	(0.51, 1.80)
$40,000–$74,999 vs $19,999 or below	0.90	(0.41, 1.99)	1.26	(0.55, 2.92)
$75,000 or above vs $19,999 or below	0.44*	(0.24, 0.82)	0.39	(0.10, 1.48)
Insurance	1.25	(0.85, 1.84)	0.62	(0.34, 1.11)
Time arrested and booked in the past year				
One time vs. Zero	8.04*	(5.13,12.58)	2.69*	(1.30, 5.60)
Two times or more vs. Zero	6.06*	(3.26, 11.29)	5.06*	(2.30, 11.12)
Alcohol dependence vs. abuse	1.89*	(1.31, 2.74)	5.01*	(2.29, 10.99)
Drug abuse/dependence vs. neither	2.77*	(1.84, 4.19)	3.77*	(1.96, 7.25)
Serious psychological distress	1.13	(0.67, 1.92)	1.32	(0.74, 2.36)
Major depression in the past year	1.56	(0.97, 2.49)	1.03	(0.51, 2.10)
Overall health				
Excellent/very good/good vs. fair/poor	1.02	(0.51, 2.06)	0.69	(0.26, 1.86)

* $p<.05$

Table 4

Multi-logit Regression Model for Perceived or Received Alcohol or Drug Treatment (past year) in National Sample of Individuals with Alcohol Use Disorders (N=4390); Model 2: Specific Criminal Justice Involvement

Variable	Received alcohol or drug treatment vs. neither		Perceived Need for alcohol or drug treatment vs. neither	
	OR	95% CI	OR	95% CI
Male	1.36	(0.91, 2.01)	1.02	(0.56, 1.86)
Age				
26–34 vs 18–25	1.72*	(1.08, 2.74)	1.61	(0.70, 3.72)
35+ vs 18–25	2.10*	(1.34, 3.29)	2.04*	(1.03, 4.04)
Race				
Black vs White	0.76	(0.40, 1.44)	1.28	(0.55, 2.99)
Hispanic vs White	1.04	(0.55, 1.99)	0.98	(0.38, 2.52)
Other vs White	0.57	(0.21, 1.52)	0.58	(0.28, 1.20)
Marital	0.51	(0.26, 1.02)	0.75	(0.33, 1.73)
Education				
HS graduate vs College or above	1.17	(0.82, 1.68)	1.44	(0.68, 3.03)
Less than HS vs College or above	1.52	(0.84, 2.77)	1.15	(0.49, 2.69)
Income				
$20,000–$39,999 vs $19,999 or below	1.23	(0.82, 1.87)	0.93	(0.49, 1.78)
$40,000–$74,999 vs $19,999 or below	0.94	(0.39, 2.28)	1.32	(0.58, 2.97)
$75,000 or above vs $19,999 or below	0.53*	(0.28, 0.99)	0.43	(0.12, 1.50)
Insurance	1.13	(0.74, 1.70)	0.57*	(0.33, 0.99)
Arrested and booked for drunkenness in past year	0.95	(0.47, 1.91)	1.26	(0.23, 6.93)
Arrested and booked for possession/sale drugs in past year	3.34*	(1.67, 6.68)	0.58	(0.20, 1.63)
Arrested and booked for DUI in past year	2.89*	(1.39, 6.03)	3.07	(0.86, 10.93)
Arrested and booked for property crimes in past year	1.02	(0.49, 2.15)	1.34	(0.15, 11.86)
Arrested and booked for crimes against people in past year	1.60	(0.73, 3.48)	2.85	(0.81, 10.01)
On probation at any time during the past year	6.05*	(3.90, 9.40)	0.99	(0.43, 2.32)
On parole or supervised release in past year	1.44	(0.65, 3.17)	2.18	(0.62, 7.60)
Alcohol dependence vs. abuse	1.93*	(1.28, 2.92)	4.95*	(2.31, 10.63)
Drug abuse/dependence vs. neither	2.67*	(1.74, 4.11)	4.38*	(2.28, 8.41)
Serious psychological distress	1.11	(0.67, 1.84)	1.19	(0.66, 2.15)
Major depression in the past year	1.51	(0.91, 2.51)	1.09	(0.54, 2.22)
Overall health				
Excellent/very good/good vs. fair/poor	1.02	(0.50, 2.11)	0.67	(0.26, 1.77)