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Treatment Needs of Driving While Intoxicated Offenders: The Need for a Multi-modal Approach to Treatment

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Abstract

Objective—This study aimed to characterize and compare the treatment needs of adults with driving while intoxicated (DWI) offenses recruited from a correctional residential treatment facility and the community to provide recommendations for treatment development.

Method—A total of 119 adults (59 Residential, 60 Community) with at least one DWI offense were administered clinical diagnostic interviews to assess substance use disorders and completed a battery of questionnaires assessing demographic characteristics, legal history, psychiatric diagnoses, medical diagnoses, and health care utilization.

Results—Almost all (96.6%) DWI offenders met clinical diagnostic criteria for an alcohol use disorder, approximately half of the sample also met diagnostic criteria for co-morbid substance use disorders and a substantial proportion also reported psychiatric and medical co-morbidities. However, a high percentage were not receiving treatment for these issues, most likely as a result of having limited access to care as the majority of participants had no current health insurance (64.45%) or primary care physician (74.0%). The residential sample had more extensive criminal histories compared to the community sample but was generally representative of the community in terms of their clinical characteristics. For instance, the groups did not differ in rates of substance use, psychiatric and medical health diagnoses or in the treatment of such issues, with the exception of alcohol abuse treatment.

Conclusions—DWI offenders represent a clinical population with high levels of complex and competing treatment needs which are not currently being met. Our findings demonstrate the need for standardized screening of DWI offenders and call for the development of a multi-modal treatment approach in efforts to reduce recidivism.

Keywords

driving while intoxicated; recidivism; wraparound; treatment; alcohol

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INTRODUCTION

Driving while intoxicated (DWI) is one of the most frequently committed criminal offenses in the United States (Federal Bureau of Investigation [FBI] 2012) and is associated with considerable public health costs. In 2012, 10,322 people were killed in alcohol-impaired vehicle crashes, with the highest number of fatalities occurring in the state of Texas (National Highway Transport Safety Administration [NHTSA] 2013). To put these statistics in perspective, this corresponds to approximately 1 person being killed every 51 minutes. Loss of life, however, is not the only cost associated with DWI offenses as it is estimated that such offenses in the United States cost the public \$51.1 billion in monetary costs and an estimated \$63.2 billion in quality of life losses each year (NHTSA 2002). Repeat DWI offenders are disproportionately responsible for such costs (NHTSA 2007) and conviction rates suggest that approximately 30% of DWI offenders are recidivists (NHTSA 2014). Such rates, however, may be substantially underestimated as it is thought that a relatively small percentage (1%) of alcohol impaired drivers are actually arrested and convicted (Bergen et al. 2011).

In 2001, NHTSA outlined four legal approaches to reduce DWI offenses: (i) licensing sanctions, (ii) vehicle sanctions, (iii) mandatory sentencing, and (iv) alcohol abuse treatment. The sanctions most commonly applied are those that aim to either prohibit driving or reduce the opportunity to drive after drinking (Lapham and England-Kennedy 2012; Nochajski and Stasiewicz 2006), however, the effectiveness of these sanctions on DWI recidivism are limited. For example, licensing sanctions have limited impact on recidivism because many offenders continue to drive without a valid license (Voas et al. 2010), and vehicle sanctions such as ignition interlock devices have limited effectiveness because offenders often go back to driving while intoxicated once the interlock restriction has been removed from the vehicle (for review see Willis et al 2004). In relation to mandatory sentencing, incarceration has actually shown to either have no effect on recidivism or actually increase the risk for repeat offenses (Ross and Klette 1995; Friedman et al. 1995).

In contrast, alcohol abuse treatment has been used with some success in reducing rates of recidivism (for review see Nochajski and Stasiewicz 2006; Wells-Parker et al. 1995). The effects to date have been fairly modest, however, the reported efficacy may be underestimated due to the frequent reliance on alcohol education as a mode of treatment (Wells-Parker et al. 1995) as it has been shown to have lower efficacy than other traditional alcohol abuse treatment modalities (i.e., Donovan et al. 1990). Although alcohol education remains the primary form of treatment, research has more recently focused on the development of different types of interventions for DWI offenders [e.g., brief motivational interviewing or medications (e.g., Lapham and McMillan 2011; Ouimet et al. 2013; Wells-parker and Williams, 2002)]. However, these treatments primarily focus on alcohol abuse alone while neglecting to address other co-occurring disorders. Co-occurring substance use and psychiatric disorders are highly prevalent among DWI offenders, and if left unaddressed may potentially impact alcohol treatment outcomes (Albanese et al. 2010; Burns, et al. 2005; Freeman et al. 2011; Hesse 2009; Lapham et al. 2001; Lapham et al. 2006; Samet et al. 2001). Therefore the effectiveness of treatment-based sanctions to reduce DWI recidivism

may potentially be enhanced by providing evidence-based treatment options that address those instances when other competing needs might interfere with alcohol treatment.

Despite growing concern over DWI recidivism and the need for more effective treatments, to our knowledge, no study to date has thoroughly assessed the treatment needs of DWI offenders. There is a high prevalence of alcohol, drug and psychiatric disorders in DWI offenders but yet there is an over-reliance on providing alcohol abuse treatment only. As such, the aim of this study was to assess the treatment needs of DWI offenders and provide recommendations for treatment development. We sought to examine the demographic characteristics, legal history, psychiatric diagnoses, medical diagnoses and health care utilization of DWI offenders currently receiving alcohol abuse treatment as part of a correctional residential treatment facility that provides educational and supportive alcohol abuse treatment. As a comparison group, we examined DWI offenders recruited from the community. We expected a range of health needs and were interested in documenting their frequency in this DWI sample. Further, it was predicted that the residential group would be clinically more severe than those recruited from the community.

METHOD

Participants

A total of 120 adults (81 men, 38 women) with at least one DWI arrest participated in the study. One participant recruited from the community sample was withdrawn from the study due to being under the influence of alcohol at the time of testing. Adults were recruited from 2 sources: the community via advertisements on craigslist and local community notice boards (39 men and 21 women); and from a residential correctional treatment facility (Bexar County Community Supervision and Corrections Department, Residential Substance Abuse Treatment Facility; 42 men and 17 women). The residential correctional treatment facility is a jail diversion program that targets felony and misdemeanor offenders who have demonstrated an inability to remain abstinent while on probation. The facility provides educational and supportive treatment involving both group and individual counseling within a residential setting for court ordered periods of 120-180 days. To be eligible, offenders must be over the age of 18 years, diagnosed with alcohol/substance dependence, and pass a basic medical screening. Offenders are not eligible if they have a conviction for a Title V offense (i.e., capital murder, human trafficking and continuous sexual abuse of a young child) or present with or reveal a history of serious mental illness. All offenders within the facility were screened by facility staff for DWI offences. Those with DWI offences were asked to attend a meeting where they were provided full information regarding the needs assessment, and if willing to participate were asked to remain seated to begin.

All participants received \$100.00 for participation and those recruited from the residential correctional treatment facility also received a 3-hour credit toward their community service orders. Participant compensation was made, consistent with common substance abuse research practice, to maximize participation rates. Previous studies have shown that the quality of responses given by participants who receive incentives do not differ from those who do not (for review see Singer and Kulka, 2002). All participants provided written informed consent.

Measures

Demographic characteristics—A demographic questionnaire was developed by the researchers to collect information on sex, race, ethnicity, marital status, military service, education, and employment.

The Hollingshead Four Factor Index (FFI: Hollingshead 1975)—The FFI is a commonly used self-report measure of socio-economic status. The FFI uses the education level and job description of participants and if co-habiting with a partner, then themselves and their partner to estimate socio-economic status. Education level scores on the FFI range from 3-21 and occupation level scores range from 5-45, therefore social status index scores range from 8 to 66. If the participant was co-habiting with a partner, then the average scores of both adults in the household for education and occupation levels were used to calculate socio-economic status.

Modified Criminal History Risk Assessment—Criminal history was assessed using a modified version of the of criminal history risk assessment module adapted from the Texas Christian University Criminal Justice Comprehensive Intake (Institute of Behavioral Research 2014). Participants reported the frequency of arrests and convictions for 17 types of criminal offense. Offenses were then categorized into 9 different classes: DWI, drug and alcohol related (not including DWI), violent, theft, fraud, sexual (i.e., sexual assault), prostitution/pimping, vandalism/loitering, and probation/parole violations.

Health Care Utilization Questionnaire—The research team developed a summary measure of self-reported health care utilization. This instrument asked questions regarding health insurance coverage, access to primary care physicians, places most likely to seek medical attention, the prevalence of psychiatric and medical diagnoses and treatment utilization for such diagnoses. To measure diagnoses and treatment utilization, participants were presented with a list of common psychiatric and medical conditions and asked to report for each condition if they had previously received a diagnosis. Participants were also provided the opportunity to report other diagnoses for conditions not listed.

Structured Clinical Interview- Substance Abuse Module DSM-IV (SCID: First et al. 1996)—Alcohol and other substance use disorders were assessed with the substance abuse module of the SCID based on the Diagnostic and Statistical Manual of Mental Disorders IV criteria published by the American Psychological Association. The SCID provides standardized criteria for the classification and diagnosis of psychiatric disorders for use by both clinicians and researchers. The SCID provides operational definitions and severity criteria for each symptom of each disorder. Standardized questions are asked according to a decision-tree structure, and interviewers also probe for additional information as needed. Each symptom is given a rating of 1 (absent), 2 (subclinical), or 3 (clinically present). For each symptom rated as clinically present, ages of onset and offset were recorded to the nearest month. DSM-IV criteria were used to diagnose past and present substance abuse or dependence.

Procedure

All participants were administered the SCID substance abuse module and were required to complete the battery of questionnaires. The testing session lasted approximately 3 hours. Participants recruited from the residential correctional facility were tested within the facility where the questionnaire battery was completed in groups of 17-22 adults, however, participants were taken individually to an adjacent interview room to be administered the SCID substance abuse module. Participants recruited from the community were tested individually within our clinic. Members of clinic staff were available to assist with any questions or issues participants may have had regarding the questionnaires during the testing period. For those having difficulty completing the questionnaires a member of staff administered the full questionnaire battery in an interview format. Upon completion of the questionnaires a clinic staff member would check the battery to ensure completion and clarity of responses. All interviews and questionnaires were administered by post-doctoral and post-baccalaureate clinic staff who were trained in administration and under the direct supervision of a clinical psychologist (SRR). All staff members were trained, and experienced in administration of the questionnaires and interviews through experience in our substance abuse clinic.

Data Analysis

To test for differences between the Community and Residential samples, independent samples *t* tests were used for continuous variables and chi-square tests for categorical variables. Group differences were considered significant at $p < 0.05$. Analyses were conducted using SPSS v.21 (IBM Corp., Armonk, NY).

RESULTS

Demographic Characteristics

The demographic characteristics of adults with alcohol-related driving offenses from the Community ($n = 60$) and from a Residential treatment facility ($n = 59$) are summarized in Table 1. The mean age of the Residential group was 35.88 years ($SD = 9.64$) and the Community group was 37.02 years ($SD = 11.34$). Across both samples, the majority were men, of White (79.1%) and Hispanic ethnicity (69.8%). Slightly more than half of the sample had never been married (52.2%), had not been employed within the previous 6 months (50.4%), and had education beyond high school (51.3%). In terms of socioeconomic status, 27.8% were classified as being of low socio-economic status. Average socioeconomic status scores for the residential sample ($M = 3.82$, $SD = 1.85$) were similar to previous studies of prisoners with DWI convictions receiving substance abuse treatment (e.g. $M = 4.0$, $SD = 3.75$; Stein and Lebeau-Craven, 2002). Finally, 9.2% of the sample were military veterans and 2.5% were currently on active duty.

The groups did not significantly differ on age, sex, race, ethnicity, marital status, military service, socioeconomic status, or employment. The Community and Residential groups only differed in terms of their level of education with the Community sample more likely to have graduated high school ($\chi^2 (1) = 5.20$, $p < 0.05$) and received graduate or professional training ($\chi^2 (1) = 5.14$, $p < 0.05$) compared to the Residential sample.

Legal Characteristics

While all participants had a DWI arrest, there was a high rate of DWI recidivism; approximately half of the sample having multiple DWI arrests (49.7%) and convictions (43.0%). Rates of both multiple DWI arrests ($\chi^2(1) = 4.44, p < 0.05$) and multiple DWI convictions ($\chi^2(1) = 5.11, p < 0.05$) were significantly higher among the Residential compared to the Community sample (see Table 2).

In addition to convictions for DWI offenses, the majority of both groups also reported convictions for other types of offenses, and although the likelihood appears to be higher in the residential sample, the groups did not significantly differ. However, rates of multiple non-DWI related convictions were higher in the Residential sample ($\chi^2(1) = 11.54, p < 0.01$). Both groups had relatively high likelihoods of being convicted for other drug and alcohol related offenses, although the likelihood was significantly higher among the Residential sample ($\chi^2(1) = 3.74, p = 0.05$). In addition, the Residential sample was also more likely to have convictions for parole/probation violations compared to the Community sample ($\chi^2(1) = 24.68, p < 0.001$). There was a moderate amount of violent offenses and theft, with lower frequency of fraud, sex offenses, and vandalism, however, there was no differences between the two samples.

Health Care Utilization

The majority of DWI offenders assessed had no current health insurance (64.45%), no current primary care physician (74.0%), and were most likely to seek medical care at an emergency room (82.6%). As highlighted in Table 3, the Residential sample were more likely to have no health insurance ($\chi^2(1) = 7.14, p < 0.01$) and seek medical care at an emergency room compared to the Community sample ($\chi^2(1) = 6.07, p < 0.05$), whereas, the Community sample were more likely to attend free clinics to receive their medical care ($\chi^2(1) = 4.62, p < 0.05$).

Psychiatric Disorder and Treatment

A substantial proportion of both groups had histories of psychiatric disorder (Table 4). A breakdown of the prevalence of psychiatric diagnoses and treatment utilization is summarized in Table 4.

Substance use disorders—The majority of both the Community and Residential samples met clinical diagnostic criteria for lifetime alcohol use disorder (96.6%) with the majority meeting criteria for dependence (70.6%). Although a greater number of the Residential sample met diagnostic criteria for additional substance use disorders, the difference was not statistically significant. Overall, additional diagnoses for marijuana (40.4%), cocaine (15.2%), and stimulant (13.5%) use disorders were most common. Nearly all of the Residential sample (94.95%) reported having had alcohol use treatment, most likely as a result of currently being a resident in a substance abuse treatment facility (the other 5.05% where receiving substance abuse treatment for a drug other than alcohol). However, only two-thirds (63.4%) of the community sample had reported having had alcohol use treatment; the difference between the groups was significant ($\chi^2(1) = 24.69, p < 0.001$).

Psychiatric disorder (non-substance use)—Overall, 26% of the sample reported having previously been diagnosed with a psychiatric disorder (besides a substance use disorder), yet over half (61.3%) of those diagnosed were not receiving treatment for these conditions. The most common non-substance related diagnoses were depression and anxiety. There were no significant differences between the groups with regards to the prevalence of psychiatric diagnoses or treatment.

Medical Diagnoses and Treatment

Besides psychiatric disorders, other medical conditions were present in approximately one third (36.1%) of the sample. Many of these were not receiving health care for their medical conditions; only 21.8% of those diagnosed were currently receiving treatment. Although a larger percent of the Community sample reported having a medical diagnosis and were more likely to have been receiving treatment compared to the Residential sample, the difference was not statistically significant (Table 5). High blood pressure was the most common diagnosis and cause of treatment reported for both the Community and Residential sample. The only significant difference emerging between the groups was in relation to high cholesterol, with the Community sample being more likely to have been diagnosed compared to the Residential sample ($\chi^2(1) = 3.80, p = 0.05$). While emphysema, glaucoma, heart attack, coronary heart disease, and kidney disease/failure were assessed, no one in our sample had been diagnosed with any of these conditions.

DISCUSSION

The results of the present study show that DWI offenders represent a clinical population with high levels of unmet treatment needs beyond just their alcohol misuse. Attempts at intervention to address alcohol misuse will need to address these complex needs in order to be effective. Consistent with previous research, our findings show that alcohol use disorders are highly prevalent among DWI offenders and appear to be a primary issue among this population but, that a large proportion are also presenting with additional substance use disorders and psychiatric disorders (Albanese et al. 2010; de Baca et al. 2003; Freeman et al. 2011; Lapham et al. 2006; La Plante et al. 2008; McCutcheon et al. 2009; Shaffer et al. 2007). Additionally, a substantial proportion of these DWI offenders also present with medical co-morbidity. Further, despite the high prevalence of substance use, psychiatric, and medical diagnoses, a substantial number of individuals are not receiving treatment for these issues. Such levels of unmet treatment needs are not specific to DWI offenders as national rates of psychiatric and substance use treatment is low. For example, the national co-morbidity survey showed that 58.9% of adults who met clinical diagnostic criteria for a 12-month psychiatric or substance use disorder had not received treatment within the 12 months prior to the survey. Further, racial-ethnic minorities, those with low income and no health insurance were at greater risk (Wang et al., 2005). Notably, the majority of DWI offenders in the present study were of Hispanic ethnicity and had no health care coverage. Indeed, in comparison to national rates of uninsured adults (18.47%; Smith and Medalia, 2014), the percent of DWI offenders without healthcare insurance in the present sample was considerably higher (61.5%). Therefore, DWI offenders in the present study appear to be representative of those known to be most at risk for unmet treatment needs.

Alcohol abuse treatment sanctions have shown more promise than vehicle, licensing, and sentencing sanctions on recidivism rates (Friedman et al. 1995; Lapham et al. 2012; Nochajski and Stasiewicz 2006; Ross and Klette 1995; Voas et al. 2010; Wells-Parker et al. 1995; Willis et al. 2004), however, the impact has been somewhat modest. The results of this study show that both DWI offenders mandated to a correctional residential treatment facility and those recruited from the community have a variety of treatment needs over and above simply alcohol abuse. While it is not the criminal justice system's responsibility or within their purview to meet all of these complex needs, such needs will impact the outcomes of cases seen in the criminal justice setting. This is because such complex and currently unmet treatment needs may impact alcohol abuse treatment outcomes (Burns, et al. 2005; Freeman et al. 2011; Hesse 2009; Samet et al. 2001) and as a result, rates of recidivism. Therefore, it may be suggested that the ideal model of mandated treatment for DWI offenders would be multi-modal, providing a wraparound model of care. When a clinical intervention is being entertained for a forensic DWI setting, it must be prepared with the complexity of these needs in mind. Wraparound models of care provide core treatment services in relation to the primary diagnosis (i.e., alcohol abuse) but in addition provide services and/or linkage to services (i.e., substance use, mental health and medical) to address the individuals co-occurring issues (Etheridge and Hubbard, 2000). Utilizing standardized screening and a wraparound based treatment model such as this, would address the multiple needs of DWI offenders and so be expected to improve alcohol abuse treatment outcomes (McLellan et al. 1993; McLellan et al. 1998) and therefore reduce recidivism. Although the literature to date regarding the efficacy of wraparound services is characterized by a relatively small number of studies and suffers from experimental design limitations (for review see, Hesse et al. 2007), research has recently shown that compared to juvenile offenders who received traditional treatment, those who received wraparound services were less likely to recidivate (Pullman et al. 2006). The use of standardized screening and mandated wraparound services to treat DWI offenders therefore merits examination because providing tailored services which address the complexity of needs may improve treatment outcomes and as a result increase public safety by effectively reducing recidivism. Considering that the extent of unmet treatment needs did not differ between those currently residing in a correctional substance use treatment facility and the community points to the need for standardized screening and referral to wraparound treatment services at the earliest possible point after arrest. For offenders mandated to correctional treatment facilities or incarcerated, the criminal justice system has a unique opportunity to initiate these services and arrange inter-organizational links with existing services within the community for the offender's release.

Contrary to our expectation, the clinical characteristics of the Residential group were not more severe than the Community group. In fact, the clinical characteristics of adults with DWI's admitted to the forensic residential treatment program were generally representative of those observed in adults with DWI's from the community. The two groups primarily differed based only on their criminal characteristics. From a criminal justice perspective, this suggests that these enhanced forensic treatment services are being delivered equitably and not biased by factors other than their criminal characteristics. From a clinician's perspective, care must be taken in interpreting the meaning of having received forensic residential

treatment. During clinical intake it is typical practice to gather information about treatment history and more intense treatment history may be interpreted as reflecting a more severe course of illness. However, that assumption does not generalize well to those with forensic residential treatment histories, as these services are being provided based on criminal history rather the presence or severity of their substance use symptoms. In other words, although the Residential sample had more extensive criminal histories than the Community sample, the groups did not differ with regards to rates of substance use, psychiatric and medical health diagnoses or in the treatment of such issues, with the exception of alcohol abuse treatment. From a clinical perspective, it important to recognize that mandated forensic residential treatment history is not a reliable marker for severity of illness.

Several limitations have to be taken into consideration when interpreting findings from this study. The sample size of the current study was relatively small, therefore it was under-powered to test for gender differences. In addition, although we assessed substance use disorders using structured clinical interviewing, we assessed non-substance use psychiatric disorders and medical diagnoses using self report questionnaires. Considering the limited health care service utilization reported within this sample, rates of non-substance use psychiatric and medical diagnoses may be under-estimated. Although potentially underestimated, the rates reported within this study still demonstrate the need for screening and treatment for such conditions in DWI offenders. Lastly, while the data collected in this study is not corroborated by official medical and legal records, data collection was conducted by trained staff using procedures standard to the substance abuse literature and commonly used within our clinic as part of the intake process for identifying patient needs, delivering care and collecting numeration from Medicare.

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Table 1

Demographic Characteristics

	Community (n=60) %	Residential (n=59) %
Male	65.0	71.2
Race		
<i>Caucasian</i>	75.0	83.1
<i>African American</i>	15.0	5.1
<i>Native American</i>	0.0	1.7
<i>Asian</i>	0.0	3.4
<i>Other/More than one</i>	10.0	6.8
Hispanic Ethnicity	66.7	72.9
Marital Status		
<i>Never Married</i>	50.0	54.3
<i>Married</i>	33.3	17.0
<i>Separated/ Divorced</i>	15.0	20.4
Military Service		
<i>Currently Active</i>	3.3	1.7
<i>Veteran</i>	10.0	8.5
Low Socio-Economic Status (%)	20.0	35.6
Employment (past 6 months)		
<i>Not in Labor Force</i>		
<i>Student, family carer, incarcerated</i>	13.3	18.6
<i>Did not try or could not find job</i>	11.7	11.9
<i>Fulltime</i>	51.7	45.8
<i>Part-time</i>	11.7	6.8
<i>Occasional</i>	11.7	13.6
Education Level		
<i>Less than High School</i>	13.4	30.6*
<i>High School Graduate</i>	25.0	22.0
<i>Partial college</i>	40.0	33.9
<i>4 Year Degree</i>	10.0	10.2
<i>Graduate/ Professional Training</i>	8.3	0.0*

Note. Low socio-economic status refers to the percent of participants in the lower 2 socio-economic classes as per the four factor index.

* $p < 0.05$

Table 2

Legal characteristics

	Community (n=60) %	Residential (n=59) %
More than one DWI Arrest	40.0	59.3*
More than one DWI Conviction	31.7	54.2*
Non-DWI Conviction	61.7	74.6
More than one Non-DWI Conviction	33.3	66.7***
Non-DWI Convictions		
<i>Drug and alcohol related (non-DWI)</i>	33.3	50.8*
<i>Violent</i>	8.3	18.6
<i>Theft</i>	21.7	16.9
<i>Fraud</i>	1.7	5.1
<i>Sex offences (i.e. sexual assault)</i>	1.7	1.7
<i>Prostitution/Pimping</i>	0.0	3.4
<i>Vandalism, Loitering</i>	0.0	1.7
<i>Probation/Parole Violation</i>	13.3	52.5***

*
p = 0.05.

p < 0.001.

Table 3**Health Care Utilization**

	Community (n=60) %	Residential (n=59) %
Health Insurance Coverage		
<i>No Insurance</i>	51.7	71.2**
<i>Private Insurance</i>	21.7	10.2
<i>Don't know</i>	8.3	6.8
<i>Medicare</i>	8.3	1.7
<i>Medicaid</i>	3.3	5.1
<i>Service Connected (Military)</i>	6.7	1.7
<i>CHAMPUS</i>	0.0	1.7
Have a Current Primary Care Physician		
	26.7	25.4
Place Most Likely to Receive Medical Care		
<i>Emergency Room</i>	28.1	54.5*
<i>Free Clinic</i>	12.3	1.8*
<i>Primary Care Physician</i>	33.3	25.4
<i>Community Health Clinic</i>	10.5	3.4
<i>Urgent Care Facilities</i>	8.8	10.2
<i>Other</i>	7.0	1.8

Note. Civilian Health and Medical Program for Uniformed Services (CHAMPUS)

*
 $p < 0.05$.

**
 $p < 0.01$.

Table 4

Prevalence of Psychiatric Diagnoses and Treatment Utilization

	Community (n=60) %	Residential (n=59) %
Lifetime Alcohol Use Disorder		
<i>Abuse</i>	31.7	20.3
<i>Dependence</i>	65.0	76.3
Lifetime Substance Use Disorder Diagnosis		
<i>Alcohol Use Disorder only</i>	55.0	37.3
<i>Alcohol + Other Substance Use Disorders</i>	41.7	59.3
<i>Substance Use Disorders without Alcohol Use Disorder</i>	0.0	1.7
<i>No Substance Use Disorder</i>	3.3	1.7
Total Diagnosed with at least 1 Psychiatric Diagnosis	31.7	20.3
>1 Psychiatric Diagnosis	21.6	13.6
Psychiatric Diagnosis		
<i>Anxiety</i>	15.8	13.6
<i>Attention Deficit Hyperactivity Disorder</i>	11.7	6.8
<i>Bipolar Disorder</i>	10.0	6.8
<i>Borderline Personality Disorder</i>	0.0	1.7
<i>Conduct Disorder</i>	1.7	1.7
<i>Depression</i>	21.7	18.6
<i>Post Traumatic Stress Disorder</i>	13.3	6.8
<i>Schizophrenia</i>	3.3	0.0
Total Currently receiving psychiatric treatment	11.7	8.5
Psychiatric Diagnoses currently being treated		
<i>Anxiety</i>	5.3	5.1
<i>Attention Deficit Hyperactivity Disorder</i>	0.0	0.0
<i>Bipolar Disorder</i>	3.3	5.1
<i>Borderline Personality Disorder</i>	0.0	0.0
<i>Conduct Disorder</i>	0.0	0.0
<i>Depression</i>	10.0	8.5
<i>Post Traumatic Stress Disorder</i>	1.7	1.7
<i>Schizophrenia</i>	1.7	0.0

Table 5

Prevalence of medical diagnoses and treatment utilization

	Community (60) %	Residential (59) %
Total Diagnosed with Medical Problems	43.3	28.81
Medical Conditions Diagnosed		
<i>Arthritis</i>	6.7	3.4
<i>Asthma</i>	11.7	3.4
<i>Bladder/Kidney Problems</i>	3.3	5.1
<i>Blood Clot</i>	0.0	1.7
<i>Cancer</i>	3.3	0.0
<i>Diabetes</i>	8.3	1.7
<i>High Blood Pressure</i>	15.0	11.9
<i>High Cholesterol</i>	10.0	1.7*
<i>Liver Disease</i>	3.3	3.4
<i>Migraine</i>	6.7	5.1
<i>Skin condition</i>	5.1	3.4
<i>Sleep apnea</i>	3.3	3.4
<i>Stroke</i>	0.0	1.7
<i>Thyroid problem</i>	1.7	0.0
<i>Other</i>	5.1	1.7
Total Currently receiving Treatment for their diagnoses	26.7	16.9
Medical diagnoses currently being treated		
<i>Arthritis</i>	3.3	6.8
<i>Asthma</i>	3.3	1.7
<i>Bladder/Kidney Problems</i>	0.0	1.7
<i>Blood Clot</i>	0.0	0.0
<i>Cancer</i>	3.3	0.0
<i>Diabetes</i>	6.7	1.7
<i>High Blood Pressure</i>	8.3	6.8
<i>High Cholesterol</i>	5.0	1.7
<i>Liver Disease</i>	0.0	1.7
<i>Migraine</i>	0.0	1.7
<i>Skin condition</i>	1.7	1.7
<i>Sleep apnea</i>	3.3	1.7
<i>Stroke</i>	0.0	0.0
<i>Thyroid problem</i>	1.7	0.0
<i>Other</i>	3.3	1.7

*
 $p = 0.05$.