Unraveling the complexity of driving while intoxicated: a study into the prevalence of psychiatric and substance abuse comorbidity

Unraveling the Complexity of Driving While Intoxicated: a Study into the Prevalence of Psychiatric and Substance Abuse Comorbidity

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Abstract

Objective: Research is beginning to provide an indication of the co-occurring substance abuse and mental health needs for the driving under the influence (DUI) population. This study aimed to examine the extent of such psychiatric problems among a large sample size of DUI offenders entering treatment in Texas

Methods: This is a study of 36,373 past year DUI clients and 308,714 non-past year DUI clients admitted to Texas treatment programs between 2005 and 2008. Data were obtained from the State's administrative dataset.

Results: Analysis indicated that non-past year DUI clients were more likely to present with more severe illicit substance use problems, while past year DUI clients were more likely to have a primary problem with alcohol. Nevertheless, a cannabis use problem was also found to be significantly associated with DUI recidivism in the last year. In regards to mental health status, a major finding was that depression was the most common psychiatric condition reported by DUI clients, including those with more than one DUI offence in the past year. This cohort also reported elevated levels of Bipolar Disorder compared to the general population, and such a diagnosis was also associated with an increased likelihood of not completing treatment. Additionally, female clients were more likely to be diagnosed with mental health problems than males, as well as more likely to be placed on medications at admission and more likely to have problems with methamphetamine, cocaine, and opiates.

Conclusions: DUI offenders are at an increased risk of experiencing comorbid psychiatric disorders, and thus, corresponding treatment programs need to cater for a range of mental health concerns that are likely to affect recidivism rates.

Key words: DUI, substance abuse, psychiatric co-morbidity.

INTRODUCTION

Research has generally demonstrated a strong link between substance abuse and comorbid psychiatric disorders (Grant et al., 2004), in particular, among those with alcohol abuse problems (Kessler et al. 2005). Comorbid issues often predict poor treatment outcomes (Grant et al., 2004), as such individuals usually require a greater frequency of hospitalisations and are less compliant with treatment. Additionally, the negative symptoms associated with psychiatric disorders can often be amplified through alcohol abuse and dependence, and this comorbid group is believed to be at an increased risk of relapse (Petrakis et al., 2002).

Within the Driving Under the Influence (DUI) population, a significant body of research is demonstrating that this cohort presents with a wide variety of problems ranging from significant criminal histories to alcohol and drug-related issues (Nochajski & Stasiewicz, 2006). However, it is generally accepted that alcohol dependence and severe alcohol abuse problems remain core issues that are likely to be found within drink driving cohorts (Ball et al., 2000; McCutcheon et al., 2009). Not surprisingly, research has demonstrated that indications of alcohol abuse are also an effective predictor of individuals most likely to commit further offences in the future (Freeman et al., 2006). However more recently, research has begun to demonstrate the complex nature of the DUI problem, as offenders are increasingly likely to also present with drug problems in addition to alcohol (Maxwell et al., 2009), and that females are also susceptible to such poly substance use problems (Maxwell et al., 2007a). Additionally and in regards to gender differences, a small but growing body of research is demonstrating that females are now presenting for treatment with competing substance abuse needs and are at higher risk compared to males (Maxwell et al., 2007b).

Given the strong link between substance abuse and comorbid psychiatric disorders, as well as that DUI offenders often present with elevated levels of substance abuse problems, it appears warranted to examine the extent of such comorbid psychiatric issues among DUI offenders. Additionally, it is of merit to determine the impact of such possible psychiatric issues on treatment compliance as well as recidivism outcomes. Preliminary research into this area that has involved relatively small sample sizes is starting to reveal that a considerable proportion of individuals presenting with DUI histories also have competing mental health problems (Albanese et al., 2010; McMillan et al., 2008). For example, Albanese et al. (2010) examined 729 repeat DUI offenders enrolled in a two week inpatient

program and reported a strong relationship between alcohol, drug, and psychiatric disorders, in particular, the elevated presence of bipolar disorder among this group. Earlier work by the same group of researchers found that repeat DUI offenders had a bipolar disorder rate 1.7 times that of the general population (Shaffer et al., 2007), and that women rather than men are at the greatest risk of presenting with such a disorder. A similar study by McCutcheon et al. (2009) examined a cohort of DUI offenders (N = 2714) entering treatment and also reported the elevated presence of a range of psychiatric disorders, including Major Depressive Episode, Panic Disorder, Post Traumatic Stress Disorder as well as Antisocial Personality Disorder.

Another concern is that preliminary research shows that DUI offenders who are presenting for treatment with comorbidity issues are not disclosing the severity of their symptoms to justice officials at sentencing and also not receiving appropriate treatment (Albanese et al., 2010). This latter finding is somewhat to be expected as researchers have estimated delays often lag 8-10 years between symptom onset and being correctly diagnosed with a psychiatric disorder (Hirschfeld et al., 2003). Despite this delay, it is well recognised that accurate identification of psychiatric disorders naturally improves treatment outcomes. In regards to the current group of interest, a preliminary study by McMillan et al., (2008) that focused on 233 DUI offenders revealed that underdiagnosis was extremely high, in particular among bipolar disorder cases (97.2%) and major depressive cases (67.5%).

Given that preliminary research into this area is starting to show that a considerable proportion of DUI offenders may also present with comorbid psychiatric disorders, the current study aimed to examine the extent of such psychiatric problems among a much larger sample size of DUI offenders entering treatment in Texas. More specifically, the study aimed to identify:

- The prevalence of psychiatric comorbidity issues in a sample of DUI offenders in treatment;
- Whether recidivist offenders present with more complex psychiatric and substance abuse needs; and
- The levels of complexity of psychiatric and substance abuse comorbidity issues among female as compared to male DUI clients.

METHODS

Data sources

This is a secondary analysis of an administrative dataset containing records on all individuals admitted to treatment programs funded by the Texas Department of State Health Services (DSHS) between 2005 and 2008. These programs are non-profit community-based programs that may offer residential and outpatient services; they do not offer inpatient hospitalization. The Substance Abuse and Mental Health Services Administration (SAMHSA) requires that each State submit admission and discharge reports on each patient to the Treatment Episode Data Set (TEDS). The Texas data is part of that national administrative data system, with additional variables of interest collected since 1988. The individuals in these programs met low-income eligibility criteria; average income of admissions during this period was less than $7500 per year.

From the admission dataset, records of 36,373 clients who had a DUI offence in the past 12 months were selected to be compared to all the remaining 308,714 clients who were admitted to the same treatment programs but had no past-year DUI status. Some 52% of the non-DUI clients were either referred to treatment by criminal justice agencies or they were involved in the legal system and awaiting trial, serving a sentence, or on probation or parole. In comparison, 91% of the DUI clients were involuntary, with 9% having entered treatment voluntarily but reporting a past-year DUI arrest.

Assessment and data collection were done by intake counsellors in 79 public treatment programs across the state. DSHS provided training to the reporters. Only programs who had personnel trained to diagnose clients using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000) could report the mental health diagnoses of their clients, and DSM data were reported on 67% of the clients. The specific diagnoses were collapsed into four major diagnostic groups (depression, bipolar, anxiety and schizophrenia-related disorders) for reasons of parsimony to facilitate analysis for this paper. For example, the depression diagnostic category included a range of Major Depressive Disorders such as Single Episodes as well as Recurrent, with and without psychotic features, ranging from mild to severe. Similarly, the Bipolar diagnostic category included Bipolar I and II Disorders, including recent episode manic, depressed or mixed, with and without psychotic features and ranging from mild to severe.

The dataset also contains a shortened version of the Addiction Severity Index (McLellan et al., 1980), which assesses history, frequency and consequences of alcohol and drug use, as well as additional domains commonly associated with substance use: medical, legal, employment, social/family, and psychological functioning. Because the record length of the admission form was limited, the Texas version created in 1988 focused on the number of days that the client had experienced problems with these different domains in the month prior to admission. Other than age, lag, months employed, total number of arrests, and ASI problem days, all other variables were coded 0 or 1.

Seven percent of the admission records did not have a linked discharge record to show if the client completed treatment or not; for all other variables, the number of missing records was 0.5%. All missing data were excluded from analyses. Descriptive statistics, including mean, standard deviation (SD) and range are used for continuous variables and for categorical variables, percentages and absolute (n) frequencies are presented. Student's t-test was used for continuous variables and chi-square test for categorical variables to explore differences. Analysis was performed using SAS 9.1. Because of the size of the dataset, significance was set at $p<.0001$

DSHS provided a copy of the dataset. No identifying information was received on any client and this research was approved by the Institutional Review Board of the University of Texas at Austin.

RESULTS

Between 2005 and 2008, there were 36,372 past year DUI clients admitted to DSHS-funded treatment, along with 308,714 non-past year DUI admissions. There were a range of significant differences identified between the DUI and non-DUI clients. Firstly, non-past year DUI clients were more likely to report daily use of their primary problem substance, to have a history of injection drug use, and to report more days of problems as measured on the ASI scales in the month prior to admission (Table 1). They were also significantly more likely to report that their primary problem substance was cocaine, cannabis, methamphetamine, or opiates including heroin, illicit methadone, or other opiates. In contrast, DUI clients were more likely to have a primary problem with alcohol, to be older, to be first admissions to treatment, and to have worked more months in the past year.

Secondly, recidivist DUI offenders who reported two or more past-year arrests were more impaired than those with only one DUI arrest, reporting more days of problems on the six ASI scales and were more likely to have a history of injection drug use and to have used daily. Those with one past-year arrest were more likely to report a problem with use of cannabis while recidivist offenders were more likely to report a problem with alcohol, but there was no difference in their levels of use of methamphetamine, cocaine, or opiates.

In regards to mental health status, a DSM mental health diagnosis was reported on 67% of the clients at admission, and of those diagnosed, 85% had no diagnosis or condition on Axis I or II. However, depression was the most common psychiatric problem experienced by all the clients, whether or not they had a past-year DUI arrest. A closer examination revealed that DUI clients were less likely to have a DSM-IV diagnosis of depression, bipolar, or schizophrenia, but there was no significant difference in the levels of anxiety disorders between the two groups. Rather, non-past year DUI clients were more likely to be diagnosed with depression, a bipolar disorder, or schizophrenia. There was also no difference between first-time and recidivist DUI offenders in terms of anxiety disorders (Table 1).

INSERT TABLE 1 HERE

Data were also reported on the percent of clients who completed their prescribed course of treatment, and non-DUI clients were more likely to complete treatment than were DUI clients, but there was no difference in completion rates for DUI clients with one or multiple past-year arrests. Table 1 also shows that those arrested for past-year DUI reported significantly more past-year arrests for public intoxication and total number of arrests than the non-DUI counterpart, which are indicators of the additional costs of DUI offenders to the criminal justice system.

Table 2 shows the difference in characteristics of those with and without past-year DUI arrests based on their DSM diagnosis. Some 11.5% of all clients were diagnosed with depression (11.8% non-DUI and 8.6% DUI, $c^2$127.7, p<.0001), 5.9% of all clients had a bipolar disorder (6.1% non-DUI and 4.2% DUI, $c^2$84.3, p<.0001), 1.7% of all clients had an anxiety disorder (1.7% non-DUI and 1.7% DUI, c^2 0.37, p=0.54), and 2.4% were diagnosed with schizophrenia (2.5% non-DUI and 0.98% DUI, c^2 130.09, p<.0001).

The DUI clients with a diagnosis of depression or bipolar disorder differed from non-past year DUI clients on most variables, while those with a diagnosis of anxiety were similar to non-DUI clients with the same diagnosis in terms of no difference in age, gender, homelessness, daily use, and days in the month prior to admission that they experienced health, psychological, or substance use problems. There was also no difference between DUI and non-DUI clients with a diagnosis of schizophrenia in terms of age, prior treatment history, homelessness, problems with methamphetamine or opiates, or days of health and psychological problems. They were equally likely to be placed on medications at admission, and a higher proportion of clients experiencing schizophrenia received these medications (77-78%), in comparison to clients with other psychiatric diagnoses (e.g., anxiety), which is an indication of their level of severity.

A more refined examination also revealed that the patterns of drug use also differed by DSM diagnosis. Cocaine was the primary problem for non-DUI admissions with a mental health diagnosis and alcohol was the primary problem for most DUIs. However, DUI clients with a depression or an anxiety-related diagnosis were less likely than non-DUIs to have problems with other drugs, while those with a bipolar diagnosis were equally likely to have a primary problem with opiates and those with a diagnosis of schizophrenia also had problems with methamphetamine and opiates.

INSERT TABLE 2 HERE

In regards to successfully completing treatment, there was no difference in the completion rates for DUI and non-DUI clients who were diagnosed with depression, bipolar, anxiety or schizophrenia. Finally, female clients (whether DUI clients or non-DUI clients) were more likely to be diagnosed with mental health problems than males, and they were more likely to be placed on medications at admission (Table 3). While alcohol was the primary problem for both female and male DUIs, female DUIs were more likely than males to have problems with methamphetamine, cocaine, and opiates. This same pattern was seen for females who did not have a past-year DUI arrest.

INSERT TABLE 3 HERE

DISCUSSION

The present paper aimed to provide a perspective on the prevalence of substance abuse and psychiatric comorbidity issues in a large sample of DUI offenders in treatment as well as investigate whether relationships exist between such issues and the likelihood of recidivism. Additionally, the study endeavoured to examine whether gender differences are also evident in regards to such characteristics.

Firstly, and while not the predominant focus of the current study, non-past year DUI clients were more likely than the DUI counterparts to present with more severe substance abuse and dependence problems, although this is naturally likely to reflect their reason for program admittance. In contrast, DUI clients were more likely to have a primary problem with alcohol, which is consistent with research that indicates alcohol dependence and/or severe alcohol abuse remain core issues that are likely to be found within DUI cohorts (Ball et al., 2000; McCutcheon et al., 2009). Nonetheless, recent research has documented an increasing prevalence of drug use by drivers (Compton & Berning, 2009) as well as an increasing proportion of DUI offenders entering treatment with primary drug-related problems (Maxwell et al., 2009), which was also evident within the current research that demonstrated those with a past-year DUI were also more likely to report a problem with cannabis use. Thus, the current results provide further indication that some DUI offenders present for treatment with competing substance abuse histories, and that such individuals are more likely to be recent repeat offenders, or arguably, be at considerable risk of committing further DUI offences.

In regards to co-morbid psychiatric conditions, it is noteworthy that depression was the most common psychiatric condition recorded by DUI clients, including those with more than one DUI offence in the past year. In fact, 9% of the DUI sample recorded a diagnosis of some form of depression, including single and recurrent episodes of depression. This result also supports other preliminary research in the area that suggests the DUI population are more likely to present with a mood disorder (McCutcheon et al., 2009). However more importantly, it should be noted that such a disorder often results in clinically significant impairment and distress in a range of important areas of functioning, including social and occupational capacities (DSM-IV-TR, 2000). Specifically, such impairment may result from a range of cumulative negative symptoms including a sustained depressed mood, significant weight loss, insomnia or hypersomnia, fatigue, diminished ability to think or concentrate as well as suicide ideation (DSM-IV-TR, 2000). Not surprisingly, such symptoms are likely to significantly

impact upon the ability of participants to successfully complete an intervention as well as benefit from such program completion through developing new skills and knowledge to avoid the DUI sequence. Additionally, it may be argued that such negative symptoms increase the likelihood of misusing substances, as research continues to demonstrate a clear link between depression and substance misuse (Baker, Turner, Kay-Lambkin & Lewin, 2009).

Another key finding was that a further 4.2% of the DUI sample received a Bipolar Disorder diagnosis, which is again consistent with preliminary evidence that has highlighted an increased rate amongst this population (Albanese et al., 2010). Similar to Major Depressive Disorders, Bipolar I and II Disorders also result in clinically significant distress or impairment in key areas of social and occupational functioning (DSM-IV-TR, 2000). Of particular concern is that individuals with a Bipolar Disorder diagnosis were equally likely to have a primary problem with opiates as compared to the non-DUI's, and such a diagnosis was also associated with an increased likelihood of not completing treatment. The former provides further evidence that individuals who suffer from a Bipolar Type Disorder are at a heightened risk of misusing illicit substances for a range of reasons, including to attempt to manage their mood (Healey et al., 2009). The latter finding is of particular concern as research continues to demonstrate that non-program completion is a significant predictor of further offending behaviour (Maxwell, Freeman & Davey, 2007a). However, this effect may be considered somewhat expected given the extreme and debilitating effects of mood instability, which is often characterised by self-destruction habits including chronic suicide ideation (Balazs et al., 2006). It is also noteworthy that both the non-DUI and DUI cohort recorded mood disorder rates (e.g., Major Depressive Episode, & Bipolar Disorder) that are higher than the average population rate i.e., 9.5% (NIMH, 2010). Taken together, the results indicate the significant deleterious effect that a mood disorder can have on receiving appropriate treatment and/or re-offending, which is of particular relevance for both the DUI and non-DUI population. Furthermore, while there is scant research that has focused on the impact that such mood disorders have on the driving task, treating the negative symptoms associated with mental health problems can only improve an individual's driving capacity.

It is noteworthy that both the female DUI and non-DUI clients were more likely to be diagnosed with mental health problems than males, as well as more likely to be placed on medications at admission and more likely to have problems with methamphetamine, cocaine, and opiates. These results also

provide further support for a small but growing body of research that is demonstrating that females are now presenting for treatment with competing substance abuse needs and are at higher risk compared to males (Maxwell, Freeman & Davey, 2007b).

Finally, while it is difficult to assert from the current data why non-DUI clients were more likely to complete treatment than were the DUI clients, the current findings suggest that further research is required to explore the effect of this phenomenon as well as determine whether DUI clients are at a heightened risk of having their competing mental health needs neglected. For example, it is interesting to note that individuals who suffered from schizophrenia were much more likely to receive medication at admission compared to those who received other diagnoses, although such an outcome may merely be reflective of predominant treatment methods e.g., prescription medication for schizophrenia compared to psychotherapy.

Taken together, the results provide support for the assertion that there remains a need to create more effective and widely-used mental health and substance abuse screening methods for individuals who are first arrested for a DUI offence, rather than delay such processes until those at risk re-offend and/or possibly experience a deterioration in their condition(s). While researchers have noted the value in screening for comorbid psychiatric disorders among DUI populations for some period of time (Wells-Parker & Williams, 2002), only more recently is research beginning to illuminate the extent of such mental health problems among this population (Albanese et al, 2010). Additionally, it has been noted that DUI treatment programs predominantly focus exclusively on drinking behaviour and DUI education (Albanese et al., 2010) and that under-diagnosis of comorbid psychiatric disorders is a significant concern for the DUI treatment providers (McMillan et al., 2008). Such under-diagnosis is of particular relevance when considering issues surrounding relapse, as this group of offenders appears to have a range of competing issues that are likely to increase their risk of experiencing negative symptoms associated with psychiatric disorders and/or returning to further DUI behaviours. Additionally, from a recovery perspective, research continues to demonstrate that a shorter duration of untreated illness improves response outcomes for psychiatric disorders (Diego-Adelino et al., 2010), and thus screening DUI offenders at first contact with the judicial system may also provide an additional opportunity to increase recovery rates and thereby reduce recidivism statistics. Of course, the general overall high rates of DUI cannot be overlooked nor the tremendous economic and

personal cost of such behaviour, and further attempts to understand and treat this seemingly complex issue appear warranted.

Some limitations should be borne in mind when interpreting the current results. The clients discussed in this paper are not representative of all DUI offenders in Texas. Those who come to substance treatment are more impaired than most DUI offenders, since they needed treatment. In addition, this study is based on an administrative dataset that is representative primarily of lower income clients who entered publicly-funded treatment in Texas. Because it is an administrative dataset, it lacks the rigor seen in research data. Only programs who had trained personnel reported a DSM diagnoses, so DSM was missing for 33% of the client; thus it is not representative of all the clients entering DSHS-funded treatment. The data were also influenced by changing sentencing patterns of local judges and referral practices of various probation officers, and the study was also hampered since the dataset only could report DUI arrests in the past year.

Despite this, it appears that DUI offenders are at an increased risk of experiencing comorbid psychiatric disorders, and such mental health concerns are likely to have a significant negative impact on a range of issues, including recidivism rates. As a result, the effective screening of the DUI population at the earliest practical point after apprehension would appear to provide a range of clear benefits at both an individual level as well as for the community in regards to road safety. However, currently it appears that considerable focus needs to be directed towards developing effective yet convenient screening mechanisms and successfully incorporating them within the judicial system (as well as treatment programs) in order to further illuminate the severity of the comorbidity problem.

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Table 1. Demographic Characteristics of Clients With or Without Past-Year DUI Arrests or DUI Probation Admitted to Texas DSHS-Funded Programs: 2005-2008

	DUI	n	Non-DUI	n	*p*	Range	**1 Arrest**	**n**	**2 or More Arrests**	**n**	Range	*p*
Average Age	34.8	36373	32.1	308714	*	12-80	34.4	32493	38.3	3875	12-79	*
% First Treatment	32.3	35461	33.7	296861	*	0-1	32.7	31606	29.3	3851	0-1	*
Lag from First Use to Admission (Years)	17.6	36243	13.2	308248	*	0-71	17.2	32373	20.9	3875	0-71	*
% Male	71.8	36371	58.9	308714	*	0-1	71.8	32492	71.9	3875	0-1	
% Black	41.7	36323	15.4	308714	*	0-1	10.9	32449	16.0	3875	0-1	*
% White	53.2	36323	46.6	308714	*	0-1	52.2	32449	61.7	3875	0-1	*
% Hispanic	34.4	36323	28.3	308714	*	0-1	27.9	32449	35.0	3875	0-1	*
Months Employed Past Year	6.3	33566	3.6	272202	*	0-12	6.4	29719	5.7	3875	0-12	*
% Homeless	4.6	36372	11.0	308714	*	0-1	4.3	32493	6.7	3875	0-1	*
% Primary Alcohol Problem	65.9	36372	20.8	308714	*	0-1	65.0	32493	73.3	3875	0-1	*
% Primary Methamphetamine Problem	4.7	36372	11.8	308714	*	0-1	4.7	32493	5.0	3875	0-1	
% Primary Cannabis Problem	12.5	36372	23.2	308714	*	0-1	13.5	32493	3.8	3875	0-1	*
% Primary Cocaine Problem	8.6	36372	25.1	308714	*	0-1	8.6	32493	8.6	3875	0-1	
% No Secondary Drug Problem	52.6	36372	41.6	308714	*	0-1	52.3	32493	53.3	3875	0-1	
% Placed on Medication at Admission	21.9	36372	23.9	308714	*	0-1	20.9	32493	28.2	3875	0-1	*
% Past Month Emergency Room Visit	24.4	36372	28.7	308714	*	0-1	23.7	32493	31.4	3875	0-1	*
Days of Health Problems in Last 30	3.8	35288	5.0	298813	*	0-30	3.6	31526	4.9	3758	0-30	*
Days of Employment Problems in Last 30	9.2	35303	13.6	298978	*	0-30	9.0	31539	10.8	3760	0-30	*
Days of Family Problems in Last 30	7.6	35281	12.1	298845	*	0-30	7.4	31513	8.9	3764	0-30	*
Days of Social Problems in Last 30	6.6	35273	10.5	298809	*	0-30	6.4	31515	8.0	3756	0-30	*
Days of Psychological Problems in Last 30	6.3	35258	9.5	298901	*	0-30	6.1	31504	8.4	3750	0-30	*
Days of Drug/Alcohol Problems in Last 30	10.5	35281	15.2	298891	*	0-30	10.2	31519	12.8	3758	0-30	*
Days Used Past Month	7.3	35564	11.5	308714	*	0-30	7.1	31754	8.7	3875	0-30	*
Used Daily in Last 6 Months	34.2	36372	48.0	308714	*	0-30	33.0	32493	42.0	3875	0-30	*
# Public Intoxication Arrests Past Year	0.3	33552	0.1	272139	*	0-99	0.2	29694	1.3	3876	0-99	*
Total # Past-Year Arrests	1.3	36211	0.3	307417	*	0-110	1.0	32331	4.5	3875	0-101	*
Completed Treatment	59.7	33085	69.1	287759	*	0-1	69.2	29491	68.3	3546	0-1	
% Depression	8.6	14345	11.8	133208	*	0-1	8.1	12838	12.7	1507	0-1	*
% Bipolar	4.2	14345	6.1	133208	*	0-1	3.9	12838	6.0	1507	0-1	
% Anxiety	1.7	14345	1.7	133208		0-1	1.6	12838	2.1	1507	0-1	
% Mood disorder	12.8	14345	17.8	133208	*	0-1	12.1	12838	18.7	1507	0-1	*
% Schizophrenia	1.0	14345	2.5	133208	*	0-1	0.9	12838	1.6	1507	0-1	

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Table 2. Admissions of DUI and Non-DUI Offenders to DSHS-Funded Treatment by DSM Disorder: 2005-2008

	Depression			Bipolar			Anxiety			Schizophrenia		
	No DWI Arrest	DWI Arrest	*p*	No DWI Arrest	DWI Arrest	*p*	No DWI Arrest	DWI Arrest	*p*	No DWI Arrest	DWI Arrest	*p*
n	15672	1234		8060	596		2303	238		3329	141	
% of All Clients with DSM diagnosis	11.8	8.6	*	6.1	4.2	*	1.7	1.7		2.5	1.0	*
Average Age	31.9	32.1		31.6	30.8		29.6	30.1		38.3	37.1	
% First Treatment	39.5	36.4		33.1	31.2		47.0	40.0		34.8	32.6	
Lag from First Use to Admission (Years)	12.1	10.5	*	11.0	12.2	*	9.7	11.1	*	12.5	13.5	
% Male	43.3	50.7	*	39.8	47.0		47.4	50.0		60.1	71.6	
Months Employed Past Year	2.5	3.8	*	1.9	2.8	*	3.4	5.2	*	1.0	2.1	*
% Homeless	16.2	10.8	*	20.7	13.6	*	8.0	6.7		22.0	16.0	
% Primary Alcohol Problem	27.5	63.2	*	23.7	51.1	*	23.2	61.3	*	25.8	56.7	*
% Primary Methamphetamine Problem	10.4	5.4	*	13.6	10.2		11.2	6.7		8.8	11.4	
% Primary Cannabis Problem	11.0	5.8	*	13.1	6.4	*	17.3	8.0	*	12.0	7.1	
% Primary Cocaine Problem	29.5	13.0	*	32.7	16.8	*	25.8	10.5	*	44.1	13.5	*
% Primary Opiates Problem	18.8	10.2	*	13.4	11.2		18.8	9.2	*	5.8	7.1	
% No Secondary Drug Problem	39.6	44.5		30.3	33.9		39.0	44.5		33.5	46.1	
% Placed on Medication at Admission	45.4	53.7	*	65.1	72.5		38.0	45.0		77.0	78.0	
% Past Month Emergency Room Visit	49.5	45.7		46.9	49.5		37.0	35.0		47.5	48.0	
Days of Health Problems in Last 30	8.4	8.5		9.4	8.1		7.8	7.6		10.4	8.8	
Days of Employment Problems in Last 30	17.3	16.3		17.0	15.7		15.0	12.0		15.5	11.6	
Days of Family Problems in Last 30	16.9	15.2	*	16.7	15.3		14.5	12.1		15.1	10.9	
Days of Social Problems in Last 30	15.1	12.9	*	15.3	13.9		11.9	9.6		15.3	11.0	
Days of Psychological Problems in Last 30	21.1	20.4		21.1	20.5		18.0	18.3		21.3	20.7	
Days of Drug/Alcohol Problems in Last 30	19.9	18.0	*	19.1	18.4		15.5	14.2		19.6	15.6	
% Used Daily in Last 6 Months	57.3	54.3		57.4	52.9		48.1	47.9		52.9	44.0	
# Public Intoxication Arrests Past Year	0.1	0.5	*	0.1	0.8	*	0.1	0.4	*	0.1	1.4	
Total # Past-Year Arrests	0.3	1.8	*	0.4	2.3	*	0.3	1.6	*	0.4	2.7	*
% Completed Treatment	63.1	65.6		58.9	63.4		58.5	62.4		58.4	56.0	

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Table 3.Characteristics of Female and Male Clients With or Without Past-Year DUI Arrests or DUI Probation Admitted to Texas DSHS-Funded Programs: 2005-2008 with a DSM Diagnosis

	DUI Females	Non-DUI Females	*p*	**DUI Males**	**Non-Dui Males**
n	4436	59337		9909	73870
% Depression	13.7	15.06\		6.3	9.2
% Bipolar	7.1	8.2		2.8	4.3
% Anxiety	2.7	2.0		1.2	1.5
% Schizophrenia	0.9	2.2	*	1.0	2.7
% Placed on Medication at Admission	40.6	36.3	*	26.9	27.6
% Primary Alcohol Problem	57.0	17.9	*	68.8	26.1
% Primary Methamphetamine Problem	7.7	17.0	*	4.3	10.0
% Primary Cannabis Problem	9.0	14.0	*	12.1	24.2
% Primary Cocaine Problem	12.3	30.4	*	7.8	20.4
% Primary Opiates Problem	10.0	17.0	*	4.6	17.0

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