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DRUG USE, MENTAL HEALTH AND ENCOUNTERS WITH THE LEGAL  
SYSTEM IN MISSOULA COUNTY

By

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B.A., The University of Montana, Missoula, MT, 2005

Thesis

presented in partial fulfillment of the requirements  
for the degree of

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Drug Use, Mental Health and Encounters with the Legal System in Missoula County

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It has been well documented in the criminological literature that drug use and crime co-occur (Eilliot, Huizinga and Ageton 1985, Goldstein 1985). Data from the Missoula Arrestee Drug Use Monitoring Study were used to investigate the relationships between drug use, treatment experiences, encounters with the legal system and amenability. It was hypothesized that substance use and dependence would predict encounters with the legal system. It was also hypothesized that treatment experiences would predict lower drug and alcohol dependency scores and fewer encounters with the legal system. Additionally, substance dependence and encounters with the legal system were expected to predict high levels of amenability to treatment. Multiple regression analyses were conducted to test these hypotheses. Treatment experiences were strong predictors of incarceration. High frequencies of alcohol use in the past 30 days and low levels of awareness of alcohol problems also predicted incarceration. Treatment had protective effects on frequencies of alcohol use and arrest. Drug and alcohol dependence and arrest were found to be the best predictors of amenability to treatment

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## Drug Use, Mental Health and Encounters with the Legal System

It has been well documented in the criminological literature that drug use and crime co-occur (Eilliot, Huizinga and Ageton 1985, Goldstein 1985). Drug use, in its broadest definition, includes both alcohol and illicit substance use. It is clear that this co-occurrence is a problem worthy of concern in part due to the economic costs associated with it. While the connection between drug use and crime has been thoroughly researched, little consensus has been reached as to whether the relationship is causal.

The prior literature finds that drug users are significantly more likely to be the perpetrators, as well as the victims of drug-related crime (French, McCollister, Alexandre, Chitwood, and McCoy 2004; Weiner, Sussman, Sun and Dent 2005). Additionally, the overrepresentation of chronic drug users within the criminal justice system has profound impacts on the country's economics. It is estimated that in 2004, a total of 107.8 billion dollars was spent on drug-related crime in the United States (ONDCP 2004).

Goldstein (1985) argued that much criminal activity is the result of the lifestyle of drug users. The act of using illicit drugs is inherently illegal. This may contribute to the high costs of such substances. Evidence suggests that many drug users cannot afford to maintain their habits, and therefore turn to crime to provide the necessary financing (Karberg and James 2005). Crime may also be a by-product of drug use. Burglaries committed for the purposes of securing funds to purchase drugs provide a good example of this.

Arrest data provide support for the hypothesis that crime results from the drug-using lifestyle. Findings from the Arrestee Drug Abuse Monitoring (ADAM) Study indicate that as many as 63% of persons arrested in the U.S. test positive for illicit drugs at the time of their arrests (National Institute of Justice 2003). Additionally, nearly 33% of state prison inmates and 22.4% of federal prison inmates reported being under the influence drugs during the commission of offense (Mumola 1999).

This study examines the relationships between drug use and encounters with the legal system, treatment experiences and amenability to treatment. The purpose of this research is to add to existing empirical findings on the nature of this phenomenon. Linear regression analyses are conducted to determine the relationships between drug use and encounters with the legal system, and to determine the possible mitigating effects of treatment and amenability.

### Theory

It has been argued that adolescent drug use is a specific type of delinquency, and that their co-occurrence suggests common causes of both (Eilliot, Huizinga and Ageton 1985:12). In this regard, adolescent drug use is a typical part of a “general deviance syndrome” (Eilliot et al. 1985:12). Therefore, theoretical models used to explain delinquency can be extended to explain adolescent substance use as well.

Elliot and his colleagues (1985:11) provided a model that integrates strain, social control and social learning theories into a single paradigm to explain delinquency and drug use. Findings from longitudinal research data suggest that

this integrated model provides explanation for a large degree of the variance in delinquent behaviors and drug use (Elliott et al. 1985:136).

The researchers (Elliott et al. 1985:30) found empirical support for the integrated theoretical model of strain, control, and social learning theories. They hypothesized that strain, inadequate socialization and social disorganization may lead to weak conventional bonding. This, in turn, encourages strong delinquent bonding, which may lead to delinquent behavior (Elliott et al. 1985:66). Additionally, it has been argued that engaging in criminal behavior leads to future drug problems and drug related crimes by virtue of the characteristics inherent in criminal lifestyles (Elliott and Huizinga 1984). Criminal behaviors often provide the context and opportunity to use drugs.

Others have suggested that substance abuse leads to criminal behavior by impairing or interfering with psychological, emotional and physical functioning (Graham 1980; Valliant and Milofsky 1982; Zucker and Gomberg 1986). Drug use may lessen inhibitions, which would normally function to keep criminal impulses under control (Graham 1980; Kaplan 1985). Eventually, deviant behavior becomes a coping response for substance abusing individuals to obtain their desired goals.

Still others have hypothesized that the relationship between substance use and criminal activity stems from common causes of both phenomena. Finally, there are findings that suggest that the relationship between crime and drug use is spurious (Stacy and Newcomb 1995). Proponents of this perspective suggest that both issues are related to social conformity.

Social conformity operates to control antisocial attitudes and deviant behavior. Low social conformity may lead to both substance abuse and criminal behavior in that these deviant adaptations occur within a larger context of other problematic behaviors. Criminal behavior and drug use have been found to be indicators within constructs of problem behavior (Donovan and Jessor 1985; Guy, Smith and Bentler 1994; Newcomb and McGee 1991), and may be thought of as manifestations of low levels of social conformity. This model would suggest that persons with high levels of social conformity would have fewer drug problems and less criminal behavior.

#### Empirical Findings on the Nature of Drug Use and Crime

Newcomb, Galaif and Carmona (2001:185) used longitudinal panel data to test hypotheses about the nature of causality between drug problems and criminal behavior. They found a bi-directional relationship, as substance problems were a predictor as well as an outcome of criminal behavior. Their results provided support for impaired-functioning theory, in that early drug problems led to later problem behavior. This suggests that this population turns to illegal activities in order to fund their addictions (Newcomb, Galaif and Carmona 2001:190). Additionally, Newcomb and his colleagues found evidence to support the perspective that criminality facilitates drug use. Increased thefts predicted increased drug arrests. These findings suggest that persons who begin to come into contact with the legal system may be on an escalating path to substance abuse (Newcomb, Galaif and Carmona 2001:190). Newcomb and his colleagues (2001:191) found limited support to suggest that both issues are related to a

common cause, which renders the relationship spurious (Stacy and Newcomb 1995).

Evidence suggests a reciprocal relationship between drug use and criminality, which is not caused by a third variable (Newcomb, Galaif and Carmona 2001:192). Drug use in adolescence predicts legal troubles in adulthood. It may be the case that individuals are impaired by their drug use, which functions to diminish their ability to control their impulses (Newcomb, Galaif and Carmona 2001:192). Additionally, youth who engage delinquent behavior tend to report substance problems later in life. Early drug use and delinquency may interfere with one's ability to accomplish developmental tasks, which may lead to continued drug use and antisocial behavior (Newcomb, Galaif and Carmona 2001:193).

#### Patterns of Drug Use and Criminal Behavior

Previous custodial sentences, age at first crime and age of first drug and alcohol use are typical predictors of crime and recidivism (Keene 2004:492). Polydrug problems in early adulthood predict later criminal behavior. Criminal behavior, in turn, predicts later drug problems (Newcomb, Galaif and Carmona 2001). Evidence also suggests that early childhood abuse and psychological problems may encourage later drug abuse (Downs and Morrison 1998; Landwig and Anderson 1989).

Grady, Hanlon and Kinlock (2003) argued that the main predictors of involvement in a criminal lifestyle are being young and male. Being a young, male, unemployed drug user predicted a greater range of crimes. Increased

crime severity is related to being male and drug use other than alcohol and marijuana (Battjes, Gordon and Kinlock 2004).

Associations between drug use and crime are complex and difficult to interpret. Evidence suggests that crimes can be carried out to finance drug addiction (Gossop 1996; Hammersley, Forsyth and Lavelle 1990; Home Office 2001; Strang and Gossop 1994). However, crime may also lead to drug use as the lifestyle associated with criminal activities may provide access to and the means to buy such substances (Hammersley, Forsyth and Lavelle 1990). Conversely, Bean and Wilkinson (1988) suggest that the association between drug use and crime is due to common causes of both.

Keene (2004:493) found a relationship between drug use and crime that held constant for every age/gender combination. Being male increases one's likelihood of committing crime, as does being under the age of 25. The frequency of drug offending is positively correlated with the frequency of crime, even when controlling for age and gender (Keene 2004). Additionally, Keene (2004:494-5) found a strong positive relationship between drug crime and drug problems, as well as between all crime and drug problems. Social and psychological problems were found to contribute to these troublesome situations (Keene 2004:498).

Empirical findings suggest that the social and economic forces that shape the lives of users are associated with drug use and criminal activity (Foster 2000). The relationship between these issues may be mediated by other environmental factors (Bennet 1990). These findings may explain why

frequencies of drug use and crime tend to vary throughout the life course (Simpson 2003).

### Treatment and Amenability

In 1997, 173,000 adults and juveniles were placed in substance abuse treatment programs (ONDCP 2001), with an average cost of \$2,941 per treatment episode (SAMHSA 1999). Drug related crime costs represent over one half of all monetary costs of drug abuse in this country (ONDCP 2004). Research suggests that treatment is effective at reducing substance abuse among this population, and has been shown to reduce economic costs to society (Hubbard, Craddock, Flynn, Anderson and Etheridge 1997; Ettner, Huang, Evans, Ash, Hardy, Jourabchi, and Hser 2006).

Treatment has been found to both reduce drug use and drug-related crime (Gossop, Marsden, Stewart and Kidd 2003; Pendergast, Podus, Chang and Urada 2002; Ettner et al 2006; Godfrey, Stewart and Gossop 2004). Due to these factors, it is often most desirable to route substance abusers into treatment before the addict's level of use escalates to the point of causing greater harm to society.

### Amenability

When evaluating the effects of treatment on involvement in the criminal justice system, it may be useful to consider a participant's readiness to change. Among clinicians it is a commonly held belief that motivation for change is a significant predictor of compliance to treatment and a person's final outcome. Treatment episodes tend to be more successful when clients have the desire to change

problem behaviors. Persons may go through many episodes of treatment, but these episodes may be minimally effective if said persons are not amenable to treatment.

Research suggests that people tend to enter treatment for three primary reasons: 1) external factors which are beyond their control, such as court-ordered treatment (e.g. Gerdner and Holmberg 2000; Polcin and Weisner 1999); 2) internal factors, such as the internal drive to stop drinking or using (e.g. Deci and Ryan 1985); and 3) community outreach programs that encourage addicts to seek treatment (e.g. SAMHSA 2006).

#### Comorbidity of Substance Abuse and Mental Health Disorders

It is common for persons with substance abuse disorders to have co-occurring mental health disorders. Of these, the most common are depressive disorders (Kessler, Berglund, Demler, Jin, Koretz, Merikangas, Rush, Waters, and Wang 2003). In these situations, drug and alcohol use may function as a form of self-medication for one's mental health disorder.

Chemical dependency and mental health issues are often grouped together because of their tendency to co-occur. It was hypothesized that mental health and chemical dependency treatment experiences may mitigate the relationship between substance use and involvement in the legal system if participants are amenable to such treatment. It was predicted that self-reported drug users who have not completed chemical dependency and/or mental health treatment would have more encounters with the legal system than those who have had such treatment. However, this effect may be dependent on one's amenability to

treatment. Persons who have been through formalized treatment but are less amenable to such treatment may have more encounters with the legal system than would more amenable persons. While encounters with the criminal justice system may not provide comprehensive information on crime, they may be thought of as the “tip of the iceberg” of criminal activity, since many crimes are not reported to the police.

Conversely, it may be the case that treatment episodes are utilized to avoid incarceration. Chemical dependency treatment is often used as an alternative to incarceration, and may be a compulsory sentence for some drug offenses. Others have noted that recipients of mental health treatment services are incarcerated at a higher rate than the general community (Cox, Morschauser, Banks and Stone 2001). It may be argued that the legal system provides an avenue for treatment services.

Amenability may be a function of the amount of involvement in the system a participant has experienced, and that such encounters may be thought of as external motivators for treatment. Being arrested may be somewhat of a “wake-up call” to a participant that may contribute to the desire to make changes in his or her drug use. This study intends to clarify the relationships between these issues.

### Approach

Findings from prior literature suggest that the causal order between drug use and criminal behavior may be difficult to determine without using longitudinal data. Because the data to be analyzed in the present study are cross-sectional

in nature, analyses were performed to determine the strongest predictors of both. Research hypotheses were derived from a large body of empirical research on the subject. This study intends to contribute to existing empirical findings, and to generate, rather than test theory. While no grand theoretical framework is provided, it is likely that many theories would provide predictions of the same outcomes.

### Methods

#### Missoula Arrestee Drug Use Monitoring Study

The Missoula Arrestee Drug Use Monitoring Study (MADUMS) survey was modeled on the Arrestee Drug Use Monitoring Program (ADAM) administered by the National Institute of Justice (2003). Data from MADUMS were used to test research hypotheses. The MADUMS survey was designed to document the extent of alcohol and drug use by those arrested in the Missoula, Montana area, and was used to investigate the phenomenon of drug use among arrestees.

The survey instrument is comprised of questions developed by a research team at the University of Montana to measure the co-occurrence of drug use, criminal activity, disability, and mental health issues of arrestees being booked into the Missoula County Detention Facility. The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) was added to assess amenability (Miller and Tonigan 1996). The survey is twenty-two pages in length, not including the request for the urine specimen or informed consent forms (see Appendix). It is comprised of nominal, ordinal and interval-ratio level items.

The sample consists of 64 persons who were arrested and booked into the Missoula County Detention Center<sup>1</sup>. Jail personnel recruited subjects within forty-eight hours of their arrest. At this time, correctional officers screened participants for excessive intoxication. Pairs of researchers who were trained on jail and interview procedures conducted interviews. Seven teams of two researchers provided coverage across all possible days and times. Each team covered a four-hour time slot, which varied across days of the week. Each time slot represented a different four-hour period of the day and all times of the day had a corresponding slot. In this way, all days of the week were nearly equally sampled.

Interviews were conducted in a private interview room within the detention facility, near the booking desk. Participants were not under surveillance by correctional officers at this time. Inmates could be viewed by booking staff through a window in the door, and the room was equipped with an emergency button on the wall. Participants were read a statement of informed consent and asked to sign if they agree to participate. Participation was completely voluntary and the consent form indicated clearly that the information provided would in no way influence their case. Participants were then asked about their background characteristics, prior arrests, drug histories, disabilities, and amenability to treatment, and substance abuse and mental health treatment experiences. At the end of the interview, participants were asked to use a private restroom and produce a urine specimen that was tested using the Sure-Screen<sup>®</sup> diagnostic kit

by Medotox Diagnostic, Inc. The device provided urinalysis for five drugs: marijuana, benzodiazepines, cocaine, methamphetamines and opiates.

To maintain confidentiality, the only written record of the participant's name is on the consent form, which is stored separately from the rest of the instrument. As an added precaution, the demographic section of the instrument is also separated from the other two parts.

### Variables

#### Encounters with the Legal System

The frequency of which one comes into contact with the legal system was measured in two ways: self-reported data on the number of arrests in one's lifetime and the total number of days spent incarcerated. Because of low alpha reliability, and low inter-item correlations, these items were not scaled together but were analyzed separately.

#### Drug Use.

It was hypothesized that drug use would predict increased encounters with the legal system. Drug use was measured in terms of two major contributing factors: frequency of substance use in the past 30 days and symptoms of drug and alcohol abuse derived from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV® 1994).

Because of low alpha reliability, and low inter-item correlations, indicators of drug use in the past 30 days were not scaled together but were analyzed separately. The substances analyzed were: alcohol, marijuana, powder cocaine, methamphetamines, painkillers, and "other" drug use. Information on "other"

drug use was gathered in the question: “Not including alcohol and the drugs that we have discussed, have you ever used any other drug, not counting drugs for which you had a prescription or over the counter drugs?” Due to its very infrequent use by participants, “crack” or rock cocaine use was excluded from the analysis.

Symptoms of drug and alcohol dependence were measured using the questions: “Have you spent more time drinking/using drugs than you intended?” “Have you neglected some of your responsibilities due to drinking/using drugs?” “Have you wanted to cut down on your drinking/drug using?” “Has anyone objected to your drinking/drug using?” “Have you frequently found yourself thinking about drinking/using drugs?” “Have you used alcohol/drugs to relieve feelings such as sadness, anger or boredom?” “Has your drinking/drug use caused you recurrent legal problems, such as drunk driving or disorderly conduct offenses?” and “Has your drinking/drug use caused you problems in your interpersonal relationships?” These items were designed to mirror symptoms of drug and alcohol dependence found in the DSM-IV®. Items were coded separately for drugs and alcohol. Two scale measures, alcohol dependence ( $\alpha = .79$ ) and drug dependence ( $\alpha = .84$ ), were created out of the eight response categories for each. Items for each scale were highly correlated with one another ( $r$  values ranged from .058 to .728 for and from .047 to .631, respectively).

### Treatment History

This measure was broken into two components: mental health and chemical dependency. Such treatment experiences were grouped together because of their tendency to co-occur. Mental health treatment was measured using the number days spent in inpatient mental health treatment programs. Outpatient mental health treatment data were excluded because of their negative impact on the scale measure. Substance abuse treatment was measured using the number days spent in inpatient and outpatient chemical dependency treatment programs. These items were highly correlated with one another ( $r$  values ranged from .607 to .933), and were scaled together ( $\alpha = .85$ ).

### Amenability.

Treatment amenability was measured using the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) (Miller and Tonigan 1996). The SOCRATES is a 19-item scale designed to measure motivation to change drinking behavior. It has been found to be useful in predicting long-term treatment outcomes (Campbell 1997, Isenhardt 1997). While primarily developed for use with problem drinkers, this scale has been used to assess treatment readiness among problem drug users as well. The measure is comprised of three scales: "Problem Recognition," "Ambivalence," and "Taking Steps" (Miller and Tonigan 1996:81-9), which are scored separately. The three SOCRATES scales were correlated with one another ( $r$  values ranged from .011 to .801) and combined to create a scale of amenability ( $\alpha = .94$ ).

## Analysis

Descriptive analyses were performed to examine the demographic characteristics of the sample, as well as to check for data entry errors. Zero-order correlations were conducted to determine the intercorrelations of the variables (see Table 1). These correlations provided evidence for multivariate analyses to be conducted. Multivariate linear regression analyses were conducted to investigate the relationships among the variables.

Standardized variables were used to make relative comparisons between the variables and to lessen the impact of influential cases on a small sample. Independent variables were regressed into single dependent variables. Based on prior literature, data on sex, age, race and level of education were used as control variables in each model to guard against possible spurious relationships between the variables. For this portion of the analysis, race was coded as “white” and “non-white.” Models were run for dependent variables, and variables that were not statistically significant at a minimum of 95% confidence (other than control variables) were removed from each model. Dependent variables yielding significant models included rates of incarceration, treatment experiences, and amenability to treatment. Reported findings are trimmed models, where only statistically significant independent variables are included<sup>2</sup>.

## Findings

### *MADUMS Demographic Information.*

The sample consisted of about 74% male and 26% female respondents. The median age of participants was 27, and ranged from 18 to 62. Racial

composition was 66.7% White, 3.3% African American, 23.3% Native American, 1.7% Hispanic/Latino and 5% "Other." Native Americans were greatly over-represented. Native Americans comprised 23.3% of the sample compared with 6.5% of Montana's total population (2005 U.S. Census).

All participants were U.S. citizens. Forty-nine percent of respondents had no health insurance. Only 12% reported that they had not finished high school. About 63% reported having full or part time employment; about 13% were unemployed. Sixty-eight percent reported having never been married. Approximately 80% reported residing in an apartment, mobile home or house. Only 13% reported being without a fixed residence. Participants had a median of 4 prior arrests and 30 days spent in jail/prison in their lifetimes.

About 50% (27 persons) provided a urine specimen for analysis. Twenty (about 74%) tested positive for at least one substance. Participants who consented to the urinalysis request tested positive to an average of 3 substances. Some tested positive for all substances. The median number substances yielding positive results were four.

**Table 1: Means, Standard Deviations, and Intercorrelations (n=54)**

Variables	Mean (s.d.)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Sex	1.26 (0.44)	-.191	-.082	.071	-.180	-.007	.349**	.203	.378**	.232	.121	.280**	.109	.076	-.111	-.065	-.093	-.150	
2. Age	30.34 (10.09)		.064	.029	-.082	-.156	-.102	-.058	-.093	-.175	-.044	-.086	.135	.145	.109	.461**	.157	.465*	
3. Race	1.3333 (0.48)			-.126	-.167	-.032	.009	.104	-.167	.064	.116	.101	.152	.261	.174	.138	.048	.113	
4. Level of Education	4.02 (1.51)				-.002	-.223	.064	-.114	-.231	-.077	.137	-.301*	-.095	-.045	-.116	-.191	-.238	-.108	
5. Alcohol Use (30 Day)	6.36 (7.78)					-.045	.245	.100	.001	-.016	.154	-.100	.062	-.047	.224	-.118	-.086	.088	
6. Marijuana Use (30 Day)	4.84 (9.1)						-.091	-.103	.174	.201	-.207	.342**	-.146	-.014	-.181	-.074	.062	.068	
7. Cocaine Use (30 Day)	0.29 (1.38)							.246	.376**	.233	.259	.315*	.194	.130	-.113	-.010	-.056	-.034	
8. Meth Use (30 Day)	0.34 (1.43)								.031	-.056	.093	.284*	.170	.024	-.103	-.009	.254	.142	
9. Painkiller Use (30 Day)	1.68 (5.9)									.599**	.025	.354**	.104	.096	-.059	-.013	-.110	-.077	
10."Other" Drug Use (30 Day)	0.1 (0.45)										.163	.271*	.122	.174	-.189	-.045	-.162	-.104	
11. Alcohol Dependence	4.44 (2.54)											.209	.476**	.609**	.236	.074	-.175	.128	
12. Drug Dependence	2.64 (2.53)												.396**	.417**	.268*	.200	.189	.147	
13. Recognition (SOCRATES)	23.82 (8.09)													.803**	.574**	.257	.264*	.099	
14. Ambivalence (SOCRATES)	13.28 (4.34)														.587**	.167	.185	.024	
15. Taking Steps (SOCRATES)	28.44 (8.2)															.257	.200	.053	
16. Treatment	4.4483 (14.01)																	.081	.665**
17. Lifetime Arrests	8.47 (10.82)																		.402**
18. Lifetime Incarceration	591.99 (1330.82)																		

\* Correlation is significant at the .05 level (two-tailed)

\*\* Correlation is significant at the .01 level (two-tailed)

**Table 2. The Effects of Alcohol Use, Dependence and Treatment on Rates of Incarceration (n = 54)**

Variables	Incarceration		
	1	2	3
Sex	-.050 -.115 (.257)		-.020 -.022 (.099)
Age	.533*** .613(.013)		.268* .315 (.123)
Race	.214* .460 (.240)		.216* .226 (.099)
Level of Education	-.116 .076 (.075)		.050 .052 (.098)
Alcohol Use (30 Day)		.232** .246 (.103)	.265** .283 (.100)
Alcohol Dependence		-.220** -.227 (.100)	-.269** -.280 (.099)
Treatment		.714*** .724 (.098)	.564*** .579 (.111)
Adjusted R <sup>2</sup>	.310	.503	.583

Note: For each variable, the standardized coefficient is shown in the top row and the unstandardized coefficient and standard error (in parentheses) are shown in the bottom row.

\* p< .05 (one-tailed)

\*\* p< .01 (two-tailed)

\*\*\* p< .001 (two-tailed)

Table 2 depicts the regression model which was able to explain 58.3% of the variance in the dependent variable, rates of incarceration. Age was found to be a significant predictor of incarceration. This could be explained by understanding that as one ages, one has more opportunities to become incarcerated. Race (white and non-white) was also a significant factor, suggesting that non-whites tend to have higher rates of incarceration than whites, even when accounting for other control variables.

Mental health and chemical dependency treatment are positively related to incarceration and explain the largest amount of variance ( $\beta = .564$ ). This may reflect the tendency of these populations to have higher rates of mental health problems, and may suggest that the legal system in the U.S. is often used as a

quasi-mental health care system for those who are unable to afford it. It may also be that treatment is often a sentence for certain drug offenses, or an option for aftercare after one is released from jail or prison. However, this finding is difficult to interpret without knowing the temporal order of the variables.

Additionally, alcohol use in the past 30 days was a significant predictor ( $\beta = .265$ ). As alcohol use increases, so does length of incarceration. Interestingly, alcohol dependence was a significant predictor, but had a negative coefficient ( $\beta = -.269$ ). Though it may seem counterintuitive, it is plausible that measures of alcohol and drug dependence seem to require recognition of one's problems. Persons with less awareness of problem behaviors may find themselves repeating past mistakes. Additionally, drug and alcohol dependence are positively associated with amenability toward treatment (see Table 4). Persons who scored high on dependence scales tended to be more amenable to treatment. This may suggest that these measures rely on self-awareness of problem behaviors.

**Table 3. The Effects of Alcohol Use, Prior Arrest and Rates of Incarceration on Experienced Treatment (n = 54)**

Variables	Treatment		
	1	2	3
Sex	.033 .076 (.272)		.016 .016 (.096)
Age	.493*** .054 (.013)		.164 .187 (.130)
Race	.187 .400 (.251)		.062 .063 (.099)
Level of Education	-.186 -.123 (.078)		-.179* -.180 (.096)
Alcohol Use (30 Day)		-.234** -.243 (.099)	-.227* -.235 (.101)
Arrest		-.271** -.269 (.103)	-.333** -.329 (.104)
Incarceration		.798*** .787 (.102)	.703*** .685 (.121)
Adjusted R <sup>2</sup>	.307	.510	.545

Note: For each variable, the standardized coefficient is shown in the top row and the unstandardized coefficient and standard error (in parentheses) are shown in the bottom row.

\* p < .05 (one-tailed)

\*\* p < .01 (two-tailed)

\*\*\* p < .001 (two-tailed)

Table 3 depicts the regression model which was able to explain 54.5% of the variance in the dependent variable, experienced treatment. Level of education was found to be a significant negative predictor of experienced treatment ( $\beta = -.179$ ). This suggests that persons with lower levels of education have more frequent treatment experiences. This finding was significant in the presence of other control variables.

Alcohol use was also found to be a significant negative predictor ( $\beta = -.227$ ). Alcohol use in the past 30 days is negatively associated with treatment experiences, which may mean that the less a person drinks, the more likely that he or she is to have experienced treatment at some point during his or her lifetime. This may mean that treatment reduces the frequency of alcohol use.

Frequency of lifetime arrest is also negatively associated with treatment experiences ( $\beta = -.333$ ). This suggests that treatment reduces the frequency of arrest or is effective to keep people from using, and therefore get arrested less often. This supports prior literature that treatment decreases drug related crime.

Incarceration was the best predictor of treatment ( $\beta = .703$ ). While the first model suggests that treatment predicts incarceration ( $\beta = .564$ ), the current model suggests that incarceration predicts treatment, but is a much stronger predictor. This effect may be due to correctional facilities offering treatment programs. It may also suggest that frequency incarceration is the true independent variable in this equation, and hint at temporal order. The strongest case may be made that persons first become incarcerated, and enter treatment programs at a later time.

**Table 4. The Effects of Drug Use, Dependence and Prior Arrests on Amenability to Treatment (n = 54)**

Variables	Amenability		
	1	2	3
Sex	.054		.059
	.123 (.304)		.058 (.111)
Age	.210		.139
	.023 (.015)		.148 (.117)
Race	.269		.110
	.571 (.281)		.107 (.112)
Level of Education	-.085		-.146
	.055 (.087)		-.138 (.109)
Marijuana Use (30 Day)		-.228**	-.310**
		-.265 (.109)	-.283 (.114)
Methamphetamine Use (30 Day)		-.250*	-.269*
		-.230 (.104)	-.246 (.108)
Alcohol Dependence		.404***	.390**
		.384 (.107)	.369 (.114)
Drug Dependence		.426***	.372**
		.407 (.118)	.355 (.126)
Arrest		.339***	.271**
		.315 (.102)	.251 (.110)
Adjusted R <sup>2</sup>	.057	.443	.432

Note: For each variable, the standardized coefficient is shown in the top row and the unstandardized coefficient and standard error (in parentheses) are shown in the bottom row.

\*  $p < .05$  (one-tailed)

\*\*  $p < .01$  (two-tailed)

\*\*\*  $p < .001$  (two-tailed)

Table 4 depicts the regression model which was able to explain 43.2% of the variance in the dependent variable, amenability to treatment. Marijuana use in the past 30 days was a significant negative predictor of amenability ( $\beta = -.310$ ). This may mean that as marijuana use increases, amenability to treatment decreases. Methamphetamine use was also a significant negative predictor ( $\beta = -.269$ ). Again, suggesting that as methamphetamine use increases, amenability decreases.

Measures of alcohol and drug dependence were the strongest predictors of amenability to treatment ( $\beta = .390$  and  $\beta = .372$ , respectively). This may be interpreted as one scores higher on measures of alcohol and drug dependence, one tends to be more amenable to treatment. This may be related to the nature of the questions and rely on the self-awareness of participants to realize that they have problems with drugs and alcohol and recognize a need to make behavioral changes.

Lifetime frequency of arrest was also a strong predictor of amenability ( $\beta = .271$ ). This may mean that the more times one is arrested, the more amenable he or she becomes. This may support the idea of arrest functioning as a “wake up call,” in that being arrested may make users realize the severity of their problems. Recurring arrest may be an indicator of drug and alcohol issues.

### Discussion

It was predicted that substance use and dependence would predict higher frequencies of arrest and incarceration. Such factors did not have significant

effects on arrest, but did impact rates of incarceration. High frequencies of alcohol use in the past 30 days, as well as low levels of awareness of alcohol problems predicted rates of incarceration.

It was hypothesized that chemical dependency and mental health treatment would predict lower drug and alcohol dependency scores and fewer encounters with the legal system. Treatment experiences were strong predictors of incarceration. It may be that this reflects the tendency of incarcerated persons to have higher rates of mental health problems, and encounter treatment in these settings. It may be the case that persons first become incarcerated, and then enter treatment programs at a later time. Treatment seems to have a protective effect on frequencies of alcohol use and arrest. However, these findings are difficult to interpret without knowing the temporal order of the variables.

It was also predicted that substance dependence and encounters with the legal system would predict high levels of amenability to treatment. Alcohol dependence, drug dependence and arrest were found to be the best predictors. Substance use (specifically marijuana and methamphetamine use) in the past 30 days appeared to be negatively associated with amenability.

The connection between drug use, mental health and crime is important to investigate because of the social costs associated with it. Learning more about the characteristics of arrestees will likely lead to valuable insight on the problems surrounding drug use and incarceration, as well as the special needs of this population. These problems do not manifest themselves with only the arrestees themselves, but within the entire community.

### Limitations and Future Research

The small sample size of the MADUMS dataset may have limited variability in responses. Findings should be interpreted with caution because of the small sample size. Analyses performed using a larger sample size would likely yield more conclusive results. Additionally, the characteristics of this sample could be compared to findings from national ADAM data.

Limited conclusions about the temporal order of the variables could be drawn using cross-sectional data. A replication of these models using longitudinal data would likely yield more conclusive information about the nature of this phenomenon. It could be argued that knowing the temporal order of the variables would get to the root cause of these problems.

End Notes:

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<sup>1</sup>Six persons began the interview process but did not finish it. This left a total of 54 completed interviews. The most common reason that participants did not finish the interview process was that they posted bond. Because of excessive intoxication, the researchers terminated one participant's interview.

<sup>2</sup>Collinearity diagnostics were performed to guard against violations of the assumptions of the linear regression analyses (e.g. tolerance and VIF statistics). No violations of the assumptions were detected.

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## Appendix

Missoula Arrestee Drug Use Monitoring Survey Instrument

**Section A: Background**

**Instructions: Questions A1 through A5 will be filled out by the interviewer.**

A1: Interviewer ID # \_\_\_\_\_

A2: Respondent ID # \_\_\_\_\_

A3: Data collection date (month/date/year) \_\_\_\_\_

A4: Time interview starts \_\_\_\_\_ (circle one) AM PM

A5: Arrest date (month/date/year) \_\_\_\_\_

**Instructions: Thank you for agreeing to take the time to talk with us today. It is important that you remember that this interview is confidential and your name will never be recorded. The results of the interviews will be reported for the group as a whole and not individuals within it.**

A6: About what time were you arrested? \_\_\_\_\_ (circle one) AM PM

A7: What agency arrested you today?

- 1.  Missoula Police Dept.
- 2.  Missoula County Sheriff's Dept.
- 3.  Montana Highway Patrol
- 4.  Montana Fish, Wildlife and Parks
- 5.  Probation/Parole
- 6.  Other (specify) \_\_\_\_\_

A8: What was it that you were arrested for today?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section B: Anchor/Cognitive Screen**

*Instructions: Most of the questions that we will be asking you deal with events in the past year. In an effort to help you think about events in the last year, I would like to begin by asking you just a couple of questions about major holidays in the past year.*

B1: Starting from today (tell the respondent the current date), I want you to think back exactly 12 months. What was the date 12 months ago?  
\_\_\_\_\_ (List the date)

B2: Where were you on the following holidays during the last year?

Christmas	<input type="checkbox"/>	Remembered	<input type="checkbox"/>	Did not remember
Thanksgiving	<input type="checkbox"/>	Remembered	<input type="checkbox"/>	Did not remember
The 4 <sup>th</sup> of July	<input type="checkbox"/>	Remembered	<input type="checkbox"/>	Did not remember
Your Birthday	<input type="checkbox"/>	Remembered	<input type="checkbox"/>	Did not remember

**Section C: Demographics**

*Instructions: Before we get into the main questions of the survey, I would like to ask you a few background questions. These questions are important because they allow us to learn about the people who we talk with.*

C1: Are you:       Male       Female

C2: How old are you? \_\_\_\_\_ (List age and continue with C3)

C3: In terms of race, what do you consider yourself?

1.  White
2.  Black or African American
3.  Native American or Alaskan Native
4.  Hispanic or Latino
5.  Asian
6.  Other \_\_\_\_\_ (List race)

C4: Were you born in the United States or U.S. Territories?

1.  No, continue with C5
2.  Yes, skip to C7

C5: In what country were you born?  
\_\_\_\_\_ (List country, continue with C6)

C6: What is your current residency status?

1.  U.S. citizen
2.  Permanent resident with green card
3.  Work or other visa
4.  Other legal documents
5.  No legal documents

C7: What is the highest level of education you have completed?

1.  Grade school \_\_\_\_\_ (List last grade attended)
2.  Some high school or
3.  GED or high school diploma
4.  Vocational or trade school
5.  Some college
6.  Associates Degree (AA)
7.  Four year college degree or higher

C8: Which of the following best describes your work status in the past 12 months?

1.  Working full-time, at least 35 hours per week
2.  Working part-time
3.  On active military status
4.  Not working due to illness/leave/furlough/strike
5.  Seasonal work
6.  Unemployed/laid-off, looking for work
7.  Unemployed and not looking for work
8.  Full-time homemaker
9.  In school only
10.  Retired
11.  Disabled
12.  Other \_\_\_\_\_ (List work status)

C9: Are you currently covered by health insurance?

1.  No, skip to C11
2.  Yes, continue with C10

C10: What type of insurance are you covered by?

1.  Individually purchased
2.  Employer or union
3.  Welfare or Medicaid
4.  VA
5.  Retirement Medicare
6.  Disability Medicare (SSI, SSDI)
7.  Workers compensation
8.  Indian Health Service
9.  Other coverage \_\_\_\_\_ (List coverage)

C11: What is your current marital status?

1.  Single, never been married
2.  Married
3.  Legally separated
4.  Divorced
5.  Widowed

C12: During the past 12 months, where have you lived most of the time?

1.  House, mobile home, or apartment
2.  Residential hotel, rooming house, dormitory, group home
3.  Hospital, treatment facility, or extended care facility
4.  Jail, prison, or correctional facility
5.  No fixed residence or homeless

C13: When you were growing-up, which of the following best describes the place where you lived?

1.  On a farm or ranch
2.  In the country, but not on a farm or ranch
3.  In a small town
4.  In a medium size city like Missoula
5.  In a big city

C14: While you were growing-up, how often did you move?

1.  Never
2.  Only once
3.  Two to three times
4.  Four to five times
5.  More than five times

C15: Do you have a hearing problem that prevents you from hearing what is said in normal conversations, even with a hearing aid?

1.  No
2.  Yes

C16: Do you have a vision problem that prevents you from reading a newspaper even when wearing glasses or contacts?

1.  No
2.  Yes

C17: Do you have any condition that seriously limits one or more basic physical activities such as walking, climbing stairs, reading, lifting, or carrying?

1.  No
2.  Yes

C18: Do you have any other physical disability?

1.  No, skip to C20
2.  Yes, continue with C19

C19: What physical disability do you have?

\_\_\_\_\_ (List disability, continue with C20)

C20: Do you have any emotional or mental disability?

1.  No
2.  Yes

C21: Do you have difficulty with learning, remembering, or concentrating?

1.  No
2.  Yes

C22: Because of a physical, mental, or emotional condition lasting 3 months or longer do you have any difficulty working at a job or business?

1.  No
2.  Yes

C23: Because of a physical, mental, or emotional condition lasting 3 months or longer do you have difficulty doing housework or other daily activities?

1.  No
2.  Yes

C24: In the past three years, have you been diagnosed with a psychological or emotional disorder by a medical doctor or mental health professional?

1.  No, skip to C26
2.  Yes, \_\_\_\_\_ (List disorder, continue with C25)

C25: Are you taking medication or going to counseling for this?

1.  No
2.  Yes

C26: In the past three years, have you been diagnosed as having a substance abuse problem by a medical doctor or mental health professional?

1.  No, skip to Section D
2.  Yes, continue with C27

C27: Are you taking medication or going to counseling for this?

1.  No
2.  Yes

**Respondent ID#** \_\_\_\_\_  
**Interviewer ID #** \_\_\_\_\_

***Section D: Prior Arrests/Detentions***

***Instructions: This section asks you to think about any prior arrests and the number of days, if any, that you have been held in jail/prison/or another detention facility as a result of a prior arrest. Although it may be difficult to give an exact account of these, please give the best estimate that you can.***

D1: Before this arrest, have you ever been arrested and booked at a holding facility like this one?

1.  No, if no, skip to section E
2.  Yes, continue with D2

D2: Not counting this arrest, how many times have you been arrested in (List # of times below):

Your lifetime \_\_\_\_\_  
The past 12 months \_\_\_\_\_  
The past 30 days \_\_\_\_\_  
The past 7 days \_\_\_\_\_

D3: Before this arrest, were you ever held in jail for at least 24 hours, or did you serve time in a jail, prison, juvenile detention facility, or boot camp?

1.  No, if no, skip to section E.
2.  Yes, continue with D4

D4: How many months/days have you spent in jail/prison/or another detention facility (List # of times below):

Your lifetime \_\_\_\_\_ (# of months)  
The past 12 months \_\_\_\_\_ (# of days)  
The past 30 days \_\_\_\_\_ (# of days)  
The past 7 days \_\_\_\_\_ (# of days)

**Section E: Alcohol and Drug Use**

**Instructions: This section asks you to think about your prior use of alcohol and drugs. Please respond to the questions as completely and truthfully as you can. Remember, all of the information you provide to us is confidential and will not be used against you.**

E1: Have you ever consumed enough alcohol to feel its effects?

1.  No, skip to E10
2.  Yes, continue with E2

E2: How old were you the first time you consumed enough alcohol to feel its effects?

\_\_\_\_\_ (List Age, continue with E3)

E3: Who were you with the first time that this happened?

1.  Friend
2.  Sibling
3.  Parent
4.  Other relative
5.  Stranger
6.  Other, \_\_\_\_\_ (List, continue with E4)

E4: Where were you when this happened?

1.  Own home
2.  Friend's home
3.  Relatives home
4.  Party/social gathering
5.  Automobile
6.  Other, \_\_\_\_\_ (List, continue with E5)

E5: Have you ever had 5 or more drinks of beer, wine, or any type of alcohol on the same day?

1.  No, if no, skip to E9
2.  Yes, continue with E6

E6: In the past 12 months, did you have 5 or more drinks on the same day?

1.  No, if no, skip to E9
2.  Yes, continue with E7

E7: In the last 30 days, on how many days did you have 5 or more drinks on the same day?

\_\_\_\_\_ (List # of Days, continue with E8; E9 if zero)

E8: In the last 7 days, how many days did you have 5 or more drinks on the same day?

\_\_\_\_\_ (List # of Days, continue with E9)

E9: At the time you were arrested, were you under the influence of alcohol?

1.  No
2.  Yes

E10: If you wanted to get some marijuana or hashish, how easy would it be for you to get some?

1.  Very easy
2.  Sort of easy
3.  Sort of hard
4.  Very hard

E11: Have you ever used marijuana?

1.  No, skip to E19
2.  Yes, continue with E12

E12: How old were you the first time you used marijuana?

\_\_\_\_\_ (List Age, continue with E13)

E13: Who were you with the first time that this happened?

1.  Friend
2.  Sibling
3.  Parent
4.  Other relative
5.  Stranger
6.  Other, \_\_\_\_\_ (List, continue with E14)

E14: Where were you when this happened?

1.  Own home
2.  Friend's home
3.  Relatives home
4.  Party/social gathering
5.  Automobile
6.  Other, \_\_\_\_\_ (List, continue with E15)

E15: In the past 12 months, did you use marijuana or hashish any time?

1.  No, skip to E19
2.  Yes, continue with E16

E16: In the past 30 days, on how many days did you use marijuana or hashish?

\_\_\_\_\_ (List # of Days, continue with E17, E19 if zero)

E17: In the past 7 days, on how many days did you use marijuana or hashish?

\_\_\_\_\_ (List # of Days, continue with E18, E19 if zero)

E18: At the time you were arrested, were you under the influence of marijuana or hashish?

1.  No
2.  Yes

E19: Not including alcohol and marijuana, have you ever used any other illegal drugs (like cocaine, methamphetamines, painkillers)?

1.  No, skip to Section F
2.  Yes, continue with E20

E20: How old were you the first time you used illegal drugs other than marijuana?

\_\_\_\_\_ (List Age, continue with E21)

E21: Who were you with the first time that this happened?

1.  Friend
2.  Sibling
3.  Parent
4.  Other relative
5.  Stranger
6.  Other, \_\_\_\_\_ (List, continue with E22)

E22: Where were you when this happened?

1.  Own home
2.  Friend's home
3.  Relatives home
4.  Party/social gathering
5.  Automobile
6.  Other, \_\_\_\_\_ (List, continue with E23)

***\*\*We have talked about drugs in general. We now want to ask about specific illegal drugs that you may have used\*\****

E23: If you wanted to get some crack or rock cocaine, how easy would it be for you to get some?

1.  Very easy
2.  Sort of easy
3.  Sort of hard
4.  Very hard

E24: Have you ever used crack or rock cocaine?

1.  No, skip to E30
2.  Yes, continue with E25

E25: How old were you the first time you used crack or rock cocaine?

\_\_\_\_\_ (List Age, continue with E26)

E26: In the past 12 months, did you use rock cocaine any time?

1.  No, skip to E30
2.  Yes, continue with E27

E27: In the past 30 days, on how many days did you use crack or rock cocaine?

\_\_\_\_\_ (List # of Days, continue with E28; E30 if zero)

E28: In the past 7 days, on how many days did you use crack or rock cocaine?

\_\_\_\_\_ (List # of Days, continue with E29; E30 if zero)

E29: At the time you were arrested, were you under the influence of crack or rock cocaine?

1.  No
2.  Yes

E30: If you wanted to get some *powder* cocaine, how easy would it be for you to get some?

1.  Very easy
2.  Sort of easy
3.  Sort of hard
4.  Very hard

E31: Have you ever used powder cocaine?

1.  No, skip to E37
2.  Yes, continue with E32

E32: How old were you the first time you used powder cocaine?

\_\_\_\_\_ (List Age, continue with E33)

E33: In the past 12 months, did you use powder cocaine any time?

1.  No, skip to E37
2.  Yes, continue with E34

E34: In the past 30 days, on how many days did you use powder cocaine?

\_\_\_\_\_ (List # of Days, continue with E35; E37 if zero)

E35: In the past 7 days, on how many days did you use powder cocaine?

\_\_\_\_\_ (List # of Days, continue with E36; E37 if zero)

E36: At the time you were arrested, were you under the influence of powder cocaine?

1.  No
2.  Yes

E37: If you wanted to get some methamphetamine, like crystal meth, how easy would it be for you to get some?

1.  Very easy
2.  Sort of easy
3.  Sort of hard
4.  Very hard

E38: Have you ever used methamphetamines?

1.  No, skip to E44
2.  Yes, continue with E39

E39: How old were you the first time you used methamphetamines?

\_\_\_\_\_ (List Age, continue with E40)

E40: In the past 12 months, did you use methamphetamines?

1.  No, skip to E44
2.  Yes, continue with E41

E41: In the past thirty days, on how many days did you use methamphetamines?

\_\_\_\_\_ (List # of Days, continue with E42; E44 if zero)

E42: In the past 7 days, on how many days did you use methamphetamines?

\_\_\_\_\_ (List # of Days, continue with E43; E44 if zero)

E43: At the time you were arrested, were you under the influence of methamphetamines?

1.  No
2.  Yes

E44: If you wanted to get some painkillers, like OxyContin, Vicodin, Percocet, codeine, or Lortab without a prescription, how easy would it be for you to get some?

1.  Very easy
2.  Sort of easy
3.  Sort of hard
4.  Very hard

E45: Have you ever used painkillers like these without a prescription?

1.  No, skip to E51
2.  Yes, continue with E46

E46: How old were you the first time you used painkillers?

\_\_\_\_\_ (List Age, continue with E47)

E47: In the past 12 months, did you use painkillers?

1.  No, skip to E51
2.  Yes, continue with E48

E48: In the past 30 days, on how many days did you use painkillers?

\_\_\_\_\_ (List # of Days, continue with E49; E51 if zero)

E49: In the past 7 days, on how many days did you use painkillers?

\_\_\_\_\_ (List # of Days, continue with E50; E51 if zero)

E50: At the time you were arrested, were you under the influence of painkillers?

1.  No
2.  Yes

E51: Not including alcohol and the drugs that we have discussed, have you ever used any other drug, not counting drugs for which you had a prescription or over the counter drugs?

1.  No, continue to Section F
2.  Yes, continue with E52

E52: What other drug have you used?

\_\_\_\_\_ (List drug, continue with E53)

E53: How old were you the first time you used\_\_\_\_\_?

E54: In the past 12 months, did you use\_\_\_\_\_?

1.  No, skip to section F
2.  Yes, continue with E55

E55: In the past 30days, on how many days did you use \_\_\_\_\_?

\_\_\_\_\_ (List # of days, continue with E56; Section F if zero)

E56: In the past 7 days, on how many days did you use \_\_\_\_\_?  
 \_\_\_\_\_(List # of days, continue with E57; Section F if zero)

E57: At the time you were arrested, were you under the influence of \_\_\_\_\_?

1.  No, continue to section F
2.  Yes, continue section F

**Section F: Dependence and Abuse**

**Instructions:** *In the section, I would like to ask you some questions about things that you may be doing in response to or as a result of your drinking/drug use. The first set of questions asks you to rank your agreement with the statements I will read to you. These are scored on a scale of one to five where one means—strongly disagree and five means—strongly agree.*

	1	2	3	4	5
	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
F1: I really want to make changes in my drinking/drug use.	<input type="checkbox"/>				
F2: Sometimes I wonder if I am a(n) alcoholic/drug addict.	<input type="checkbox"/>				
F3: If I don't change my drinking/drug use soon, my problems are going to get worse.	<input type="checkbox"/>				
F4: I've already started making some changes in my drinking/drug use.	<input type="checkbox"/>				
F5: I was drinking/using drugs too much at one time, but I've managed to change my drinking/drug use.	<input type="checkbox"/>				
F6: Sometimes I wonder if my drinking/drug use is hurting other people.	<input type="checkbox"/>				
F7: I am a problem drinker/drug user.	<input type="checkbox"/>				

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
F8: I'm not just thinking about changing my drinking/drug use, I'm already doing something about it.	<input type="checkbox"/>				
F9: I have already changed my drinking/drug use, and I am looking for ways to keep from slipping back to my old pattern.	<input type="checkbox"/>				
F10: I have serious problems with drinking/drug use.	<input type="checkbox"/>				
F11: Sometimes I wonder if I am in control of my drinking/drug use.	<input type="checkbox"/>				
F12: My drinking/drug use is causing a lot of harm.	<input type="checkbox"/>				
F13: I am actively doing things now to cut down or stop my drinking/drug use.	<input type="checkbox"/>				
F14: I want help to keep from going back to the drinking/drug problems that I had before.	<input type="checkbox"/>				
F15: I know that I have a drinking/drug problem.	<input type="checkbox"/>				
F16: There are times when I wonder if I use alcohol/drugs too much.	<input type="checkbox"/>				
F17: I am a(n) alcoholic/drug addict.	<input type="checkbox"/>				
F18: I am working hard to change my drinking/drug use.	<input type="checkbox"/>				
F19: I have made some changes in my drinking/drug use, and I want some help to keep from going back to the way I drank/used before.	<input type="checkbox"/>				
F20: I would never drive under the influence of alcohol or drugs.	<input type="checkbox"/>				

*Now I would like to ask you about experiences related to alcohol or drug use that you may have had in the past 12 months. [1 = NO, 2 = YES]*

F21: Have you spent more time (drinking/using drugs) than you intended?

Drinking

1.  No
2.  Yes

Using Drugs

1.  No
2.  Yes

F22: Have you neglected some of your responsibilities due to (drinking/using drugs)?

Drinking

1.  No
2.  Yes

Using Drugs

1.  No
2.  Yes

F23: Have you wanted to cut down on your (drinking/drug using)?

Drinking

1.  No
2.  Yes

Drug Using

1.  No
2.  Yes

F24: Has anyone objected to your (drinking/drug using)?

Drinking

1.  No
2.  Yes

Drug Using

1.  No
2.  Yes

F25: Have you frequently found yourself thinking about (drinking/using drugs)?

Drinking

1.  No
2.  Yes

Using Drugs

1.  No
2.  Yes

F26: Have you used (alcohol/drugs) to relieve feelings such as sadness, anger or boredom?

Alcohol

1.  No
2.  Yes

Drugs

1.  No
2.  Yes

F27: Has your (drinking/drug use) caused you recurrent legal problems, such as drunk drinking or disorderly conduct offenses?

Drinking

1.  No
2.  Yes

Drug Use

1.  No
2.  Yes

F28: Has your (drinking/drug use) caused you problems in your interpersonal relationships?

Drinking

1.  No
2.  Yes

Drug Use

1.  No
2.  Yes

### ***Section G: Professional Treatment***

*Now I would like to ask you about your treatment history, both for substance use as well as for mental health.*

G1: Did you ever stay overnight in an *inpatient* or residential drug or alcohol treatment program, for example detox, rehab, a therapeutic community, or a hospital?

1.  No, skip to G5
2.  Yes, continue G2

G2: Please estimate how many different times were you admitted into an inpatient drug or alcohol treatment program in your lifetime.

\_\_\_\_\_ (List # of times, continue to G3)

G3: Within the past 12 months, have you stayed overnight in an inpatient or residential drug or alcohol treatment program?

1.  No, skip to G5
2.  Yes, continue G4

G4: Within the past 12 months, how many different times were you admitted into an inpatient drug or alcohol treatment program?

\_\_\_\_\_ (List # of times, continue to G5)

G5: Have you ever been admitted to an *outpatient* drug or alcohol treatment program, not including meetings like NA or AA? By “outpatient program” I mean a drug or alcohol treatment program where you do not stay overnight.

1.  No, skip to G9
2.  Yes, continue G6

G6: Please estimate how many different times were you admitted into an outpatient drug or alcohol treatment program in your lifetime.

\_\_\_\_\_ (List # of times, continue to G7)

G7: Within the past 12 months, have you been admitted to an outpatient drug or alcohol treatment program?

1.  No, skip to G9
2.  Yes, continue G8

G8: In the past 12 months, how many different times were you admitted into an outpatient drug or alcohol treatment program?

\_\_\_\_\_ (List # of times, continue to G9)

**\*\* In these last few questions, we want to ask you about any mental health treatment you may have undergone\*\***

G9: Have you ever stayed overnight for *mental health treatment* – not for drug or alcohol use – at a psychiatric hospital or other facility?

1.  No, skip to G13
2.  Yes, continue G10

G10: Estimate how many different times were you admitted into an *inpatient* mental health treatment program in your lifetime.

\_\_\_\_\_ (List # of times, continue to G11)

G11: Within the past 12 months, have you stayed overnight for mental health treatment – not for drug or alcohol use – at a psychiatric hospital or other facility?

1.  No, skip to G13
2.  Yes, continue G12

G12: Within the past 12 months, how many different times were you admitted into an inpatient mental health treatment program?

\_\_\_\_\_ (List # of times, continue to G13)

G13: Have you ever been admitted to an *outpatient* treatment program – not for drug and alcohol use – for example, have you seen a counselor, psychologist, or psychiatrist on an outpatient basis for psychological or emotional problems?

1.  No, skip to section H
2.  Yes, continue G14

G14: How many different times were you admitted into an outpatient mental health program in your lifetime?

\_\_\_\_\_ (List # of times, continue to G15)

G15: Within the past 12 months, have you been admitted to an outpatient mental health treatment program, where you did not stay overnight?

1.  No, skip to section H
2.  Yes, continue to G16

G16: In the past 12 months, how many different times were you admitted into an outpatient mental health treatment program?

\_\_\_\_\_ (List # of times, continue to section H)

**Section H: Urine Analysis Request**

**Instructions: As I mentioned at the start of the interview, we are also collecting urine specimens. Again, this is completely voluntary. It is also confidential. The results will not be made available to anyone else, so it cannot affect your case in any way. If you agree, please take this cup and go into the restroom across the hall. When you are done, leave the cup on the shelf in the bathroom with the lid on.**

H1: Urine specimen status.

- 1.  Respondent refused
- 2.  Specimen provided
- 3.  Respondent attempted, but no specimen provided
- 4.  Other (Specify) \_\_\_\_\_

H2: Results

	Tested Positive?	
	Yes	No
Marijuana	<input type="checkbox"/>	<input type="checkbox"/>
Cocaine	<input type="checkbox"/>	<input type="checkbox"/>
Methamphetamines	<input type="checkbox"/>	<input type="checkbox"/>
Opiates	<input type="checkbox"/>	<input type="checkbox"/>
Painkillers	<input type="checkbox"/>	<input type="checkbox"/>
Other (List) _____, _____, _____		