PSYCHOLOGICAL CHARACTERISTICS PREDICTING SUBSTANCE ABUSE
HELP-SEEKING AMONG INMATES

by

Diana Jean Fitek
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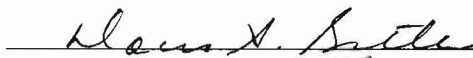of
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Substance Abuse Help-Seeking among Inmates

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By

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DEDICATION

This dissertation is dedicated to the Fairfax Adult Detention Center staff and inmates, whose respective collaboration and participation made this research possible.

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ABSTRACT

PSYCHOLOGICAL CHARACTERISTICS PREDICTING SUBSTANCE ABUSE HELP-SEEKING AMONG INMATES

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This study of 392 (280 male and 112 female) jail inmates held on felony charges tested multiple psychological variables for their value in predicting help seeking for substance abuse problems during incarceration. The dichotomous dependent variable of help seeking was measured by whether or not inmates submitted a written request for one or more alcohol and drug services offered by the jail. Logistic regression analyses tested psychopathy, optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, short-term gratification and treatment rejection, while controlling for treatment need. Psychopathy and treatment rejection were negatively predictive of help seeking. Additionally, gender was tested as a potential moderator of the relationship between each of these variables and help seeking. Only main effects were found, with women more likely than men to seek help for their substance abuse problems. Post-hoc analyses determined that presence of one or more symptoms of alcohol dependence had no effect on help seeking, whereas presence of one or more symptoms of drug dependence was

highly predictive of help seeking. These findings underscore the importance of assessing substance dependence symptoms for inmates requesting treatment. Additionally, assessing for treatment rejection may be a way of identifying inmates in need of interventions to increase their motivation for treatment. Additional research is needed to explore possible barriers to help seeking during incarceration for both men and individuals with symptoms of alcohol dependence.

INTRODUCTION

The societal cost of substance use disorders is tremendous. In 2002 alone, the cost was estimated at $180.9 billion (Office of National Drug Control Policy [ONDCP], 2004). Part of the cost is driven by the sheer prevalence of substance use disorders — in 2002, almost 9 percent (17.6 million adult Americans) had an alcohol use disorder, while 2 percent (4.2 million adult Americans) had a drug use disorder (Grant et al., 2004). The disorders generate significant costs to society through such negative consequences as health care costs, destroyed relationships, job loss and incarceration.

Alcohol and substance dependence are characterized by maladaptive patterns of use which lead to clinically significant impairment and/or distress. In addition, the Diagnostic and Statistical Manual, Fourth Edition, Text Revision (DSM-IV-TR) requires presence of three or more of the following seven criteria in a 12-month period: tolerance, withdrawal, greater use than desired, inability to control use, significant time spent in substance-related activities, significant activities given up for substance use, and persistent use despite adverse effects (American Psychiatric Association [APA], 2000).

The societal costs of substance use disorders are particularly apparent within the criminal justice system. In 2002, 45% of jail inmates met DSM criteria for drug or alcohol dependence in the year prior to incarceration (Bureau of Justice Statistics [BJS], 2005). Of these inmates, 36% met DSM criteria for drug dependence and 23% met

criteria for alcohol dependence. The prevalence of substance dependence among offenders has several causes: people arrive in the criminal justice system for drug-related offenses (i.e., drug possession, drug distribution), commission of other crimes to support the addiction (e.g. theft to obtain money to buy drugs), and crimes related to a lifestyle that predisposes the person to engage in illegal activity (i.e., associating with other offenders or with illicit markets. Once involvement with drugs leads to incarceration, this has its own negative effects in turn. The incarceration of a parent has been associated with poor adjustment among their children, juvenile delinquency, and a much greater likelihood that the child will someday be incarcerated (Gabel & Johnston, 1995).

In an effort to understand help-seeking behavior for substance use disorders, most research thus far has been devoted to investigating static factors, such as sociodemographic and clinical history data (Kessler et al., 2001). This research has been valuable in providing a snapshot of typical characteristics and presenting problems of individuals seeking substance abuse treatment. However, such research offers few points of intervention to increase substance abuse help-seeking among those not currently doing so. More recently, research has focused on motivation and the Stages of Change Model, a dynamic model for understanding intentional behavior change, developed by Prochaska, DiClemente and Norcross (1992).

The current research investigated additional psychological variables associated with seeking treatment for substance use disorders in a jail setting, and tested what factors predict help-seeking among those in need (i.e. those with one or more symptoms of substance dependence).

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Models of Substance Dependence

The Medical Model

Over forty years ago, alcohol and substance dependence were viewed primarily from the lens of a medical disease model—addiction was seen as a lifelong illness with no cure (Jellinek, 1960). The main component of treatment at the time was participation in 12-step groups such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA). Participants in 12-step groups are encouraged to ask for help after "hitting bottom" with the myriad problems brought on by substance dependence, and to aim for lifelong abstinence. Failure to do so is considered "denial" and is often directly confronted by peers through eliciting from the participant additional acknowledgment of the negative effects of his or her substance use.

The Biopsychosocial Model

More recently, research findings from a number of different fields have been integrated to form a biopsychosocial model of mental illnesses, including addictions. This comprehensive model acknowledges genetic predispositions for substance dependence, psychological risk factors, and a social learning component (Donovan, 1988).

The Transtheoretical/Stages of Change Model

Today, a model which stresses the dynamic factors of help-seeking is considered in addition to the biopsychosocial model. The Transtheoretical/Stages of Change Model

(Prochaska, DiClemente & Norcross, 1992; Prochaska & Norcross, 2001) focuses on malleable psychological characteristics (treatment readiness and motivation) which can be addressed via interventions such as motivational interviewing or motivational enhancement therapy. In contrast, the disease model focuses on static clinical factors, such as family history and age of onset of the disorder, which cannot be changed.

The Transtheoretical Model contains within it 6 sequential stages of change which may be applied to help-seeking in general. The first is the Precontemplation Stage, in which a person is either unaware of the extent of his or her problem or is unwilling to change the problematic behavior. In the Contemplation Stage, a person is weighing the pros and cons of continuing the problem behavior or changing it. In the Preparation Stage, an individual has completed decision-making and has committed to making a change in the near future. During the Action Stage, the individual takes steps to change the problem behavior. If the action is maintained for 3 to 6 months, the individual has entered the Maintenance Stage. Finally, when an individual has completed the change process, no longer has to work to prevent relapse, feels totally confident and self-efficacious within high-risk situations, and has zero temptation to relapse, they have entered the Termination Stage. This sixth stage is inconsistent with the disease model of addiction and its assertion that people suffering from an addiction will always struggle with abstinence from alcohol or drugs. For this reason, the first five stages are typically referred to in the substance abuse literature.

Within this context, standard treatment programs (ranging from inpatient hospitalization to intensive day treatment programs to outpatient treatment) are

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considered to be most appropriate for individuals between the Preparation and Action stages. However, individuals in the Precontemplation or Contemplation stages are often found in substance abuse treatment—either by court order or coercion due to other negative consequences of their substance abuse. Interventions such as motivational interviewing (MI; Miller, 1983; Miller & Rollnick, 1991; Hettema, Steele & Miller, 2005) appear to be helpful to move an individual forward through the earlier stages of change, at which point the person may benefit more from a substance abuse treatment program.

Despite the Stages of Change model's utility in describing where an individual's motivation might be at any given point, it does not assess or describe the personality and situational factors that might facilitate or inhibit seeking substance abuse treatment. The importance of understanding internal psychological factors affecting substance abuse help-seeking--especially important in an incarcerated population given the high level of need for substance abuse treatment there--led to development of the current study.

Defining "Help-seeking" for the Current Study

"Help-seeking" encompasses the process of initiating and participating in help for a problem. In the field of substance abuse, this may refer to participation in AA/NA groups alone, or as part of enrolling and participating in formal treatment programs involving medication, individual and/or group counseling that also include elements of 12-step groups. The term "help-seeking" was chosen to reflect both of these sources of help.

The terms "treatment seeking," "help-seeking" and "service utilization" are often used interchangeably. Much of the most reliable data regarding help-seeking comes from the field of health services research. These researchers often measure use of services as an event that did or did not take place, and then describe the frequency with which it occurred (Andersen, 1995). For example, government studies on health service use simply measure whether or not substance abuse treatment was received during a specified amount of time, and the duration of receiving such treatment (Substance Abuse and Mental Health Services Administration [SAMHSA], 2004). Given this method's reliability and frequent use, "help-seeking" for this study was measured by an individual's request for substance abuse treatment.

Unmet Need for Substance Abuse Treatment

Community at Large

As with other mental and physical disorders, there is not a one-to-one correspondence between need for substance abuse treatment and substance abuse help-seeking – the effect size is only moderate. Community estimates from 2003 indicate that 22.2 million (9.3 percent of the total population) individuals ages 12 or older needed treatment for an alcohol or illicit drug problem. The number receiving substance abuse treatment was 1.9 million. An estimated 3.3 million people aged 12 or older (1.4 percent of the population) received some kind of treatment for a problem related to the use of alcohol or illicit drugs in the 12 months prior to being interviewed in 2003, including outpatient and inpatient treatment at a rehabilitation facility, at a mental health center, at a

hospital as an inpatient, at a private doctor's office, at an emergency room, and at a prison or jail. The number needing but not receiving treatment at that same time was 20.3 million. Therefore, only 14% of people in need of substance abuse treatment received it (SAMHSA, 2004).

Incarcerated Populations

Similar to the unmet need for substance abuse treatment in the community, there exists a substantial need for substance abuse treatment in incarcerated populations that exceeds the current resources for such treatment. For example, a recent national study of drug treatment services for adult offenders found that despite substantial need for substance abuse treatment programs, only 74.1% of prisons provided basic substance abuse education—not a treatment in and of itself, but a necessary component of a substance abuse treatment program. Of the treatment programs offered in prisons, the majority (54.6%) were not intensive programs (less than 4 hours per week of group counseling). Compared to prisons, substance abuse education was offered less frequently in jails (61.3%) and 59.8% of the treatment programs offered in jails provided less than 4 hours per week of group counseling (Taxman, Perdoni & Harrison, 2007).

While some of the issues impacting treatment in jails and prisons may be different from those in the community (i.e. mandated treatment), the sheer number of incarcerated people in the U.S. and the prevalence of substance abuse issues in this population warrant a careful look on how the system can be improved. That is, any changes made to the provision of substance abuse treatment in jails and prisons will have a profound impact, given the overwhelming need for substance abuse services in the criminal justice system.

Models of Help-seeking

Over time, the models used to explain help-seeking for various problems have evolved. The initial behavioral model of health services use from the 1960s described three central components of health service utilization. *Predisposing characteristics*, such as demographics, social structure and health beliefs; *enabling resources*, such as personal/family and community pressure to enter treatment; and *need* (perceived and evaluated) all contribute to a person's *use of health resources* (Andersen, 1968). This model could be used to both predict and explain use of health services.

The behavioral model was elaborated upon to account for the variability in access to health services. Potential access was defined as the presence of *enabling resources*. Realized access was defined as the actual *use of health resources* (Penchansky, 1976).

Upon further elaboration, each of the model components was categorized by their mutability, or potential for intervention. For example, demographic characteristics, social structure, and potentially need for services, were considered to be low in mutability. Health beliefs were considered to be of medium mutability, and enabling resources were considered to be of high mutability (Andersen & Newman, 1973).

In the 1970s, the second version of the behavioral model of health services use is notable for its inclusion of health care system factors as potential determinants of use of health services. It also included consumer satisfaction as an outcome of health services (Andersen, Smedby & Anderson, 1970; Andersen & Newman, 1973; Aday & Andersen,

1974; Andersen, Kravits & Anderson, 1975; Aday, Andersen & Fleming, 1980; Aday, Andersen, Loevy & Kremer, 1985; Fleming & Andersen, 1986).

In the 1980s and 1990s, the third version of the behavioral model of health services use categorizes primary determinants of health behavior as population characteristics, health care system factors and external environment factors. The primary determinants of health behavior then contribute to health behavior, including personal health practices and use of health services. Health behaviors then determine health outcomes, which include perceived health status, evaluated health status, and consumer satisfaction (Evans & Stoddart, 1990; Lalonde, 1975; U. S. Public Health Service, 1990). The inclusion of health status outcomes in this model led to extension of measures of access. *Effective access* is defined as when health services use improves health status or consumer satisfaction. *Efficient access* is defined as when level of health status or consumer satisfaction increases relative to the amount of health services used (Aday, 1993; Aday, Begley, Lairson & Slater, 1993).

The most recent, emerging model of health services use builds on the previous versions described earlier by including environmental factors (health care system and external environment), population characteristics (predisposing characteristics, enabling resources and need), health behavior (personal health practices and use of health services) and outcomes (perceived health status, evaluated health status, and consumer satisfaction). In addition, it acknowledges the feedback loops which occur between outcomes, health behavior and population characteristics (Andersen, 1995). This

comprehensive model is an excellent framework in which to view substance abuse help-seeking.

The gap between need for treatment and participation in treatment suggests that logistic and psychological factors may affect the relationship between treatment need and seeking help for substance abuse. Similar to Andersen's model of health services use (1995), researchers have considered a number of demographic, socio-cultural, clinical, and attitudinal factors that may influence the relationship between need for treatment and treatment participation by making it more or less likely that those with need for substance abuse treatment will seek treatment. Three broad factors related to substance abuse help-seeking include: (a) the severity of the drug problem itself, (b) the individual characteristics, environmental circumstances and socio-cultural context of the person, and (c) the availability and characteristics of the substance abuse services (Hartnoll, 1992). The following sections describing the current research focus on individual characteristics, the second part of Hartnoll's model. These individual characteristics include an individual's history of prior treatment, sociodemographic characteristics, and psychological characteristics (i.e., optimism, self-esteem, etc.).

Clinical Factors Associated with Treatment Seeking

Treatment Need in the Community

Previous studies have demonstrated that severity of substance dependence is related to help-seeking, but the strength of this relationship appears to vary by study design and how these variables are operationalized. For example, in a cross-sectional

study in which a community sample was asked to retrospectively report on lifetime

substance dependence criteria and help-seeking, it was found that the presence of any of

four particular substance dependence criteria was associated with higher odds of help-

seeking compared to people without the symptoms (OR, 1.7 - 2.7). Symptoms included

using larger amounts or for longer periods than intended, unsuccessful attempts to cut

down use, tolerance and withdrawal symptoms (Kessler et al., 2001).

Longitudinal or prospective studies found modest relationships between severity

of substance use problems and treatment seeking. For example, Finney and Moos (1995)

found that 76% of their sample drawn from alcoholism information/referral and

detoxification centers entered some form of treatment (including AA) within 1 year, and

that substance dependence symptoms were modestly correlated with substance abuse

treatment entry ($r = .11$).

In a community sample, individuals with a lifetime history of three or more

alcohol-related negative social consequences were nearly five times more likely (OR =

4.5) to seek help (e.g., AA, specialized alcohol treatment program, or a general hospital)

by follow-up eight years later, when compared to those who experienced two or fewer

such consequences (Kaskutas, Weisner & Caetano, 1997). In their prospective study of

individuals with problematic drinking in the community, Weisner and Matzger (2002)

used logistic regression analyses to find that symptoms of dependence were the most

important factor in seeking treatment. Numerous studies have shown that there are no

significant racial differences in treatment need for substance abuse or mental illness

(Kessler et al., 1994; Robins & Regier, 1991).

Treatment Need among Inmates

Similar to the population at large, there is a large need for substance abuse treatment for incarcerated individuals. Unfortunately, many inmates with significant drug problems do not attend substance abuse treatment programs while incarcerated, either due to lack of access to treatment or choosing not to engage in available treatment. In 2002, only 20% of substance dependent jail inmates attended a substance abuse treatment program during incarceration, with only slightly higher rates (27%) for attendance of substance-related self-help or education/awareness programs. The rates for attendance of substance abuse treatment and self-help groups were slightly higher for individuals on probation (27% and 29%, respectively; BJS, 2005). Among individuals with similar histories of prior drug use, almost double the number of state prison inmates (1/3) than local jail inmates (1/5) participated in substance abuse programs or treatment (BJS, 2000). These figures are similar to the one-year likelihood (24%) of individuals in the community with a substance use disorder to seek treatment (Regier et al., 1993). Based on these findings, it was expected that inmates' actual need for treatment will predict substance abuse help-seeking. This relationship was expected to be small to moderate in effect size.

Prior Treatment

History of receiving treatment for a substance use disorder predicts participation in future treatment. For example, in a longitudinal community-based study of individuals abusing drugs who sought referral for treatment, those with a history of prior successful treatment were over three times more likely to enter treatment after six months (OR =

3.5; Hser, Maglione, Polinsky & Anglin, 1998). Similarly, Weisner and Matzger (2002) found that among problem drinkers in the community not currently in treatment and individuals presenting for substance abuse treatment, those who had received prior treatment were over three times more likely (OR = 3.4) to have sought treatment after one year and almost three times more likely (OR = 2.8) to have sought treatment after three years when compared to those with no history of prior treatment. As mentioned earlier, there are not consistent differences between incarcerated and community samples in the percentage of individuals in need of treatment who seek it.

Sociodemographic Characteristics Associated with Treatment Seeking

Sociodemographic characteristics such as race, gender, age, and socioeconomic status (SES) all influence the rates at which people obtain help for medical or mental health problems. This hold true for both those using mental health services and those using substance abuse services specifically.

Race

The Surgeon General's supplement to his report on mental health (U.S. Department of Health and Human Services [DHHS], 2001) is one of the most comprehensive resources describing how race affects all aspects of mental health treatment seeking, access to treatment, and treatment utilization. Several factors, such as low accessibility of services and high stigma associated with mental health services, may contribute to lesser mental health service utilization by members of some racial or ethnic groups (Vega, Kolody, Aguilar-Gaxiola & Catalano, 1999; Wells, Klap, Koike &

Sherbourne, 2001). For instance, treatment may not be available in the individual's primary language. Snowden and Yamada (2005) summarize the many studies which have been published since the Surgeon General's report, most of which find that African-Americans and Latinos are less likely than Caucasians to receive mental health treatment in the community, despite the lack of significant racial differences in need for treatment. Specifically, African-Americans are more likely than Caucasians or Latinos to over-rely on emergency departments for medical and psychiatric conditions, including substance use (Bernstein et al., 2006). Moreover, they are less likely than Caucasians to receive needed treatment for alcoholism and drug abuse (Wells et al., 2001). This pattern holds true even when treatment need (substance problem severity) is controlled for (Schmidt, Ye, Greenfield & Bond, 2007). In a study that examined the characteristics of individuals who utilized mental health services in the year prior to incarceration, Caucasian race was one of several significant predictors of mental health service utilization after controlling for age and gender (Farrell, Boys, Singleton et al., 2006). The racial differences found in mental health service utilization were above and beyond what could be accounted for by SES. In fact, SES did not have a main effect on use of services.

In contrast to racial differences in help-seeking observed in the community, racial differences in help-seeking are not evident among jail inmates (Youman, Drapalski, Stuewig, Bagley & Tangney, 2010).

Gender

The findings for gender and help-seeking indicate that women overwhelmingly seek treatment more than men. One such example is Rhodes and Goering's (1994)

summary of findings that women utilize outpatient mental health services at rates far higher than men. One issue that arises when considering gender and substance abuse in correctional settings is the more complicated clinical picture often seen among women. Very little research has been conducted on incarcerated women, particularly with regard to their patterns of help-seeking. As such, gender was included as a possible moderating variable for this study.

Age

Younger adults tend to both use alcohol and drugs *and* seek help for these issues at greater rates than older adults. One such example of this pattern is from a community sample in which younger adults (under 40) were more likely than older adults (40 and above) to have sought treatment for a drinking problem (e.g., AA, specialized alcohol treatment program, or a general hospital) within an 8-year follow-up period (Kaskutas, Weisner & Caetano, 1997). This pattern held true even when the severity of drinking problem was controlled for. Due to the increase in public education and awareness campaigns regarding treatment for substance abuse, treatment may be less stigmatizing for members of younger generations (Kessler et al., 2001). Further, the possibility that an individual experiences the phenomenon of "natural resolution"—that is, resolution of a substance abuse issue with no intervention—increases with age as many people "mature out" of substance misuse by midlife (Tucker & King, 1999). As a result, age was considered as a possible control variable for this project.

Socioeconomic Status (SES)

An individual's socioeconomic status has often been thought to explain differences in help-seeking beyond specific demographic variables, such as race, gender or age. However, research which has focused on teasing apart these differences has demonstrated that the effects found for race, gender and age persist even after controlling for SES. For example, Harris, Edlund and Larson (2005) analyzed data from 134,875 individuals in the 2001 - 2003 National Surveys on Drug Use and Health while controlling for sociodemographic covariates, and found that African-American and Hispanic adults had lower rates of mental health problems and use of mental health services relative to Caucasians. Similarly, Diala et al. (2000) studied use of mental health services using data from the National Comorbidity Survey. The sample was stratified by socioeconomic variables. When Caucasians (N = 4,479) were compared to African-Americans (N = 680), Caucasians used mental health services at a greater rate, regardless of SES. Furthermore, SES characteristics, such as education, had a main effect on use of mental health services, in that high school graduates were less likely to utilize mental health services than those with a college education or more. In addition, individuals with annual household income between $12,500 and $24,999 were less likely to utilize mental health services than those with the highest income level ($50,000 or more).

Psychological Factors and Behaviors Associated with Treatment Seeking

Based on Hartnoll's (1992) model of help-seeking, and personal clinical and research experience in the area of substance abuse treatment, the following characteristics, attitudes and behaviors will be reviewed due to their potential for

influencing treatment seeking: psychopathy, optimism, self-esteem, shame, guilt, criminogenic beliefs and treatment rejection.

Psychopathy

Psychopathy is a serious profile of attitudes and behaviors that makes this an especially ruthless, violent group of people. People meeting the criteria for psychopathy are typically glib, superficially charming, have a need for stimulation, are prone to boredom and lying, possess shallow affect, demonstrate a lack of remorse or guilt for their crimes and other harmful behavior, and may exhibit a parasitic and predatory lifestyle (Hare, 1993). Psychopathy is not a DSM diagnosis, but is closely related to the diagnosis of Antisocial Personality Disorder ([APD] APA, 2000). Most psychopathic individuals meet criteria for APD, but not the reverse.

Individuals high in psychopathy have little insight and are unlikely to delay gratification, preferring to do what is pleasurable in the moment (e.g. using alcohol or drugs). It is doubtful that even with significant need, they would be interested in substance abuse treatment. However, it is possible that for a minority of individuals, psychopathy will behave in the opposite way— individuals high in psychopathy may participate in treatment, but use it as an opportunity to take advantage of others. For these reasons, it was hypothesized that psychopathy will moderate the relationship between need for treatment and help-seeking such that among individuals high in psychopathy, treatment need will have no relationship with substance abuse help-seeking, but among individuals low in psychopathy, treatment need will positively predict substance abuse help-seeking.

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Optimism

Theory and research in positive psychology stresses the measurement and development of character strengths. One such character strength is optimism, which refers to having positive expectations for the future. Hope and similar constructs, including optimism, have also been shown to predict successful completion of substance abuse treatment programs (Gray, 2001). It follows that if one is optimistic about knowing how to become clean/sober or if one is optimistic about the efficacy of treatment, this might predict seeking help for substance abuse.

In contrast to the positive effects of optimism previously discussed, a study of hope's relationship, as measured by Snyder's Hope Scale (Snyder, 1989), to substance abuse treatment entry among federal prison inmates with a history of substance abuse found that individuals *low* in hope entered treatment at a higher rate (Jackson, Wernicke & Haaga, 2003). The authors suggested that among incarcerated individuals with a history of substance abuse, a high level of hope may serve as a marker for excessive self-reliance and underestimation of the need for treatment. There is enough overlap between the constructs of "hope" as measured by Snyder's Hope Scale, and optimism, to warrant testing whether optimism operates in the same way. Furthermore, Snyder's definition and measurement of hope is not typical, and it is important to test this possible relationship with a more conventional measure of hope/optimism as discussed in Carver and Scheier (2003). In the current study, this hypothesis was tested by drawing on clinicians' ratings of inmates' psychopathy. Lack of empathy and irresponsibility are some of the indicators of psychopathic personality. It may be that the very meaning of optimism is different

among psychopaths than among non-psychopaths. Thus, psychopathy may moderate the relationship between optimism and treatment-seeking. It was hypothesized that among individuals low in psychopathy, optimism would be positively correlated with help-seeking; conversely, among individuals high in psychopathy, optimism would be negligibly correlated with help-seeking. "Optimism" among psychopaths may reflect their tendency toward grandiosity and denial of actual problems. Among non-psychopaths, "optimism" was expected to behave more consistently with the existing research in this area.

Self-Esteem

Rosenberg (1965) described self-esteem as the valence of one's attitude toward the self. Consistent with longstanding public opinion, most researchers conclude that high self-esteem can prevent many negative outcomes, such as delinquency, substance abuse or psychopathology (Kaplan, 1975; Kaplan, Martin & Robbins, 1982; Kaplan Martin & Robbins, 1984; Leary, Schreindorfer, & Haupt, 1995). Others conclude that self-esteem has not demonstrated a consistent relationship with use of alcohol or other drugs (Baumeister, Campbell, Krueger & Vohs, 2003). No research appears to have been conducted examining its relationship with medical or substance abuse help-seeking, although self-esteem has been found to predict academic help-seeking (Karabenick & Knapp, 1991).

Self-esteem may play a role in the relationship between need for treatment and help-seeking. There is variance in self-esteem among people with serious substance abuse problems. Theory states that high self-esteem causes people to persist longer at difficult

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tasks (Baumeister, Campbell, Krueger & Vohs, 2003), and research supports this

(DiPaula & Campbell, 2002; Sandelands, Brockner & Glynn, 1988). It follows that if

people high in self-esteem need treatment for a substance problem, the value they place

on themselves and their persistence in the face of failure may lead them to seek treatment

to a greater extent than those with low self-esteem. In effect, self-esteem was expected to

predict treatment seeking.

Shame

Shame is a self-conscious moral emotion that results from a negative appraisal of

the self. When experiencing shame, an individual often wants to hide or escape from a

situation. Shame-proneness is associated with increased psychopathology, including low

self-esteem, hopelessness, depression, and alcohol and drug use (Tangney, Wagner &

Gramzow, 1992; Dearing, Stuewig, & Tangney, 2005). Due to the externalization of

blame (Tangney, 1994) and avoidance often exhibited by shame-prone individuals

(Tangney, Miller, Flicker & Barlow, 1996), shame may be a barrier to substance abuse

help-seeking. Shame-proneness is in the beginning stages of study in relation to

substance abuse help-seeking. It was expected that shame will negatively predict

substance abuse help-seeking.

Guilt

In contrast to shame, guilt is a self-conscious moral emotion that arises from a

negative appraisal of one's behavior. Proneness to guilt is not associated with increased

psychopathology, and may actually serve an adaptive function in interpersonal

relationships by contributing to reparative action (Tangney, Wagner & Gramzow, 1992).

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It is also negatively associated with the externalization of blame (Tangney, 1994). Like shame, guilt is in the beginning stages of study in relation to substance abuse help-seeking. Unlike shame, guilt may facilitate entering treatment as a way of repairing harm caused by substance abuse.

Research indicates that guilt-proneness is not associated with substance abuse problems. In other words, there is considerable variance in guilt-proneness among people with serious substance abuse problems. Guilt-proneness may play a role in the relationship between need for treatment and help-seeking. Research demonstrates that people high in guilt-proneness tend to take responsibility and make reparative actions for their mistakes and transgressions. It follows that if people high in guilt-proneness need treatment for a substance problem, their desire to repair damage done to their lives and the lives of others may lead them to seek treatment to a greater extent than those lower in guilt-proneness. It was expected that guilt-proneness will positively predict substance abuse treatment seeking.

Criminogenic Beliefs

Clinicians working with criminal populations have noted certain beliefs among offenders that appear to perpetuate crime, such as offenders' tendency to externalize blame for their crimes and minimize the effects of their crimes (Tangney, Mashek & Stuewig, 2007). A few attempts have been made to assess attitudes and beliefs characteristic of offenders. There are several published inventories of crime-supporting attributions, outcome expectancies, efficacy expectancies, goals, values and thinking styles of people involved in a criminal lifestyle. Examples include the Psychological

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Inventory of Criminal Thinking Styles (PICTS; Walters, 1995), an 80-item measure

which measures 8 thinking styles which are thought to support a criminal lifestyle, and

the Cognitive Map of Major Belief Systems (CMMBS; Walters, 2005), an idiographic

measure designed to measure views of offenders.

Although criminogenic beliefs appear to be promising as a target of interventions

in incarcerated populations, prior scales have not significantly predicted misconduct

during incarceration or post release (recidivism). This led to the development of the

Criminogenic Cognitions Scale (CCS; Tangney, Meyer, Furukawa & Cosby, 2002). The

CCS measures five dimensions: (1) Externalization of blame ("Bad childhood

experiences are partly to blame for my current situation"); (2) Notions of entitlement

("When I want something, I expect people to deliver"); (3) Negative attitudes toward

authority ("People in positions of authority generally take advantage of others"); (4)

Short-term gratification ("The future is unpredictable and there is no point in planning for

it"); and (5) Insensitivity to the impact of crime ("A theft is alright as long as the victim is

not physically injured"). This scale has been shown to change as a result of jail-based

interventions. It correlates with related scales, such as antisocial traits, and it predicts

criminal behavior even when excluding drug-related charges (Tangney et al., 2007).

Criminogenic beliefs have not yet been examined in the context of substance

abuse problems. However, they may operate similarly to antisocial traits in their

association with substance abuse. It was anticipated that variance exists in the level of

criminogenic beliefs among people with serious substance abuse problems. In particular,

externalization of blame (e.g. for one's choices and their consequences) and seeking

short-term gratification (e.g. doing what is pleasurable in the short-term despite future consequences) may inhibit motivation for change and seeking treatment. It follows that if people high in criminogenic beliefs need treatment for a substance problem, these characteristics may lead to thoughts such as, "I'm not to blame for my substance use…Given what I've had to put up with, I deserve to use drugs to feel good, etc…" which may cause them to seek treatment to a lesser extent than those lower in criminogenic beliefs. Two dimesions of criminogenic beliefs (externalization of blame and short-term gratification) were hypothesized to negatively predict help-seeking.

Criminal Justice Factors Associated with Treatment Seeking

First Time Offenders

Whether an individual has been incarcerated before or not may have bearing on their attitudes toward seeking help for an alcohol or substance use problem and their awareness of available programs. However, very little research has been conducted in this area. Some findings indicate that men and women with greater severity of offense (and consequently, possibly longer sentence) are more likely to enter and complete substance abuse treatment. In contrast, men who have a recent history of violence (within the past 5 years) were less likely to enter and complete substance abuse treatment programs during incarceration (Pelissier, 2004). Among individuals with multiple DWI charges, treatment has posed more challenges than for individuals facing their first DWI charge (Wuth, 1987). Due to the lack of information, history of prior incarceration was considered as a possible control variable.

Length of Incarceration

The length of time an individual is incarcerated affects his or her opportunity to access and participate in substance abuse treatment. The longer a person is incarcerated, the more opportunity they have to participate in treatment. However, it is possible that greater institutionalization may occur with longer lengths of incarceration, impeding help-seeking for substance abuse. Therefore, length of incarceration was considered as a control variable.

Barriers to Help-seeking

Many potential barriers to seeking health services exist, both logistical and psychological. Logistical barriers are institutional or system-related factors which may reduce one's likelihood of seeking help. Psychological barriers are attitudes, beliefs, and personality characteristics which may reduce one's likelihood of seeking help.

Logistical Barriers

A primary logistical barrier is the perception of a lack of access to health services. Factors which affect access to services include the actual limitations of available interventions, program capacity, waiting lists for programs, program cost, and distance for the individual. For example, there are often few treatment options in rural areas, despite high need. Whether an individual has health insurance, and the type of insurance coverage (public vs. private) also play a major role in one's ability to access treatment. Many (but not all) of these logistical barriers are minimized in jail settings, due to cost/health insurance not being a factor, and the fact that inmates reside where they attend

programming. However, factors such as program availability and waiting lists remain

salient issues in the jail setting.

 Psychological Barriers

In contrast to some of the logistical barriers that are minimized in a jail setting,

psychological barriers are likely to continue to play an important role in an individual's

decision to request and ability to attend substance abuse programs during incarceration.

Examples of psychological barriers include the stigma that is associated with utilization

of such services (Fink & Tasman, 1992), and the perceived limitations of available

interventions. Such barriers to help-seeking include negative attitudes about treatment,

lack of information or false information about treatment (e.g., Klingemann, 1991;

Rounsaville & Kleber, 1985), and reluctance to self-identify as an "addict" or "alcoholic"

(King & Tucker, 2000; Sobell, Sobell & Toneatto, 1992). Overall, these barriers inhibit

people who need such services from seeking them out and utilizing them, making it

difficult to form conclusions from solely examining people in treatment.

Treatment Rejection

Treatment rejection is a significant potential barrier for individuals in need of

treatment to initiate and receive that needed treatment. The Treatment Rejection (RXR)

scale of the Personality Assessment Inventory (Morey, 1991) was designed to assess an

individual's resistance and lack of motivation for treatment, which predict treatment

noninvolvement. It was used as such in the current study to assess the validity of the

scale. The PAI is frequently used in correctional settings (Morey & Quigley, 2002). On

the RXR scale, the higher the score, the less motivated for treatment a person is likely to

be. Broad content areas included are: (a) a refusal to acknowledge problems, (b) a lack of introspectiveness, (c) an unwillingness to participate actively in treatment, and (d) an unwillingness to accept responsibility for change in one's life. Examples of items include "I'm comfortable with myself the way I am," and "I can solve my problems by myself."

Aside from validity data available in the manual, which includes the correlations between PAI subscales and scales of the MMPI, only a few studies have been published which describe the clinical utility of the RXR scale in predicting help-seeking or treatment entry. One of these studies investigated institutional adjustment and treatment compliance among 137 sex offenders in a correctional facility (Caperton, Edens & Johnson, 2004). They found a unique but modest correlation between the RXR scale and treatment noncompliance. Another study of 229 methadone maintenance patients found lower RXR scores among individuals in the community who sought and engaged in substance abuse treatment when compared to individuals in the community with substance abuse problems who were not in treatment (Alterman et al., 1995).

Although promising, more research is needed using the PAI with a broader range of populations, including inmates. For example, the RXR scale could be used to identify individuals in need of a motivational interviewing intervention in addition to treatment while incarcerated. There is variance in level of treatment rejection among people with serious substance abuse problems. The dimensions assessed by the RXR scale were hypothesized to negatively predict help-seeking.

Racial Differences within Independent Variables

The literature was searched for studies which examined racial differences among any of the independent variables (psychopathy, hope, self-esteem, shame, guilt, criminogenic beliefs, and treatment rejection). Overall, there were minor, if any significant racial differences in these variables. Several of the independent variables of interest have not been examined by race, and those that were studied did not demonstrate substantial racial differences that would affect their analysis in this study. For example, a meta-analysis of 21 studies on psychopathy found no significant differences between African-Americans and Caucasians on the Hare Psychopathy Checklist-Revised, a measure of psychopathy (Skeem, Edens, Camp & Colwell, 2004).

Racial differences in self-esteem have been found in multiple studies. Gray-Little and Hafdahl (2000) conducted a meta-analysis of 261 of these types of studies and found that there were small, but significant racial differences in self-esteem, with Blacks showing slightly higher self-esteem than Whites ($d = .15$). An effect size this small is not a concern for the current research study.

In a study which examined shame-proneness and guilt-proneness among various racial groups, Asian-Americans responded in a manner which indicates greater shame-proneness than Latinos, African-Americans or Caucasians. No racial or ethnic differences in guilt-proneness have been noted (Lutwak, Razzino & Ferrari, 1998).

Little research has been published on possible racial or ethnic differences in criminogenic beliefs. Walters and Geyer (2005) published data from a construct validity study of the Psychological Inventory of Criminal Thinking Styles (PICTS) which demonstrated some racial differences on several scales. Out of a total of 14 scales, Black

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inmates recorded significantly higher scores than Whites on a scale measuring

Defensiveness ("faking good," -.22), but significantly lower on a scale measuring Cutoff

(elimination of deterrents to crime, .28) and Reactive, a composite scale of 3 other PICTS

scales (.23).

Lastly, a study by Alterman et al. (1995) found no significant differences

between African-Americans and Caucasians on the Treatment Rejection scale of the PAI.

The Current Study

Many Americans encounter barriers to receiving medical or mental health

treatment of any kind due to concerns with cost, availability and accessibility. The

criminal justice population is a unique group in which to study help-seeking for substance

abuse problems because the setting appears to level the playing field in terms of cost,

availability and access to care. However, other barriers exist for substance abuse help-

seeking during incarceration, such as stigma, program availability and the length of

incarceration.

Why are many of the inmates who need substance abuse treatment not seeking out

and making use of these services? What makes one inmate in need of treatment more

likely than another to seek help for a substance abuse problem? Since many of the

systemic or "external" barriers to help-seeking in the community are not present in jail,

we would expect substance abuse help-seeking among inmates to correspond with

treatment need. However, an inmate's need for substance abuse treatment does not fully

explain variance in help-seeking during incarceration, presumably due to presence of

"internal" barriers to help-seeking such as thoughts, beliefs, attitudes and feelings related to substance abuse treatment. The present research focuses on the following questions: 1) Which psychological and barrier variables are predictive of seeking help for substance problems during incarceration? 2) Does psychopathy moderate the relationship between need for treatment and substance abuse help-seeking? 3) Does psychopathy moderate the relationship between optimism and help-seeking?

Data were drawn from an ongoing criminal recidivism study at the Fairfax County Adult Detention Center. Across 4 - 6 sessions, participants completed measures assessing criteria for substance or alcohol dependence and various cognitive, emotional and personality factors. Later during their incarceration, jail records were reviewed to determine whether they requested any substance abuse treatment programs and the extent of their involvement in such programs. During an interview just prior to release or transfer to another facility, participants self-reported their involvement in alcohol and drug treatment programs during their incarceration.

Hypotheses

 Hypothesis 1:

  A. Optimism will positively predict help-seeking.

  B. Self-esteem will positively predict help-seeking.

  C. Shame will negatively predict help-seeking.

  D. Guilt will positively predict help-seeking.

  E. Criminogenic beliefs (measured by externalization of blame) will negatively predict help-seeking.

F. Criminogenic beliefs (measured by short-term gratification) will negatively predict help-seeking.

G. Treatment rejection will negatively predict help-seeking.

Hypothesis 2: Psychopathy will moderate the relationship between treatment need and help-seeking such that among individuals high in psychopathy, treatment need will have no relationship with help-seeking; among individuals low in psychopathy, treatment need will positively predict help-seeking.

Hypothesis 3: Psychopathy will moderate the relationship between optimism and help-seeking such that among individuals high in psychopathy, optimism will have no relationship with help-seeking; among individuals low in psychopathy, optimism will positively predict help-seeking.

METHODS

Participants

Participants for the current research project were drawn from a larger ongoing study funded by the National Institute on Drug Abuse and approved by the George Mason University Human Subjects Review Board. Participants included both pre- and post-trial inmates recruited from a large, suburban adult detention center (ADC) just outside Washington, D.C. One of the aims of the parent study was to determine effectiveness of short-term interventions with relatively serious offenders. For this reason, selection criteria were designed to include all incoming offenders who were expected to serve at least 4 months in the ADC, allowing ample time to complete the 4 to 6 sessions of the baseline assessment and to request and enroll in jail programs and services. These criteria included (1) arrested and held on at least one felony charge other than probation violation, with no bond or greater than $7,000 bond, (2) assigned to the jail's medium and maximum security "general population" (e.g., not in solitary confinement due to safety or security issues, not in a separate forensics unit for actively psychotic inmates), and (3) sufficient language proficiency to complete study protocols in English or Spanish.

Approximately one week after assignment to the general population, eligible study participants were presented with a description of the study and asked to participate.

Researchers assured eligible study participants of the voluntary and confidential nature of the research study. Specifically, researchers emphasized that the decision to participate or not will have no bearing on their status at the ADC nor on their release date. With respect to confidentiality, researchers conducted interviews with study participants in the privacy of ADC professional visiting rooms. Moreover, the principal investigator obtained a DHHS Certificate of Confidentiality. Inmates who both consented to participate in the parent study and completed the initial 5 sessions received an $18 honorarium. Additional honoraria were provided for participation in later phases of the study.

Of the 628 participants who consented to the parent study, 26 (4.1%) were excluded from analyses due to invalid data. Invalidity was determined by examining two scales of the Personality Assessment Inventory (PAI)—Inconsistency and Infrequency. Participants were dropped if one of the scales was above the recommended cut-offs (T scores of 72 and 74, respectively) and the other was elevated (above 69). Additionally, when interviewers raised validity concerns, the data were examined for response bias, response sets, and elevation of other validity scales.

Of the remaining 602 participants, 15 inmates (2.4%) for whom interviews were conducted in Spanish were excluded from analyses due to the more limited substance abuse treatment options available in Spanish. Additionally, the 45 (7.2%) participants for whom help-seeking data were not available to create the dependent variable (either through jail records of program requests or participation in alcohol and drug services) were excluded. Insufficient data to create a treatment need variable excluded another 48 (7.6%) participants.

Lastly, since the main questions in these analyses surround the choices made during incarceration by inmates with some level of treatment need, the analyses were further targeted to individuals meeting one or more alcohol or drug dependence symptoms (102 participants were excluded, 16.2%) for a final sample size of 392.

The majority of participants were men (n = 280, 71.4%). Participants ranged in age from 18 to 60 years (M = 32, SD = 10); 46% of the participants were African-American, 37% Caucasian, 7% Hispanic and 10% were other races (Asian, Native American, or Middle Eastern). Years of education among the participants ranged from 5 to 18 years (M = 12, SD = 2). Income earned legally in the year prior to incarceration ranged from $0 to $300,000 (M = 21,000, SD = 23,000). The number of days participants were incarcerated ranged from 53 to 585 days (M = 217, SD = 116).

<div align="center">Measures</div>

The following measures from the baseline assessment phase and the pre-release/pre-transfer interview of the parent study were used for the current project:

Intake

Data on race, gender, age, income, and education were gathered during the intake session. These demographic and socioeconomic status (SES) variables are often controlled for in studies of service utilization because of the more limited opportunities for treatment available to lower SES groups due to experiencing increased barriers to service utilization.

Jail Records

Data were gathered from jail records to determine history of prior incarceration, length of current incarceration, history of prior help-seeking, requests for substance abuse treatment and participation in alcohol and drug services during incarceration.

Texas Christian University-Correctional Residential Treatment Form, Initial Assessment (TCU-CRTF)

Drug and alcohol dependency were assessed using the TCU-CTRF (Simpson and Knight, 1998), which collects individuals' self-reported 12-month history of drug and alcohol use and measures of DSM substance dependence criteria. Substance dependency scales were created for alcohol (17 items), cocaine (13 items), marijuana (8 items) and opiates (21 items). Scales were composed of items that assessed each of the DSM substance dependence domains. For example, "How often did you find that your usual number of drinks had much less effect on you, or that you had to drink more to get the effect you wanted?" Items' responses ranged from 0="never" to 4="7 or more times." For domains with several items, responses were averaged and a total score was computed by taking the mean across the seven domains (six in the case of marijuana). For the purposes of the current study, treatment need variables were created using the highest number of dependence criteria from the alcohol and 3 drug dependency scales (marijuana, cocaine, and opiates). The TCU was chosen because it is based on DSM criteria, and is widely used in substance abuse research (Knight, Simpson & Hiller, 2002). It is used frequently in criminal justice populations with high reliability (alpha = .89), and with similar reliabilities for race/gender subgroups.

The Psychopathy Checklist – Screening Version (PCL:SV)

Psychopathy was assessed using the screening version of Hare's Psychopathy Checklist ([PCL:SV] Hart, Cox & Hare, 1995). The measure consisted of an in-depth semi-structured interview focusing on (1) the inmate's social history (e.g., family history, educational history, relationship history, history of antisocial behaviors, etc.) and (2) nature and circumstances surrounding the instant offense (or alleged offense), and the inmate's perceptions of the consequences of the offense (or his/her related behavior) for others. Interviews were videotaped for subsequent coding and analysis. Based on this and information from jail and criminal records, the 12-item checklist was completed on each inmate by specially trained advanced clinical psychology graduate students. Interviewers achieved high inter-rater reliabilities (.85 - .88) in reference to a more experienced clinician. Like the PCL-R (Hare, 1991), the PCL:SV provides a total psychopathy score as well as two factor scores, and is considered the "gold standard" for measuring psychopathy. The total score was used for these analyses. Scores range from 0 to 24, with scores over 18 indicating psychopathy.

The Criminogenic Cognitions Scale (CCS)

The CCS (Tangney, Meyer, Furukawa & Cosby, 2002) is a 25-item scale that measured beliefs and cognitive distortions that are common among repeat offenders and which operate to support criminal activities. Items such as, "Why plan to save for something if you can have it now?" were rated on a 4-point Likert scale where "1" equals "Strongly disagree" and "4" equals "Strongly agree." The items were created by clinicians experienced in working with inmates. Subscales include: externalization of blame, notions of entitlement, negative attitudes toward authority, short-term

gratification, and insensitivity to impact of crime. Each subscale contains 5 items. Internal consistencies of the subscales range from marginal to good (.58 to .80), with an alpha of .81 for the total scale. In preliminary studies, the scale demonstrated convergent and discriminant validity (Tangney et al., 2007). However, the scale has not yet been tested for reliability among different racial/ethnic groups, nor among community samples. Regardless, this scale is particularly promising due to its brevity and foundation on the restorative justice model with input from expert clinicians.

Values in Action Inventory of Strengths (VIA-IS)

An abbreviated version of the VIA-IS (Peterson & Seligman, 2004) was used to assess 9 character strengths, including hope/optimism. The VIA-IS was developed using current research and theory in positive psychology. Participants rated 8 items such as "I always look on the bright side" on a 1 to 5 scale from "Not at all like me" to "Very much like me." Reliability for this subscale is strong (alpha = .83), and the scale demonstrated modest to high correlations with other established measures of hope and optimism and with observations made by respondents' friends and family members (Peterson & Seligman, 2004). In order to more precisely measure "optimism," four items that appeared to assess entitlement and superiority, e.g. "I always expect the best," were dropped. Items retained were: "I always look on the bright side," "I can always find the positive in what seems negative to others," "Despite challenges, I always remain hopeful about the future," and "If I feel down, I always think about what is good in my life." Using the four items specific to "optimism," reliability remained strong (alpha = .74). The recency of this measure can be considered a drawback because of the lack of reliability information

for minority and criminal justice populations. However, this scale was chosen due to the significant interest in positive psychology and quantity of research currently being conducted using the VIA.

The Test of Self-Conscious Affect-Socially Deviant (TOSCA-SD)

The TOSCA-SD (Hanson & Tangney, 1996) is a version of the Test of Self-Conscious Affect ([TOSCA] Tangney, Wagner, & Gramzow, 1989) designed specifically for use with incarcerated individuals and other "socially deviant" populations to assess proneness to shame (6 items), and proneness to guilt (13 items). In a sample of undergraduates, the TOSCA-SD correlated highly with the original TOSCA, and it has demonstrated reliability (alpha = .63 for shame, .72 for guilt) and validity in preliminary studies of prison inmates (Hanson, 1996). However, little data is available regarding the use of the TOSCA-SD with different ethnic populations. Due to the idiosyncratic way that inmates tend to respond to shame items, only the 6 items which refer to the negative self-appraisal aspect of shame were utilized. The TOSCA-SD was chosen because it was specifically designed to tap the affective range of "socially deviant" individuals.

The Rosenberg Self-Esteem Scale (RSE)

The RSE (Rosenberg, 1965) is a widely used, well-validated global measure of self-esteem that consists of 10 items rated on a 5-point scale. Many studies (Gray-Little, Williams & Hancock, 1997; Shevlin, Bunting & Lewis, 1995; and others) have demonstrated its reliability (alpha = .87), and representation of a unidimensional construct. The Rosenberg was chosen because of its widespread use since its development in 1965.

The Personality Assessment Inventory (PAI)

The PAI (Morey, 1991) consists of 344 items that make up validity, clinical and treatment scales. Each scale and subscale was developed through thorough literature reviews aimed at identifying the core components of each disorder, and items were written to directly target these components. In a study testing the utility of the PAI in minority populations, the psychometric characteristics were consistent with those of the standardization samples (Alterman et al., 1995). Additionally, there is a separate set of norms available for institutionalized samples.

The 8-item PAI Treatment Rejection (RXR) scale was utilized to assess motivation for treatment. The RXR scale was informed by seven criteria for the evaluation of treatment motivation for studies of short-term psychotherapy (Sifneos, 1987). These include: (1) A willingness to participate in the diagnostic evaluation, (2) Honesty in reporting about oneself and one's difficulties, (3) Ability to recognize that the symptoms experienced are psychological in nature, (4) Introspectiveness and curiosity about one's own behavior and motives, (5) Openness to new ideas, with a willingness to consider different attitudes, (6) Realistic expectations for the results of treatment, and (7) Willingness to make a reasonable sacrifice in order to achieve a successful outcome. On the RXR scale, the higher the score, the less motivated for treatment a person is likely to be. Broad content areas included are: (a) a refusal to acknowledge problems, (b) a lack of introspectiveness, (c) an unwillingness to participate actively in treatment, and (d) an unwillingness to accept responsibility for change in one's life. Examples of items include "I'm comfortable with myself the way I am," and "I can solve my problems by myself."

The RXR scale of the PAI was chosen due to the promising future of the PAI as an empirically-driven personality assessment. Finding new uses for the scales of the PAI makes sense given its frequent administration in clinical and correctional settings. In the standardization sample (Morey, 1991), the RXR scale has internal consistency of alpha = .78 (community sample), and .83 test-retest reliability. In the current study, internal consistency was comparable (alpha = .77, see Table 2).

Help-seeking

The dependent variable of help-seeking was measured by obtaining jail records of inmates' requests for substance abuse programs offered by the jail's Alcohol and Drug Services (ADS) department, including AA/NA meetings, substance abuse education for the general population, Successful Treatment and Recovery (STAR, now renamed Turning Point), True Freedom, and Women's Recovery. Obtaining records on requests and participation in the Intensive Addictions Program (IAP) proved to be more difficult, in part due to the program's relocation from the lower-security Pre-Release Center (PRC) to a cell block at the ADC. Participation data were available for this program, either through self-report during an interview prior to release (31 out of 201 reported participation in IAP), or by examining jail move lists that indicated entry into the appropriate cell blocks during the correct timeframe (4 out of 47 were identified as participating in IAP). Prior to gathering data from the move lists, a "short list" was developed by identifying inmates for whom self-reports were not available that were housed in the PRC from 2002 to 5/30/2004 or on block 4A at the ADC from 6/1/2004 to 2007. Then, inmates who made other substance abuse program requests were eliminated

from the list, since they would have already been identified as "help-seeking" for the dependent variable. After the move lists were checked, two inmates were removed from analysis because no data could be gathered or inferred regarding their participation in IAP, which would have lead to incomplete data available to create the dependent variable.

Frequency of requests for individual programs is presented in Table 1. Participants may have made more than one substance abuse program request.

Table 1
Frequencies of substance abuse program requests (n = 392)

Program Name	Frequency Requested	% in Need of Treatment
AA/NA	128	32.65%
Female Links	22	5.36%
Forensic substance abuse	3	0.77%
Intensive Addictions Program (IAP)*	31	7.91%
Substance Abuse Education for General Population	31	7.91%
Successful Treatment and Recovery (STAR)	6	1.53%
True Freedom	14	3.57%
Turning Point	13	3.32%
Women's Recovery	6	1.53%

*Only participation data was available for this program.

In order to create the dependent variable measuring help-seeking, a dichotomous variable was created with "0" indicating no requests for substance abuse programs, or "1" indicating one or more requests to participate in such programs. Individuals determined to have participated in IAP were coded as "1." See Appendix for specific details regarding each of the ADS programs. No sub-analysis on type of program requested was planned due to the small number of requests for several programs.

There was very good correspondence between jail records of program enrollment and self-reported enrollment. Five participants of the 201 (2.5%) on whom self-report

data were available reported participation in substance abuse programs during incarceration, but did not appear in jail records as having done so. This likely occurred due to an inmate failing to recall the exact type of program they participated in or misunderstanding how the program would be categorized, as each of these participants had made non-substance abuse treatment related program requests.

<center>Procedures</center>

Data collection from inmates was typically completed in four or five sessions. In Session 1, participants consented to the study and responded to questions regarding sociodemographics, such as race/ethnicity, education and income. Jail records collected following Session 1 (Intake) allowed data to be gathered on history of prior incarceration, length of time incarcerated, history of prior help-seeking, and current help-seeking. In Session 2 (administered via a touch-screen computer), participants completed the TOSCA-SD measure of shame and guilt, the VIA measure of hope, the CCS measure of criminogenic beliefs, the TCU measure of drug use history and DSM substance dependence criteria, and the Rosenberg measure of self-esteem. In Session 3, participants completed the PAI via touch-screen computer. Session 4 consisted of the interview for the Hare Psychopathy Checklist: Screening Version.

Touch-screen computers were chosen to administer the questionnaires for several reasons. First, administration was standardized among participants. Second, participants heard the questions aloud through headphones and responded via touch-screen computer,

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which increased confidentiality. Lastly, hearing the questions was thought to aid comprehension, given the variable reading level in this population.

Following completion of Phase 1 of the study, official jail records were retrieved that indicated requests for various substance abuse treatment programs and the dates of such requests. Programs included AA/NA meetings, substance abuse education for general population, Successful Treatment and Recovery (STAR, now renamed Turning Point), True Freedom, and Women's Recovery. The procedures for obtaining IAP participation were described above. Specific details regarding inclusion criteria for programs were also obtained from ADS staff in order to learn more about possible perceptions inmates may have about the nature and availability of programs.

Lastly, self-reported program participation was gathered as part of an interview completed prior to release or transfer. Only 201 participants (51.3% of the sample of 392) qualified for and were included in this phase of the study.

Descriptive statistics for all major variables are presented in Table 2. Examination of statistics for each of the variables did not indicate a need for transformations or further treatment of the data prior to running planned analyses.

Several of the variables had relatively low internal consistency, particularly those based on a small number of items, as would be expected. This is less of a concern for shame-proneness (alpha = .59) which is assessed with a scenario-based measure. Scenario-based measures by nature have lower internal consistency, owing to the variance introduced by the scenarios. The scenario-based TOSCA measures of proneness to shame and guilt show substantially higher test-retest estimates of reliability (Tangney,

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1996). The lower alphas for the two CCS subscales of interest--Externalization of Blame

(.57) and Short-term Gratification (.51)—may be of greater concern. Interpretation of null

results involving these scales will be tempered to a considerable degree.

Table 2
Descriptive statistics on continuous variables used in analysis (n = 221 – 392)

Variable	n	Mean (SD)	# Items	Possible Range	Observed Range	Alpha
Age (Years)	392	32.26 (9.7)	-	-	18 – 60	-
Income ($K in Past Year)	356	20.80 (22.7)	-	-	0 – 300	-
Education (Years)	391	11.65 (2.1)	-	-	5 – 18	-
Time Incarcerated (Days)	221	217.29 (116.1)	-	-	53 – 585	-
Optimism	392	3.80 (0.8)	4	1 – 5	1.3 – 5	0.74
Externalization of Blame	392	2.20 (0.5)	5	1 – 4	1 – 4	0.57
Short-Term Gratification	392	2.09 (0.5)	5	1 – 4	1 - 3.8	0.51
Shame (Residuals)	392	0.01 (0.8)	6	1 – 5	-1.8 - 2.5	0.59
Guilt (Residuals)	392	0.02 (0.5)	13	1 – 5	-1.8 – 1	0.80
Self-esteem	392	3.81 (0.7)	10	1 – 5	1.3 – 5	0.87
Treatment Rejection	372	37.21 (9.9)	8	1 – 4	20 – 61	0.77
Psychopathy	363	13.09 (4.6)	12	0 – 24	1 – 24	0.80
Alcohol Dependence*	390	0.91 (1.1)	17	0 – 4	0 – 4	0.93
Marijuana Dependence*	388	0.69 (1.1)	8	0 – 4	0 – 4	0.92
Cocaine Dependence*	392	1.32 (1.6)	13	0 – 4	0 – 4	0.98
Opioid Dependence*	391	0.66 (1.3)	21	0 – 4	0 – 4	0.99
Any Substance Dependence**	391	2.18 (1.4)	3	0 – 4	0 – 4	-

*Mean number and **maximum number of DSM-IV substance dependence symptoms met

RESULTS

Preliminary Analyses

Demographics and Background Characteristics Related to Help-seeking

To examine relations to help-seeking (a dichotomous variable), Chi-square tests were used for categorical variables and t-tests were used for continuous variables.

Help-seeking differed significantly by gender, with more women seeking help than men (Table 3). This finding is consistent with previous research showing more frequent help-seeking by women in the community (Rhodes & Goering, 1994). Therefore, gender was tested as a potential moderator in each of the planned logistic regression analyses, probing whether the relationship between a predictor variable and help-seeking varies by gender.

In contrast to the racial differences found in treatment seeking in the community (Kessler, Chiu, Demler & Walters, 2005), there were no significant racial differences between inmates who sought help for substance abuse problems and those who did not. Participants with a history of help-seeking prior to incarceration sought help for alcohol and drug problems during incarceration significantly more frequently than those without a history of prior help-seeking (Table 3). This finding is consistent with patterns seen in the community (Weisner & Matzger, 2002).

Help-seeking also varied depending on substance type. Participants meeting one or more alcohol dependence symptoms and one or more drug dependence symptoms were similar to those meeting only drug dependence symptoms in their help-seeking patterns. In each case, slightly less than half sought help (Table 3). In contrast, participants meeting one or more dependence symptoms of alcohol only sought help far less frequently. This issue is addressed in a post-hoc analysis.

Table 3
Chi-square analysis of help-seeking and non-help-seeking inmates by gender, race, prior help-seeking and type of substance dependence symptoms met (n = 328 - 392).

	Total	Help-seeking	Non-Help-seeking	χ^2
Gender				16.54**
Male	280 (71.4%)	102 (36.4%)	178 (63.6%)	
Female	112 (28.6%)	66 (58.9%)	46 (41.1%)	
Race				4.25
African-American	182 (46.4%)	78 (42.9%)	104 (57.1%)	
White	144 (36.7%)	66 (45.8%)	78 (54.2%)	
Hispanic	27 (6.9%)	13 (48.1%)	14 (51.9%)	
Other	39 (9.9%)	11 (28.2%)	28 (71.8%)	
Prior Help-seeking				14.02**
Yes	153 (46.6%)	83 (54.2%)	70 (45.8%)	
No	175 (53.4%)	59 (33.7%)	116 (66.3%)	
Substance Type				11.62**
Alcohol Only	83 (21.3%)	22 (26.5%)	61 (73.5%)	
Alcohol and Drug	228 (58.6%)	108 (47.4%)	120 (52.6%)	
Drug Only	78 (20.1%)	37 (47.4%)	41 (52.6%)	

**p<.01

Participants who sought help were significantly older than those who did not seek help (Table 4). Participants who sought help did not differ significantly in income, education, or length of incarceration from those who did not seek help (Table 4).

Table 4

T-tests comparing help-seeking and non-help-seeking inmates by age, income, education and length of incarceration (n = 229 - 392).

	Total Mean (SD)	Mean Help-seeking (SD)	Mean Non-Help-seeking (SD)	*t-test*
Age	32.26 (9.68)	34.56 (9.33)	30.53 (9.59)	-4.17***
Income ($K)	20.80 (22.67)	20.17 (27.46)	21.28 (18.26)	0.46
Education (Years)	11.65 (2.05)	11.77 (2.19)	11.55 (1.94)	-1.04
Days incarcerated	217.29 (116.11)	227.20 (112.40)	204.62 (120.08)	-1.44

***p<.001

An intercorrelational matrix is presented for key independent variables (Table 5). This was used to check for multicollinearity among independent variables using a standard cutoff of 0.7. No correlations were found exceeding 0.7, indicating a lack of multicollinearity.

Multiple independent variables were significantly correlated with current help-seeking. Prior help-seeking was positively correlated with current help-seeking (r = .21, p<.01), which is consistent with community findings. Prior jail experience was positively correlated with current help-seeking (r = .13, p<.05), perhaps reflecting that individuals with a history of prior incarceration learned how to make the most of their time behind bars and maximize time off the cell block. However, length of incarceration was not significantly correlated with current help-seeking (r = .10, ns).

Overall, treatment need was positively correlated with current help-seeking. The number of alcohol dependence symptoms was positively correlated with current help-seeking (r = .19, p<.01), as was the number of cocaine dependence symptoms (r = .27, p<.01) and the number of opioid dependence symptoms (r = .21, p<.01). The exception to

this was that the number of marijuana dependence symptoms was not significantly associated with current help-seeking (r = .00, ns).

Psychopathy (r = -.01, ns), shame-proneness (r = .05, ns), guilt-proneness (r = .04, ns), externalization of blame (r = .06, ns) and short-term gratification (r = -.05, ns) were not significantly correlated with current help-seeking.

Optimism and self-esteem were significantly negatively correlated with current help-seeking (r = -.11, p<.05 and r = -.18, p<.01, respectively). This is not surprising, as these are bivariate correlations, in which the relationship between independent variables and help-seeking is confounded by treatment need. Help-seeking is correlated with treatment need; optimism and self-esteem are apt to be low when one is in need of treatment (i.e., experiencing clinically significant symptoms). As anticipated, treatment rejection was significantly negatively correlated with current help-seeking (r = -.35, p<.01).

Table 5

Intercorrelations among key independent variables and help-seeking (N=186 – 392)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Prior HS	-														
2. Current HS	.21**	-													
3. Length Incarc	.08	.10	-												
4. Prior Jail Exp	.22**	.13*	.20**	-											
5. Alcohol Dep	.17**	.19**	.16*	.18**	-										
6. Cocaine Dep	.22**	.27**	.12	.36**	.14**	-									
7. MJ Dep	.15**	.00	.11	.03	.21**	.02	-								
8. Opioid Dep	.13*	.21**	-.09	.13*	.00	.32**	-.03	-							
9. Optimism	-.20**	-.11*	.05	-.01	-.11*	-.12*	-.04	-.20**	-						
10. SE	-.15**	-.18**	-.07	-.13*	-.18**	-.26**	-.09	-.16**	.52**	-					
11. Shame (Res)	.03	.05	.01	-.05	.15**	.12*	.13*	.07	-.12*	-.35**	-				
12. Guilt (Res)	-.12*	.04	-.14*	-.02	-.10	.01	-.24**	.02	.43**	.33**	-.21**	-			
13. Ext Blame	.12*	.06	.19**	.10	.19**	.14**	.21**	.08	-.29**	-.45**	.20**	-.27**	-		
14. ST Gratific	.07	-.05	-.04	.09	.02	.03	.13*	.06	-.22**	-.20**	.08	-.38**	.31**	-	
15. Tx Rej	-.17**	-.35**	-.13	-.26**	-.23**	-.43**	-.10	-.25**	.26**	.49**	-.26**	.01	-.31**	.02	-
16. Psychopathy	.20**	-.01	.11	.38**	.16**	.20**	.21**	.00	-.10	-.05	-.02	-.17**	.30**	.22**	-.06

*p<.05, **p<.01

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Research Questions and Statistical Analyses

The distribution of the number of substance abuse programs requested by inmate was skewed—that is, most inmates made zero or one requests for substance abuse programs, and a fewer number of inmates made multiple requests. For this reason, a dichotomous variable was created to indicate absence or presence of substance abuse help-seeking (written requests for substance abuse programs). Logistic regression analysis was chosen to test each hypothesis due to the dichotomous nature of the dependent variable. This test provided odds ratios estimating the likelihood of help-seeking based on the independent variables included in the analysis.

Question 1: Which psychological variables are predictive of seeking help for substance problems during incarceration?

Separate logistic regressions tested whether any of the seven psychological variables (optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, short-term gratification and treatment rejection) were predictive of help-seeking, controlling for treatment need (defined by number of DSM-IV-TR substance dependence symptoms). Treatment need was controlled for in each of these logistic regression analyses because treatment need, or severity of symptoms, is naturally positively correlated with symptoms of maladjustment, such as depression and anxiety (Grant et al., 2004). In testing these hypotheses, the issue is, to what degree do psychological and barrier variables predict help-seeking, with treatment need being equal. Help-seeking was analyzed as a dichotomous dependent variable – indicating whether or not an inmate submitted any written requests for alcohol and drug services during incarceration.

Treatment need (number of dependence symptoms) was controlled for by entering it in Step 1 of the hierarchical logistic regression. The independent variable of interest (e.g., optimism, self-esteem, etc.) was entered in Step 2. To determine whether gender moderated the effects of the variables of interest, gender was entered in Step 3. Lastly, an interaction term consisting of Gender*Variable of Interest was entered in Step 4.

Hypothesis 1A. Optimism and Help-seeking

Optimism was examined as a potential predictor of help-seeking during incarceration, after controlling for need for treatment. Treatment need exhibited a significant positive main effect (Table 6). That is, the greater the need for treatment, the more likely an inmate was to seek help for their problems during incarceration (this was true for all tests of Hypotheses 1, 2 and 3). Hypothesis 1A was not supported—there was not a significant effect of optimism on help-seeking above and beyond need for treatment. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems during incarceration. There was not a significant interaction between optimism and gender, indicating that the null effect of optimism on help-seeking held for both men and women.

Table 6
Logistic regression analysis testing effect of optimism on inmates' help-seeking (controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.83	0.12	2.82*** (1.80 – 2.89)
Optimism	-0.07	0.12	0.93 (0.74 – 1.17)
Gender	-0.36	0.11	0.70** (0.56 – 0.87)
Optimism*Gender	-0.09	0.11	0.92 (0.74 – 1.13)

**$p<.01$, ***$p<.001$

Hypothesis 1B. Self-esteem and Help-seeking

Self-esteem was examined as a potential predictor of help-seeking during incarceration, after controlling for need for treatment. Again, treatment need exhibited a significant positive main effect (Table 7). Hypothesis 1B was not supported—there was not a significant effect of self-esteem on help-seeking, above and beyond treatment need. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems during incarceration. There was not a significant interaction between self-esteem and gender, indicating that the null effect of self-esteem on help-seeking held for both men and women.

Table 7
Logistic regression analysis testing effect of self-esteem on inmates' help-seeking (controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.79	0.12	2.19*** (1.73 – 2.79)
Self-esteem	-0.16	0.12	0.85 (0.67 – 1.08)
Gender	-0.37	0.11	0.69** (0.56 – 0.87)
Self-esteem*Gender	-0.14	0.11	0.87 (0.70 – 1.07)

**$p<.01$, ***$p<.001$

Hypothesis 1C. Shame-proneness and Help-seeking

Shame-proneness was examined as a potential predictor of help-seeking during incarceration, after controlling for need for treatment. Treatment need exhibited a significant positive main effect (Table 8). Hypothesis 1C was not supported—there was not a significant effect of shame-proneness on help-seeking. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems during incarceration. There was not a significant interaction between shame-proneness and gender.

Table 8
Logistic regression analysis testing effect of shame-proneness on inmates' help-seeking (controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.85	0.12	2.34*** (1.85 – 2.95)
Shame-proneness	-0.08	0.11	0.92 (0.74 – 1.15)
Gender	-0.36	0.12	0.70** (0.56 – 0.88)
Shame-proneness*Gender	-0.09	0.11	0.92 (0.74 – 1.14)

**p<.01, ***p<.001

Hypothesis 1D. Guilt-proneness and Help-seeking

Guilt-proneness was examined as a potential predictor of help-seeking during incarceration, after controlling for need for treatment. Treatment need exhibited a significant positive main effect (Table 9). Hypothesis 1D was not supported—there was not a significant effect of guilt-proneness on help-seeking. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems during incarceration. There was not a significant interaction between guilt-proneness and gender.

Table 9

Logistic regression analysis testing effect of guilt-proneness on inmates' help-seeking
(controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.84	0.12	2.32*** (1.84 – 2.93)
Guilt-proneness	0.11	0.11	1.12 (0.90 – 1.39)
Gender	-0.34	0.11	0.71** (0.57 – 0.89)
Guilt-proneness*Gender	-0.05	0.12	0.95 (0.76 – 1.20)

**p<.01, ***p<.001

Hypothesis 1E. Externalization of Blame and Help-seeking

Externalization of blame was examined as a potential predictor of help-seeking

during incarceration, after controlling for need for treatment. Treatment need exhibited a

significant positive main effect (Table 10). Hypothesis 1E was not supported—there was

not a significant effect of externalization of blame on help-seeking. Gender exhibited a

main effect on help-seeking—women were more likely than men to seek help for

substance abuse problems during incarceration. There was not a significant interaction

between externalization of blame and gender.

Table 10

Logistic regression analysis testing effect of externalization of blame on inmates' help-
seeking (controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.84	0.12	2.31*** (1.82 – 2.92)
Externalization of Blame	-0.03	0.12	0.97 (0.77 – 1.22)
Gender	-0.36	0.11	0.70** (0.56 – 0.87)
Externalization of Blame*Gender	0.06	0.11	1.06 (0.85 – 1.32)

**p<.01, ***p<.001

Hypothesis 1F. Short-term Gratification and Help-seeking

Short-term gratification was examined as a potential predictor of help-seeking

during incarceration, after controlling for need for treatment. Treatment need exhibited a

significant positive main effect (Table 11). Hypothesis 1F was not supported—there was

not a significant effect of short-term gratification on help-seeking. Gender exhibited a

main effect on help-seeking—women were more likely than men to seek help for

substance abuse problems during incarceration. There was not a significant interaction

between short-term gratification and gender.

Table 11
Logistic regression analysis testing effect of short-term gratification on inmates' help-seeking (controlling for treatment need, n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.85	0.12	2.35*** (1.86 – 2.97)
Short-term Gratification	-0.15	0.12	0.86 (0.68 – 1.08)
Gender	-0.34	0.11	0.72** (0.57 – 0.89)
Short-term Gratification*Gender	0.11	0.11	1.12 (0.91 – 1.39)

**p<.01, ***p<.001

Hypothesis 1G. Treatment Rejection and Help-seeking

Treatment Rejection was examined as a potential predictor of help-seeking during

incarceration, after controlling for need for treatment. Treatment need exhibited a

significant positive main effect (Table 12). Confirming Hypothesis 1G, there was a main

effect for treatment rejection and help-seeking—higher scores on the PAI Treatment

Rejection scale predicted lower levels of help-seeking, above and beyond treatment need.

This finding is consistent with related studies on the PAI Treatment Rejection scale

(Alterman et al., 1995; Caperton, Edens & Johnson, 2004). However, the current study

represents the first time the scale has been tested (and found to predict) substance abuse

help-seeking in a jail setting. Gender exhibited a main effect on help-seeking—women

were more likely than men to seek help for substance abuse problems during

incarceration. There was not a significant interaction between treatment rejection and gender—the finding that the PAI Treatment Rejection scale negatively predicts help-seeking generalizes for both men and women.

Table 12
Logistic regression analysis testing effect of treatment rejection on inmates' help-seeking (controlling for treatment need, n = 372)

	B	SE-B	OR (95% CI)
Treatment Need	0.66	0.13	1.93*** (1.49 – 2.50)
Treatment Rejection	-0.45	0.14	0.64** (0.49 – 0.84)
Gender	-0.36	0.12	0.70** (0.55 – 0.88)
Treatment Rejection*Gender	0.01	0.13	1.01 (0.78 – 1.31)

**p<.01, ***p<.001

Post-hoc analyses were conducted to determine whether more stringent inclusion criteria would have been more appropriate based upon the lack of many significant findings for Question 1. It is possible that sample selection (based on inmates meeting one or more DSM-IV-TR criteria for substance dependence) contributed to the lack of more significant findings. Perhaps among a sample of inmates with greater treatment need, such as inmates meeting full DSM-IV-TR substance dependence criteria, more of the independent variables would have significantly predicted help-seeking.

Therefore, post-hoc analyses were conducted for each of the independent variables testing treatment need as a moderator of the relationship between the variable of interest and help-seeking. Treatment need (number of dependence symptoms) was entered in Step 1 of the hierarchical logistic regression. The independent variable of interest (e.g., optimism, self-esteem, etc.) was entered in Step 2. Lastly, an interaction term consisting of Treatment Need*Variable of Interest was entered in Step 3.

Optimism

Treatment need was examined as a potential moderator of the relationship between optimism and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 13). There was not a significant effect of optimism on help-seeking. The hypothesis that treatment need might moderate the relationship between optimism and help-seeking was not supported, indicating that the null effect of optimism on help-seeking held for inmates with any level of treatment need.

Table 13
Logistic regression analysis testing treatment need as a moderator of the relationship between optimism and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.85	0.12	2.34*** (1.85 – 2.96)
Optimism	-0.05	0.12	0.95 (0.75 – 1.19)
Optimism*Treatment Need	0.02	0.12	1.02 (0.81 – 1.28)

***p<.001

Self-esteem

Treatment need was examined as a potential moderator of the relationship between self-esteem and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 14). There was not a significant effect of self-esteem on help-seeking. The hypothesis that treatment need might moderate the relationship between self-esteem and help-seeking was not supported, indicating that the null effect of self-esteem on help-seeking held for inmates with any level of treatment need.

Table 14
Logistic regression analysis testing treatment need as a moderator of the relationship between self-esteem and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.82	0.12	2.27*** (1.79 – 2.88)
Self-esteem	-0.16	0.12	0.85 (0.68 – 1.07)
Self-esteem*Treatment Need	0.06	0.12	1.06 (0.83 – 1.34)

***p<.001

Shame-proneness

Treatment need was examined as a potential moderator of the relationship between shame-proneness and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 15). There was not a significant effect of shame-proneness on help-seeking. The hypothesis that treatment need might moderate the relationship between shame-proneness and help-seeking was not supported, indicating that the null effect of shame-proneness on help-seeking held for inmates with any level of treatment need.

Table 15
Logistic regression analysis testing treatment need as a moderator of the relationship between shame-proneness and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.86	0.12	2.37*** (1.88 – 2.99)
Shame-proneness	-0.01	0.12	1.00 (0.79 – 1.25)
Shame-proneness*Treatment Need	-0.06	0.12	0.95 (0.75 – 1.20)

***p<.001

Guilt-proneness

Treatment need was examined as a potential moderator of the relationship between guilt-proneness and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 16). There was not a significant effect of guilt-proneness on help-seeking. The hypothesis that treatment need might moderate the relationship between guilt-proneness and help-seeking was not supported, indicating that the null effect of guilt-proneness on help-seeking held for inmates with any level of treatment need.

Table 16
Logistic regression analysis testing treatment need as a moderator of the relationship between guilt-proneness and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.87	0.12	2.40*** (1.90 – 3.02)
Guilt-proneness	0.15	0.12	1.16 (0.93 – 1.45)
Guilt-proneness*Treatment Need	0.01	0.12	1.01 (0.80 – 1.27)

***p<.001

Externalization of Blame

Treatment need was examined as a potential moderator of the relationship between externalization of blame and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 17). There was not a significant effect of externalization of blame on help-seeking. The hypothesis that treatment need might moderate the relationship between externalization of blame and help-seeking was not supported, indicating that the null effect of externalization of blame on help-seeking held for inmates with any level of treatment need.

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Table 17
Logistic regression analysis testing treatment need as a moderator of the relationship between externalization of blame and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.87	0.12	2.40*** (1.90 – 3.03)
Externalization of Blame	-0.06	0.12	0.95 (0.76 – 1.19)
Externalization of Blame*Treatment Need	-0.02	0.12	0.98 (0.78 – 1.24)

***p<.001

Short-term Gratification

Treatment need was examined as a potential moderator of the relationship between short-term gratification and help-seeking during incarceration. Treatment need exhibited a significant positive main effect (Table 18). There was not a significant effect of short-term gratification on help-seeking. The hypothesis that treatment need might moderate the relationship between short-term gratification and help-seeking was not supported, indicating that the null effect of short-term gratification on help-seeking held for inmates with any level of treatment need.

Table 18
Logistic regression analysis testing treatment need as a moderator of the relationship between short-term gratification and help-seeking among inmates (n = 392)

	B	SE-B	OR (95% CI)
Treatment Need	0.88	0.12	2.41*** (1.91 – 3.04)
Short-term Gratification	-0.20	0.12	0.82 (0.65 – 1.02)
Short-term Gratification*Treatment Need	-0.11	0.11	0.90 (0.72 – 1.12)

***p<.001

Treatment Rejection

Treatment need was examined as a potential moderator of the relationship between treatment rejection and help-seeking during incarceration. Treatment need and

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treatment rejection each exhibited significant positive main effects (Table 19). The

hypothesis that treatment need might moderate the relationship between treatment

rejection and help-seeking was not supported, indicating that the effect of treatment

rejection on help-seeking held for inmates with any level of treatment need.

Table 19
Logistic regression analysis testing treatment need as a moderator of the relationship
between treatment rejection and help-seeking among inmates (n = 372)

	B	SE-B	OR (95% CI)
Treatment Need	0.69	0.13	2.00*** (1.54 – 2.59)
Treatment Rejection	-0.48	0.14	0.62** (0.47 – 0.81)
Treatment Rejection*Treatment Need	0.21	0.14	1.23 (0.94 – 1.61)

***p<.001, **p<.01

Question 2: Does psychopathy moderate the relationship between treatment need and

substance abuse help-seeking?

Logistic regression analyses were used to test psychopathy as a potential

moderator of the relationship between treatment need and help-seeking. With help-

seeking as the dependent variable, treatment need was entered in Step 1. Total

psychopathy was entered on Step 2. The interaction term consisting of

Psychopathy*Treatment Need was entered in Step 3 to test for moderation.

Treatment need exhibited a significant positive main effect (Table 20). That is,

with greater treatment need, a participant was more likely to seek help for their substance

abuse problems during incarceration. There was a main effect for psychopathy and help-

seeking—the PCL:SV scale negatively predicted help-seeking. That is, inmates high in

psychopathy were less likely to seek help compared to those low in psychopathy. This

finding is consistent with results for men in the one similar study found (Jackson,

Wernicke & Haaga, 2003). Hypothesis 2 was not supported—the interaction between

psychopathy and treatment need was not significant. Psychopathy predicted lower rates

of help seeking across all levels of treatment need.

Table 20
*Logistic regression analysis testing psychopathy as a moderator of the relationship
between treatment need and help-seeking among inmates (n = 363)*

	B	SE-B	OR (95% CI)
Treatment Need	0.98	0.13	2.66*** (2.06 – 3.43)
Psychopathy	-0.31	0.13	0.73* (0.58 – 0.94)
Treatment Need*Psychopathy	-0.16	0.13	0.85 (0.66 – 1.09)

*p<.05, ***p<.001

The same logic that led to testing gender as a moderator in Question 1 was

followed. Both help-seeking and psychopathy are known to vary by gender. Therefore, a

post-hoc analysis was conducted including gender as a potential moderator of the

relationship between psychopathy and help-seeking.

With help-seeking as the dependent variable, the treatment need, psychopathy and

gender variables were entered in Step 1. Next, each of the two-way interaction terms

were entered on Step 2, consisting of Treatment Need*Psychopathy, Treatment

Need*Gender and Psychopathy*Gender. Lastly, the three-way interaction term consisting

of Treatment Need*Psychopathy*Gender was entered in Step 3.

As in analyses for Question 1, a significant main effect was found for treatment

need (Table 21). There was no longer a significant main effect found for psychopathy,

likely due to shared variance -- females scored lower on psychopathy *and* higher on help-

seeking. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems during incarceration. No significant interactions were found.

Table 21
Logistic regression analysis testing 3-way interaction between treatment need, psychopathy and gender predicting help-seeking among inmates (n = 363)

	B	SE-B	OR (95% CI)
Treatment Need	0.88	0.14	2.40*** (1.84 – 3.14)
Psychopathy	-0.22	0.13	0.81 (0.62 – 1.05)
Gender	-0.44	0.13	0.65** (0.50 – 0.84)
Treatment Need*Psychopathy	-0.19	0.14	0.83 (0.63 – 1.08)
Treatment Need*Gender	0.19	0.14	1.20 (0.92 – 1.58)
Psychopathy*Gender	0.06	0.15	1.06 (0.80 – 1.41)
Treatment Need*Psychopathy*Gender	0.24	0.15	1.27 (0.95 – 1.70)

**p<.01, ***p<.001

Question 3: Does psychopathy moderate the relationship between optimism and help-seeking?

Logistic regression analyses were used to test psychopathy as a potential moderator of the relationship between optimism and help-seeking. With help-seeking as the dependent variable, treatment need was entered as a control variable in Step 1. Optimism and total psychopathy were each entered in Step 2. The interaction term consisting of Optimism*Psychopathy was entered in Step 3 to test for moderation.

Treatment need exhibited a significant positive main effect (Table 22). That is, with greater treatment need, a participant was more likely to seek help for substance abuse problems during incarceration. There was no significant effect of optimism on

help-seeking. There was a main effect for psychopathy and help-seeking—the PCL:SV

scale negatively predicted help-seeking. Hypothesis 3 was not supported—

there was not a significant interaction between optimism and psychopathy.

Table 22
Logistic regression analysis testing psychopathy as a moderator of the relationship between optimism and help-seeking among inmates, controlling for treatment need (n = 363)

	B	SE-B	OR (95% CI)
Treatment Need	0.99	0.13	2.70*** (2.08 – 3.50)
Optimism	-0.06	0.12	0.94 (0.75 – 1.19)
Psychopathy	-0.31	0.12	0.74* (0.58 – 0.94)
Optimism*Psychopathy	-0.10	0.12	0.90 (0.72 – 1.14)

*p<.05, ***p<.001

The same logic that led to testing gender as a moderator in Questions 1 and 2 was

followed. Both help-seeking and psychopathy are known to vary by gender. Therefore, a

post-hoc analysis was conducted including gender as a potential moderator of the

relationship between optimism, psychopathy and help-seeking.

With help-seeking as the dependent variable, treatment need was entered as a

control variable in Step 1. Next, gender, optimism and psychopathy were entered at Step

2. Then, each of the two-way interaction terms were entered on Step 3, consisting of

Gender*Optimism, Gender*Psychopathy and Optimism*Psychopathy. Lastly, the three-

way interaction term consisting of Gender*Optimism*Psychopathy was entered in Step

4.

As in analyses for Questions 1 and 2, a significant main effect was found for

treatment need (Table 23). Gender exhibited a main effect on help-seeking—women were

more likely than men to seek help for substance abuse problems during incarceration.

There were no other main effects found, nor were significant interactions found.

Table 23

Logistic regression analysis testing 3-way interaction between optimism, psychopathy and gender predicting help-seeking among inmates, controlling for treatment need (n = 363)

	B	SE-B	OR (95% CI)
Treatment Need	0.95	0.14	2.59*** (1.98 – 3.38)
Gender	-0.38	0.13	0.68** (0.53 – 0.88)
Optimism	-0.05	0.13	0.95 (0.75 – 1.22)
Psychopathy	-0.21	0.13	0.81 (0.63 – 1.05)
Gender*Optimism	-0.13	0.12	0.88 (0.69 – 1.11)
Gender*Psychopathy	0.04	0.13	1.04 (0.80 – 1.36)
Optimism*Psychopathy	-0.06	0.12	0.94 (0.74 – 1.20)
Gender*Optimism*Psychopathy	-0.06	0.13	0.95 (0.73 – 1.22)

**p<.01, ***p<.001

Post-hoc Analyses

Substance Type and Help-seeking

In order to better understand the effect substance type (alcohol versus drugs) may have on help-seeking, a post-hoc logistic regression analysis investigated the relationship between type of substance dependence and help-seeking. Two dichotomous variables were created. The first indicated whether or not an inmate had one or more symptoms of alcohol. The second indicated whether or not an inmate had one or more symptoms of drug dependence (including marijuana, cocaine and opiates). With help-seeking as the dependent variable, these two dichotomous substance dependence variables were entered on Step 1.

Presence of one or more symptoms of alcohol dependence had no effect on help-seeking (Table 24). In contrast, presence of one or more symptoms of drug dependence was highly predictive of help-seeking.

Table 24
Logistic regression analysis testing effect of substance type on inmates' help-seeking (n = 389)

	B	SE-B	OR (95% CI)
Any alcohol dependence symptoms	0.00	0.11	0.99 (0.81 – 1.23)
Any drug dependence symptoms	0.37	0.12	1.45** (1.16 – 1.82)

**$p<.01$

The same logic that led to testing gender as a moderator in planned analyses was applied to this post-hoc analysis. Help-seeking varies by gender. Therefore, a post-hoc analysis was conducted in which gender was tested as a potential moderator of the relationship between substance type and help-seeking. Two dichotomous substance type variables were utilized. The first indicated whether or not an inmate had one or more symptoms of alcohol. The second indicated whether or not an inmate had one or more symptoms of drug dependence (including marijuana, cocaine and opiates). With help-seeking as the dependent variable, the two dichotomous substance type variables were entered on Step 1. Gender was entered on Step 2. Two-way interaction terms consisting of Gender*Alcohol and Gender*Drug were entered in Step 3.

Presence of one or more alcohol dependence symptoms continued to have no effect on help-seeking (Table 25). Presence of one or more drug dependence symptoms continued to strongly predict help-seeking. Gender exhibited a main effect on help-seeking—women were more likely than men to seek help for substance abuse problems

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during incarceration. No significant interactions between substance type and gender were found, indicating that both the importance of drug dependence symptoms and the lack of effect of alcohol dependence symptoms on help-seeking generalize for both men and women.

Table 25

Logistic regression analysis testing gender as a moderator on the relationship between substance type and inmates' help-seeking (n = 389)

	B	SE-B	OR (95% CI)
Any alcohol dependence symptoms	0.09	0.11	1.10 (0.88 – 1.37)
Any drug dependence symptoms	0.39	0.12	1.48** (1.18 – 1.86)
Gender	-0.41	0.11	0.66*** (0.54 – 0.82)
Gender*Any alcohol dependence symptoms	0.04	0.11	1.04 (0.85 – 1.27)
Gender*Any drug dependence symptoms	-0.17	0.12	0.84 (0.67 – 1.07)

**p<.01, ***p<.001

Understanding Characteristics of Inmates Excluded from Analyses

Not included in the analyses discussed so far were 105 inmates meeting no alcohol or substance dependence symptoms in the 12 months prior to incarceration. The majority of these inmates (81; 77.1%) did not request ADS programs, but 24 inmates who did not endorse symptoms of substance dependence (22.9%) requested at least one ADS program (i.e., AA, IAP, etc.). Among inmates who self-reported zero symptoms of substance dependence during the 12 months prior to incarceration, help-seeking and non-help-seeking inmates' responses surrounding history of alcohol and drug use and prior participation in treatment were compared. For both groups, the mean T-scores on PAI scales measuring alcohol and drug problems were not elevated. This is consistent with the inmates' responses on the TCU that indicated an absence of substance dependence

symptoms. Also consistent with inmates' responses on the TCU, both help-seeking and

non-help-seeking inmates reported extremely low numbers of substances used during

their lifetime or in the year prior to incarceration. There were no statistically significant

differences in history of substance use or prior treatment between the help-seeking and

non-help-seeking groups (Table 26).

In addition to examining inmates who did not meet any criteria for substance

dependence in the year prior to incarceration, the smaller subset of inmates who self-

reported no alcohol or drug use in their lifetime was examined. Six (15%) of these 40

self-reported lifetime abstinence from drugs and alcohol. These six inmates could have

made the written request in error and requested a substance abuse program rather than

another (more appropriate) program unrelated to substance abuse treatment, such as the

religious or educational programs offered at the jail. Another possibility is that in the

interest of occupying his or her time, the inmate submitted requests for a broad range of

programs, simply hoping to be admitted to one of them.

Table 26
T-tests comparing characteristics of inmates with zero symptoms of substance
dependence who sought help versus those who did not

	Mean Help-seeking (SD) n = 24	Mean Non-Help-seeking (SD) n = 81	*t-test*
Awaited/participated in SA tx in past	1.81 (0.40)	1.76 (0.43)	-0.45
# Substances Used During Lifetime	2.00 (2.12)	1.47 (2.02)	-1.03
# Substances Used During Prior Year	0.46 (0.72)	0.22 (0.47)	-1.51
PAI Alcohol T-score	55.35 (17.49)	47.59 (8.05)	-2.06‡
PAI Drug T-score	57.13 (11.34)	53.14 (12.55)	-1.36

‡p = .05

DISCUSSION

Substance use disorders are a serious problem in American society.

Epidemiological studies have demonstrated this at the community level. However, these

problems are even more apparent in the criminal justice system, where the number of

inmates and prisoners experiencing the effects of substance use disorders is staggering.

There is a tremendous need for substance abuse treatment both in the community and in

the criminal justice system. In both settings, the majority of people in need of substance

abuse treatment do not seek help for their problem. Clearly, the need for substance abuse

treatment does not fully explain who seeks help for their problem and who does not.

Additional factors, such as motivation and one's position along the Stages of Change,

that affect help-seeking for substance abuse problems continue to be identified, which led

to the focus of the present study.

Much research has investigated background and historical factors associated with

substance abuse help-seeking, such as sociodemographic characteristics (i.e., Kaskutas,

Weisner & Caetano, 1997) and clinical history (i.e., Kessler et al., 2001). While this line

of research has succeeded in characterizing people who seek help for substance abuse

problems, these factors are immutable and do not offer effective points of intervention.

Instead, they may identify logical strategies for prevention and/or screening for

interventions needed to target certain groups of people (i.e., based on gender or presence of additional diagnoses).

More recently, research has focused on dynamic factors such as motivation and the position along the Transtheoretical/Stages of Change Model (i.e., DiClemente & Prochaska, 1998) that affect help-seeking for a wide range of problems, including substance use disorders. In turn, effective interventions have been developed to increase motivation to change a problem behavior, such as motivational interviewing (i.e., Hettema, Steele & Miller, 2005). The current study aimed to identify additional dynamic factors that affect substance abuse help-seeking specifically within a jail setting. Specifically, these dynamic factors included optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, short-term gratification, treatment rejection and psychopathy.

Help-seeking was chosen as a dependent variable to capture formal attempts at addressing a substance use disorder. It was operationalized as a dichotomous variable—whether or not an inmate submitted a written request to participate in any of the jail's alcohol and drug services, including substance abuse education and 12-step programs.

Key Findings

Modest Findings for Malleable Psychological Factors

Among inmates meeting one or more criteria of substance dependence, the psychological characteristics of optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, and short-term gratification did not predict help-seeking above

and beyond treatment need. Only psychopathy and treatment rejection were predictive

(each negatively) of help-seeking, which was expected based on a review of the

literature. These characteristics differ substantially, in that psychopathy tends to be

viewed as a static characteristic (because effective treatments have not yet been

identified); whereas treatment rejection is considered to be a dynamic characteristic.

Treatment rejection is similar to a lack of motivation and/or an early position along the

Stages of Change, which are both conditions responsive to intervention.

Psychopathy

Inmates who were rated high in psychopathy were less likely than their peers who

were rated low in psychopathy to seek help for substance abuse problems during

incarceration. This is consistent with other researchers' findings that inmates rated high

in psychopathy were resistant to rehabilitation, had higher rates of criminal recidivism

(Salekin, Rogers & Sewell, 1996), and appeared to benefit less from psychiatric treatment

than inmates rated low in psychopathy (Ogloff, Wong & Greenwood, 1990). These

inmates' inherent lack of motivation to change (or alternative motivations for

participating in therapeutic interventions) could explain why they do not voluntarily seek

help and benefit less from help when they do receive it. What this means for treatment is

that inmates rated high in psychopathy are somewhat less likely to voluntarily present for

substance abuse treatment than inmates rated low in psychopathy. They are more likely to

be found participating in mandated substance abuse treatment at the workplace or through

a court order. Effective interventions have not yet been identified to reduce psychopathy.

Beyond identifying inmates high in psychopathy, future substance use disorder treatment

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research may examine the efficacy of behavioral intervention techniques targeting characteristics associated with psychopathy, such as low motivation to change or high impulsivity.

Treatment Rejection

Treatment rejection, as measured by the PAI Treatment Rejection (RXR) scale, negatively predicted help-seeking during incarceration. These findings in the jail population were as expected and consistent with the scant extant research. For example, the RXR scale was found to be uniquely but modestly correlated ($r = .14$) with treatment noncompliance among incarcerated sex offenders (Caperton, Edens & Johnson, 2004). In addition, RXR scales were significantly lower among methadone maintenance patients in a community setting when compared with the normative sample (Alterman et al., 1995).

The current study appears to be the first time the RXR scale has been studied for its ability to predict help-seeking of any kind. The fact that the RXR scale predicted substance abuse help-seeking among inmates significantly contributes to the field of substance abuse treatment, particularly for substance abuse treatment offered within correctional institutions.

The current finding for the PAI RXR scale has important treatment implications regarding assessment and intervention for treatment rejection and/or low motivation for substance abuse treatment. Inmates may undergo various assessment batteries as part of standard operating procedures at different correctional facilities. At locations where the PAI is already in use, the RXR scale can be an effective way of assessing treatment readiness among inmates without adding cost or staff time. If the PAI is not already in

use at a correctional facility, its added value for identifying inmates who are low in motivation for treatment should prompt psychologists' consideration of the PAI as a measure of choice. Once inmates high in treatment rejection are identified, interventions such as motivational interviewing can be offered to increase inmates' treatment readiness and motivation to change, thus preparing them for the next phase of treatment.

Clinical Characteristics Predictive of Help-Seeking

Severity of Substance Dependence Symptoms

The severity of an inmate's pre-incarceration substance dependence symptoms was a strong predictor of substance abuse help-seeking during incarceration. This is consistent with findings in the community (Kessler et al., 2001; Finney & Moos, 1995; Kaskutas, Weisner & Caetano, 1997; Weisner & Matzger, 2002) and the more limited number of studies in incarcerated populations (e.g., Belenko & Peugh, 2005). This means that clinicians should continue to carefully evaluate the severity of an inmate's substance dependence symptoms to assess their suitability and readiness for available treatment services.

Treatment need, as measured by severity of substance dependence symptoms, was also tested as a moderator of the relationships between each of the independent variables and substance abuse help-seeking. Treatment need exhibited a main effect in each of these analyses but no interactions were found, indicating that the significance (or non-significance) of each of the independent variables holds true across all levels of treatment need.

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Type of Substance Used

Help-seeking varied as a function of the type of substance (alcohol versus drugs) with which an inmate has a problem. Presence of one or more symptoms of drug dependence was highly predictive of help-seeking among inmates. This is similar to findings in community settings. For example, Grella, Karno, Warda, Moore and Niv (2009) examined data on 1,062 individuals with a past-year substance dependence diagnosis as part of the 2001 - 2002 National Epidemiologic Survey on Alcohol and Related Conditions. They found that individuals with only drug dependence were nearly four times more likely (OR = 3.8) to have received help for their problem when compared to individuals with only alcohol dependence. The authors described several factors that may have contributed to this pattern. Alcohol use is more socially acceptable than illegal drug use, leading to less social pressure and motivation for people with problems with alcohol alone to seek help. There is also considerable lack of understanding in American culture about what constitutes problematic alcohol use. Additionally, individuals may mistakenly assume that all treatment approaches for problems with alcohol require complete abstinence from alcohol (McLellan, 2007), making it difficult for them to picture themselves doing what is necessary to participate and remain in treatment.

Similarly, in the current study, the presence of alcohol dependence symptoms alone was not associated with help-seeking, in contrast to the effect seen for the presence of drug dependence symptoms alone. This finding has an important clinical implication—inmates who have problems with alcohol use alone may need more intensive screening

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and encouragement to enter treatment. Education about the negative health effects of problematic alcohol use may be a useful start. In addition, a harm-reduction approach (e.g., Tatarsky & Marlatt, 2010; Logan & Marlatt, 2010)—in which the focus is shifted from complete abstinence from alcohol to achieving a reduction in drinking and improving safety—may facilitate help-seeking for inmates with alcohol problems.

Replication of Previous Findings Involving Static Predictors of Help-Seeking

<u>Gender</u>

Inmates' help-seeking for substance use problems varied as a function of gender. Female inmates were more likely than male inmates to seek help for their substance abuse problems. This is consistent with women's greater propensity than men to seek treatment for various problems while in the community (e.g., Rhodes & Goering, 1994). However, this finding contrasts with some substance abuse help-seeking studies. For example, in a longitudinal study of individuals in the community, men were two and a half times more likely than women to have sought help for an alcohol-related problem by the follow-up eight years later, with treatment need held constant (Kaskutas, Weisner & Caetano, 1997). Other studies found no gender differences in substance abuse help-seeking in the community when controlling for differences in substance problems (Hser, Maglione, Polinsky & Anglin, 1998; Weisner & Matzger, 2002). In the single study that examined gender differences in help-seeking in a prison population (Pelissier, 2004), predictors of substance use treatment entry were compared by gender, but overall gender differences in help-seeking were unfortunately not reported.

In the current study, a main effect was found for gender on help-seeking, but gender did not interact with substance type in predicting help-seeking. Women inmates were more likely than men to seek treatment for substance abuse problems, regardless of whether the problem substance was alcohol or illegal drugs.

Perhaps male inmates are affected more than female inmates by barriers to help-seeking during incarceration. Some barriers to help-seeking that exist in the community are not present in a jail setting, such as cost, health insurance, and transportation issues. One barrier to help-seeking that is unique to jail is the (perhaps accurate) belief that one will not be incarcerated long enough to participate in any of the available programs (Reinsmith-Meyer, 2008). Other barriers are relevant both in the community and in jail settings (Fink & Tasman, 1992), but may become more salient in jail. These barriers include the perception of lack of availability of programs, perception of stigma, concerns with confidentiality, and lack of trust in treatment staff (Morgan, Rozycki & Wilson, 2004).

Greater perceived stigma may explain why male inmates were less likely than female inmates to seek help during incarceration, the reverse of substance abuse help-seeking patterns in the community. Male inmates may feel the need to present in a hyper-masculine manner in the jail environment, avoiding substance abuse treatment because it might be viewed as a sign of weakness by other inmates, particularly males.

In addition, it is possible that female inmates (who participate in programs separate from male inmates – coed programs are not allowed) felt more comfortable and less intimidated by the idea of participating in substance abuse programs with only

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female inmates. Numerous studies document that females tend to be less violent and dangerous than men (reviewed in Bennett, Farrington & Huesmann, 2005), so safety may be more of a consideration for male inmates. Also, female-only groups may be more likely to provide gender-specific or gender-sensitive interventions. Substance abuse programs found in the community do not necessarily offer gender-specific groups. The current study did not gather detailed data to test these possible explanations. Future research more fully investigating gender differences in perceptions of stigma and comfort level when seeking substance abuse treatment during incarceration would be useful. For example, a useful study would gather data from male and female inmates about their perceptions, attitudes and concerns regarding their participation in substance abuse treatment during incarceration versus when living in the community. This type of study would allow for gender comparisons on setting-specific issues that help or hinder substance abuse help-seeking among inmates.

Race

No significant racial differences were found in help-seeking for substance abuse during incarceration. This is contrary to patterns frequently found in the community in which racial/ethnic minorities present for mental health and substance abuse treatment at much lower rates than whites (e.g., Wells et al., 2001). In jail, the absence of barriers existing in the community, such as cost, insurance and transportation problems, may serve to minimize the relationship between race/ethnicity and help-seeking. This finding can be extended to the community—when existing barriers to help-seeking are eliminated in the community, help-seeking by minorities may substantially increase.

<u>Age</u>

Inmates who sought help for alcohol or drug problems during incarceration were on average four years older than those who did not seek help. This is similar to a study among adults in the community with a past-year substance dependence diagnosis, in which substance abuse help-seeking was predicted for older age groups (ages 30 – 44 OR = 3.2, ages 45+ OR = 2.4) when compared to a younger group (ages 18 to 29; Grella, Karno, Warda, Moore & Niv, 2009). In contrast with the current study, however, several community studies among adults found that younger age predicted substance abuse help-seeking when treatment need was held constant. For example, Kaskutas, Weisner and Caetano (1997) found that individuals ages 18 to 29 (OR = 4.7) and 30 to 39 (OR = 2.6) were more likely than individuals ages 40 and older to seek help for their alcohol problems. Similarly, Kessler, Aguilar-Gaxiola, Berglund, et al. (2001) found that when compared to ages 45 to 54, individuals ages 18 to 24 (OR = 3.4), 25 to 34 (OR = 2.2) and 35 to 44 (OR = 1.5) were more likely to seek treatment for their alcohol or drug abuse. Other studies found that age did not affect alcohol and drug abuse help-seeking among adults in the community after controlling for treatment need (e.g., Weisner & Matzger, 2002).

<u>Prior Jail Experience</u>

Prior jail experience positively predicted help-seeking during incarceration. This is consistent with the scant research available on criminal history variables; however, no studies were identified specifically addressing prior incarceration and help-seeking. In a study of 2,219 male and female prisoners participating in the Federal Bureau of Prisons'

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residential drug abuse treatment programs, Pelissier (2004) found that moderate-severity offenses, when compared to higher-severity and highest-severity offenses, predicted treatment entry. She also found that older age at first arrest and older age at the time of commitment both predicted treatment entry. The current study is the first to examine and identify prior jail experience as a criminal history variable that predicts substance abuse help-seeking. One possible explanation of this finding is that as people gain more experience in the criminal justice system, they may find ways of making the most of their time incarcerated, such as requesting various programs offered by the jail. This also relates to Reinsmith-Meyer's (2008) finding that help-seeking was attenuated among inmates who believed that they will not be incarcerated long enough to participate in jail programs. To build on her study, future research could examine whether prior jail experience affects inmates' beliefs that they will not be incarcerated long enough to participate in jail programs. It follows that with prior experiences in jail, an inmate may be better able to assess the likelihood of remaining in jail long enough to participate or complete programs that are offered.

History of Prior Treatment

Similar to findings in the community (Hser, Maglione, Polinsky & Anglin, 1998; Weisner & Matzger, 2002), inmates who participated in (or were awaiting) alcohol or drug treatment in the past sought help for these same problems during incarceration at a greater rate than inmates who had never participated (or attempted to participate) in substance abuse treatment in the past.

What Accounts for the Null Results? Why Were Most Psychological Factors Unrelated to Help-Seeking?

Contrary to the *a priori* hypotheses, multiple psychological variables were found to be ineffective at predicting help-seeking among incarcerated men and women, including optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, and short-term gratification. In the following section, several questions will be posed and addressed regarding possible explanations for these null results. After all of these questions are discussed, it is ultimately concluded that these null findings can be interpreted as true absences of effects.

Did Faulty Sample Selection Lead to Null Results?

In order to examine predictors of help-seeking among inmates with some level of treatment need, the study sample was restricted to inmates meeting one or more DSM-IV-TR criteria of substance dependence. Perhaps this sample included inmates who varied too widely in their need for treatment, causing the true effects of independent variables to be concealed by the effects of low and high levels of treatment need? A series of post-hoc analyses tested treatment need as a moderator of the relationship between each of the independent variables and help-seeking. No interactions were found, indicating that the results discussed earlier hold true across all levels of treatment need.

Was There Sufficient Power?

Did inadequate statistical power lead to a Type II error of failure to detect a true effect? A post hoc power analysis was conducted to ascertain that the sample size, combined with estimated effect sizes for the independent variables used in the type of

analyses conducted, provided sufficient power at the desired significance level. Indeed, a power analysis indicated that to run a logistic regression with two independent variables with small to small-to-medium effect sizes, and the significance level set to .05, the sample size of 392 yielded power of .99 (Faul, Erdfelder, Buchner & Lang, 2009). This means that the sample size was more than sufficient to test the hypotheses without undue risk of failing to reject the null hypothesis.

Replication of multiple earlier findings provided further support that there was adequate power to detect small to small- to-medium effects of independent variables on help-seeking. These replications include level of psychopathy, substance type, severity of substance dependence symptoms, gender, race, age, prior incarceration and history of prior treatment predicting help-seeking.

Were there Measurement Problems with the Psychologically-Oriented Independent Variables?

Did measurement problems for the psychologically-related independent variables contribute to a lack of additional significant findings? This is unlikely, due to the fact that most of the measures are well-validated and widely used. Even when a measure was not specifically validated within a jail population (e.g., optimism), no evidence was found to suggest that the measure may be problematic in forensic settings. Furthermore, research assistants involved in collecting and processing inmate data participated in rigorous preliminary and ongoing training to ensure that data were collected and entered accurately and consistently.

Low reliability for the externalization of blame and short-term gratification scales of the Criminal Cognitions Scale (CCS) may have contributed to the lack of significant findings involving these variables. However, adequate to very good reliability was observed for optimism, self-esteem, shame-proneness, and guilt-proneness, comparable to reliabilities observed in community samples.

Were There Problems with the Dependent Variable?

Could problems with measurement of the dependent variable have contributed to the lack of significant findings for dynamic psychological variables? Again, this is unlikely, based on significant findings supporting two hypotheses and replication of multiple earlier findings. However, the dependent variable of help-seeking was created using official jail records of program requests, and it is unknown how accurate or complete are the records. Data on program attendance or completion of requested programs were unavailable, preventing external validation of jail records. Jail data on inmates' enrollment in various programs were available, but subject to the same limitations inherent to program requests. Additionally, external factors (e.g., program availability) would naturally account for variance in the dependent variable if help-seeking were measured by enrollment in programs. Therefore, written program requests appeared to be the best available measure of help-seeking during incarceration.

Are These Truly Null Effects?

Multiple challenges to the study must be ruled out before trusting the null findings. First, post-hoc analyses indicated that the study design was not compromised by

a potential moderator (treatment need) that might have concealed true effects of independent variables on substance abuse help-seeking among inmates. In addition, there was more than sufficient statistical power to detect effects of the independent variables. Multiple findings from the literature were replicated, suggesting that there were not widespread problems in measurement of the independent variables. Significant results also supported hypotheses that psychopathy and treatment rejection would negatively predict substance abuse help-seeking among inmates, lending credence to the operationalization of the dependent variable. It seems most likely, then, that the independent variables of optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame and short-term gratification truly do not affect help-seeking for substance abuse problems among inmates.

Limitations

Several limitations exist in this study. There are potential limitations inherent in the dependent variable due to relying on jail records to assess help-seeking. For example, the completeness and accuracy of the records was not possible to validate through additional sources for the entire sample. Relying on written records may also exclude data from inmates verbally requesting to participate in substance abuse programs at the jail that did not follow through with written requests.

Additionally, the generalizability of this study may be limited. While the sociodemographic characteristics of the inmates in the study differed slightly from those of the general population, this was addressed through the data analysis plan. There was

no relationship between the sociodemographic variables of race, income or education and the dependent variable. Gender was tested, but not supported, as a moderator. There was a statistically significant difference in age between help-seeking and non-help-seeking inmates, with younger inmates seeking help at a lower rate. However, since the difference between the two groups was small (approximately four years), and in previous research, age does not seem to have a consistent or strong relationship with help-seeking, it was not controlled for in subsequent analyses. Moreover, the average age of inmates in the study did not substantially differ from that of adults in the community.

Since this study was conducted on pre- and post-trial inmates charged with at least one felony housed in an urban county jail, results may not generalize to state or federal prisons or to inmates with more minor charges. However, jail is the entry point to the correctional system in the U.S. Some inmates remain in a local jail to complete sentences of various lengths, while many inmates with longer sentences are ultimately transferred to state or federal prison. About half of the current sample was eventually transferred to another correctional facility—most often a state prison. Therefore, it can be argued that studies of county jail inmates, such as included in this study, may be more representative of the total incarcerated population (2.4 million) in the U.S. than studies based solely in state or federal prisons. Nevertheless, it is important to conduct similar studies on substance abuse help-seeking in state and federal prisons to ensure that the findings are not unique to local jails.

Additional limitations of the study relate to how representative the study site is of local jails across the country. This study was conducted at a single jail in a fairly affluent

county. With the financial and institutional resources of the surrounding community (such as non-profit organizations providing services at the jail and a strong administration of justice program of study at the nearby university), the jail likely offers more substance abuse treatment programs and services than jails in less affluent areas or rural areas without such extensive community resources. Moreover, inmates in the current study may reflect attitudes toward substance abuse help-seeking that differ from inmates in other regions. That is, perhaps they reflect the surrounding community's knowledge about substance abuse problems and willingness to seek help for those problems. Future studies on this topic should include multiple jails, in areas with varying population density, from different regions of the country that span a wide socioeconomic range, and that range in the number and type of substance abuse programs they have available. If perceptions of program availability or quality vary between jails (whether these perceptions are accurate or not), these attitudes and beliefs could be tested for their effect on substance abuse help-seeking.

Directions for Future Research

Results from the current study suggest several directions in which future research can expand upon the current findings. First, the PAI's Treatment Rejection scale must be tested in its ability to predict substance abuse help-seeking within multiple jails from a range of socioeconomic backgrounds, including jails in rural and less affluent areas. To further validate the RXR scale, it must be compared to other known measures of treatment motivation, such as the University of Rhode Island Change Assessment

([URICA] DiClemente & Hughes, 1990). Another remaining question is whether the RXR scale would be sensitive enough to detect changes in an inmate's attitudes toward treatment that occur due to participating in motivational interviewing interventions or receiving treatment. This question warrants collecting data from inmates prior to beginning treatment and again after completion of treatment, testing for significant within-person differences. Now that the PAI's Treatment Rejection scale has demonstrated the ability to predict substance abuse help-seeking during incarceration, it will be important to test whether it predicts help-seeking for other issues among inmates, and extend this line of questioning into the general community. Additionally, the RXR scale could be tested for its ability to predict not only treatment-seeking, but also treatment engagement, completion, efficacy and outcome. Perhaps the RXR scale is even more strongly predictive of one of these other aspects of treatment.

Regarding barriers to help-seeking, stigma and level of comfort with jail-based treatment may be significant barriers to help-seeking during incarceration. However, the effect of such barriers may be moderated by gender. More research, perhaps of a qualitative nature, such as interviews with substance abuse help-seeking and non-help-seeking inmates, would help to clarify the barriers to substance abuse help-seeking among inmates and differentiate those more salient for men and for women in jail settings. Once the barriers have been characterized, interventions can then be developed to mitigate the effects of these barriers, and the efficacy of these interventions systematically evaluated.

The lack of significant findings for optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, and short-term gratification on substance abuse help-seeking nevertheless has implications for treatment and presents the opportunity for future research. Occasionally, hopelessness and/or low self-esteem have been considered to be barriers to help-seeking. However, this study found that low optimism and/or self-esteem do not present insurmountable barriers to help-seeking for substance abuse in jail. In fact, clinicians can expect individuals who seek treatment for substance abuse to vary a great deal in these characteristics. So far, the psychological factors under study here (optimism, self-esteem, shame-proneness, guilt-proneness, externalization of blame, and short-term gratification) were tested related to substance abuse help-*seeking* among inmates. It may be that these variables are more relevant to treatment engagement, completion, efficacy or outcome. Or, they may be more strongly related to substance abuse help-seeking in the community or help-seeking more generally (i.e., for other mental health or medical problems). Additional research is needed in these areas.

<p align="center">Directions for Policy and Programmatic Review</p>

There are multiple ways to apply the findings from this study to ongoing decision making regarding substance abuse programs and services offered in correctional settings. Ultimately, the findings can be applied at the local, state and federal levels. Substance abuse programs and services offered in the correctional systems at each of these levels have unique needs and considerations which will be discussed.

<u>Clarifying Assumptions</u>

First, assumptions regarding substance abuse treatment and help-seeking within the criminal justice system must be clarified. Correctional institutions within the criminal justice system aim to ensure public safety while rehabilitating individuals who have been found guilty of breaking the law. The findings from the current study can be directly applied to the goal of rehabilitation of inmates, and more indirectly applied to the goal of public safety by reducing criminal recidivism (re-offense upon reentry into the community). As noted earlier, many inmates have significant problems with alcohol and drugs. These inmates became involved in the criminal justice system via several pathways. Problematic use of alcohol and/or drugs can result in arrests directly related to their substance use (i.e. driving under the influence, possession of a controlled substance). When people lose control over their use of alcohol and/or drugs, they often engage in criminal activities to support their addiction and/or use, such as committing crimes (i.e., theft, breaking and entering, grand larceny and fraud) to obtain money to purchase alcohol or drugs. Finally, a person using or abusing drugs may commit offenses due to a lifestyle that predisposes them to engage in criminal activities, such as associating with other offenders or participating in organized crime (National Institute on Drug Abuse [NIDA], 2007). The multiple pathways leading substance abusers to enter the criminal justice system contribute to the overrepresentation of substance abusers in the correctional system. Offering substance abuse treatment during incarceration is beneficial to the surrounding community in two ways. First, it offers access to treatment for many people suffering from substance abuse, which is an accomplishment in public health. Additionally, treating substance abuse during incarceration promotes inmates'

rehabilitation and may ultimately decrease criminal recidivism as a result of the strong association between substance abuse and crime. This is necessary for a correctional institution to serve its stated purpose.

Is Treatment Cost-Effective?

Now that the strong association between substance abuse and crime has been described and substance abuse treatment's impact on reducing on criminal recidivism has been established, the question is whether or not the cost of substance abuse treatment provided in jails is worth the financial investment. Returning to the figures presented in the introduction to this research, the societal cost of substance abuse in 2002 alone was estimated to be $180.9 billion. The vast majority of those costs ($107.8 billion) were a result of crimes associated with substance abuse, including costs within the criminal justice system. In contrast, the cost of treating substance abuse was only $15.8 billion (ONDCP, 2004). Despite the fact that the cost estimated for treatment included only the minority of individuals who sought substance abuse treatment, it may nevertheless be more expensive to incarcerate an individual who has committed crime as a result of substance abuse than it is to provide effective treatment for an underlying substance use disorder. Even modest investments in effective, evidence-based substance abuse treatment could result in substantial savings for the criminal justice system. For this reason, changes can be cost-effective for today and can reduce societal costs overall for the future and are appropriate for consideration by officials at the national, state and local levels.

What Policy Actions Should Officials Consider?

Locally, trends and patterns of substance abuse can vary considerably, as can municipal budgets. Education and treatment of substance abuse can be modified to address these trends and patterns within budget constraints. For example, in areas of the West Coast where methamphetamine abuse is prevalent, it makes sense for services in local jails to accommodate this trend. It is also important for local officials to consider the attitudes and awareness of their local communities regarding substance abuse and its treatment. In communities where substance abuse is prevalent (and thus, more tolerated), local officials must be sure that jail-based treatment programs address underlying attitudes and assumptions that promote substance abuse and that may serve as a barrier to substance abuse help-seeking. Local drug courts, in which non-violent offenders suffering from substance abuse are diverted to treatment programs rather than remaining in the criminal justice system, are also a cost-effective option for promoting substance abuse treatment and reducing criminal recidivism (NIDA, 2007). Local officials with limited budgets can instead leverage their constituency's capacity for benevolence. For example, they can educate the public about the need for substance abuse services in the jail, emphasizing the benefits that occur (i.e., crime reduction) in the surrounding community when these services are provided. Modest time and effort would be needed to encourage volunteers, religious groups or not-for-profit organizations to run 12-step meetings (or other peer-led groups) for inmates. As a comparatively short-term facility, local jails can still make a large impact on individual lives simply by providing the opportunity for an inmate to take the first step in addressing his or her problem or issues with drugs or alcohol. This alone could pay substantial dividends over time through the

reduction of crime and the increased contributions to society rehabilitated inmates would make post release.

At the state level, many laws currently exist requiring harsh sentencing for drug-related charges. These laws have resulted in overcrowding of local jails and state prisons, without achieving the desired effects of reducing substance abuse or criminal recidivism. Given the lack of success these laws have had in meeting their intended goals, a review of the laws is warranted. Until that time, it is critical for defense attorneys, prosecutors and judges to cooperate during prosecution and sentencing to allow non-violent offenders with substance abuse problems to access treatment in lieu of, or in addition to, incarceration. There are currently several ways that this is happening across different states—through drug courts, diversion programs, pretrial release programs conditional on treatment, and conditional probation with sanctions. An important component for success in all of these options is the availability of aftercare, whether or not it is required through supervision (probation or parole) post release (ONDCP, 2004).

Federal government officials play several different roles in ensuring that offenders with substance abuse problems have access to treatment options. First, it is important for the Bureau of Prisons to continue offering substance abuse treatment options within Federal prisons. Second, Federal officials are critical in supporting the efforts of local and state governments through grants and contracts to provide substance abuse treatment in the criminal justice system and surrounding communities. Currently, local and state substance abuse treatment programs cannot meet the existing need for treatment. By way of overseeing Federal grants and contracts, Federal officials can ensure that there is

adequate access to substance abuse treatment in communities across the country to prevent incarceration due to drug-related crimes in the first place. They must also ensure that substance abuse treatment is accessible both during incarceration and afterward to prevent criminal recidivism. Lastly, Federal officials must provide the leadership, guidance, funding, and support for assessing whether, in fact, the approaches implemented at all levels are actually helpful and cost-effective. They can model this important role for officials at all levels—so that accountability and documentation of efficacy and cost-savings are needed for continuation of program funding.

Applications from the Current Study

Findings from the current study regarding the assessment of inmates with substance abuse problems can be used *now* to complement existing practices in correctional institutions. In addition to typical assessments of an inmate's need for substance abuse treatment, inmates can also be screened for their readiness to participate in treatment. Based on inmates' responses to the 8-item Treatment Rejection scale of the PAI, inmates can be assigned to the best-matched substance abuse treatment. A high level of treatment rejection suggests the need for a Motivational Interviewing intervention to take place before entry into intensive substance abuse treatment, or the need to delay substance abuse treatment until barriers to treatment can be addressed. A low level of treatment rejection indicates that an inmate is appropriate for intensive substance abuse treatment. In this way, screening and assigning inmates to substance abuse treatment based on their level of treatment rejection allows for the best use of limited resources.

Summary and Overall Conclusions

This study extended the current literature on help-seeking for substance abuse from the community into an incarcerated population. Additionally, the study ruled in and ruled out several dynamic characteristics that are predictive of help-seeking for substance abuse during incarceration. This helps to move the literature beyond its earlier focus on static characteristics (e.g., gender, race) as a way of understanding people who do and do not present for treatment. Despite some potential limitations with regard to generalizability of these findings, there are several meaningful take-home messages for clinicians who work with incarcerated populations. Substance type and severity of dependence symptoms remain a useful starting point for assessing an inmate's suitability for treatment. Inmates high in psychopathy are somewhat less likely to voluntarily present for treatment, suggesting the need for interventions to increase motivation for treatment. Administering the PAI over another personality scale can provide helpful information on an inmate's readiness for treatment. A high score on the Treatment Rejection (RXR) scale may signal the need for a pre-treatment intervention such as motivational interviewing. Based on these findings, recommendations were made for policy changes at the Federal, state and local levels toward the ultimate aim of 'breaking the cycle' of addiction within the community and in the criminal justice system and addiction's effect on criminal recidivism. Leadership at Federal, state, and local levels, per the policy statements, can be a strong asset in this regard. Lastly, several areas for future research were identified through this study, including assessing gender differences in help-seeking barriers among inmates, testing the PAI Treatment Rejection scale as a

predictor of additional treatment-relevant outcomes, and examining relationships between the same group of psychological variables and other aspects of the treatment process.

APPENDIX: ADS Program Descriptions

Program Name	Length	Capacity	Waiting List	Location	"Dosage"	Description
Intensive Addictions Program (IAP)	12 weeks	40 men (4 counselors with caseloads of 10 each)	5-6 currently, up to 25 in past (due to tighter restrictions)	4A (Direct Supervision cell block)	7 days/week, 2-4 sessions/day. Approximately 23.75 hrs/wk of scheduled treatment plus self-study.	Therapeutic community located in ADC as of 5/30/04 (previously at Pre-Release Center). 12 weeks primary counseling and 6 weeks concurrent education program (including relapse prevention, family and social issues, recovery awareness, and an overall biopsychosocial component). Program provides group and individual therapy, cognitive skills classes, crisis intervention, substance abuse evaluations, and identification and referrals to appropriate jail and community resources. AA/NA meetings are provided in the facility and attendance is encouraged.

Program Name	Length	Capacity	Waiting List	Location	"Dosage"	Description
STAR (Successful Treatment and Recovery) discontinued in 2002 due to lack of enrollment	3-6 months	20->6	10-12 people, 4-6 weeks	3S3 (old part of jail)	42 hours/week.	Cell-based. Designed for men and women motivated for intensive treatment and a new lifestyle upon release. Participate in daily group activities and weekly AA/NA meetings.
Turning Point (took place of STAR). Transitional program, ended in 2004.	14 weeks	6 men, 6 women	10-12 people	Old part of jail (linear cells)	42 hours/week.	Held in classrooms. Step-based program (similar to outpatient programs outside the jail). Based on manualized cognitive–behavioral orientation.

Program Name	Length	Capacity	Waiting List	Location	"Dosage"	Description
True Freedom Discontinued 2/2006 due to end of grant funding for counselor positions.	6-12 months	4 English-speaking women, 4 English-speaking men, 4 Spanish-speaking men.	33 people at end.	Cellblock A10	4-5 groups per week; individual meetings with counselors at minimum 1x every other week, at maximum every day. Clients residing in the cellblock attend 2 groups per day.	Dual diagnosis program. 3 cellblocks (2 male and 1 female). Sessions are held in cellblocks or classrooms. Each client is assigned a primary therapist and case manager at time of admission and participates in developing an individualized treatment plan within 30 days of treatment. Clients progress through 3 phases of treatment at an individualized pace with specific goals, objectives, and treatment tasks required for completion of each phase. Phase 1—Intake, Orientation and Engagement (1-2 months). Phase 2—Treatment Program (3-8 months). Phase 3—Relapse Prevention and Re-Entry (2-3 months).

Program Name	Length	Capacity	Waiting List	Location	"Dosage"	Description
Substance Abuse Education for general population	9 sessions (revolving admission)	16 people	Currently 33	Classroom	1.5 hours per week	For men and women in general population. Meets once weekly for 1.5 hours. "Pre treatment"—information helps raise awareness of problems with drugs or alcohol. Also includes 1 session of information on communicable diseases, as mandated by the state. No screening. Originally intended as a link to jail and community services.
Alcoholics Anonymous/ Narcotics Anonymous	Variable	16 people	1 month or more	Classroom	1.5 hours per week	12-step meetings led by volunteers from the community.
Women's Recovery	4 weeks education, 12 weeks treatment	16 women in education, 10-12 in treatment.	25 women	Classroom	Education—1.5 hours/week for 4 weeks; Treatment— 4x/week for 12 weeks.	Geared toward unique needs of women in recovery— effectively a dual-diagnosis program. Part 1—education. Part 2—treatment.

Program Name	Length	Capacity	Waiting List	Location	"Dosage"	Description
Spanish Recovery	23 weeks	10-12 men.	20 men for education, 10-12 for treatment.	Classroom	Education—1x/week for 10 weeks. Treatment—3x/week for 12 weeks	1. Orientation—offered every other week. 2. Education—10 sessions, 20 person capacity 3. Treatment—12 weeks

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