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Criminogenic needs and treatment considerations for inmates with dual diagnoses

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CRIMINOGENIC NEEDS AND TREATMENT CONSIDERATIONS
FOR INMATES WITH DUAL DIAGNOSES

by

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Bachelor of Arts
California State University, San Bernardino
2000

A thesis submitted in partial fulfillment
of the requirements for the

**Master of Arts Degree in Psychology
Department of Psychology
College of Liberal Arts**

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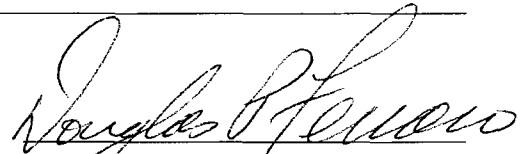
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Entitled

**Criminogenic Needs and Treatment Considerations for Inmates with
Dual Diagnoses**


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ABSTRACT

**Criminogenic Needs and Treatment Considerations
For Inmates with Dual Diagnoses**

by

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Individuals with both a mental illness and substance use disorder (i.e., dual diagnoses) are over represented and underserved in state prisons. Without treatment, inmates with dual diagnoses (DD) are at an increased risk for a variety of negative outcomes, including re-incarceration. Unfortunately, few prison-based treatment programs are designed to meet the special needs of these inmates, and none are empirically supported. Various researchers have stressed the importance of incorporating criminogenic needs into treatment programs to reduce recidivism. The criminogenic needs of inmates with DD have gone largely unstudied. Utilizing a bottom-up approach, the present study offered a first look at criminogenic needs for this population. Additionally, this research sought to characterize “treatment as usual” in prison for these inmates in order to estimate whether and how criminogenic needs are being addressed. Participants included 35 inmates with DD who completed assessments and interviews designed to explore criminogenic needs and treatments received while incarcerated. Record reviews were also conducted. Integrated results of quantitative and qualitative

analyses revealed the following categories of criminogenic needs: Substance Misuse, Interpersonal Deficits, Mental Illness, Deficits in Cognitive Processing, Adherence to Criminal Subculture, and Unmet Basic Needs. Treatment received by participants tended to rely mainly on pharmacological methods, and often did not directly address many of the identified criminogenic needs.

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

The prison population has been increasing in recent years, with our national jail and prison population reaching an all time high of two million at year-end of June 2002 (Bureau of Justice Statistics, 2003). When compared to the general population, the prevalence of dual diagnoses, or co-occurring mental and substance abuse disorders, is markedly higher in the criminal justice population (Peters & Hills, 1993; Robins & Regier, 1991). In fact, large-scale investigations suggest that most (70-84%) offenders with serious mental illness (SMI) also meet the criteria for a substance abuse disorder (Abram & Teplin, 1991; Chiles, Von Cleve, Jemelka, & Trupin, 1990; Teplin, 1994). This is substantially higher than the rate of co-occurring mental health and substance use disorders for non-offenders (50%) (Regier et al., 1990).

Overall, it has been estimated that 7% of those in jails and 3 to 11% of prison inmates may be suffering from a dual diagnosis (DD) condition (Peters & Hills, 1993). A number of hypotheses, which differ in the primacy placed on the mental or substance abuse disorder, have been offered to explain these high rates of co-occurrence. For example, some scholars speculate that individuals with SMI (a) use drugs in an attempt to “self-medicate” or reduce uncomfortable emotional states (Robins & Regier, 1991, Weiss, 1992), or (b) have reduced capacity for understanding the adverse impact of substances on behavior and adjustment (Weiss, 1992). Other scholars cite evidence that

small amounts of substance use among individuals with DD *precipitate* the reoccurrence of psychological symptoms (Drake, Mueser, Clark, & Wallach, 1996) and criminal recidivism (Pepper & Hendrickson, 1996).

Regardless of the mechanism by which DD exacerbates the adverse effects of single diagnoses, it is clear that the consequences are severe in both offenders (Peters, Kearns, Murrin & Dolente, 1992; Weiss, 1992) and nonoffenders (Peters & Hills, 1997). In general, when compared to individuals with a single diagnosis, those who have DD have poorer treatment involvement and outcomes (Drake, Osher, & Wallach, 1989), higher rates of hospitalization (Safer, 1987) and suicidal behaviors (Caton, 1981), and more problems with social functioning (Evans & Sullivan, 1990). Compared to substance dependent inmates without a mental illness, substance dependent inmates with a mental illness have been found to have (a) more profound problems with employment, medical concerns, and relationships, (b) poorer baseline levels of knowledge concerning treatment principles and relapse prevention skills, and (c) less family supervision and support upon release into the community (Peters et al., 1992).

Despite their degree of risk and apparent need for services, the vast majority of individuals with DD are not involved in treatment (Grant, 1997). This fact is particularly troublesome for offender populations, given their strikingly high rates of co-occurring disorders and recidivism. Only a handful of treatment programs designed for offenders with DD are available in state and federal corrections facilities across the U.S. (Edens, Peters, Hills, 1997). Moreover, no controlled studies examining the outcomes of these treatment programs have been completed (Edens et al., 1997). Treatment providers have little basis for knowing what program components are effective with this specific

population. Empirically supported guidelines could help treatment developers in prisons implement “what works” for this unique group.

Community-based mental health treatments that are sometimes offered to offenders with DD are not optimal. Clark and colleagues (1999) tracked individuals in standard case management and specialized case management for dual disorders (i.e., assertive community treatment) over a three year period, and recorded participants’ encounters with the legal system. Legal system “encounters” were defined as all contacts with the legal system, not just contacts resulting in arrest or incarceration. Data were collected during the six-month period before the beginning of the study (baseline) and every six-month period thereafter for three years. Results indicated that encounters with the legal system were common among the 203 participants; 169 participants (83%) had an encounter during the three-year period of the study. However, the number of arrests in each in each subsequent six-month period during the study significantly declined, dropping from a total of 48 arrests at baseline to 25 arrests in the final six-month period, and incarcerations significantly declined from 23 at baseline to 8 in the final six-month period.

More recently, Steadman and Naples (2005) examined the effects of six jail diversion programs (three pre-booking, three post-booking) for offenders with DD over a 12-month period. In a comparison of time spent in the community rather than incarcerated or in a psychiatric hospital or residential treatment, the diverted groups spent more total time in the community (303 days) than the non-diverted group (245 days). The diverted group was significantly more likely to report receiving standard treatment, such as three or more counseling sessions, hospitalization, prescribed medication, and emergency room visits,

whereas, the non-diverted group was significantly more likely to report residential treatment for substance abuse problems. The number of arrests between the groups during the 12-month follow-up was not significantly different; however, both groups experienced a reduction in arrests from baseline to 12-month follow-up. Taken together, these studies suggest that while mental health services do have some positive effects, the magnitude of the effects leaves much to be desired. By targeting treatment needs that are more specific to offenders with DD, more substantial reductions in recidivism could be gained, as well as improving their overall life quality and functioning.

In an attempt to begin to address this issue, the present study was designed with two aims. The first aim was to explore key criminogenic needs (i.e., dynamic risk factors related to recidivism) of a sample of inmates with DD. To accomplish this aim, assessments and interviews were conducted with a sample of inmates with DD to examine their criminogenic needs. The second aim of this study was to characterize “treatment as usual” (TAU) for inmates with DD to estimate whether and how treatment needs are being addressed in one state prison. Information regarding TAU was gathered through inmate interviews and records reviews. These data provide an exploratory look at the treatment needs of inmates with DD, and can also serve as a foundation for the development of a treatment program for this population.

This study was informed by research concerning treatment principles for relevant populations (i.e., DD civil samples, general offenders at risk for recidivism, and DD inmates). In this section, this research is reviewed, treatment principles are integrated to form a consensus list, and a discussion of how these principles can be applied to develop a manualized treatment for inmates with DD is presented. Understanding what is known

about the treatment needs of this population will reveal what is currently still unknown. The present study sought to address some of these wholes in the literature.

Gleaning Treatment Principles From the Relevant Literature
Principles Derived From Treatment Programs for Civil Patients

Research addressing community-based treatments for civil patients with DD suggest avenues of treatment that might generalize to offender samples (see Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998; Hills, 2000; & Sacks, 2000). This research suggests that: (a) treatment should follow an integrated format, (b) a cognitive-behavioral approach should be adopted, and (c) civil programs must be adapted to address the unique needs of offenders. The relevant literature supporting these recommendations is presented.

Integrated Treatment Format

One of three patterns typically is followed for delivering mental health and substance use treatments in the community (Peters & Hills, 1997). These treatments can be offered (a) sequentially, where patients are referred from one treatment service system to the other, (b) in parallel form, where separate providers provide treatments for both mental illness and substance use at the same time, or (c) integrated, where a single, cross-trained multidisciplinary team at a single location provides treatment for both disorders. Although integrated treatment has several advantages, sequential and parallel treatments historically have been the primary formats for treatment services.

There are two primary reasons for the use of sequential and parallel treatments. First, mental health and substance treatment services have long been separate (Osher & Drake,

1996). In the 1970's separate research agencies were formed, which formalized the separation and competition between these systems. Economic forces have played a role in keeping these systems isolated. Second, the training and experience of treatment providers in the treatment of dual disorders has been limited (Evans & Sullivan, 1990; Peters & Hills, 1997). Mental health practitioners had less than adequate instruction and practical experience with issues related to the treatment of substance disorders, and substance use service providers generally lack sufficient knowledge about the process and evolution of mental illness and psychotropic medications.

A major review on the treatment of DD conducted by the National Institute of Mental Health (NIMH), the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA), suggested that (a) patients largely received treatment from one system and not the other, (b) patients were often excluded from both systems due to the dual nature of their condition, and (c) patient outcomes were poor in the separate systems. Thus, it was recommended that treatment for the DD population be integrated (Ridgely, Goldman, Talbott, 1986; Ridgely, Osher, Goldman, & Talbott, 1987).

Supporters of integrated treatment present various advantages of this service format over sequential and parallel treatment delivery. These advantages include reductions in feelings of isolation or estrangement that DD individuals may feel when attending groups geared toward single diagnoses, due to the fact that there are few persons with serious mental illnesses in substance treatment programs, and vice versa (Rosenthal, Hellerstein, & Miner, 1992). Additionally, for DD individuals who may be suffering cognitive difficulties associated with such serious conditions as schizophrenia, it may be

particularly difficult to reconcile the differing philosophies of the two service systems when these services are provided separately (Rosenthal et al., 1992). Finally, nonintegrated programs may not focus on issues that are important to individuals with DD, such as how the one disorder interacts with or exacerbates the other (Rosenthal et al., 1992).

Despite these apparent advantages of integrated treatment, there seems to be a paucity of research comparing this form of treatment delivery to nonintegrated treatments (Hills, 2000). The little extant research provides modest support for integrated treatments, but outcome studies have been limited by small sample size, lack of control groups, failure to assess medication compliance, and difficulties assessing substance abuse (for a review see Drake et al., 1998). A review of 36 studies suggested that integrated treatment remains a working hypothesis, but does seem to be a realistic treatment option (Drake et al., 1998).

Hills (2000) discussed the typical integrated treatment programs available to address DD conditions. Such programs often involve modifications of traditional substance abuse or mental health programs in ways that reconcile the discrepancies between programs in order to address both disorders. These programs include: therapeutic communities, supportive/psychoeducational therapies combined with 12-step/AA models, case management, and cognitive-behavioral interventions and relapse prevention. Although each of these models of treatment has found some successⁱ, Hills (2000) concluded that cognitive-behavioral strategies show the most promising results.

Cognitive-Behavioral Treatment Approaches: SAMM as a Prototype

Cognitive-behavioral interventions (CBTs) typically include self-control strategies, assertiveness training, relapse prevention skills that focus on high-risk situations that precipitate relapse, coping skills in order to identify and deal with intrapersonal factors (e.g., thoughts, feelings) and interpersonal factors (e.g., family and social relationships), problem solving skills, and other skills that may not have developed due to the presence of the disorders, as well as behavioral practices to reinforce learned skills (Hills, 2000; Jerrell & Ridgely, 1995). Research indicates that CBTs are effective at reducing substance use for individuals with DD (Carroll, Rounsaville, & Keller, 1991; Jerrell & Ridgely, 1995; Roffman & Barnheart, 1987). In a study comparing a CBT model to an intensive case management intervention and a 12-step recovery model, the CBT model demonstrated more favorable results (Jerrell & Ridgely, 1995). In this study, 132 DD individuals were randomly assigned to one of the three treatment models. Assessments conducted at baseline, 6, 12, and 18 months, suggested that (a) CBT participants had significantly more reductions in psychiatric and substance symptomatology and psychosocial adjustment than the other two groups, and (b) these differences between groups continued one and a half years after treatment.

A prototypic program of integrated treatment with a CBT approach is the Substance Abuse Management Module (SAMM), developed by the University of California, Los Angeles Intervention Research Center for Psychoses (Roberts, Shaner, Eckman, 1999). SAMM is a relapse prevention, psychoeducational program initially developed for use at the West Los Angeles Veterans Affairs Medical Center with patients who had a chronic psychotic illness and comorbid substance use disorder. The treatment modules of SAMM

are presented to participants in a group format. SAMM teaches four key recommendations: (a) practice damage control, (b) escape high-risk situations, (c) avoid high-risk situations, and (d) seek healthy pleasures.

In a non-controlled trial, Shaner, Roberts, Eckman, and Wilkins (1997) examined the efficacy of SAMM with 34 civil patients who were diagnosed as having either schizophrenia or schizoaffective disorder and a co-occurring substance dependence. On a role-play based test of drug relapse prevention knowledge and skills, patients scored poorly before the intervention ($M = 40.9$, $sd = 11.78$), but made large and significant improvements by treatment completion ($M = 102.0$, $sd = 12.63$). This improvement was maintained at the 3-month follow-up ($M = 99.6$, $sd = 11.11$). The number of days using cocaine, alcohol, and marijuana in the month prior to treatment initiation fell significantly during treatment and remained low at the 3-month follow-up.

Another evaluation of SAMM compared SAMM to “treatment as usual” (TAU) at the West Los Angeles Veterans Affairs Medical Center prior to the adoption of SAMM (Ho et al., 1999). TAU largely consisted of medication and symptom management, a 12-step program, case management, and stress management. These treatments were presented in groups, but the treatment content was not manualized. Results indicated that the implementation of SAMM led to a two-fold increase in treatment attendance and a decrease in hospitalization days, compared to that for the participants who had only participated in TAU. Urine toxicology analyses indicated that significantly more participants in the SAMM program compared to TAU maintained sobriety at up to six months post treatment. At 3- and 6-month follow-ups, SAMM participants had a 31%

and 20% sobriety maintenance rate respectively, compared to 5% and 0% for TAU participants.

SAMM is currently being used to treat offenders in the community in several counties in California and Chicago. In these groups, participants' mental illnesses range from severe (e.g., schizophrenia, bipolar) to less severe (e.g., dysthymia, PTSD). The University of California, Santa Barbara is facilitating research on one of these programs and results are expected in the future.

Adapt Civil Programs to Address the Unique Needs of Offenders

In addition to integrated treatment and CBT approaches, the literature suggests that civil programs must be adapted to the specific needs of offenders. Drawing conclusions about offenders from civil samples can be problematic if results do not generalize across groups. A host of problems can be associated with generalizing the results obtained with one DD population (e.g., civil patients) to that of another (e.g., inmates). For example, the effect of a treatment may depend upon the attributes (e.g., criminal history) of a particular population (i.e., treatment-attributes interactions). If participant attributes interact with treatment, generalizations must be qualified in accordance with the results (Cook & Campbell, 1979; Pedhazer & Schmelkin, 1991). No studies could be found examining whether criminal status interacts with treatment outcomes. Such a study would prove valuable in determining the validity of applying the non-offender DD treatment literature to offender populations.

Logically, however, at least three key "attributes" or differences between non-offender and offender populations may limit the extent to which the positive effects of a given treatment program generalize to offender populations. First, offenders tend to have

more extensive criminal histories than non-offenders. To the extent that treatments for non-offenders fail to address criminality, this may bode poorly for offenders' outcomes. Among patients receiving community psychiatric treatment, the number of lifetime felony arrests has been identified as a predictor of arrests in the year after receiving mental health services (Holcomb, & Ahr, 1988). Treatment programs that fail to address changeable, or dynamic, risk factors for recidivism may result in poorer outcomes for offenders than non-offenders (see Andrews et al., 1990). These changeable risk factors are often referred to as "criminogenic needs."

Second, effective treatment may need to include greater contextual support services for offenders than for non-offenders. Offenders are released from jail or prison with little financial resources, no more than three days of medication, lack of health insurance, and limited information concerning how or where to obtain further treatment (Peters & Hills, 1997). Offenders may be disconnected with their families, who could have offered transportation to treatment settings or provided shelter for the offender, and DD offenders are at high risk for homelessness (Veysey, Steadman, Morrissey, & Johnsen, 1997). The absence of such a fundamental need as shelter may decrease the offender's focus on treatment. Each of these factors may be related to an increased risk of recidivism for offenders with DD, as well as other poor treatment outcomes.

Third, effective treatment may need to focus on motivation given that offenders who participate in treatment may be mandated to do so more often than non-offenders. Mandated treatment may be defined as "treatment that is commanded or obligatory, with the implication that treatment is forced, coerced, and involuntary" (Zonana & Norko, 1993, p. 249). Offenders may find themselves in mandated treatment through a variety of

pathways, including outpatient civil commitment (i.e., when the crime is offered as evidence of dangerousness), pretrial diversion (i.e., criminal charges are dropped or reduced during a settlement in which the defendant binds himself/herself to outpatient treatment), probation (i.e., a criminal conviction has been made and the court orders treatment participation in lieu of incarceration), and parole (i.e., the offender is required to participate in outpatient treatment upon release from jail or prison) (Silberg, Vital, & Brakel, 2001). In each of these cases the court retains jurisdiction to revoke or modify these orders based on failure to comply. Such failure could result in criminal prosecution, changes in sentencing, or incarceration, depending on the given case. For incarcerated offenders, treatment may be imposed by caseworkers or pressure from parole boards. Some researchers argue that mandated treatment is not likely to lead to lasting changes in outcome variables due to the mandated participant's potential lack of desire for change (Miller & Flaherty, 2000). As such, mandated offenders may be motivated to participate in treatment, but may be lacking in motivation for long-term change.

Principles Derived From Treatment Programs for General Offenders

Leaving research with civil patients, research with prisoners can now be examined. Recommendations for treating DD offenders can be gathered from reviews of prison-based interventions with general offenders that are aimed at reducing criminal recidivism. Several meta-analytic reviews of the effectiveness of interventions to reduce offender recidivism suggest that significant reductions in recidivism rates can be achieved through interventions that follow four recommendations: (a) interventions should be clearly conceptualized and theoretically driven, (b) treatment intensity should be matched to participants' level of risk, (c) criminogenic needs should be targeted, and (d) treatment

should be adapted to offenders' characteristics (Andrews et al., 1990; Lipsey & Wilson, 1998; Redondo, Garrido, & Sanchez-Meca, 1999). Each of these recommendations is addressed in turn.

Clearly Conceptualized and Theoretically Driven Treatment Programs

The first principle that can be derived from research aimed at reducing recidivism is that effective programs are “clearly conceptualized and theoretically driven” with methods founded on empirical support (McGuire, & Hatcher, 2001). Often these methods utilize social learning or cognitive-behavioral frameworks.

Match Treatment Intensity to Level of Risk

Second, effective treatments evaluate inmates for risk-level and place inmates into differing levels of treatment based on this assessment. Inmates at higher risk for recidivism are more responsive to higher levels of treatment intensity, whereas lower-risk inmates are equally responsive to more responsive to lower levels of treatment intensity (Andrews, Bonta, & Hoge, 1990).

Target Criminogenic Needs

Third, effective treatments focus on criminogenic needs (McGuire, & Hatcher, 2001), or “aspects of individuals' lives that are conducive or supportive of offense acts” (McGuire & Hatcher, 2001, pp. 565). Criminogenic needs are causal dynamic risk factors, or risk factors that, when changed, are associated with changes in recidivism rates (Andrews & Bonta, 2003). Contrary to criminogenic needs are static risk factors, which are not amenable to treatment (e.g., youthfulness, number of previous convictions, age at first arrest, criminal versatility, escapes, and escape attempts) (Zamble & Quinsey, 1991). Although static risk factors do contribute to the identification of individuals at elevated

risk for recidivism, they do not provide much practical utility for addressing that risk through interventions due to their non-modifiable nature. Therefore, interventions aimed at reducing recidivism need to target the criminogenic needs of the target population (Andrews & Bonta, 2003). Unfortunately, the focus on criminogenic needs in the rehabilitation literature has greatly lagged behind the attention given to static risk factors (Gendreau & Goggin, 1997; Zamble & Quinsey, 1991).

Various risk factors have been examined in the literature. The most widely accepted risk factors for predicting criminal behavior are the “Big Eight” risk factors: antisocial attitudes, antisocial associates, history of antisocial behavior, antisocial personality pattern, problematic circumstances at home (family/marital), problematic circumstances at work or school, problematic leisure circumstances, and substance abuse (Andrews & Bonta, 2003). Although the Big Eight have been useful in predicting criminal behavior, there have been few experimental studies examining their utility as intervention targets to reduce recidivism (Andrews & Bonta, 2003). Research supports the following factors as relevant criminogenic needs: antisocial cognition and skills deficits, interpersonal factors (e.g., targeting antisocial associates, family practices, interpersonal problem-solving skills, social pressure), academic and vocational factors/ financial need, impulsivity, anger, and substance abuse (Andrews, Dowden, & Gendreau, 1999; Dowdin 1998 as cited in Taylor, 1998; McGuire & Hatcher, 2001; Motiuk & Brown, 1993; Robinson, 1995; Serin & Mailloux, 2001; Zamble & Quinsey, 1991; also see Robinson, Porporino, & Beal, 1998).

However, some of these studies of criminogenic needs have limitations which may weaken their conclusions. For example, Zamble and Quinsey (1991) interviewed 100

offenders who violated parole within 1 year of release from prison. Their sample included parole violations for robbery, violence, and sexual offenses. Interviews were conducted within 60 days after the offense, and focused on the events and behaviors that led up to re-offense. They found that the most problematic areas reported were substance abuse, emotional problems (e.g., anger) linked to difficulties in coping with problems, and financial strain. Due to the retrospective nature of this study, there is a potential for recall bias that may convolute the results. Without a comparison group, the predictive validity of the identified problem areas may also be weakened. For example, participants reported high levels of anger prior to their parole violations; however, the base rate of anger for parolees was not considered. If anger is common among parolees who do not recidivate, then anger is not a useful predictor for recidivism. Zamble and Quinsey (1991) discussed the need for a comparison group of parole non-violators.

Motiuk and Brown (1993) sought to predict future recidivism by administering the Case Needs Identification and Analysis (CNIA) to 604 federal offenders (573 males, 31 females) upon release and tracking suspension warrants for the subsequent 6 months. Suspension warrants were commonly issued for new criminal charges and/or breach of a condition of parole. This design allowed for comparisons between parole violators and non-violators. However, participants were not tracked beyond the six month period, so it is unclear how many “non-violators” subsequently violated. The CNIA utilizes interview and file data to assess offender risk and need level for seven areas, each consisting of multiple indicators. The seven areas are: employment, marital/family, associates/social interaction, substance abuse, community functioning, personal/emotional orientation, and attitude. Overall ratings for individuals’ criminal risk level (low to high) and case need

level (low to high) are also made. At the six month follow-up, 116 (21%) males and 4 (13%) females had been issued a suspension warrant. For males who had initially received a high-risk, high-need rating at release, 36.7% were issued a suspension warrant at the six month follow-up, which is substantially higher than the suspension base rate (21%). In contrast, for males who had been rated as low-risk, low-need, only 9% received a suspension, which is substantially lower than the base rate. For males, all of the seven problem areas measured by the CNIA were significant predictors of suspension warrants.

Specific problem area indicators that were most predictive of suspension were lack of education ($r = .12$), dissatisfied with job/trade/skill ($r = .14$), unstable job history ($r = .19$), marital problems ($r = .12$), poor family functioning ($r = .12$), criminal associates ($r = .22$), unstable accommodations ($r = .13$), poor financial management ($r = .16$), and antisocial attitudes ($r = .15$), and several indicators of what the authors referred to as “deficient cognitive skills” [poor problem solving ($r = .15$), unable to set goals ($r = .21$), low empathy ($r = .20$), impulsive ($r = .19$), difficulty controlling temper ($r = .19$), copes poorly with stress/frustration ($r = .20$)]. Indicators that were found to be unrelated to recidivism were learning disability, physical impairment, physical/sexual abuse as a child, social isolation, assertiveness, health, self-presentation, sexual dysfunction, and mental deficiency. While the above factors were found to have predictive validity for reincarceration, this study did not measure whether changes in these factors would correlate with reductions in recidivism. Criminogenic needs are causal, dynamic risk factors that, when changed, are related to reductions in recidivism (Andrews & Bonta, 2003). Thus, studies need to (a) include multiple observations over time, or (b) investigate the effects of treatment on these factors to truly determine if a factor is criminogenic.

Robinson (1995) investigated the effects of a treatment program targeting a particular criminogenic need (i.e., deficient cognitive skills) on subsequent recidivism rates. The prison-based treatment program, Cognitive Skills Training, consists of 36-sessions, and is offered in several federal Canadian institutions. Cognitive Skills Training is a cognitive behavioral style program that focuses on correcting faulty thinking patterns and strategies common among offenders for making life decisions, solving problems, and reacting to immediate situations in their environment. Cognitive deficits addressed by the program are impulsive decision-making, narrow thinking, absence of goal-setting behavior, and poor interpersonal skills. Potential study participants were referred by case management officers, and were then assessed by program delivery staff to ensure that they were eligible for the program, and were indeed deficient in cognitive skills. Eligible inmates were then randomly assigned to either (a) participate in the treatment, or (b) a wait list control group. Recidivism was measured at one-year post release from the institution. This one-year follow-up consisted of 1,444 program completers and 379 wait list controls (who never received treatment). Recidivism was defined as a technical violation (i.e., violation of a condition of parole, but no new charge) and/or reconviction on a new offense. Overall, 44.5% of program completers and 50.1% of controls recidivated, indicating an 11.2% reduction in recidivism for program completers. While this reduction may seem modest, albeit significant, when only recidivism resulting from reconvictions on new offenses was considered, a 20% reduction in recidivism rates for program completers compared to controls was evident. A 20% reduction in recidivism due to new charges is important given the seriousness of new charges as an outcome. Thus, this study demonstrated that cognitive skills deficits seem to be a criminogenic need that, when

changed, leads to changes in recidivism. Additional studies examining the amenability of other risk factors for recidivism are warranted, as criminogenic needs research is still in its infancy.

Although the majority of studies examining risk factors for recidivism are based on general offender samples, the identified risk factors may generalize to mentally disordered offenders. In a meta-analytic comparison of predictors of recidivism (both static and dynamic risk factors) for mentally disordered offenders and non-disordered offenders, Bonta, Hanson, and Law (1998) found that predictors of recidivism (e.g., criminal history, family problems, poor living arrangements, and substance abuse) were largely the same between the two groups. Although this suggests that criminogenic needs of mentally disordered offenders may be similar to those of general offenders, additional research is needed to test this assumption. A group that is even more specific, and has not yet been examined to identify criminogenic needs, is inmates with DD. Explorations of criminogenic needs for DD inmates need to be conducted in order to identify needs that should be targeted in effective treatments, and to identify if any needs are unique to this population.

Adapt Treatment to Offender Characteristics

The final recommendation from treatment programs for general offenders involves offender characteristics. Effective treatments pay attention to the choice of methods and interactions between treatment delivery staff and participants (McGuire, & Hatcher, 2001). Participants must be responsive to the methods utilized; this has been referred to as the principle of responsivity (Andrews et al., 1990). Participant characteristics associated with openness to treatment are examined as influential responsivity factors.

When working with offender populations it is common to find that offenders lack motivation and are resistant to treatment. As such, offender motivation for treatment can be examined as a responsibility factor (Correctional Service of Canada, 2002).

Motivation can come in two forms: intrinsic motivation (i.e., when an individual feels that he or she is the sole initiator or sustainer of their actions) or extrinsic motivation (i.e., when an individual believes that outside forces have initiated, pressured, or in some way coerced them into action) (Deci, & Ryan, 1985). A variety of research suggests that an individual's level of intrinsic and extrinsic motivation influence their persistence and performance in various settings. Early studies demonstrated that individuals who were extrinsically motivated were less likely to maintain gains made in treatment (Curry, Wagner, & Grothaus, 1990, 1991; Davison & Rosen, 1972; Davison, Tsujimoto, & Glaros, 1973).

The relationship between motivation and outcome has been examined in substance use treatment programs. First, in a civil substance-abusing sample, Miller (1985) found that treatment initiated through external forces was not associated with increased treatment retention. Additionally, he found that although there was an increase in treatment compliance due to external constraints, this did not lead to superior treatment outcome. It was suggested that when a mandate for treatment is time limited, treatment compliance may only last as long as the mandate is enforced, which may produce minimal maintenance or transfer of treatment gains (Miller, 1985). Second, in an outpatient alcohol treatment study, Ryan, Plant, and O'Malley (1995) found that higher intrinsic motivation at the outset of treatment was related to positive treatment outcomes after an eight-week treatment. Additionally, these authors found that individuals with

higher levels of intrinsic motivation were less likely to drop out of treatment ($r = -.23$), attended more treatment sessions ($r = .20$), and were rated by clinicians as having higher degrees of treatment involvement ($r = .23$). Conversely, patients' level of extrinsic motivation was related only to the number of treatment sessions missed ($r = -.19$). Interestingly, these authors found an interaction between intrinsic and extrinsic motivation, indicating that patients who exhibited high levels of both intrinsic and extrinsic motivation were the most likely to attend treatment session and retain treatment gains. Therefore, based on these results, it appears that extrinsic motivation is positively related to treatment outcome only when it is accompanied by intrinsic motivation.

However, it is important to recognize that the relationship between external events (e.g., court mandated treatment) and extrinsic motivation may not be entirely directⁱⁱ. Farabee, Shen, and Sanchez (2002) found that mentally ill parolees' ($N = 97$) perceived control over their treatment admission was not significantly related to their perceived treatment need. Even without control over admission into treatment, participants still acknowledged their need for treatment and planned to continue in treatment even after the mandate was lifted, thus demonstrating intrinsic motivation even in the face of a mandate.

In sum, two relevant messages may be gleaned from the research on intrinsic and extrinsic motivation: (a) high extrinsic motivation, without intrinsic motivation, is related to poor treatment retention and outcome, and (b) even people with extrinsic motivation (mandates) can have intrinsic motivation. Given these messages, it is important that treatment programs for inmates focus on increasing intrinsic motivation, rather than relying on external pressures, to improve treatment outcomes. A technique termed

motivational interviewing may be useful in this regard. Motivational interviewing (MI) is “a client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence” (Miller & Rollnick, 2002). MI consists of five basic principles: express empathy, develop discrepancy, avoid argumentation, roll with resistance, and support self-efficacy (Miller & Rollnick, 1991).

Studies have suggested that using motivational interviewing as an adjunct to other treatment procedures can help to increase treatment adherence and produce more favorable outcomes for DD outpatients, such as increased treatment attendance and lower levels of substance use (Martino, Carroll, Kostas, Perkins, & Rounsaville, 2002; Martino, Carroll, O’Malley, & Rounsaville, 2000; Graeber, Moyers, Griffith, Guajardo, & Tonigan, 2000 as cited in Miller & Rollnick, 2002; Swanson, Pantalon, & Cohen, 1999). In the pilot study by Martino and colleagues (2000), participants who had co-occurring psychotic or mood disorders and substance disorders were assigned to either an adjunct motivational interview (MI) group or a control group. The experimental group received a one-session MI (duration was 45 to 60 minutes) prior to admission into DD partial hospitalization program. The control group received a standard preadmission interview prior to the partial hospitalization program. Results indicated that the MI group had higher program attendance and lower levels of substance use than the control group. These results were used to create a two-session manualized motivational interview specifically for individuals with DD, called the *Dual Diagnosis Motivational Interview* (DDMI; Martino, Carroll, Kostas, Perkins, & Rounsaville, 2002). This modified manual addresses challenges that may arise when working with patients with severe mental

illnesses (e.g., active psychotic symptoms). Outcome studies using DDMI are expected in the future.

In addition to substance abuse and DD populations, motivational interviewing has been recommended for use with criminal populations as an alternative to confrontational strategies often applied in criminal justice settings (Annis & Chan, 1983; McMurrin & Hollin, 1993; Miller, 1991; Murphy & Baxter, 1997; Walker Daniels & Murphy, 1997). However, few empirical studies have been conducted to evaluate this recommendation, and these studies are methodologically limitedⁱⁱⁱ.

Principles Derived From Treatment Programs For Dually Diagnosed Inmates

In addition to principles from civil outpatients and prison offenders, one study provides principles directly for DD inmates. Edens and colleagues (1997) contacted state and federal prisons nation wide and identified seven treatment programs for inmates with DD. Structured interviews were conducted via telephone with program coordinators and treatment staff to gather information regarding the content and format of the treatment programs. Based on the commonalities of the identified programs, the authors made recommendations for future prison –based treatment programs. These recommendations are not empirically based because few of the programs had been evaluated. The “commonality-based” recommendations can be summarized into five main points.

First, an extended assessment period should be conducted to reevaluate prior diagnoses or establish an accurate diagnosis, determine medication need, and formulate treatment needs. Assessment of individuals with DD can be particularly difficult during the initial prison intake procedures due to the complex interaction between mental illnesses and substance use symptoms. Second, an orientation phase is recommended, in

which participants are introduced to program policies, rules, and procedures. A key part of the orientation phase involves assessing participants' level of motivation and providing brief interventions to increase motivation. Third, cognitive-behavioral techniques, with relapse prevention and psychoeducation, are recommended. The delivery of these interventions should be shortened, simplified, and repeated to adjust for cognitive deficits. Fourth, criminogenic needs should be targeted. Specific interventions should be included to address the faulty thinking patterns, termed criminal "thinking errors" (Yochelson & Samenow, 1976, 1986), which may contribute to substance and criminal recidivism. Fifth, it is recommended that interventions avoid confrontational methods, as inmates with dual disorders have difficulty tolerating the interpersonal and emotional stress often evoked by such methods (McLaughlin & Pepper, 1991; Sacks & Sacks, 1995 as cited in Edens et al., 1997).

Integrating Treatment Principles

Ideally, a model treatment program for inmates with DD would encompass all of the recommendations gleaned from the treatment of DD civil outpatients, general offenders, and DD inmates. Although it may be infeasible or impractical to create a single prison-based program that would embody all of those recommendations, programs should strive to adhere to a majority of them. To summarize the findings from the bodies of literature from the three groups examined (i.e., civil populations, general offenders, offenders with DD), an integrated list of treatment recommendations is presented. This list provides recommendations for treatment format and treatment content.

In regard to treatment format it is recommended that treatment be presented in (a) an integrated manner, (b) short, simplistic, and repetitive form to accommodate any cognitive deficits, and (c) a non-confrontational stance. Recommendations regarding treatment content include (a) a clearly conceptualized, theoretically driven, and empirically driven model, (b) assessment of participants' needs and orientation to the treatment, (c) cognitive-behavioral techniques, and (d) interventions for increasing motivation levels and decreasing criminogenic needs.

Although no prison-based treatment programs for DD conditions encompass all of these recommendations, two programs have been identified as potentially effective (Edens et al., 1997). Both programs offer integrated mental health and substance use treatment, utilize cognitive-behavioral techniques, and have begun to assess program outcomes. Additional research needs to be conducted to determine the overall efficacy of these programs, but preliminary evidence is encouraging.

Turning Point Program

The Turning Point Alcohol and Drug Program at the Columbia River Correctional Institution in Oregon is a therapeutic community for female inmates (Edens et al., 1997). This program consists of 5 phases of treatment spanned over 6 to 15 months. Although the program was originally developed to target substance disorders, high drop out rates, which were attributed to untreated co-occurring mental illness, lead to the inclusion of mental health care. Interventions are provided in a group format and focus on substance abuse education, life skills, relapse prevention, and special groups for physical and sexual abuse survivors. A multidisciplinary team compiled of counselors trained in both mental health and substance use provides these treatments. Preliminary results from the Turning

Point program suggest reduced recidivism rates for program completers compared to the general inmate population (Field, 1995; Research Unit, Oregon Department of Corrections, 1996). Specifically, compared to a matched comparison group, Turning Point participants had 21% fewer convictions and 35% fewer parole revocations.

Estelle Program

The Estelle Unit, located within a correctional facility in Texas, is a modified therapeutic community that serves felony probationers and parole violators. This program offers 3 phases of services that last 9 to 12 months. Group treatment includes 12-step interventions, chemical dependency education, and relapse prevention. Preliminary results from the Estelle programs suggest high rates of treatment retention, and lower rates of criminal recidivism and drug use following treatment relative to a comparison group (von Sternberg, 1997).

Although these programs are promising, they may fall short on several of the recommendations. For example, no assessments were completed to identify criminogenic needs beyond substance abuse that may be important to DD offenders. Additionally, interventions for increasing treatment motivation are not part of either program. Thus, new or modified treatments that closer approximate treatment recommendations for DD inmates are warranted.

Applying Treatment Principles by Developing a Manualized Treatment

In response to the prevalence of individuals with DD who are involved in the criminal justice system and the lack of relevant services provided to those inmates, the *Criminal Justice / Mental Health Consensus Project* was coordinated by the Council of State

Governments to help local, state, and federal policymakers and criminal justice and mental health professionals address this need. This Project released the *Consensus Project Report* (Council of State Governments, 2002), which reflects the results of a series of meetings among 100 of the most respected criminal justice and mental health practitioners in the country. In addressing the need for treatment for inmates with DD, one specific recommendation of the *Consensus Project Report* was to “develop and provide programs for inmates with co-occurring disorders” (Policy Statement #18.d, p. 141). The *Consensus Project Report* also emphasized the importance of validating its initiatives, some of which it acknowledged, “are so new that they have yet to be evaluated to certify their impact” (Council of State Governments, 2002, p. 16). Additionally, the report stressed the importance of assessing program outcomes (Policy Statements #44, 45, & 46). In sum, the need for *effective*, specialized treatment for offenders with DD, as highlighted by the *Consensus Project Report*, calls for researchers to “step up to the plate” by developing empirically supported treatments.

The recommendation for developing empirically supported treatments is not unique to *Criminal Justice / Mental Health Consensus Project*, but rather stems from a well-established trend in the broad field of psychotherapy to provide evidence for the effectiveness of its interventions (Nathan & Gorman, 1998). The psychotherapy field has a long history of (a) research support for the general effectiveness of psychotherapies, and (b) lack of research support for any differential effectiveness for specific therapeutic techniques (Nathan, 1998). Nevertheless, in the 1990’s, provoked in part by increasing demands of managed care, the American Psychological Association (APA) developed practice guidelines that suggested training in, and use of, “empirically supported

treatments” (Division 12 Task Force, 1995). The APA Task Force created three categories to determine the level of empirical support a treatment has based on outcome research studies (i.e., well-established treatments, probably efficacious treatments, and experimental treatments)^{iv}. Treatments for different psychological disorders were categorized and published (Chambless et al., 1996, 1998).

The establishment of empirically supported treatments (ESTs) has been met by criticism (e.g., Herbert, 2003). One criticism is particularly relevant to those who may be interested in developing a treatment manual for inmates with DD. That is, practitioners tend to view treatment manuals as highly structured outlines of techniques that are inflexible, overly simplify client problems, and dehumanize the therapeutic process (Addis, & Krasnow, 2000). These views are consistent with Henry’s (1998) contention that the EST movement ignores contextual variables (e.g., the therapeutic alliance) and emphasizes techniques, despite the fact that contextual factors influence outcome (accounting for 30% of the variance) more than specific techniques (accounting for 15% of the variance). However, manual content can represent general, conceptual overviews of how therapy should proceed (Addis, & Krasnow, 2000). When practitioners know (through training or experience) that not all manuals are “cookbooks,” they have a significantly more positive attitude toward manuals (Addis, & Krasnow, 2000; Morgenstern, Morgan, McCrady, Keller, & Carroll, 2001; Najavits, Weiss, Shaw, & Dierberger, 2000).

The Present Research

The present research represents the first step in addressing some of the gaps in the treatment recommendations gathered from research on relevant populations. Specifically, this study had two primary aims. The first aim was to explore what criminogenic needs seem important for inmates with DD. As discussed, researchers have stressed the importance of incorporating criminogenic needs into treatment programs in order to reduce recidivism (Andrews & Bonta, 2003, McGuire, & Hatcher, 2001, and Yochelson & Samenow, 1976, 1986). Until the present study, the criminogenic needs of inmates with DD have not been studied. Utilizing a bottom-up approach, the present study offers an exploratory look at criminogenic needs for this population. By identifying these criminogenic needs it should be possible to incorporate treatment components targeting these needs into a treatment manual.

The second aim of this study was to characterize “treatment as usual” (TAU) for inmates with DD to explore if and/or how treatment needs, particularly criminogenic needs, are being addressed in one state prison.

Endnotes

ⁱ Therapeutic communities, which involve comprehensive, long-term programs aimed at restructuring the lifestyles and personalities of the participants, have been found to be more effective with persons who have less severe psychiatric (e.g., non-affective, non-psychotic) disorders than with individuals with more serious mental illnesses. (DeLeon, 1993). Using a modification of a 12-step model, Bartels, Drake, and Wallach (1995) found that one-quarter of participants with alcohol disorders and a third of those with drug disorders achieved abstinence. However, integrating persons with dual disorders into existing AA groups has been somewhat difficult, particularly during the early stages of recovery (Noordsy, Schwab, Fox, and Drake, 1996). Case management interventions, which can be thought of as both a method to provide services and an intervention model, have had some success in treating dual disorders. For example, Mueser, Drake, and Miles (1997) found that patients with dual disorders who received case management services during a three-year period had reductions in hospitalization rates, improved in functional status, and approximately half achieved some period of abstinence.

ⁱⁱ Studies have shown that it is possible for external events to produce either extrinsic or intrinsic motivation depending on the functional significance that the external event has on a particular individual (Deci & Ryan, 1985; Plant & Ryan, 1985; Ryan, 1982; Ryan & Grolnick, 1986; Ryan, Mims, & Koestner, 1983). Specifically, if an individual perceives an external event as providing information (e.g., "I've hit rock bottom and I need help") then this external event may produce intrinsic motivation for change. Conversely, if the external event is perceived as controlling (e.g., "They are making me go") then this may encourage extrinsic motivation. Therefore, it is important to examine the functional or personal significance of events that prompt an individual to enter treatment to better understand his or her motivation for treatment and its likely effect on treatment compliance and outcomes.

ⁱⁱⁱ For example, Easton, Swan, and Sinha (2000) used a brief MI as an enhancement to therapy with domestic violence offenders who had substance use problems. The group that received the MI enhancement demonstrated a significant difference in their pre- and post-treatment scores of motivation to take steps to change their substance use. Unfortunately, a large number of participants in the comparison group, who did not receive the MI enhancement, did not fill out the study questionnaires. This failure resulted in a 53 percent missing data rate in the comparison group, which made the remaining comparison data not representative of the original comparison group. No further comparisons between groups could be conducted due to the discrepancy in sample size and amount of missing data. Additionally, although subjects in the MI enhancement group reported an increase in motivation to change, no further evaluations were conducted to determine if there actually was a decrease in substance use.

^{iv} Criteria for well-established treatments are: I. At least two good between group design experiments demonstrating efficacy in one or more of the following ways: (a) superior to pill or psychological placebo or to another treatment, (b) equivalent to an already established treatment in studies with adequate statistical power; or II. A large series of

single case design experiments demonstrating efficacy. These experiments must have (a) used good experimental designs, and (b) compared the intervention to another treatment as in IA. Further criteria for both I and II are: III. Studies must be conducted with treatment manuals, VI. Characteristics of the client samples must be clearly specified, and V. Effects must have been demonstrated by at least two different investigators or investigatory teams. Criteria for probably efficacious treatments are: I. Two experiments showing that the treatment is more efficacious than a waiting-list control group, or II. One or more experiments meeting the well-established criteria I, III, and VI but not V., or A small series of single case design experiments otherwise meeting the well-established criteria II, III, and VI. Treatments that have not met the criteria for probably efficacious treatment are categorized as experimental treatments (Chambless et al., 1996).

CHAPTER 2

METHODS

Participants

There were 35 adult male inmates (65.7% Caucasian, 25.7% African American, 8.6% Hispanic) from a medium security prison in Southern Nevada who participated in this study. Participants' ages ranged from 23 to 56 ($M = 38.43$, $sd = 10.18$). Because this study was chiefly designed to represent the range of criminogenic needs across inmates, the recruitment of participants was terminated once highly similar responses from one inmate to the next (i.e., saturation) were obtained. Thus, even though up to 80 participants were projected for this study, data collection was terminated after 35 participants due to the similarities in their interview responses. Participants' instant offense was labeled using the categories described by Hare (1991). An instant offense is the original charge(s) on which an individual was convicted and does not include parole or probation violations. This sample's instant offenses (includes all charges per person) were as follows: 37.14% participants had offenses in the category robbery (e.g., robbery, armed robbery, attempted robbery, robbery with violence), 31.43% possession of weapon (e.g., possession of a weapon, use of a deadly weapon), 17.14% sex offenses (e.g., statutory sexual seduction, lewdness, sexual assault with a minor, and attempted offenses), 14.29% assault (e.g., assault causing bodily harm, wounding, threatening),

14.29% murder (e.g., attempted murder, murder, voluntary manslaughter), 11.43% theft (e.g., theft, possession of stolen property), 8.57% fraud (e.g., fraud, forgery, uttering), and 5.71% major driving offenses (e.g., driving while intoxicated, DUI causing substantial bodily harm or death). In regard to educational level, 20.0% participants had completed some high school, 17.14% were high school graduates, 37.14% held GEDs, 22.86% completed some college, and 2.86% completed technical/trade school.

There were two eligibility criteria for participation in this study. These were (a) a prison-recorded diagnosis of an Axis I mental disorder other than a substance related disorder, and (b) a substance use disorder, according to a screening tool described later. Inmates who were experiencing active psychotic symptoms and under direct watch were excluded from participating on the request of the participating prison, based on safety concerns and supervision requirements. The diagnoses used to fill the eligibility criterion for an Axis I mental health disorder were made by mental health personnel at the prison during intake evaluations. Diagnoses for the sample (all diagnoses, not primary diagnoses) were: 82.86% mood disorder, 14.29% psychotic disorders, 11.43% anxiety disorders, 5.71% adjustment disorder, 2.86% learning disability, and 2.86% sleep disorder. The substance use disorder eligibility criterion was determined through the administration of the Substance Abuse Subtle Screening Inventory (SASSI) during the recruitment process for the present study.

Given the limitation of record-based diagnoses, the Personality Assessment Inventory (PAI; Morey, 1991) was also administered to describe participants' mental health. Results from the PAI are presented in Table 1. Results from the validity scales indicate that participants' attended appropriately to the test, and did not attempt to present

themselves in an overly positive or negative manner. The highest elevations on the clinical scales were for Drug Problems ($t = 80$) and Alcohol Problems ($t = 73$), which is consistent with a substance use diagnosis. A t-score of 80 on the Drug scale corresponds to the average score for individuals in drug treatment and is indicative of drug dependence, whereas, a t-score of 73 on the Alcohol scale is consistent with alcohol abuse. These scores suggest that participants have been unable to control their drug use, and drugs and alcohol have created substantial difficulties in interpersonal and occupational functioning. The next highest elevation was on the Antisocial Features scale ($t = 70$), which is indicative of antisocial personality. The subscale that contributed the most to this elevation was the Antisocial Behaviors subscale ($t = 75$), which suggests that the elevation was mainly due to participants' history of law violations rather than egocentric characteristics or sensation seeking behaviors. Other notable elevations included Borderline Features ($t = 69$) and Depression ($t = 68$). The Borderline Features score suggests that participants reported increasing anger and dissatisfaction with interpersonal relationships. The elevation on the Depression scale reflects feelings of unhappiness, self-doubt, and hopelessness. Lastly, although the scale Anxiety-Related Disorders (ARD) showed a modest elevation ($t = 65$), one ARD subscale, Traumatic Stress ($t = 70$), was markedly high. This subscale suggests the presence of anxiety due to past traumatic events. Overall, the PAI results suggest that the sample is characterized by substance dependence, antisocial and borderline traits, depression, and anxiety.

Materials

During the recruitment process, the SASSI was administered to consenting potential participants to determine if they met the eligibility criterion of substance use disorder. As noted earlier, the PAI was also administered to describe participants' treatment-relevant psychopathology. The primary aim of this study, identifying the most common criminogenic needs for treatment in this population, was accomplished by utilizing the following assessment tools: (a) the Antecedents to Crime Inventory (ACI; Serin & Mailloux, 2001), and (b) the Criminogenic Needs Interview (CNI; Evans & Skeem, 2003; adapted from Overall & Gorham, 1962; Wong, 2002; & Zamble & Quinsey, 1991). The ACI was used to determine whether or not criminogenic needs that are commonly found in the general prison population are important for inmates with DD. The CNI was administered as a bottom-up approach for exploring criminogenic needs that might be specific to the target population and/or not tapped by such existing measures as the ACI. In order to address the second aim of the study, which was to define and describe treatment as usual for DD inmates, information about inmate's recent treatment was gathered from inmate's institutional records and inmate interviews.

Substance Abuse Subtle Screening Inventory-3 (SASSI; Miller, Roberts, Brooks, & Lazowski, 2003)

The SASSI is a brief screening tool for identifying individuals who have a high probability of having a substance dependence, and was used as an inclusion criterion for this study. Scoring of the SASSI allows the user to make a decision rule regarding the probability that the test-taker does have substance dependence disorder with 94% accuracy. The accuracy rate for identifying those who do not have a substance

dependence disorder is 93%. The SASSI is composed of 10 scales. There are two face-valid scales, one tapping alcohol misuse (Face-Valid Alcohol) and the other concerns drug misuse (Face-Valid Other Drug). Questions comprising these scales are obviously related to substance misuse, consequences, motivation, and loss of control. Responses to the items of these scales are made on a four point Likert-type scale ranging from zero (“Never”) to three (“Repeatedly”). The remaining eight scales are composed of subtle items that are designed to identify individuals who likely have a substance dependence disorder even if they do not openly admit to misuse. Items on these scales are endorsed as either “true” or “false.” These eight scales are Symptoms, Obvious Attributes, Subtle Attributes, Defensiveness, Supplemental Addiction Measure, Family versus Control Subjects, Correctional, and Random Answering Pattern (a validity scale). The scoring manual consists of nine rules. Each rule assesses whether or not a target score was reached on a particular scale or combination of scales. If one or more of these rules is affirmative, then the final decision rule is that the individual has a high probability of having a substance dependence disorder. This was the rule used to define eligibility for the present study. Separate scores for decision rules are used depending on the gender of the participant.

Antecedents to Crime Inventory (ACI; Serin & Mailloux, 2001)

The ACI is a 54-item, self-report questionnaire designed to assess 9 risk domains thought to be antecedents to criminality for general offenders based on a review of the empirical literature (see Appendix B). Initially, during the development of this measure, a pool of 145 items were created to represent the 9 risk domains. These 145 items were administered to a sample of 364 male inmates drawn from an admissions unit for

medium- and minimum-security Canadian prisons. Item analyses were performed on that data to form internally consistent and reliable domains, which reduced the total number of items to 72. Additional reliability analyses were conducted with the remaining items, and participants were administered the Balanced Inventory of Desirable Responding (BIDR; Paulhus & Reid, 1991, as cited in Serin & Mailloux, 2001) to assess for impression management and self-deception. Using the BIDR as an external criterion, additional items were eliminated, resulting in the finalized 54-item measure.

Responses on the ACI are made on a four-point Likert-type scale, ranging from zero (“never”) to three (“almost always”). Each of the risk domains is composed of six items, which are summed to get the score for a particular risk domain. Thus, total scores on any given risk domain can range from 0 (all 6 items endorsed as “never”) to 18 (all 6 items endorsed as “almost always”). Test takers are given instructions to consider all of their crimes when answering each item. The nine risk domains measured and their reliability alpha coefficients are: Impulsivity ($r = .80$), Social Pressure ($r = .79$), Excitement ($r = .80$), Anger ($r = .85$), Social Alienation ($r = .86$), Substance Use ($r = .84$), Financial ($r = .83$), Interpersonal Conflict ($r = .84$), and Family Conflict ($r = .79$). The reliability for the total scale is .95 with a mean inter-item correlation of .31. Serin and Mailloux (2001) define the categories on page six as follows:

1. Impulsivity: “inability to delay gratification, lack of planning, and lack of forethought”
2. Social Pressure: “doing what others expect” and an “inability to say ‘no’”
3. Excitement: “need for immediate gratification, sensation seeking, and proneness to boredom”

4. Anger: feelings of frustration and anger, or feelings that someone else has hurt the individual
5. Social Alienation: “feelings of inadequacy, lack of purpose, need to belong and be accepted by others”
6. Substance Use: “excessive use of drugs and alcohol,” and committing crimes to maintain a habit, items focus on substance use that occurs at the time of the offense
7. Financial: “need for money and inability to maintain a job”
8. Interpersonal Conflict: “poor conflict resolution skills, inability to formulate and enforce personal boundaries”
9. Family Conflict: “inability to resolve routine family conflicts, and unrealistic expectations of family members”

Convergent validity was determined by comparing psychologists’ ratings of the antecedents of crime to offenders’ self-reported scores. Correlations indicated weak-strong ($r = .22$ to $.68$) agreement between psychologists’ ratings and offenders’ self-report scores for each of the nine domains. To examine the predictive utility of the ACI, follow-up data was examined to see whether participants who recidivated differed on any of the domains compared with participants who did not recidivate. Results indicated that recidivists scored significantly higher than non-recidivists on four of the domains (i.e., substance use, excitement, financial, and social pressure). Norms for general population inmates were generated in order to identify salient needs for individual offenders in future assessments.

Criminogenic Needs Interview (CNI; Evans & Skeem, 2003)

This semi-structured interview guides participants through the environmental, behavioral, and emotional events that led up to their crime (see Appendix C). Questions are geared toward examining the factors that contributed to the inmates' most recent offense. This interview generally reflects a chain of analysis approach (see Linehan, 1993), in which the interviewer guides the interviewee through a step-by-step reconstruction of the environmental and behavioral events that led up to the problem situation. The content domains of the CNI are based in part upon the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962), the Interview Form (Zamble & Quinsey, 1991), and the Violence Risk Scale (Wong, 2002). These sources were used because they are designed to assess psychiatric symptoms (BPRS) or to assess dynamic risk factors for offenders (the Interview Form and VRS).

The CNI consists of open-ended questions about the crime that explore the interviewee's perception of factors that contributed to the crime. Probe questions are provided for the interviewer when the inmate needs assistance in exploring these factors. Although some of the open-ended questions are broad to allow for any possible factor that the inmate views as contributory, follow-up questions are domain specific. Domain specific questions guide the inmate through a comprehensive exploration of potential criminogenic needs for offenders with DD. The domains included in the CNI are (a) Offense Information, (b) Basic Needs (e.g., accommodations, employment, financial), (c) Relationships (e.g., peers, family, intimate), and (d) Symptoms (e.g., substance use, anger/violence, emotional/health, medications/interactions, supervision, and problem solving skills).

Evaluation of Treatment as Usual

This structured interview assesses inmates' perception of the substance abuse and mental health treatment they have received in the prison (see Appendix A). The interview is an adaptation of the interview used in the MacArthur Violence Risk Assessment Study (Monahan et al., 2001) to assess treatment involvement. Questions are designed to gather information about the modality of treatments received (i.e., pharmacotherapy, individual psychotherapy, group therapy), as well as the content, frequency, and duration of those treatments. Inmates were also asked to make a judgment about the general usefulness of each treatment. The interview focused on treatment received during the two months before the interview, in order to minimize recall problems and obtain a reasonably accurate "snap shot" of treatment as usual. Additionally, inmates' files were reviewed to gather any recorded data about treatments provided to the inmates.

Personality Assessment Inventory (PAI; Morey, 1991)

As noted earlier, the PAI was administered to describe inmates' symptoms and personality characteristics. The PAI is a 344-item, self-report measure. The PAI includes four validity scales (i.e., Inconsistency, Infrequency, Negative Impression, and Positive Impression) to determine if the resulting scores can be meaningfully interpreted. There are 11 clinical scales (i.e., Somatic Complaints, Anxiety, Anxiety-Related Disorders, Depression, Mania, Paranoia, Schizophrenia, Boderline Features, Antisocial Features, Alcohol Problems, and Drug Problems) composed of subscales that measure symptoms of various clinical syndromes. Additionally, five treatment consideration scales (i.e., Aggression, Suicidal Ideation, Stress, Nonsupport, and Treatment Rejection) are included to measure factors that might influence treatment. Lastly, there are two interpersonal

scales (i.e., Dominance and Warmth) that describe the participants' interactional style with others.

Reliability and validity studies have been conducted with census, college, and clinical samples and are reported in the PAI manual (Morey, 1991). These studies found that the PAI has high internal consistency with median alpha coefficients for the full scales at .81 (census sample), .86 (clinical sample), and .82 (college sample).

Examinations of test-retest reliability have indicated that PAI scores are relatively stable overtime, with a majority of the scales ranging from .90 to .70 in community and college samples. Validity studies examining the convergent and divergent validity of the PAI scales indicate that it relates in hypothesized directions with other, well established measures of clinical constructs. The PAI has also been applied and evaluated in forensic settings. Findings indicate that the PAI scales provide valid measures of clinical variables in offender samples (for a review, see Edens, Cruise, & Buffington-Vollum, 2001).

Procedure

Identifying Participants

A prison mental health professional met individually with all inmates who were at the time receiving psychotropic medications, as well as all inmates who responded to a flyer posted around the prison, which briefly described the study, and indicated that the study was for individuals who had "experiences with drug and/or alcohol use" and "mental health concerns." During these meetings, inmates were informed of the nature of the study and invited to volunteer to potentially participate. Interested inmates gave written permission for their name to be released to the principle investigator (PI) to evaluate their

study eligibility. Released names were given to the PI, who contacted and met with the inmates (N = 73) in group format and administered the SASSI to determine whether they met the substance use criterion. Of the 67 inmates identified as substance dependent with the SASSI, a record review indicated that 49 had a recorded Axis I diagnosis other than substance abuse.

Inmates from this eligible pool were individually contacted in a random order by the PI and invited to participate in the study. Informed consent forms were provided to each inmate. Then the PI or research assistant reviewed these forms with the inmates, and sought participants' voluntary and informed consent to participate. Participants who chose to give their consent to participate completed an informed consent quiz to ensure that they understood the nature of the study. Participants were asked to provide written permission for researchers to access their prison records to obtain their treatment and criminal histories. Inmates who declined to participate in the study (N = 2.9% of the final sample) were thanked and excused, and one inmate was excused after admitting that he malingered mental illness. This interview process was continued until the data reached a point of saturation with 35 participants.

Interviewing Inmates

Participants met individually with the PI or a research assistant (RA) in order to (a) identify important criminogenic needs, (b) discuss TAU in the prison, and (c) to assess for psychological disorders. To address criminogenic needs, researchers began by administering the ACI. Next, in order to examine the prisoners' perception of TAU, researchers administered the structured interview designed to describe treatments that the inmates have received in the past two months. Then, as another measure of criminogenic

needs, researchers conducted the CNI, which was audio recorded, to determine the antecedents that lead up to their instant offence. Finally, the PAI was administered. This protocol order was followed for every inmate, and no breaks were requested. Each protocol lasted for approximately two and a half hours. Participants were paid \$5.

Reviewing Records

Records were used to help describe inmates' TAU. Specifically, participating inmates' medical and psychological records were reviewed to record information on the frequency, type and content of treatment received for mental health or substance use conditions.

Research Assistants

In addition to the PI, a total of five research assistants (RAs) participated in various stages of data collection and analyses. Of the RAs, three were psychology graduate students and two were undergraduate students majoring in psychology. One graduate level RA participated in inmate interviews and assessments, and SASSI scoring. The second graduate level RA conducted inmate interviews and assessments, and transcribed audio taped interviews. The third graduate level RA conducted records reviews, scored SASSIs, transcribed audio tapes, and was a coder for all phases of data coding. The two undergraduate level RA transcribed audio tapped interviews. The PI participated in all of these tasks except transcription. The two graduate level RAs who were involved in inmate assessments and interviews received training from the PI regarding all measures included in the protocol, the order of the protocol, and interview techniques prior to commencing data collection.

CHAPTER 3

RESULTS

This study was designed to (a) explore the criminogenic needs of inmates with DD, and (b) describe treatment as usual and estimate whether it addressed inmates' criminogenic needs. In order to accomplish this, quantitative and qualitative analyses of the data were performed.

Aim 1: Identification of Criminogenic Needs

Two instruments assessed criminogenic needs: The ACI (Serin & Mailloux, 2001) and CNI (Evans & Skeem, 2003). To develop a single list of criminogenic needs, the instruments were analyzed as follows. First, the ACI was analyzed quantitatively to identify DD inmates' criminogenic needs that are shared with general offenders. Second, the CNI was analyzed qualitatively to identify DD inmates' criminogenic needs that were unique from the ACI. Third, the ACI and CNI results were integrated into a "consensus list" of key criminogenic needs to target in treatment.

Analysis of the ACI

As noted earlier, the ACI was designed for non-disordered inmates and administered to determine whether or not criminogenic needs that are commonly found in the general prison population are important for inmates with DD. Descriptive statistics for the ACI

are presented in Table 2. The most highly endorsed domains included Excitement ($M = 8.69$, $sd = 4.76$), Social Alienation ($M = 8.40$, $sd = 4.47$), and Anger ($M = 8.29$, $sd = 4.40$), which suggests that these areas were identified by participants as contributing to the occurrence of their offences, and might be useful criminogenic needs to target in treatment. Specifically, these areas included a need for immediate gratification, sensation seeking behaviors, and proneness to boredom (Excitement); feelings of inadequacy, lack of purpose, and a need for acceptance by others (Social Alienation), and experiences of frustration, anger, and feeling hurt by others (Anger).

Although the present study did not collect data from inmates without DD, Serin and Mailloux (2001) compiled norms for general offenders ($N = 364$), which are compared with the sample means from the present study in Table 3. Two-tailed t-tests for independent samples revealed significant differences between the norm and sample means on the following domains: Anger [$t(397) = -6.62$, $p < .001$], Excitement [$t(397) = -7.90$, $p < .001$], Family Conflict [$t(397) = -5.81$, $p < .001$], Impulsivity [$t(397) = -7.10$, $p < .001$], Interpersonal Conflict [$t(397) = -6.91$, $p < .001$], Social Alienation [$t(397) = -6.75$, $p < .001$], Social Pressure [$t(397) = -4.58$, $p < .001$], Substance Use [$t(397) = -2.85$, $p < .01$]. No significant differences were found between the groups for the Financial domain. These comparisons indicate that the DD inmate sample endorsed higher levels of difficulties in all but one domain, compared to general offenders. This would suggest that criminogenic needs commonly found among general population offenders are also important for offenders with DD, and might even be more problematic for this particular group.

Analysis of the CNI

To determine the nature of any unique criminogenic needs associated with DD inmates' offenses, a qualitative data analysis of inmates' open-ended responses to the CNI was performed, using the N5 software package to organize and code data. To prepare the data from the interview for analysis, the data were transcribed into text documents and then imported into N5. The analysis proceeded in three steps. First, criminogenic needs were identified. Then, criminogenic needs that were consistent with an ACI category were identified and screened out. Screening out the needs already covered by the ACI allowed the interview data to be examined for needs that might be unique to inmates with DD or otherwise not covered by the ACI measure. Criminogenic needs that were not consistent with an ACI category were labeled as "unique." Third, these unique criminogenic needs were condensed, categorized, and labeled. Then, utilizing a function of N5 that allows for summation of the data, reports were run on all of these codes to identify which needs were most salient across participants.

Identification of Criminogenic Needs

The PI and RA independently examined the documents and any criminogenic needs were identified and coded using N5 under the category "criminogenic need." A criminogenic need was defined as any phrase or statement that describes a dynamic risk factor (any non-static condition that preceded the commission of a crime and may have contributed to its commission). Before coding began, the PI and RA "trained to reliability." This procedure is described here, and represents the same procedure for subsequent training during the latter phases of coding.

First, information was provided to the RA regarding definitions of the categories used for coding. Examples were also given and discussed. Then, each rater independently coded the transcription for a randomly chosen participant. Next, reliability was assessed using kappa. Kappa was chosen because it is a conservative statistic that corrects for chance agreement (Janes, 1979). According to the guidelines proposed by Altman (1991), kappa may be interpreted as follows: poor agreement is less than .20, fair agreement is .20 to .40, moderate agreement is .40 to .60, good agreement is .60 to .80, and very good agreement is .80 to 1.00. If kappa was not .70 or greater, then the raters jointly examined all coding for the transcription to discuss agreements and disagreements, and disagreements were resolved. Afterwards, another randomly chosen transcription was independently coded and reliability was tracked. This procedure continued until a kappa of .70 or greater was achieved. The raters were then randomly assigned to code participants' transcriptions. Additional reliability checks were periodically conducted to ensure that raters maintained good agreement.

During this initial phase of coding, agreement was moderate (kappa = .53). After continued training, agreement was good (kappa = .66). Training continued until a kappa of .70 was achieved. Additional reliability checks indicated that agreement was maintained at the good level (kappa = .71 and .79).

Identification of Needs Consistent with the ACI

In order to screen out of the CNI needs that were identical to those in the ACI, the PI and RA independently coded (a) whether or not each identified criminogenic need was "covered" by the preexisting ACI categories, and (b) if so, which preexisting ACI category fits the CNI need. By screening out the needs covered by the ACI, needs unique

to the CNI were revealed. For this process, a criminogenic need was considered to be covered by a preexisting ACI category if the rater judged that the statement containing the need was analogous to an affirmative response to a specific item in a particular ACI category. For example, when describing the events that led up to his crime, one participant said, "I remember that Friday just getting, just being so mad and we were at her ex-husband's house and I remember, I just remember punching the wall, making holes in the wall..." This statement was coded under the ACI category "Anger" because it coincided with one or more of the items of that category (e.g., "When I felt really pissed off," and "when I was angry"). If a criminogenic need was not exactly covered by a preexisting ACI category then it was coded under the category labeled "unique." Interrater agreement was tracked using kappa, and the PI resolved any disagreements. After the first training, agreement was very good (kappa= .79). Subsequently, two reliability checks indicated that this level of agreement was maintained (kappa= .75 and .98). Following this phase of coding, the "unique" CNI needs category was examined to summarize and label criminogenic needs that were not included in the ACI.

Condensing, Categorizing, and Coding of CNI-Unique Need.

The PI reviewed each participant's needs that were classified as "unique." The PI used her judgment to combine unique needs that "meant the same thing" into general categories. For example, statements from various participants such as, "Uhm, very bad periods of depression that lasted for days, big black clouds hanging over me, ya know. And that affected my desire to do things I'd normally do," "About 18 days before the accident I had tried to commit suicide," "I was really depressed," "Um, and that feeling

of very low self worth, um, very little caring about myself,” and other similar statements were grouped together.

Then, any categories that contained contributions from less than 10% of the sample were eliminated. This process yielded 19 categories. The PI assigned labels to the categories to represent the theme of the statements in the category. The PI entered these category labels into N5, and then the PI and an RA classified all of the “unique” needs into these categories. The 19 categories, as well as definitions used for them during training and coding, are presented in Appendix D. The goal was to generate quantitative frequencies of unique needs in each category. After the first training session, agreement on the placement of unique needs into categories was moderate ($\kappa = .51$). After a second training session, agreement was very good ($\kappa = .81$). Additional reliability checks indicated that rater’s drift was avoided ($\kappa = .75$ and $.77$).

The frequencies for the coding of the 19 categories are given in Table 4. Many of the “unique needs” captured by these categories are highly similar to criminogenic needs captured by the ACI (e.g., ACI Financial and CNI Financial Problems). However, the two sets of needs are not identical. To explain these apparent similarities, recall the manner in which the ACI was screened out of the CNI. The decision that a need was “covered” by a preexisting ACI category was made if the rater judged that the statement containing the need was analogous to an affirmative response to an item in a particular ACI domain. Given that each ACI domain is made up of only six items, it is possible that a need statement may fall in the same topic area as an ACI domain but *not* match up with one of the six items, thus resulting in a code of “unique.” For example, The ACI Financial items include the following: “When I couldn’t find a job,” “When my

welfare/UIC ran out,” “When I couldn’t find a job that paid more than minimum wage,” “When I had to borrow money from friends,” “When I quit my job,” and “When I owed money to others.” There are a range of financial problems that would not match any of the above items. For example, while some participants did not have enough money to make ends meet (e.g., reported being behind on rent or other bills, not having money for food), they did not quit their job, ask others for money, nor were they looking for a job, but rather they were making minimal money selling drugs. A few participants reported being on disability, which was not enough to sustain their regular standard of living thus causing them financial problems; however, the problem was not that the financial aid *ran out*.

These subtle differences can be examined by comparing the items of the ACI domains (Appendix B) with the definitions used to code the CNI categories (Appendix D). As another example, compare the ACI domain Family Conflict with the CNI category Relationship Problems. The items constituting the ACI Family Conflict are all concerning problems with one’s kids or wife/girlfriend (e.g., “When my kids didn’t do as they were told,” “When my wife/girlfriend yelled at me.”). However, not all of the relationship based problems reported by participants in the present study were limited to children, wives, or girlfriends, or were limited to the specific wording of the ACI items. For example, one participant had arguments with his mother during the month leading up to his offense due to the participant not following her rules and his substance use. These arguments came to a head when the participant’s mother kicked him out of her house prior to his offense. The CNI category Relationship Problems was created to capture these other relationship based problems.

Analysis of the needs unique to the CNI revealed that inmates with DD reported distress in a variety of domains. In the subsequent sections, a closer look is taken at needs deemed “most important” by the PI. Six of the 19 categories were chosen as most important based on (a) the high percentage of the sample that endorsed the category, and (b) the influential role of the category in leading to the crime. It should also be noted that one cannot conclusively determine what caused the participants’ crimes using the retrospective, self-report methodology of this study. However, through the process of guided recall and discussion during the CNI interview, it was possible to begin to understand some of the primary motivating factors leading up to the crimes. The six categories discussed here are Problems of Cognitive Processing, Pattern of Heavy Substance Use, Absence of Mental Health Treatment, Mood/Anxiety Symptomology, Relationship Problems, and Antisocial Peers.

Of the 35 participants, 34 (97.14%) indicated Problems of Cognitive Processing. Taking a closer look at this category reveals two main problem areas. The first can be thought of as “not considering the consequences of their actions.” The majority of the participants did not think about the consequences of their actions before committing their crimes. Often, participants did not think about the severity of their crime or that they might be caught. Some participants thought that even if they were caught, the consequences would not be severe. A response from one participant that provides an example of a typical response in this category was, “Bad things? I knew everything has consequences. I knew that if I get caught, but I felt like, I didn’t know I was going to be sentenced for it. That I was gonna spend all this time, a whole year in prison for that.” Another notable point was that when participants were asked at the end of the interview

“What do you consider to be the most effective ways for you to avoid committing illegal acts in the future?” it was common for them to indicate problems that fell into this category. For example, one participant stated, “...training myself, cognitively to, to think...about pros and cons, you know to go about life in a different way.” Another responded, “they [treatment providers] should kind of try to make people aware of the consequences of what their actions are.”

The second main problem area falling under the category of Problems of Cognitive Processing can be described as “poor coping skills.” The majority of the participants did not possess adequate coping skill to deal with negative states/situations. Participants had poor problem solving skills, and difficulty forming alternative solutions to problems. As a response they engaged in negative behaviors in an attempt to cope. Some of the common negative states/situations that participants reported difficulty coping with were negative emotions, relationship problems, peer pressure, and stress due to financial/employment problems. While the negative states/situations varied from participant to participant, the common experience was increased stress and difficulty coping with that stress. Common “coping” responses that participants engaged in to manage their stress included using illicit substances, acting out in violence, and committing crimes. None of these coping responses are healthy and most are illegal, thus increasing the risk of recidivism and problematic substance use.

As one participant explained, “Dealing with my dad was so stressful. I even got a gun from somebody and put their [dad’s and stepmother’s] name on a bullet and my name on a bullet.” Luckily this participant did not follow through on these actions, however, trying to cope with these feelings toward his family and his history of childhood abuse was

extremely difficult for him and he reported using alcohol to cope. “I drink to hide a lot of things,” he said. Another participant had a difficult time coping with relationship problems with his wife and reported holding in his feelings. He stated, “I have a real tendency not to talk to people, to just hold it in, hold it, hold it in, and then just one day I end up in trouble.” Trouble for this participant usually came in the form of a violent, physical explosion, which occasionally landed him in jail.

Problems coping with mental health symptomology, especially depression, were reported interview after interview. Symptoms of depression will be discussed momentarily; however, the difficulties faced in *coping* with depression should be highlighted here as well. “There are things people use to avoid the real problems [mental health problems], like you know, drinking, drugs, sex, um driving... So I just go drink.” It seems that alternative, healthier coping strategies are much needed among this sample.

Another important category was Pattern of Heavy Substance Use which was endorsed by 33 participants (94.29%). This category differs from the ACI Substance Use domain in that the ACI domain focuses on being drunk or high at the time of the offense or needing money to buy more alcohol and/or drugs, whereas the CNI category focuses on alcohol and/or drug use during the whole month leading up to the offense. For example, if a participant reported almost daily drug use during the month leading up to the offense, but was not high at the time of the offense, then this would be coded as CNI Pattern of Heavy Substance Use but not as ACI Substance Use. Both categories would be coded if the participant reported consistent substance use during the month before the offense and intoxication at the time of the offense. However, these two categories often went hand-in-hand, with the large majority of participants endorsing both categories.

What was meant by a “pattern of heavy substance use” can be exemplified by one participant’s statements, “Well, I drink in the mornings when I get up. I drink a 40 on the way to work. I drink a 40 and buy an extra one to keep for lunch. And on the way home I stop and get my half-gallon of vodka. So I...I’m a real bad alcoholic. I know that.” Heavy substance use had similar consequences for participants. Often, participants committed crimes to get money to buy more substances. It also interfered with participants’ judgment, usually leading them to make poor judgments regarding criminal activities and being “out of their right state of mind” when committing crimes. In a related category, Increase in Substance Use, it can be seen that this pattern of heavy substance use during the month leading up to their crime represented a substantial increase in use compared to the amount that participants used during the previous months of the year. This was the case for 40% of the sample.

The next important category evident in the CNI was Absence of Mental Health Treatment. Of all of the participants, 31 (88.57%) reported that they did not receive any mental health treatment at any point during the month leading up to their offense. Many participants reported wanting treatment but not knowing how to get treatment, where to go, or had concerns about cost. In one participant’s words, “And the fact that I knew I was screwed up, upstairs, but I didn’t know where to go look for help...and being financially suppressed, I couldn’t afford to just go to a shrink and ask for help.” Others were not receiving treatment, but reported psychotic symptomology or problems coping with depression, so it is likely that they could have benefited from treatment. Another participant who ran out of medications and had no money to purchase more talked about his experience self-medicating, “And drugs don’t really help me out a lot. You know,

they don't help me out at all. Sometimes they make the voices and visions go away but it never lasts long. They go away for a little while and then they just come back ten times worse. You know, then I'm like...uhhh...stressed out and I gotta do something. I gotta do more dope." As discussed previously, participants who had difficulty coping with negative emotional states often became involved in illegal activities, so it is possible that the absence of mental health treatment increases participants' risk for criminal involvement and substance misuse.

The category Mood/Anxiety Symptomology was endorsed by 27 participants (77.14%). Participants described this symptomology as feelings of worthlessness, hopelessness, low self-esteem and self-worth, insecurity, suicidal ideation, and sadness. As described by one participant, "When I get real depressed I just say 'F' it all, I don't want to do nothing. I don't care about work. I don't care what I'm doing, you know. I lock myself away." As discussed previously, participants often had a difficult time coping with these feelings, which commonly led to engagement in crime and/or substance use. A typical statement falling into this category was, "I didn't care anymore, I wanted to ...I didn't care about anything...went out to the beach and was drinking, and I just didn't want to live. The alcohol just...I was doing drugs and just trying to, to get away." After becoming intoxicated in an attempt to escape from his depressed feelings, this participant entered his car with his four-year-old daughter and began driving. As a result of his intoxication, he wrecked his car, ejecting and fatally wounding his daughter. He is serving a sentence for "driving under the influence (DUI) causing death." While this participant did not intend to commit a crime, it can be seen how depression led to substance use, which ultimately led to a tragic crime. Others reported an even more direct

relationship between depressive symptomology and crime. One participant explained, “Then my depression was coming along you know, and it started getting really, really bad. Where I couldn’t even sleep and I would run around the streets... Basically I would be looking for crimes to commit, you know.” Overall, it seems that treatment targeting depression symptomology could be useful to many inmates with DD.

The next category to be examined is Relationship Problems, endorsed by 26 participants (74.28%). Participants reporting Relationship Problems described dysfunctional intimate and/or family relationships marked by poor communication skills, excessive arguing particularly concerning substance use by one or both partners and financial issues, domestic violence, deceit, infidelity, and intimacy problems. For some participants, relationship problems increased the general stress level in their lives, thereby possibly increasing their risk of substance use and/or criminal activities. One participant discussed the stress he felt due to his wife’s infidelity. He reported that they argued often and knowing that she cheated made him feel uncomfortable in his home. As he recalls it, “Like she [wife] was cheating and it makes you want to get out of the house. And when she [friend] was like, ‘I need you to do me a favor,’ [I said] ‘oh yea, let’s go.’” Unfortunately, the favor that this participant was asked to do involved the use of a stolen credit card, which led to the arrest of him and his friend.

For other participants, relationship problems led more directly to the commission of crimes. Several participants reported poor communication with their partners, leading to arguments that escalated into domestic violence. Although most of these participants were not arrested for this domestic violence, as the victim did not report it, this behavior is certainly a crime and could lead to arrests in the future. However, a few participants

were arrested for this behavior. In one case, the participant reported trying unsuccessfully to talk with his wife about the problems between them. He stated, "When I tried to talk to her about formulating some new type of system in the house, it never went any place...It just never materialized. We never saw eye to eye." He reported that his anger grew and he finally "snapped," at which time he punched his wife several times and struck her on the back of her head with a rock. This participant is serving a sentence for attempted murder.

Another participant reported arguing with his girlfriend because he did not want her to drink alcohol when he was not home because he feared that she would drink excessively and hurt herself. She reportedly disagreed and they continued arguing until the argument became violent. The participant recalled, "...I thought by slappin' her would make her listen." He beat her severely during this argument, and she died of blunt trauma to the head. The participant was charged with second degree murder. Overall, this category suggests that many participants could benefit from communication skills training and domestic violence counseling.

The final category discussed here is Antisocial Peers, which was endorsed by 25 participants (71.43%). This category represents the presence of associates who are involved with substance use and/or other criminal activity. When one participant was asked about his friends he responded, "My friends are like, you know, *real friends* to me. We, we used ta use drugs together, smoke speed, kick it. We used to share a couple of females. Things like that." For participants in this study, it seemed that the presence of such antisocial associates increased the likelihood of substance use relapse for participants who had quit, exacerbated or encouraged the substance use of participants

who were currently using at the time, and/or encouraged or initiated participants' involvement in law violations.

One participant who had stopped using drugs recalled how he relapsed with a friend. "When I would get off on Tuesday, instead of going to the bar, I figured out hey I can't do that, you know what I'm saying, so I started going to this guys house. Well, they always had, you know, dope at the house, but I was ok. This guys older, he's a Vietnam vet, and you know we just, we talked about the army and he's more like an uncle or something...he's been smoking dope for 5 years, you know, so he...it's part of his life, you know. Anyway, a couple weeks goes by, and one day you know, he passes, passes it to me, and I hit it you know. Uh, just a couple times, barely got high, you know... And then turn around, the next thing I know this has gone on like 6 weeks in a row, so like I'm...And I'm just in this cycle. And um, I realize at that point that this is no good, you know what I'm saying. There's a pattern, you know, of use..."

Another participant recalled how he became involved in a crime that was instigated by his antisocial peer. "My associate wanted to rob this guy. He didn't know how to figure out how to do it. So, uh, first thing he wants to do is stab the guy, and I said, 'no we're not doing it that way.' And he said, 'well how we do it?' Yah, at first, at the very first, I tried, I tried not, I tried to divert away from it, 'cuz I told him we had enough dope and this and that. But rather than see the person get stabbed or hurt to an extreme, which my associate was, I think he was in his 20's, he's more, more hitched. I don't know, more out to hurt somebody... So, I just took control of the situation. No, this is how it's gonna go down." Many participants recognized the dangers of associating with antisocial peers, and when discussing what they would do in the future to avoid crime, they often

discussed their need to change friends. Helping individuals identify antisocial peers, recognize the risks that they pose, and create alternative, positive relationships may decrease the risk of substance abuse and criminal recidivism.

Integration of ACI and CNI results: Criminogenic Needs for DD Inmates

Given the similarities between the needs identified by the ACI and the CNI, as well as commonalities within each measure, the PI reviewed commonalities among criminogenic needs elicited by the ACI and CNI and integrated the results into six categories. This integrated list represents the major problem areas that seem related to participants' crimes, and can be used to inform treatment development for inmates with DD. The consensus list is as follows: Substance Misuse, Interpersonal Deficits, Mental Illness, Deficits in Cognitive Processing, Adherence to Criminal Subculture, and Unmet Basic Needs.

Substance Misuse was created through the combination of the CNI needs (a) Pattern of Heavy Substance Use, (b) Increase in Substance Use, and (c) Loss of Control, and the ACI domain Substance Use. Substance Misuse involves a long history of substance use, as well as current use. The individual may feel helpless, as though he has no control over his substance use. His crimes may be committed while he is intoxicated.

Interpersonal Deficits include the CNI needs (a) Relationship Problems and (b) Lack of Social Supports, as well as ACI domains (a) Family Conflict, (b) Interpersonal Conflict, and (c) Social Alienation. Taken together, Interpersonal Deficits characterize persistent relational problems with family members, spouse/significant others, or friends. Often, the individual feels lonely and unsupported, as if he has no one to whom he can turn.

Mental Illness is a domain that may be unique to inmates with DD, as it was elicited chiefly from the CNI. This domain combines the following CNI needs: (a) Absence of Mental Health Treatment, (b) Mood/Anxiety Symptomology, (c) Psychotic Symptoms, (d) Complications with Medications, and (e) Fluctuating Emotions, and the ACI domain Anger. Mental Illness is characterized by problems such as depression, psychotic symptoms that occur even when the individual does not report being under the influence of an illicit substance, and anger that is often uncontrolled. The individual may experience increases in these symptoms prior to the commission of a crime, and these symptoms typically are untreated.

Deficient Cognitive Processing combines the CNI need, Problems of Cognitive Processing, with the ACI domain of Impulsivity. Deficient Cognitive Processing refers to a generally poor level of coping with and responding to problems that arise. Problem solving skills are low, consequences of actions are often misjudged, or responses are made impulsively. Cognitive Processing seems to cut across many other criminogenic needs, in that individuals have problems coping with mental health problems, substance misuse, interpersonal relationships, and basic needs.

Adherence to Criminal Subculture integrates CNI needs (a) Antisocial Attitudes, (b) Rationalizations for Law Violations, (c) Antisocial Peers, and (d) Immediate Gratification, with ACI domains (a) Excitement and (b) Social Pressure. Individuals who endorse Adherence to Criminal Subculture operate in an environment in which criminal activities are glorified or rationalized. They associate with like-minded peers who engage in criminal activities and peer pressure. Individuals display an inability to tolerate frustration related to the absence of material reward. Instead of resisting appealing

incentive for more subtle foreseeable gains, individuals “take the easy route” in favor of instantaneous reinforcement, thrills, and danger.

Unmet Basic Needs encompasses CNI needs (a) Financial Problems, (b) Employment Problems, and (c) Problematic Living Condition, and the ACI domain Financial. Individuals with Unmet Basic Needs are financially strained due to employment instability, low paying jobs, or unemployment, and/or may be irresponsibility with money. Individuals may be “barely making ends meet,” and experience stress related to this strain. Living conditions may be poor, often in neighborhoods where crime more commonly occurs, or individuals may be homeless.

Aim 2: Define parameters of Treatment as Usual

In order to describe treatment as usual (TAU), inmates were interviewed regarding the nature of the substance abuse and mental health treatment that they had received during the two months prior to the interview. File reviews were also conducted to gather additional information regarding treatment. Three steps were used to define TAU. First, data gathered from records review and inmate interviews were integrated to form a single, “consensus account” of TAU (Lidz et al., 1997). Agreement between file information and inmate interviews was tracked using Kappa. Unfortunately, due to a paucity of information in the records regarding treatment, this could only be done for information concerning psychiatric medications. Therefore, other descriptions of treatment relied on inmate interviews. Second, descriptive statistics were computed on the frequency and nature of treatment. Third, these data were examined to arrive at descriptions of the following parameters of TAU: (a) the proportion of participants who

receive any treatment, (b) the nature and frequency of treatment, (c) the content of treatment, and (d) treatment satisfaction.

Proportion of Participants who Receive Any Treatment

Of all of the participants, 28 (80%) had received some form of substance abuse and/or mental health treatment within the two months prior to the interview. This probably overestimates the proportion of DD inmates who receive treatment, as participants were chiefly recruited from a list of inmates who were receiving medication in the prison.

Nature and Frequency of Treatment

For those participants receiving treatment, the most common form of treatment was psychiatric medication, with 24 participants (68.6%) reporting that they were taking psychiatric medication during the target time frame. Agreement between records and inmates reports of taking prescribed medication was very good ($\kappa=.79$).

As noted earlier, attempts to verify these individual therapy sessions using information from records review were unsuccessful, as records were often incomplete. It was difficult to determine from records review if a participant had met with a mental health provider for the purposes of an individual therapeutic session or for a variety of standard, non-therapeutic procedures to which all general population inmates are subject (e.g., re-class evaluations, disciplinary actions). Moreover, there was no record of other forms of treatment (e.g., group treatment). Therefore, the remainder of data regarding TAU is based on information gathered from inmate interviews.

Out of the sample, 22.86% reported having individual therapy sessions with the psychologist or psychiatrist once during the target two-month timeframe, 8.57% reported having 2 individual sessions, and 2.85% reported having individual sessions once every

other week. The mean duration of a session was 20 minutes. Additionally, 40% of the participants reported engagement in group treatment during the target timeframe. Groups typically met weekly, for a duration of 30 minutes to 2 hours.

Content of Treatment

Individual therapy sessions were generally described as inmates being asked to describe “how they are doing” to the psychologist/psychiatrist. This might include a brief discussion about the inmate’s current emotions and choices, and difficulties that arise in prison. Often, current medications were discussed to see how they were affecting the individual, and if they wanted any adjustments to their medications.

Most of the participants who reported attending group treatment had participated in Alcoholics Anonymous (AA) groups (10 participants, or 71% of all participants reporting group treatment). These AA groups were run by inmates who were “elected” through a popular vote of all inmates participating in the group. Participants reported that AA groups typically followed the 12 steps in the AA book, occasionally they had outside speakers come in to discuss substance use, and personal experiences were often shared and discussed. There were four participants who reported engaging in an advanced substance use group. This group was also run by an inmate, who was assigned as an “assistant” to one of the prison psychologists. This group discussed how drugs affect people, consequences of using drugs, and how to avoid drugs. This group was canceled during the target timeframe due to security issues. Another two participants reported involvement in an inmate-led anger management group, which focused on ways to cope with anger. A final two participants were involved in a sexual assault group, which

discussed substance use and feelings regarding sexual assault. Some participants engaged in more than one of the aforementioned groups.

Treatment Satisfaction

Participants were asked to rate how helpful treatments were on a 5 point Likert scale, ranging from 1 “not at all helpful” to 5 “very helpful.” The mean rating for individual therapy sessions was 3.32. Typical statements made by participants who rated it with a three or higher indicated that it was helpful because, “it relieves the mind and stress to talk about what happens in prison,” and “it’s someone to talk to who gives good advice.” Those who were less satisfied with individual sessions and gave ratings of a two or lower, made statements like, “we are just a number to them, they don’t care, they rush me out.”

Overall, the mean helpfulness rating for all group treatments was 3.28. If only AA groups were considered, then the mean rating rose to 3.8. Those who reported higher satisfaction with AA groups emphasized the importance of interacting with others who have faced many of the same problems that they have. This gives them the opportunity to express their feelings, get advice, and realize that they are not alone. Complaints about AA groups included a lack of information dissemination, disruptive behavior by group members, and lack of control by group leaders.

Additionally, all participants were asked how interested would they be in obtaining treatment specifically designed to help them manage mental illness symptoms and substance problems while in prison. Responses were made on a five point Likert scale ranging from 1 “not at all interested” to 5 “very interested.” Participants’ mean response was 4.31, indicating a high level of interest.

CHAPTER 4

DISCUSSION

The purpose of the present study was to (a) explore the criminogenic needs of inmates with DD, and (b) evaluate if and/or how treatment needs, especially criminogenic needs, are being met at one state prison. By exploring these two areas, a better understanding of the treatment needs, as well as the treatment shortcomings, of inmates with DD has been gained. This information can also be used to inform treatment development for this population. These topics will be discussed in the subsequent sections, followed by limitations of the present study, and future directions for research.

Exploration of the Criminogenic Needs of Inmates with DD

The exploration of criminogenic needs revealed a variety of risk factors with which inmates with DD are faced. Results from the ACI suggest that inmates with DD seem to have criminogenic needs that are consistent with the needs of offenders without DD; although, the needs may be more pronounced among offenders with DD. ACI domains that appeared to be particularly problematic in this study included Excitement, Social Alienation, Anger, and Impulsivity. The purpose of administering the CNI was to explore the unique needs of inmates with DD. The most frequent needs identified through the CNI included Problems of Cognitive Processing, Pattern of Heavy Substance Use,

Absence of Mental Health Treatment, Mood/Anxiety Symptomology, Relationship Problems, and Anti-social Peers. However, “unique” in the present study was narrowly defined as not matching one of the ACI domains, which is, of course, only one pre-existing measure of criminogenic needs for general offenders. Criminogenic needs identified by the ACI and CNI were combined to form an “integrated list” of needs that are treatment targets for inmates with DD. These are: Substance Misuse, Interpersonal Deficits, Mental Illness, Deficient Cognitive Processing, Adherence to Criminal Subculture, and Unmet Basic Needs. How do the criminogenic needs identified in the present study compare to the needs of general offenders; are any of the needs unique? To answer this question, each of the needs in the consensus list will be compared to the literature.

First, it seems reasonable to say with confidence that Substance Misuse is an important criminogenic need that is shared between general offenders and offenders with DD. Substance abuse is one of the “Big Eight” widely accepted risk factors for predicting criminal recidivism (Andrews & Bonta, 2003). A substantial amount of research supports substance abuse as a key criminogenic need (Bonta et al., 1998; Brown, 1998; Dowden & Brown, 1998; Motiuk, 1998; Motiuk & Brown, 1993; Serin & Mailloux, 2001; Zamble & Quinsey, 1991, 1997). For example, in a sample of 604 Canadian offenders who were being released, 53.1 % were identified as having a substance abuse need, and for 26.3% of them this need was a significant predictor of release suspension within 4 months of release (Motiuk & Brown, 1993). Serin and Mailloux (2001) found that substance use was significantly higher among recidivists than non-recidivists. Zamble and Quinsey (1997) asked participants (311 recidivists, 36 non-recidivists) about the problems they

experienced after being released from prison. They found that recidivists were significantly more likely to experience substance abuse problems compared to non-recidivists (21.3% vs. 2.8%), and recidivists rated their substance abuse as a significantly more serious problem. In the present study, substance use was frequently identified as an important need by both the ACI domain Substance Use and various CNI needs (i.e., Pattern of Heavy Substance Use, Increase in Substance Use, Loss of Control).

Second, Interpersonal Deficits seems to be well represented as a need for general offenders. Marital and family dysfunction has been identified as a criminogenic need for general offenders in many studies (Andrews & Bonta, 2003; Bonta et al., 1998; Brown, 1998; Motiuk & Brown, 1993; Zamble & Quinsey, 1991). In Motiuk and Brown's (1993) study, 43.5% of the participants had a marital/family need. Indicators of marital/family need that were significant were problems in common law/marriage ($r = .12$), perpetrator of spousal abuse ($r = .13$), and poor family functioning ($r = .12$). Zamble and Quinsey (1991) interviewed 100 inmates about their life circumstances during the month leading up to their crime, and a variety of problems that they might have encountered during that time. The majority of participants (59%) indicated that they had experienced problems in their relationships with their wives or girlfriends. Additionally, Wright and Wright (1992) found that inmates who maintained active family interest while incarcerated, who established a mutually satisfying relationship post-release, were less likely to re-offend. Marital and family problems are represented by the ACI domain Family Conflict and CNI need Relationship Problems.

Another important component of Interpersonal Deficits, as indicated by the ACI domain Social Isolation and CNI need Lack of Social Supports, has to do with a lack of

positive social support system. In their study, Motiuk and Brown (1993) did not find a significant relationship between social isolation and recidivism. However, Zamble and Quinsey (1997) did find significant differences between recidivists and non-recidivists on a social isolation scale; however, scores for both groups were relatively low. Based on the present study, the interpersonal needs of general offenders and offenders with DD are similar, especially in regard to marital and family problems. However, offenders with DD may experience more social isolation.

Third, Mental Illness was an important need in the present study, characterized by untreated, fluctuating depression, anger, psychotic symptoms. Zamble & Quinsey, (1991) asked participants to judge what emotions were predominating during the month leading up to their offenses. The emotion that was most often indicated as the strongest was depression (23%), followed by anger (17%) and anxiety (15%). During the 48 hours preceding their offenses, anger was most often the strongest emotion experienced (22%), followed by depression (17%) and anxiety (14%). Selby (1984) used a battery of self-report anger measures, which were able to discriminate between violent versus non-violent offenders, and offenders versus non-offenders. Research on the predictive utility of emotions found that difficulty controlling temper was a significant predictor of recidivism ($r = .19$), but suicide attempts and self-injurious behaviors were not (Motiuk & Brown, 1993). Similarly, Brown (1998) found moderate support for anger as a predictor of recidivism ($r = .10-.19$), and did not find support for mental disorder as a predictor. In a comparison of recidivists and non-recidivists, Zamble and Quinsey (1997) found a substantial incidence of emotional problems for the recidivists during the time leading up to their re-offense. Rates of summary measure of 10 dysphoric states were 6 times as high

among recidivists compared to non-recidivists, and 10 times more high for major clinical dysphoric states. These included significant differences in anger, depression, anxiety, and hopelessness. Looking only at anger, in a prison-based anger management treatment program, a significant reduction was found for both non-violent recidivism (69%) and violent recidivism (86%) for a group for high-need violent offenders compared to a control group who did not receive treatment and was matched on level of anger need (Dowden, Blanchette, & Serin, 1999).

In their meta-analytic review of predictors of recidivism for mentally disordered offenders (MDO) and non-disordered offenders, Bonta and colleagues (1998) did not find support for clinical variables as predictors of recidivism. Clinical variables were defined as diagnosis, intellectual dysfunction, and treatment and/or hospitalization. In fact, they found an inverse relationship between having a mental disorder and recidivism (the average correlation for Canadian and United Kingdom samples was $-.34$, for United States it was $-.14$). The exception to their finding was that a diagnosis of antisocial personality disorder was a useful predictor. These findings were contrary to psychopathological theories of criminal conduct that have typically been applied to MDOs, which posit that psychological dysfunction and/or biological dysfunction are the core causes of criminal behavior. Thus, Bonta and colleagues (1998, p.123) concluded that, “the risk assessment of mentally disordered offenders can be enhanced with more attention to the social psychological criminological literature and less reliance on models of psychopathology.”

Although mental disorders might not be classified as a criminogenic need for MDOs, it is a “noncriminogenic” mental health care need that should be addressed (Robinson et

al., 1998). In the present study, mental health symptomology and the need for mental health treatment was evident (ACI domain Anger and CNI needs Absence of Mental Health Treatment, Complications with Medications, Mood/Anxiety Symptomology, Psychotic Symptoms, and Fluctuating Emotions). It is possible that Mental Illness could be a need that is more pronounced within a DD sample than other offender samples, even MDOs. However, the effectiveness of mental health treatment alone in reducing recidivism is modest (Clark et al., 1999; Steadman & Naples, 2005). Given the fact that the presence of a dual diagnosis is related to a host of more negative outcomes compared to a single diagnosis for offenders (Peters, Kearns, Murrin & Dolente, 1992; Weiss, 1992), it is reasonable to speculate that treatment for offenders with DD may need to focus on both criminogenic needs and mental health needs in order to maximize program effectiveness and recidivism reduction.

Fourth, *Deficient Cognitive Processing* in the present study encompasses poor problem solving and coping skills, errors in consequential thinking, and impulsivity. For general offenders, the literature also described problems of coping, problem solving abilities, and impulsivity (Brown, 1998; McGuire & Hatcher, 2001; Motiuk & Brown, 1993; Robinson, 1995; Zamble & Porporino, 1988; Zamble & Quinsey, 1991, 1997). In a qualitative study of the preceding incarceration coping patterns of 133 inmates, it was found that all of the participants had engaged in reactive coping characterized by attempts to deal with their problem, but without persistence, planning, organization or anticipation of future results (Zamble & Porporino, 1988). Additionally, 64% reported using alcohol or drugs in an attempt to cope. The researchers also reported many “low-level” coping techniques, which they characterized as ways of coping that were temporarily effective.

These included palliative responses (52%) in which the participants reduced emotional distress by engaging in a “pleasant” contrasting event (e.g., walking, listening to music, smashing others’ things), avoidance of the problem or thoughts (46%), social support (32%), and escape from a problematic situation or thought about it (30%).

“Higher-level” coping, which was characterized by active thinking about one’s situation, planning, and analysis, was less common (Zamble & Porporino, 1988). For example, anticipatory problem solving, in which one explicitly recognizes the nature of a problem situation, and engages in systemic, organized, and persistent attempts to resolve the situation, while planning and anticipating future results, was only described by 13% of the sample. Anticipatory substitution, which is choosing to engage in behaviors that are incompatible with the occurrence of a problem situation, was used by 12%.

Reinterpretive re-evaluation, in which a person changes their appraisal and perception of a situation to reduce a perceived threat, was only used by 7%. Thus, it was concluded that, “Even when problems were solvable, subjects almost always restricted their efforts to the reactive behaviors... Very few of them ever made any systematic effort to analyze a problem, to consider alternatives, or to redefine or reevaluate their situation. Instead they endured their difficulties, thus perpetuating them” (Zamble & Porporino, 1988, pp. 60).

Treatment programs for general offenders that target coping skills and problem solving have shown significant reductions in pre- and post-test measures of cognitive skills (McGuire & Hatcher, 2001), and recidivism (Robinson, 1995). Robinson (1995) found an 11% reduction in prison re-admissions (defined as both technical violations and new convictions) and a 20% reduction in new conviction for program completers versus a

wait list control group who was released without ever participating in the program. Comparing recidivists to non-recidivists, Zamble and Quinsey (1997) found that recidivists perceived significantly more frequent problems in a variety of domains than non-recidivists (e.g., interpersonal conflict, complications from substance abuse, financial difficulties) and they had less effective coping skills ($F(1,273) = 8.89, p < .01$). In a measure of coping adequacy, which was defined as the ratio of coping efficacy to the number of problems they reported, they found that recidivists had significantly lower coping adequacy ($F(1,269) = 14.74, p < .001$). Motiuk and Brown (1993) found that indicators of poor problem solving and poor coping with stress/frustration were significant predictors of future recidivism ($r = .15$ and $.20$ respectively).

Impulsivity was described by the recidivists in Zamble and Quinsey's (1991) study. When asked when the thought of the offense first passed through their minds, 38% of the sample said that it was at the time of their offense. When asked when they first considered that they might actually commit the crime, 50% of the participants said that that occurred at the time of their offense. Most participants did not start thinking about a plan (59%) or formulate definite plans (62%) until the time of the offense. Impulsivity has also been found to be a significant, moderate predictor of recidivism ($r = .10$ to $.19$) (Brown, 1998; Motiuk & Brown, 1993).

In the present study, the coping skills and problem solving deficits and impulsivity described above is consistent with the CNI need Problems of Cognitive Processing and ACI domain impulsivity, which make up the need Cognitive Processing. This suggests that Deficient Cognitive Processing is a problem area that is shared with general offenders.

Fifth, Adherence to Criminal Subculture, incorporating CNI needs Antisocial Attitudes, Rationalizations for Law Violations, Antisocial Peers, Immediate Gratification, and ACI domains Excitement and Social Pressure, is represented in the general offender literature. Andrews and Bonta (2003) describe theories of criminal subculture in which criminal behavior is seen as conformity to pro-criminal attitudes, values, and beliefs that devalue conventional routes to success, and support hedonism and destruction. Andrews and Bonta (2003) also describe antisocial attitudes and antisocial associates as two of the “Big Eight” risk factors for predicting criminal behavior. In their study of individuals released from prison, Motiuk and Brown (1993) found that 23.3% had a high level of negative attitudes, and 36.1% of them were suspended within 4 months of release. An indicator of negative attitudes, antisocial attitudes, significantly predicted recidivism ($r = .15$). Additionally, they identified associates and social interaction as an important need for 41.8% of their sample, of whom 28.9% were suspended within 4 months post-release. Significant indicators of this need included criminal friends and acquaintances ($r = .22$), associates with drinkers/drug users ($r = .19$), exploitive relations with others ($r = .17$), and easily influenced by others ($r = .11$).

Meta-analyses of negative attitudes toward the law and positive attitudes toward a criminal lifestyle have identified these attitudes as moderate to strong predictors of recidivism (Brown, 1998; Law, 1998). In addition to attitudes, a meta-analysis indicated that criminal companions and criminal family members are both significant recidivism predictors ($r = .19$ and $.17$ respectively) (Goggin, Gendreau, & Gray, 1998). Lastly, Serin and Mailloux (2001) found significant differences between recidivists and non-recidivists

with regard to social pressure and excitement. Again, Adherence to Criminal Subculture seems to be a need that offenders with DD share with general offenders.

Finally, Unmet Basic Needs, including financial, employment, and accommodation needs, was identified as problematic in the present study. Employment was also an important need in Motiuk and Brown's (1993) study of released offenders. In their sample 47.6% were identified as having a high need in the area of employment, and 27.9% of those individuals had their sentences suspended within 4 months of release. Indicators of employment problems that were significant predictors of recidivism included job dissatisfaction ($r = .14$), unstable job history ($r = .19$), difficulty with workload requirements ($r = .12$), and unreliable on the job ($r = .10$). Additionally, the researchers identified community functioning problems in 28.9% of the participants, of whom 30.3% recidivated within 4 months post-release. Indicators of community functioning that significantly predicted recidivism were unstable accommodations ($r = .13$) and poor financial management ($r = .16$). Zamble and Quinsey (1991) also found substantial employment instability in their sample of recidivists. It was reported that the longest amount of time that a participant held any one job was 30.6 months, and one-third had never held a job longer than 6 months. During the month prior to re-incarceration, 42% were unemployed, 39% were in full-time employment or school, and the remainder was employed part-time.

Serin and Mailloux (2001) were able to discriminate in their sample between recidivists and non-recidivists using the scores for financial problems. In their meta-analysis, Goggin and colleagues (1998) found significant effect sizes for indicators of unstable employment history ($r = .18$), employment needs at discharge ($r = .19$), and

unemployed at intake ($r = .10$), and financial problems ($r = .10$). In addition to needs consistent with Goggin and colleagues (1998), Brown also found that accommodation need was a moderate predictor of recidivism. Lastly, Motiuk and Belcourt (1996) examined the effects of Canada's CORCAN program. CORCAN is a prison industries program that teaches occupational skills that are thought to enhance offender post-release employment. They compared a sample of 52 paroled offenders who participated in CORCAN with a national sample of non-participating paroled offenders. A significant reduction in recidivism (27.8%) was found, from 26.6% in the comparison group to 19.2% in the CORCAN group. Thus, it seems that Basic needs are problematic for both general offenders and offenders with DD.

Overall, these results suggest that the treatment needs for inmates with DD are not that different from general offenders. One difference that seems to exist for offenders with DD is a more salient mental health need. Although the present study is not able to identify which needs are most predictive of recidivism for offenders with DD, it does suggest that treatments should focus on both standard criminogenic needs and mental health in order to provide inmates with DD with treatments that maximize their opportunity for a successful return to the community.

Examination of Treatment as Usual

To estimate whether and how criminogenic needs are being addressed by prison-based treatment in this sample, "treatment as usual" for these DD inmates was assessed. Recall that the consensus list of criminogenic needs identified in the present study were: Substance Misuse, Interpersonal Deficits, Mental Health, Cognitive Processing,

Adherence to Criminal Subculture, and Basic Needs. Overall, treatments received can be organized into the following three categories (a) psychotropic medication, (b) group treatment, and (c) individual sessions. Each of these treatments is examined in turn to examine how they address the above criminogenic needs.

The most common form of treatment received was psychotropic medication, with 68.57% of the sample reporting that they were taking psychotropic medications. All of these participants were receiving an anti-depression medication or combination of antidepressants. In addition to their antidepressant, 14.29% participants were receiving an antipsychotic medication, 5.71% participants were receiving an anti-seizure medication, and 2.86% were receiving lithium. Given that the majority of participants (82.86%) were diagnosed with a mood disorder and 14.29% participants had a psychotic disorder, the prescribed medications should be effective in improving their symptomology (Nathan & Gorman, 1998), thus addressing the criminogenic some of their mental health needs. However, given that many participants reported an absence of mental health treatment during pre-incarceration, there may be cause for concern regarding the post-release effectiveness of medications prescribed in prison. Given that inmates are often released from prison with no more than three days of medication, little financial resources, lack of health insurance, and limited information concerning how or where to obtain further treatment (Peters & Hills, 1997), it is quite possible that their medication treatment will come to an abrupt ending during a period of post-release risk of recidivism. This may be further problematic for individuals who are taking medications that have negative side effects when abruptly discontinued (e.g., Paxil) (PDR, 2002).

Alternative and/or additional treatments for inmates' mood disorders could improve upon this concern. Behavior therapy, cognitive-behavior therapy, and interpersonal therapy have all been found to be as effective as antidepressants in the treatment of depression, and have shown more enduring effects (Craighead, Wilcoxon Craighead, & Ilardi, 1998). If administered in prisons, psychosocial treatments could produce improvements that last post-release. Additionally, psychosocial treatments could provide a good forum for addressing components of other criminogenic needs, such as Deficient Cognitive Processing, Substance Misuse, Interpersonal Deficits, and Adherence to Criminal Subculture. Overall, psychopharmacological treatments are beneficial in treating certain symptomology, but are not sufficient to address many of the criminogenic needs of inmates with dual diagnoses. Moreover, medications as a sole treatment for mental illness may leave many inmates in a risky position upon release.

The next form of treatment received by 14 participants (40% of the sample) was group treatment. As discussed previously, the most common form of group treatment followed the 12-step Alcoholic Anonymous (AA) approach, which addresses the criminogenic need Substance Misuse. However, the effectiveness of AA in treating problematic substance use is questionable. Research regarding the effectiveness of AA is often plagued with methodological concerns, such as selection bias in quasi-experiments and coercion bias in randomized studies (Kownacki & Shadish, 1999). Often, efficacy of AA is measured in terms of participation and individual testimony (Galaif & Sussman, 1995). Correlational studies examining AA participation and sobriety have found that AA is equal to or worse than alternative substance abuse treatments (Finney & Moos, 1998; Galaif & Sussman, 1995; Kownacki & Shadish, 1999). A more effective approach to

treating substance abuse problems is cognitive-behavioral approaches (Finney & Moos, 1998), especially for those with dual diagnoses (Carroll, Rounsaville, & Keller, 1991; Jerrell & Ridgely, 1995; Roffman & Barnheart, 1987). As discussed previously, in a study comparing a CBT model to an intensive case management intervention and a 12-step recovery model, the CBT model demonstrated significantly more reductions in psychiatric and substance symptomatology and increased psychosocial adjustment, and these gains were maintained at an 18-month follow-up (Jerrell & Ridgely, 1995).

A potential concern with the structure of all of the group treatments discussed by the sample in the present study is that they are lead by fellow inmates. This raises two concerns. First, it is not uncommon for interactions among inmates to involve coercion and exploitation (Tewksbury, 2005). In fact, one study found that during the one week prior to assessment, 57% of male inmates sampled (N = 194) reported at least one incident of being bullied (either direct victimization or indirect victimization), and 55% reported bullying others at least once (Ireland & Ireland, 2005). This may distort the therapeutic context of the group. Second, the “inmate code of conduct” may interfere with peer-run treatment. This code stresses loyalty, autonomy, toughness, sharpness, and honesty in dealing with other inmates (Sykes & Messinger, 1960; Faulkner & Faulkner, 2005). An inmate who violates this code can lose status and be the victim of scorn, hatred, and violence (Faulkner & Faulkner, 2005). A leader of a treatment and/or support group may at times need to redirect group discussion, dissolve group conflicts, encourage participation from quiet members, and discourage controlling behaviors by members, among other tasks. These tasks may conflict with the inmate code, possibly leading to status disputes or other conflicts. For example, a group leader engaging in any of the

above activities may be viewed as interfering in others' business, and thus cause problems between inmates. Participants who have disagreements with the way a group is run may be hesitant to complain to prison personnel for fear of being seen as "non-loyal."

It remains for future research to determine whether professionally-run groups are more effective than peer-run groups for DD inmates. In the present study, some participants reported that there were disruptive behaviors by group members, and a lack of control by group leaders. These problems might be better controlled by a professional group leader not under the constraint of an inmate code. At the same time, some participants in the present study reported that they enjoyed the groups because they were able to interact with others who had faced similar problems, get advice, and realize that they are not alone. This atmosphere may or may not be present with a professional group leader.

The individual sessions received by participants were typically short in duration (mean was 20 minutes), and focused mainly on inmates' current status ('how they are doing') and medication updates. Only 12 participants reported attending an individual session within the target timeframe (two months prior to the interview). Given the low frequency and duration of individual sessions across the sample, it seemed that the role of this form of treatment was mainly one of medication monitoring.

In addition to evaluating TAU for its attention to criminogenic needs, TAU can also be compared to the integrated list of treatment recommendations presented in the *Introduction*, which was based on the recommendations gleaned from the treatment of DD civil outpatients, general offenders, and DD inmates. The list stated that, in regard to treatment format, treatment should be presented in (a) an integrated manner, (b) a short,

simplistic, and repetitive form to accommodate any cognitive deficits, and (c) a non-confrontational stance.

In the present study, TAU did not include integrated substance abuse and mental health treatment. Mental health concerns were handled by mental health practitioners and usually consisted of only medication, while substance abuse was handled separately in groups. Given that groups were lead by inmates rather than experienced practitioners, it is unlikely that the group leaders were trained to conduct groups in a way that was short, simplistic, and repetitive. Lastly, as explained, the groups typically followed an AA-style format; however, AA is known for its confrontational stance (Minkoff, 1991).

In regard to treatment content, the integrated list of treatment recommendations posited that treatment content include (a) a clearly conceptualized, theoretically driven, and empirically driven model, (b) assessment of participants' needs and orientation to the treatment, (c) cognitive-behavioral techniques, and (d) interventions for increasing motivation levels and decreasing criminogenic needs. In the present study, TAU seems to fall short in most of these areas. While there is empirical support for the effectiveness of psychotropic medications and some evaluation of participants' medication needs is conducted, the group treatments offered by the prison do not meet these recommendations. Additionally, no description of cognitive-behavioral techniques or motivational interventions was identified, and criminogenic needs were minimally addressed.

Given the limitations of TAU and the findings from the criminogenic needs assessment, how can prison-based treatment for inmates with DD be improved? First, treatments should include components that work toward improving inmates' cognitive

processing by focusing on coping skills and problem solving skills. Focusing on these skills could also assist participants with other problematic areas such as relationship problems, dealing with anti-social peers, and emotions. Second, components that address depression symptomology seem warranted. Cognitive-behavioral treatments are not only effective in reducing depression (Nathan & Gorman, 1998), but also coincide with the treatment recommendations for DD offenders. Third, treatment components need to address substance abuse and relapse prevention. Cognitive-behavioral techniques have been found to be effective at reducing substance use (Carroll, Rounsaville, & Keller, 1991; Jerrell & Ridgely, 1995; Roffman & Barnheart, 1987), and more effective than AA-style groups (Jerrell & Ridgely, 1995). Lastly, prison-based treatment programs should include components that provide service information and linkage to community-base care for post-release from prison. Continuity of care should be encouraged, the benefits of post-release treatment should be explained, and contact information for low-cost community services should be provided.

Limitations of the Present Study

The present study sought to present an exploratory look at the criminogenic needs of inmates with DD. By employing a bottom-up approach, an exploration of the factors contributing to inmates' offenses was conducted, revealing potential criminogenic needs. However, one must keep in mind that by definition, criminogenic needs are causal dynamic risk factors, or risk factors that, when changed, are associated with changes in recidivism rates (Andrews & Bonta, 2003). One way of establishing that a need is criminogenic is to show that, "(a) deliberate interventions produce changes on the

potential need factor, (b) deliberate interventions produce changes in criminal conduct, and (c) the magnitude of the association between intervention and criminal behavior may be reduced through the introduction of statistical controls for change on the potential need factor” (Andrews & Bonta, 2003, p. 66). In the present study, no interventions aimed at changing the “criminogenic” need factors were conducted, and recidivism was not tracked. Therefore, it is unknown if changes in these need factors will result in reductions in recidivism. This means that the need factors identified in the present study are more accurately referred to as *potential* criminogenic needs. Additional research is warranted to determine if these needs are truly criminogenic in nature. The present study does, however, provide a first look at potential criminogenic needs for inmates with DD, which has been absent from the literature thus far.

A potential limitation of the present study is selection bias. Prison medication lists were used by prison mental health personnel to identify potential participants. It is possible that other inmates who were not deemed “sick enough” to be prescribed medication were not given the opportunity to participate in this study. However, multiple recruitment methods were employed (i.e., a flyer was posted around the prison with instructions for volunteering) to address this concern. Unfortunately, the number of participants who responded to the flyer versus participants recruited from the medication list was not recorded. Data regarding medication did indicate that 24 participants were receiving medication within the two months prior to the study, so it is likely that the majority of the participants were recruited from the medication lists. Another potential bias arises due to the reliance on file-based diagnoses, and uncertainty of the methods used by prison staff to make diagnostic decisions. However, confidence in the file-based

diagnoses was increased by the consistency between the PAI elevation on Depression and the numerous file diagnoses of mood disorders.

Another limitation is that in the present study, data was not collected from inmates without DD, which could have served as a comparison group. Although the ACI norms could be used as a comparison in interpreting the ACI results, analysis of the CNI could have benefited from a comparison group to determine which needs are really unique to inmates with DD.

Lastly, recall bias could have influenced the CNI results. When recalling their crimes and what their lives were like before their offences, participants were often far removed in time and space from those events. Therefore, the validity of these retrospective reports is difficult to estimate. Nevertheless, the CNI was designed to help guide participants through this recall process by exploring the various domains of their lives. The results derived from this process are valuable in beginning to understand DD inmates' perceptions of their offenses and problem areas.

Future Directions: Where To Go From Here?

The results from the present study serve two purposes. First, exploring the criminogenic needs of these inmates with DD identified clear problem areas to target in treatment. Second, describing TAU allowed for a better understanding of what treatments are offered to inmates at one state prison, and what seems to be absent. This information could be used to guide the creation of a treatment program that is designed to address the specific needs of inmates with DD. As such, this researcher plans to use this information to modify an existing treatment manual that was designed for the community-based

treatment of individuals with DD, and implement the treatment in a prison. This manual is the Substance Abuse Management Modules (SAMM; Roberts et al., 1999) discussed in the introduction under the section *Cognitive-Behavioral Treatment Approaches*.

Modifications will include incorporating modules that target specific criminogenic needs and other needs important for prison-based treatment (e.g., interventions to increase motivation such as motivational interview), and removing existing modules that seem irrelevant to the needs of inmates with DD. Future research will need to investigate the utility of the needs identified for offenders with DD for predicting recidivism, as well as how gains made in treatment affect recidivism rates.

Another line of research that can be informed from the present study is the assessment of criminogenic needs for inmates with DD. Additional research utilizing a larger sample size to allow for analyses of needs based on various factors, such as ethnicity, gender, and type of crime is warranted. The present study did identify several problem areas based on the CNI and ACI that were discussed by the sample. These problem areas could inform the creation of a criminogenic need assessment measure that might be used to identify areas that are particularly problematic for a given individual. This information could be useful for individual treatment planning for both prison-based and community-based interventions.

Table 1 Personality Assessment Inventory Results

PAI Scales	Mean	SD	T-score
VALIDITY SCALES			
Infrequency	4.71	3.06	59
Negative Impression	5.69	4.03	66
Positive Impression	13.54	4.28	48
CLINICAL SCALES			
Alcohol Problems	17.57	10.46	73
Antisocial Features	31		70
Antisocial Behaviors	16.11	4.09	75
Egocentricity	5.26	3.81	55
Stimulus-Seeking	10.20	4.53	64
Anxiety	28		61
Affective	9.77	4.82	60
Cognitive	9.91	5.60	59
Physiological	8.14	4.77	61
Anxiety-Related Disorders	32		65
Obsessive-Compulsive	11.91	4.24	57
Phobias	7.83	3.98	54
Traumatic Stress	11.94	5.54	70
Borderline Features	37		69
Affective Instability	9.31	3.81	63
Identity Problems	10.03	4.10	65

Negative Relationships	10.86	3.25	68
Self-Harm	6.91	3.53	64
Depression	31		68
Affective	9.69	4.78	66
Cognitive	9.71	4.81	67
Physiological	10.57	4.29	62
Drug Problems	18.66	8.62	80
Mania	31		59
Activity Level	9.77	4.39	60
Grandiosity	10.23	4.93	54
Irritability	10.54	4.22	57
Paranoia	32		66
Hypervigilance	12.89	4.70	66
Persecution	8.23	3.64	63
Resentment	10.80	3.50	61
Schizophrenia	26		65
Psychotic Experiences	5.80	4.40	56
Social Detachment	10.63	5.45	64
Thought Disorder	8.54	4.11	64
Somatic Complaints	20		59
Conversion	6.34	4.83	60
Health Concerns	6.69	4.92	57
Somatization	7.20	3.91	57

TREATMENT CONSIDERATION SCALES			
Aggression	26		63
Aggressive Attitude	10.26	4.11	62
Verbal Aggression	8.03	3.75	54
Physical Aggression	7.97	3.97	69
Nonsupport	9.40	4.88	61
Stress	11.67	4.63	64
Suicidal Ideation	8.63	7.53	62
Treatment Rejection	8.43	4.44	38
Interpersonal Scales			
Dominance	20.74	5.82	51
Warmth	21.91	7.11	47

Table 2 ACI Descriptive Statistics

Domain	Mean	SD
Anger	8.29	4.40
Excitement	8.69	4.76
Family Conflict	3.68	2.61
Financial	4.62	4.24
Impulsivity	7.97	3.89
Interpersonal Conflict	5.91	3.93
Social Alienation	8.40	4.47
Social Pressure	7.17	4.54
Substance Use	6.20	4.08

N=35

Table 3 Comparison of ACI Norms with Sample Means

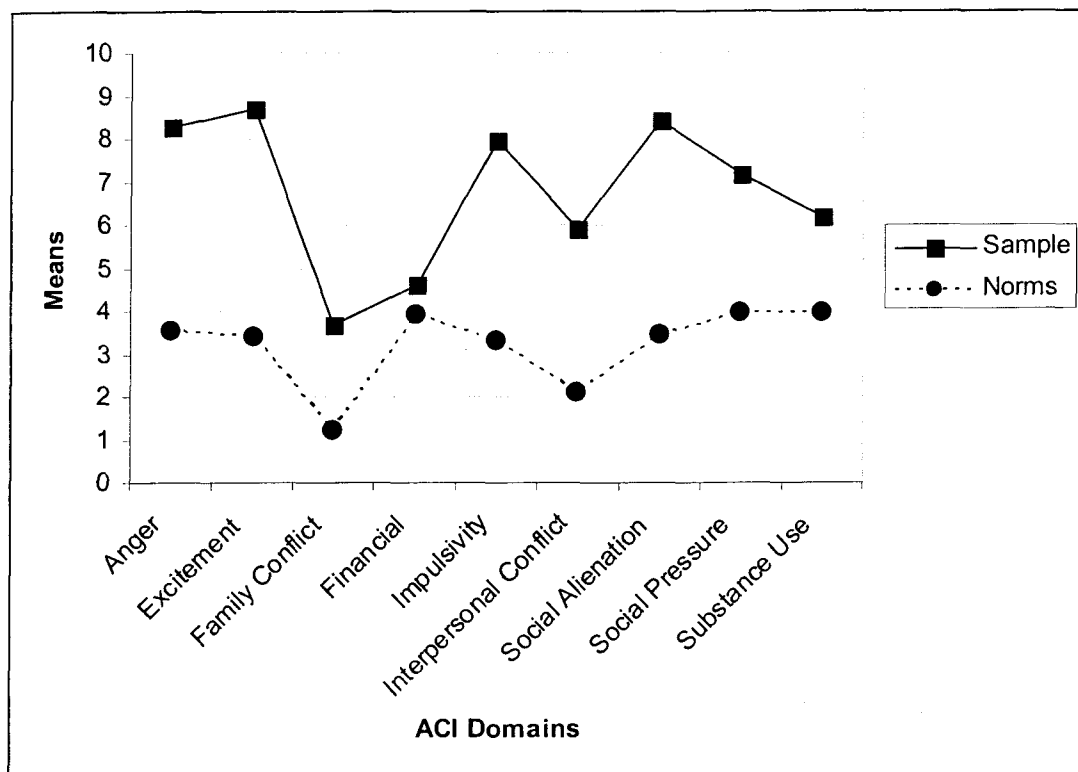


Table 4. Frequencies for CNI Categories

Category	Number of Participants who Endorsed	Percent of Total Sample
Problems of Cognitive Processing	34	97.14
Pattern of Heavy Substance Use	33	94.29
Absence of Mental Health Treatment	31	88.57
Mood/Anxiety Symptomology	27	77.14
Relationship Problems	26	74.28
Antisocial Peers	25	71.43
Financial Problems	20	57.14
Problematic Living Condition	20	57.14
Psychotic Symptoms	20	57.14
Lack of Social Supports	18	51.43
Antisocial Attitudes	17	48.57
Employment Problems	17	48.57
Increase in Substance Use	14	40
Loss of Control	13	37.14
Rationalizations for Law Violations	12	34.29
Complications with Medications	8	22.86
Fluctuating Emotions	6	17.14
Guilt/Shame	6	17.14
Immediate Gratification	4	11.43

APPENDIX A

EVALUATION OF TREATMENT AS USUAL

A. PRISON TREATMENT

1. Have you been getting treatment during the past 2 months? What was it like? Did you go and talk, get medicine, or both? How often did you go? How long did you go? Where else were you getting treatment then? Did you get any other mental health or substance abuse treatment during the past two months? What is it like? *(REPEAT THIS QUESTION UNTIL NO MORE TREATMENTS ARE IDENTIFIED, THEN RECORD RESPONSES IN THE GRID BELOW)*

TREATMENT TYPE (INDICATE YES OR NO)	FOCUS/CONTENT OF TREATMENT	HOW OFTEN? 01- MONTHLY 02- WEEKLY 03- DAILY HOW LONG? DURATION (HRS) # DAYS ABSENT
Medication		01/02/03 ____ weeks ____ hrs ____ days
Individual therapy		01/02/03 ____ weeks ____ hrs ____ days
Group therapy (specify type of group): _____		01/02/03 ____ weeks ____ hrs ____ days
Day program/Specialized Unit		01/02/03 ____ weeks ____ hrs ____ days

Substance abuse only program (<i>code dual diagnosis programs above</i>)		01/02/03 ____ weeks ____ hrs ____ days
Anger management		01/02/03 ____ weeks ____ hrs ____ days
Life skills		01/02/03 ____ weeks ____ hrs ____ days
Vocational rehabilitation		01/02/03 ____ weeks ____ hrs ____ days
Other/specify: _____		01/02/03 ____ weeks ____ hrs ____ days
Other/specify: _____		01/02/03 ____ weeks ____ hrs ____ days
Other/specify: _____		01/02/03 ____ weeks ____ hrs ____ days
NO TREATMENT	None	-----

1. (*If the person was NOT in treatment*) Why do you think that you were not receiving any treatment? Was treatment available? Did you want treatment?

B. TREATMENT SATISFACTION

Ask the patient to rate the helpfulness of each type of approach separately below.

1. How helpful was _____ (*specify*) approach, given a scale of 1 to 5, where 1 is “not at all helpful” and 5 is “very helpful” (*circle one*)? 1 2 3 4 5

(*if rated 3 or higher*) In what way was it helpful? _____

(*if rated 2 or lower*) Why do you think this approach didn't work? _____

(*if rated 2 or lower*) What could have made the approach more helpful? _____

2. How helpful was _____ (*specify*) approach, given a scale of 1 to 5, where 1 is “not at all helpful” and 5 is “very helpful” (*circle one*)? 1 2 3 4 5

(*if rated 3 or higher*) In what way was it helpful? _____

(*if rated 2 or lower*) Why do you think this approach didn't work? _____

(if rated 2 or lower) What could have made the approach more helpful?

3. How helpful was _____ (specify) approach, given a scale of 1 to 5, where 1 is

“not at all helpful” and 5 is “very helpful” (circle one)? 1 2 3 4 5

(if rated 3 or higher) In what way was it

helpful? _____

(if rated 2 or lower) Why do you think this approach didn't work?

(if rated 2 or lower) What could have made the approach more helpful?

4. Given a scale from 1 to 5, where 1 is “not at all interested” and 5 is “very interested,” how interested would you be in obtaining treatment specifically designed to help you manage mental illness symptoms and substance problems while in prison (circle one)?

1 2 3 4 5

C. MEDICATIONS

1. Have you been prescribed any or been on any psychiatric medications in the past 2 months? (circle medications from list)	1 = YES 2 = NO
2. (Med 1: _____) Do you ever	1 = YES

take more or less of your medications than were prescribed?	2 = NO
3. (Medication 1) What exactly did you do?	1 = Prescription not filled 2 = Increase the dose 3 = Decrease the dose 4 = Miss the dose/ forget 5 = Change the time you take the meds 6 = Sell/give to other I/M 7 = Prescription not filled 8 = Don't know 9 = Refused 10 = N/A 11 = Other (<i>specify</i>)
4. (Med 2: _____) Do you ever take more or less of your medications than were prescribed?	1 = YES 2 = NO
5. (Medication 2) What exactly did you do?	1 = Prescription not filled 2 = Increase the dose 3 = Decrease the dose 4 = Miss the dose/ forget 5 = Change the time you take the meds 6 = Sell/give to other I/M 7 = Prescription not filled 8 = Don't know 9 = Refused 10 = N/A 11 = Other (<i>specify</i>)
6. (Med 3: _____) Do you ever take more or less of your medications than were prescribed?	1 = YES 2 = NO
7. (Medication 3) What exactly did you do?	1 = Prescription not filled 2 = Increase the dose 3 = Decrease the dose 4 = Miss the dose/ forget 5 = Change the time you take the meds 6 = Sell/give to other I/M 7 = Prescription not filled 8 = Don't know 9 = Refused 10 = N/A 11 = Other (<i>specify</i>)
8. (Med 4: _____) Do you ever take more or less of your medications than were prescribed?	1 = YES 2 = NO

9. (Medication 4) What exactly did you do?	1 = Prescription not filled 2 = Increase the dose 3 = Decrease the dose 4 = Miss the dose/ forget 5 = Change the time you take the meds 6 = Sell/give to other I/M 7 = Prescription not filled 8 = Don't know 9 = Refused 10 = N/A 11 = Other (<i>specify</i>)
10. (Med 5: _____) Do you ever take more or less of your medications than were prescribed?	1 = YES 2 = NO
11. (Medication 5) What exactly did you do?	1 = Prescription not filled 2 = Increase the dose 3 = Decrease the dose 4 = Miss the dose/ forget 5 = Change the time you take the meds 6 = Sell/give to other I/M 7 = Prescription not filled 8 = Don't know 9 = Refused 10 = N/A 11 = Other (<i>specify</i>)

APPENDIX B

ANTECEDENTS TO CRIME INVENTORY (ACI)

Domains	Items
Impulsivity	When I suddenly had an urge to do it When I thought I needed to show others I was in control When it just felt good at the time When I wondered about my self-control and felt like testing it When I couldn't wait to do it legally When I wanted to show off in front of others
Social Pressure	When I gave my word and I couldn't back down When someone told me about a surefire score When I had to save face When someone approached me with a plan and I didn't know how to say no When everyone else was doing it When I came across the same situation that had prompted me to commit crimes previously
Excitement	When someone dared me not to When I lived on the edge When I would remember how good it felt When I needed some excitement When I was bored When I was restless and couldn't settle down
Anger	When I felt really pissed off When I was fed up with others putting me down When I felt someone deliberately tried to hurt me When I was angry When I was frustrated with someone When someone took advantage of me

Social Alienation	<p>When I was afraid things weren't going to work out</p> <p>When I couldn't seem to do anything I tried</p> <p>When I couldn't seem to do anything right</p> <p>When I felt I didn't fit in with others</p> <p>When life seemed to lack all meaning</p> <p>When I felt live was useless</p>
Substance Use	<p>When I needed money to buy more booze</p> <p>When I was so drunk that I couldn't remember</p> <p>When I was somewhat drunk</p> <p>When I needed money to buy more drugs</p> <p>When I was so stoned that I couldn't remember</p> <p>When I was somewhat stoned</p>
Financial	<p>When I couldn't find a job</p> <p>When my welfare/UCI ran out</p> <p>When I couldn't find a job that paid more than minimum wage</p> <p>When I had to borrow money from friends</p> <p>When I quit my job</p> <p>When I owed money to others</p>
Interpersonal Conflict	<p>When someone made fun of me</p> <p>When I felt jealous over something a friend had done</p> <p>When someone treated me with disrespect</p> <p>When I fought with friends</p> <p>When others interfered with my plans</p> <p>When others took advantage of me</p>
Family Conflict	<p>When my kids didn't do as they were told</p> <p>When my wife/girlfriend wanted me to stop seeing my friends</p> <p>When my kids had problems at school</p> <p>When my kids were bothering me</p> <p>When my wife/girlfriend yelled at me</p> <p>When my wife/girlfriend wanted me to take a crappy job</p>

APPENDIX C

CRIMINOGENIC NEEDS INTERVIEW (CNI)

The interviewer is required to ask the questions in boldface type. The italicized questions are suggested probes, if needed.

-IMPORTANT- One of the most important parts of this research involves getting an understanding of the factors that may have contributed to your offense. I know that you've talked with lots of people by now about your offense, but I'd like you to think about it with a fresh perspective. I'd like you to tell me about what was going on in enough detail that I can understand this from your perspective.

-INDUCTION – In a moment, I'm going to ask you about your most recent offense (whether caught or not) and then what your life was like the month before that. Please spend some time thinking about the offense and that general point in your life. (Give time) Think about what happened, when it happened, who was in your life, where you were, etc. Let's get started.

OFFENSE INFORMATION (Includes Impulsivity)

- 1. Tell me about that offense. What happened, exactly?**
- 2. What do you think are the main things that caused you to commit this offense?**
- 3. When did the thought of committing this offense first pass through your mind?**
 - a. [*Had anything in particular happened to you just before that?*]
 - b. [*(If no) Was there anything new that was happening in your life then, or some problem that was bothering you?*]
- 4. When you first thought about it, what did you do?**
 - a. [*Did you try to resist it? If so, how?*]
 - b. [*Did you ever rehearse, or make definite plans as to how you might carry out the offense, or was it more spur of the moment?*]
- 5. [*Was there a point in the whole sequence where you could have stopped and just forgotten about the whole thing?*]**
 - a. [*(If yes) Did it ever get to a point where you were not in control any longer?*]
 - b. [*(If yes) When did it switch?*]
 - c. [*(If no) Does that mean that you were in total control even at the end?*]
- 6. Did you ever think about all of the good things that might come from committing the offense? What were they?**

7. **Did you ever think about the bad things that might happen if you committed the offense? What were they?**
8. [*Did you do your offense alone or with some others?*]
 - a. [*(If with others) Whose idea was it originally?*]

GENERAL QUESTIONS

Opening

1. **What was your life like in the month before your offense?**
2. **What are some of the problems that you remember in the month before your offense?**
3. [*What things made your life difficult, or what were you having trouble dealing with?*]

Leisure/ Recreational

1. **In the month before your offense, what kinds of things did you do in your free time?**
2. [*What did you do for fun?*]
3. [*How often did you feel bored?*]

BASIC NEEDS

Accommodations

1. **What was your living situation like?**
2. **What kind of neighborhood did you live in?**
3. [*What problems were you having with where you were living before your offense?*]

Employment

1. **Were you working before your offense?**
2. **(If no) Were you doing something else, like going to school?**
3. **(If yes) How was your job going?**
4. [*What problems were you having with work?*]

Financial

1. **What was your financial situation like?**
2. [*During the month before your offense, what money problems did you have?*]
3. [*Were you able to make ends meet or were you running up debt?*]
4. [*Did you have any debts that you could not pay, or have problems like checks bouncing or credit cards cut off?*]

RELATIONSHIPS

General

1. **Who was important in your life then? How were you getting along with them?**
2. [*How did you get along with the people in your environment (e.g., landlord, neighbors, coworkers, roommates)?*]

Peers

1. **What problems were you having with your friends?**
2. [*What types of things did you do with your friends?*]

Family/Dating/Intimate Relationships

1. **What was your relationship with your family like during the month before your offense?**
2. **During that last month were you involved in an intimate relationship?**
 - a. **(If yes) How was your relationship going?**
 - b. [*Even if you were satisfied with your relationship, did it give you any problems?*]
 - c. **(If not in a relationship) Did you have any dating concerns?**
 - d. [*What did you think of being single?*]

SYMPTOMS

Alcohol/Drug Use

1. **How often were you drinking or using drugs during the month before your offense? (If drugs: What drugs were you using?) (If no use: skip to next section)**
2. **Was this more or less than you typically used at that point in your life (i.e., past year)?**
3. **What led you to start drinking/using drugs in that period?**
4. **What kinds of problems did drinking/using drugs cause for you during that time?**
5. **Were you drinking/using drugs during the 24 hours before your offense?**
6. [*How would you describe your behavior when you had been drinking/using drugs?*]

Anger/Violence

1. **How often did you feel frustrated, irritated, or angry during that month?**
 - a. [*If so, what was going on?*]
2. **What did you do when you felt that way? How did you cope with it?**
 - b. [*How often did you get into fights?*]

Emotional/Health Problems

1. **During the whole month before your offense, what kinds of strong emotions/feelings did you have?**
2. [*In the last month, did you have any problems with your feelings or mood?*]
3. **What about in the 48 hours before the offense, what were you feeling then?**
4. **Do you remember what set off those feelings?**
5. **During the month before your offense, were you receiving any mental health or substance abuse treatment?**
 - a. [*(If yes) How helpful was that treatment?*]
 - b. [*(If no) Do you think that you could have benefited from treatment?*]
6. **During the month before the offense were there any changes in your symptoms?**

- c. (If so) How did that affect your behavior?
7. During the month before the offense, did you hear voices talking or other sounds when no one was around or you couldn't account for it?
 8. During the month before the offense, did you have visions or seen things that other people couldn't see?
 9. Do you sometimes have ideas or beliefs that other people might consider unusual? (If yes) Could you tell me about them?
 10. Do you have any special powers, talents, or abilities that most people don't have?
 11. Is anyone trying to harm or interfere with you in any way? (If yes) Could you tell me what they tried (are trying) to do to you?

MEDICATIONS/INTERACTIONS WITH ILLEGAL DRUGS

1. What medication changes, problems, etc.... happened during the month before your offense? (make clear that you're interested in psych meds)
2. [*What medications were you taking during the month before your offense? What medications were prescribed?*]
3. What effects did your medications have on you? (include side effects)
4. Did you take other drugs or drink while taking your medications?
 - a. [*(If yes) How did you feel when you took drugs/alcohol and your medication?*]
5. Did you skip, forget, or stop taking your medications during that time?
 - a. [*(If yes) How did that affect you?*]

SUPERVISION (Ask if Applicable)

1. Were you under any kind of supervision in the month before your offense (e.g., probation, parole)?
2. (If yes) How were you getting along on supervision?
3. [*What sorts of problems did you have with your supervisor?*]
4. [*What rules did you have a hard time following?*]

PROBLEM SOLVING SKILLS

1. What do you consider to be the most effective ways for you to avoid committing illegal acts in the future?
2. Do you know what to do if you start to think or feel the way you did prior to getting into trouble?
3. [*What types of strategies have you developed to keep yourself from repeating the same mistake?*]

APPENDIX D

CATEGORIES OF THE CNI WITH DEFINITIONS

1. Absence of Mental Health Treatment
 - a. Not knowing where to get treatment or how to ask for treatment
 - b. Putting off going to get treatment
 - c. Financial concerns regarding treatment
2. Antisocial Attitudes
 - a. A subculture of values and beliefs that say it is okay to violate the law (e.g., committing crimes in retaliation when other people might have called the police due to the belief that you just don't call the cops)
 - b. Pro-criminal attitudes
3. Antisocial Peers
 - a. Friends/intimate partners who are involved in antisocial activities (drugs, gangs, crimes)
 - b. Peer pressure to engage in negative activities (e.g., substance misuse, crimes)
4. Complications with Medications
 - a. ran out of medications
 - b. noncompliant with medications (stopped taking/forgot meds)
 - c. mixing medications and illicit drugs/alcohol
 - d. bad side effects
5. Employment Problems
 - a. Unstable/irregular employment (e.g., day labor)
 - b. Unemployed
 - c. Poor work performance
 - d. Work stress
6. Financial Problems
 - a. Financial irresponsibility (spending all of your money on drugs/gambling/sex)
 - b. Financial strain/stress (barely making ends meet)
 - c. Financial instability (have a lot of money one day, then none the next day)
7. Fluctuating Emotions
 - a. Increase or change in emotions/psychological symptoms
 - b. Emotional instability (volatile emotions)
8. Guilt/Shame
 - a. Disconnect between actual behaviors & desired behaviors (e.g., "I felt bad about myself because I kept on doing drugs/crimes and I didn't want to")
9. Heavy Regular Substance Use
 - a. Pattern of daily or almost daily substance use

10. Immediate Gratification
 - a. Greed
 - b. If everyone else has “it” then why can’t I have “it” too & I don’t want to have to wait for “it”
11. Increase in Substance use
 - a. More substance use during the month before the crimes compared to the amount used during previous months
12. Lack of Social Supports
 - a. Absence of (or minimal quantities of or distant from) non-antisocial friends & family
 - b. Social isolation
 - c. Feelings of loneliness
13. Loss of Control
 - a. E.g., “I had no control over my behaviors. I couldn’t stop.”
14. Mood/Anxiety Disorders & symptomology
 - a. Depression
 - b. Anxiety/mania/PTSD
 - c. Suicidal ideation
 - d. Hopelessness
 - e. Low self-esteem, low self-worth
 - f. Problematic sleep
15. Problematic Living Conditions
 - a. Living in a bad (drug infested, high crime area) neighborhood or accommodations
 - b. Being unsatisfied with living conditions
 - c. Homeless
16. Problems of Cognitive Processing
 - a. Poor coping skills (Problems of emotional regulation, using drugs/alcohol/violence/crimes/etc. to cope with negative emotions/stress/relationship problems/etc., poor problem solving skills, unable to formulate alternative solutions to a problem)
 - b. Not Considering Consequences (acting without thinking, not weighing pros & cons of outcomes, not thinking about the negative outcomes before acting)
17. Psychotic Symptoms
 - a. Auditory/ visual hallucinations
 - b. Paranoia
 - c. Delusions
18. Rationalizations for Law Violations
 - a. Denial of responsibility (e.g., blaming committing the crime on the addiction or something else, “It was the drugs/environment/peers influence/etc”
 - b. Smartness (out smarting others)
 - c. Denial of the victim (it was the victims fault)
 - d. Appeal to higher loyalties (I had to help out someone else)
 - e. Needing to make up for lost time (I missed out because I was in prison)
 - f. Condemnation of the condemners (It is society’s fault)
 - g. All-or-nothing thinking (if I am going to do this then I might as well do that too)
19. Relationship Problems

- a. Family related stress
- b. Dysfunctional intimate/family relationship (e.g., arguing about drugs, violence in relationship, poor communication, trust issues, intimacy problems, deceit)

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