Evaluating the effectiveness of a manualized treatment for inmates with dual diagnoses

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EVALUATING THE EFFECTIVENESS OF A MANUALIZED TREATMENT FOR INMATES WITH DUAL DIAGNOSES

by

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2005

A dissertation submitted in partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Psychology
Department of Psychology
College of Liberal Arts

Graduate College
University of Nevada, Las Vegas
May 2007
The Dissertation prepared by

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Entitled

Evaluating the Effectiveness of a Manualized Treatment for Inmates with Dual Diagnoses

is approved in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Psychology

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ABSTRACT

Evaluating the Effectiveness of a Manualized Treatment 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 empirically supported prison-based treatment programs are designed to meet the special needs of these inmates. Existing prison-based programs are generally limited to one treatment approach despite the heterogeneity among offenders with DD. Thus, it has been recommended that a range of services should be developed and offered in prisons to meet the varying needs of inmates with DD. The present study represented an effort to contribute to the development and delivery of specialized, empirically-supported, prison-based treatment programs for inmates with DD. A community-based treatment manual was modified to address the needs of an institutionalized, offender sample. Modifications included: (a) adding a component that addressed DD offenders’ mental health criminogenic need; and (b) deleting components that were irrelevant, inappropriate, or impractical for
institutionalized offenders. This modified manual is referred to as the Substance Abuse Management Module for Offenders (SAMM-O). The aims of the present study were to determine the effectiveness of SAMM-O in: (a) engaging inmates with DD in treatment, (b) decreasing depression symptoms, and (c) increasing drug abstinence-related knowledge and skills. To accomplish these aims, a non-controlled trial of SAMM-O with a pre-post-test design was conducted over 8-weeks with 25 inmates with DD at a Western prison. Results indicated that inmates were engaged in the treatment groups. Moreover, depression symptomology significantly decreased, and drug abstinence-related knowledge and skills significantly increased, from pre- to post-treatment assessment.
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ACKNOWLEDGEMENTS

I would like to thank Dr. Douglas Ferraro for his guidance and support throughout this process. I have truly enjoyed having him as my advisor. In addition, I would like to express my gratitude to my committee members, Dr. Marta Meana, Dr. Dan Allen, and Dr. Pat Markos, for their thoughtful ideas, challenges, and time. This research would not have been possible without the cooperation of the administration, employees, and inmates at Southern Desert Correctional Center. In particular I would like to thank Dr. Randy Kline, Dr. Roy Hookham, and Dorothy Nash Holmes who were instrumental in facilitating this research. Special thanks to my parents, John and Dolly Evans, who have supported me from day one. Finally, with all my heart I would like to thank my husband, Yani Dickens, for being my best friend, co-facilitator, and personal therapist. Yea, it’s finally done!
CHAPTER 1

INTRODUCTION

Individuals with both a mental illness and substance use disorder (i.e., dual diagnoses) are over represented and underserved in state prisons. When compared to the general population, the prevalence of dual diagnoses (DD) 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 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 3 to 11% of prison inmates may be suffering from a DD condition (Peters & Hills, 1993).

Without treatment inmates with DD are at an increased risk for a variety of negative outcomes such as more profound problems with employment, medical concerns, and relationships, poorer baseline levels of knowledge concerning treatment principles and relapse prevention skills, and less family supervision and support upon release into the community (Peters, Kearns, Murrin, & Dolente, 1992). They are also more likely to criminally recidivate (Hartwell, 2004).
Despite the prevalence of inmates with DD and their increased risk for negative outcomes, relatively few treatment programs designed for offenders with DD are available in state and federal correctional facilities across the U.S. (Edens, Peters, Hills, 1997; Peters, LaVasseur, & Chandler, 2004). Moreover, few studies examining the outcomes of treatment programs for offenders with DD have been completed (Chandler, Peters, Field, & Juliano-Bult, 2004; 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.

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 the need for treatment of these individuals. 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 development of effective treatments for inmates with DD can be informed by research from the following relevant domains: civil populations with DD, general offenders, and offenders with DD. This research is reviewed in detail in the ensuing review of the literature (see Chapter 2). Herein, an integrated list of treatment recommendations will be presented that was derived from the literature in these domains. This list provides recommendations for treatment format and treatment content.

In regard to treatment format three recommendations are made. First, it is recommended that treatment be presented in an integrated format (Ridgely, Goldman, Talbott, 1986; Ridgely, Osher, Goldman, & Talbott, 1987). Integrated treatment has several advantages over separate treatments for mental illness and drug abuse that are presented sequentially or in parallel to one another. These include reductions in feelings of isolation or estrangement, decrease in the difficulty of reconciling differing philosophies of the two service systems, and increased focus on issues that are important to individuals with DD, such as how the one disorder interacts with or exacerbates the other (Rosenthal, Hellerstein, & Miner, 1992).

The second treatment format recommendation is that the delivery of the interventions should be shortened, simplified, and repeated to adjust for cognitive deficits (Edens et al., 1997). Third, it is recommended that interventions avoid confrontational methods, as inmates with DD 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).

In regard to treatment content five recommendations are made. First, treatments should be clearly conceptualized and theoretically driven with methods founded on empirical support (McGuire, & Hatcher, 2001). Second, treatment programs should include an extended assessment period 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. Additionally, an orientation phase is recommended in which participants are introduced to program policies, rules, and procedures.

The third recommendation for treatment content is based on the indication from the literature that cognitive-behavioral therapies (CBT) are the most effective for correctional rehabilitation (Gendreau, 1996). Research indicates that CBT is effective for individuals with DD at reducing substance use (Carroll, Rounsaville, & Keller, 1991; Jerrell & Ridgely, 1995; Roffman & Barnheart, 1987) and psychiatric hospitalizations (Brooks & Penn, 2003; Granholm, Anthenelli, Monteiro, Sevcik, & Stoler, 2003).

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: practice damage control, escape high-risk situations, avoid high-risk situations, and seek healthy pleasures. SAMM also incorporates motivational counseling during group treatment sessions (Drake et al., 2003; Drake, Mueser, Brunette, & McHugo, 2004).

Evaluations of SAMM in the community at large have found significant increases in drug abstinence-related knowledge and skills and number of days abstinent, and significant decreases in substance use as indicated by urine analysis tests (Shaner, Eckman, Roberts, & Fuller, 2003; Shaner, Roberts, Eckman, & Wilkins, 1997). The treatment gains were maintained at 3-month follow-up. Another study found that SAMM led to a significant increase in treatment attendance and sobriety as measured by urine analysis tests, and decrease in hospitalization (Ho et al., 1999). These treatment gains were maintained at both 3- and 6-month follow-ups.

The fourth treatment content recommendation is to use interventions for increasing motivation levels. There are two relevant messages that may be gleaned from the research on intrinsic and extrinsic motivation. First, high extrinsic motivation, without intrinsic motivation, is related to poor treatment retention and outcome (Curry, Wagner, & Grothaus, 1990, 1991; Davison & Rosen, 1972; Davison, Miller, 1985; Ryan, Plant, & O’Malley, 1995; Tsujimoto, & Glaros, 1973). Second, people with extrinsic motivation, such as mandates, can have intrinsic motivation (Deci & Ryan, 1985; Farabee, Shen, & Sanchez, 2002; Plant & Ryan, 1985; Ryan, 1982; Ryan & Grolnick, 1986; Ryan, Mims, & Koestner, 1983). Furthermore, Ryan and colleagues (1995) found that the most
optimal treatment outcomes were found among participants who exhibited high levels of both intrinsic and extrinsic motivation.

Given these messages, it is important that treatment programs for inmates with DD focus on increasing intrinsic motivation, rather than relying on external pressures, to improve treatment outcomes. Motivational interviewing is one effective way to increase treatment adherence and produce more favorable outcomes for outpatients with DD (Martino, Carroll, Kostas, Perkins, & Rounsaville, 2002; Martino, Caroll, O’Malley, & Rounsaville, 2000; Graeber, Moyers, Griffith, Guajardo, & Tonigan, 2000 as cited in Miller & Rollnick, 2002; Swanson, Pantalon, & Cohen, 1999).

The fifth recommendation is that effective treatments should focus on criminogenic needs (McGuire, & Hatcher, 2001). Criminogenic needs are causal dynamic risk factors, or risk factors that when changed are associated with changes in criminal recidivism rates (Andrews & Bonta, 2003).

Research supports the following factors as relevant criminogenic needs for general offenders: 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).

Dickens (2005) explored criminogenic needs for inmates with DD. In that research the following needs were identified as potentially criminogenic: substance misuse, interpersonal deficits, mental illness, deficits in cognitive processing, adherence to
criminal subculture, and unmet basic needs. In Dickens’ (2005) research “mental illness” was identified as a unique, highly problematic need for offenders with DD. A primary aspect of the mental illness need was depression. While that research did identify mental illness, particularly depression, as an influential factor in participants’ commission of crimes, additional research needs to investigate the criminogenic nature of that need.

In order to establish that a need is criminogenic it must be shown 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). Further research needs to verify the criminogenic status of the needs identified in Dickens’ (2005) study.

Turning toward existing prison-based DD programs, the most recent survey of state and federal correctional facilities identified 27 treatment programs for inmates with DD (Peters et al., 2004). Most of the programs identified in the survey were modified therapeutic communities (TCs) and were located in isolated treatment units, away from the general inmate population, within specialized prisons that were “treatment-oriented.” Few of the specialty programs for offenders with DD have been empirically evaluated (Chandler et al., 2004; Edens et al., 1997).

Although no prison-based treatment program for DD conditions encompasses all of the previously mentioned treatment recommendations, the existing prison-based programs do incorporate many of these recommendations. Modified TCs offer integrated mental health and substance use treatments, utilize cognitive-behavioral techniques, and
have begun to assess program outcomes. While these programs are promising, additional improvements could be made, such as implementing treatment components aimed at increasing treatment motivation and targeting additional criminogenic needs. Incorporating treatment motivation practices could increase program completion in programs that report large drop-out rates (see Van Stelle et al., 2004; Van Stelle & Moberg, 2004).

It is suggested that the development of evidence-based treatments for inmates with DD should not be restricted to modified TCs. Offenders with DD vary widely in the severity of their mental illness and substance use disorders (Chandler et al., 2004). For example, in their survey of prison-based programs for DD, Peters and colleagues (2004) found that 26% of inmates in these programs were diagnosed with depression, 19% post-traumatic stress disorder, 15% bipolar, 15% schizophrenia, 13% anxiety disorders, and 6% schizoaffective disorder. Thus, it is recommended that a range of services should be developed and offered in prisons to meet the varying needs of inmates with DD (Chandler et al., 2004).

Despite this recommendation, the vast majority of prison-based programs adhere to one model of treatment (i.e., modified TCs), and often target only the most severe mental disorders. As a result of targeting only severe disorders (e.g., schizophrenia), many inmates with DD do not meet required inclusion criteria for the more typical modified TCs, leaving them without specialized treatment alternatives for DD (see DeLeon et al., 2001; Sacks et al., 2004; Van Stelle et al., 2004; Van Stelle & Moberg, 2004).

Furthermore, modified TCs represent an extensive, long-term treatment option for inmates with DD and often have long waiting lists for admission. All programs identified
by Peters and colleagues (2004) were filled to capacity and all had waiting lists. Given that the average length of stay in a modified TC is 10 months, eligible inmates often had to wait for long periods of time for treatment (Peters et al., 2004). If modified TCs with long waiting lists are the only treatment option for inmates with DD, then many run the risk of being released into the community without the opportunity to participate in specialized treatment.

As previously stated, untreated offenders with DD are at risk for a host of negative outcomes including reincarceration (Hartwell, 2004). Briefer treatment options deserve to be explored for their effectiveness in addressing the needs of inmates with DD. If effective, briefer treatment programs would provide a more economic option for prisons, and could be offered as an alternative to modified TCs.

The present research represented an effort to address the need for alternative DD treatments. Specifically, the present study examined the utility of a community-based treatment manual that was modified based on the integrated list of treatment recommendations articulated above and Dickens (2005) research that explored the criminogenic needs of inmates with DD. The treatment manual that was modified was the Substance Abuse Management Module (SAMM; Roberts et al., 1999). SAMM was modified for an institutionalized offender population by: (a) adding a component to SAMM that addressed DD offenders’ mental health criminogenic need; and (b) deleting components of SAMM that were irrelevant, inappropriate, or impractical for institutionalized offenders.

Mental illness was chosen as the criminogenic need to add to the manual because previous research identified mental illness as a salient, unique need for inmates with DD.
(Dickens, 2005). The primary component of the need mental illness was depressive symptomology. Thus, the component that was added to the manual to address the mental illness criminogenic need targeted depression. The modified manual is referred to as the Substance Abuse Management Module- for Offenders (SAMM-O).

The aim of the present study was to determine the effectiveness of SAMM-O in (a) engaging inmates with DD in treatment, (b) decreasing depression symptoms, and (c) increasing abstinence-related skills and knowledge. To accomplish these aims a non-controlled, eight-week trial of SAMM-O with a pre- post-test design was conducted with inmates with DD at a Western prison. By taking on this task the present study sought to respond to the Council of State Governments’ (2002) call for researchers to “step up to the plate” by developing empirically supported treatments, as well as attending to the need for variety in services designed to address the heterogeneous needs of inmates with DD (Chandler et al., 2004).
CHAPTER 2

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 use drugs in an attempt to “self-medicate” or reduce uncomfortable emotional states (Robins & Regier, 1991; Weiss, 1992) and/or have a 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 non-offenders (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 more profound problems with employment, medical concerns, and relationships, poorer baseline levels of knowledge concerning treatment principles and relapse prevention skills, and less family supervision and support upon release into the community (Peters et al., 1992). Offenders with dual diagnoses are significantly more likely to criminally recidivate than offenders with only mental illness (Hartwell, 2004).

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. Relatively few treatment programs designed for offenders with DD are available in state and federal corrections facilities across the U.S. (Edens, Peters,
Hills, 1997; Peters, LaVasseur, & Chandler, 2004). Moreover, few studies examining the outcomes of treatment programs for offenders with DD have been completed (Chandler, Peters, Field, & Juliano-Bult, 2004; 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 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 and their overall life quality and functioning could be improved.

In an attempt to begin to address the need for empirically supported, prison-based treatments, the present study examined the effectiveness of a treatment manual that was modified to address more specifically the needs of inmates with DD. The treatment manual that served as the basis for modification was the Substance Abuse Management Module (SAMM; Roberts, Shaner, & Eckman, 1999). SAMM is an empirically supported treatment manual for civil populations with DD (Ho et al., 1999; Shaner, Eckman, Roberts, & Fuller, 2003; Shaner, Roberts, Eckman, & Wilkins, 1997). SAMM was modified for an institutionalized offender population by: (a) adding a component to SAMM that addresses offenders’ mental health criminogenic need; and (b) deleting components of SAMM that are irrelevant, inappropriate, or impractical for
institutionalized offenders. The modified version of SAMM, referred to as the Substance Abuse Management Module- for Offenders (SAMM-O), was evaluated in a non-controlled study with a pre-post test design for its effectiveness in: (a) engaging participants in treatment, (b) decreasing depression symptomology, and (c) increasing abstinence-related skills and knowledge.

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). This research is reviewed in the subsequent section. Additionally the various treatment principles are integrated to form a consensus list of treatment principles. This is followed by a discussion of how these consensus principles can be applied to develop a manualized treatment for inmates with DD.

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 suggests 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: treatment should follow an integrated format, a cognitive-behavioral approach should be adopted, and civil programs should be adapted to address the unique needs of offenders. The relevant literature supporting these recommendations is presented next.
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 in order 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 abuse 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 patients largely received treatment from one system and not the other, that patients were often excluded from both
systems due to the dual nature of their condition, and that patients’ 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 identify 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 inasmuch as typically 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 is a paucity of research comparing this form of treatment delivery to nonintegrated treatments (Hills, 2000). What research exists 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 success\(^1\), 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 CBT is effective for individuals with

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\(^1\) 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.

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 individuals with DD were randomly assigned to one of the three treatment models. Assessments conducted at baseline, 6, 12, and 18 months, suggested that CBT participants had significantly more reductions in psychiatric and substance symptomatology and psychosocial adjustment than the other two groups and that 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 et al., 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: practice damage control, escape high-risk situations, avoid high-risk situations, and seek healthy pleasures. SAMM also incorporates motivational counseling during group treatment sessions (Drake et al., 2003; Drake, Mueser, Brunette, & McHugo, 2004).

In a non-controlled trial, the efficacy of SAMM was examined with civil patients who were diagnosed as having either schizophrenia or schizoaffective disorder and co-occurring substance dependence (Shaner, Eckman, Roberts, & Fuller, 2003; Shaner,
Roberts, Eckman, & Wilkins, 1997). Of the 56 participants recruited, 34 completed the study. This 61% retention rate is typical for individuals with DD in treatment programs (Shaner et al., 2003).

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 ($M = 99.6$, $sd = 11.11$). Urine analysis tests were conducted twice weekly. 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. Also, the number of days abstinent significantly increased.

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 when compared to participants who had only participated in TAU. Urine toxicology analyses indicated that significantly more participants in the SAMM program than in the TAU condition maintained sobriety up to 6 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 instances, participants’ mental illnesses range from severe (e.g., schizophrenia, bipolar) to less severe (e.g., dysthymia, PTSD). The University of California, Santa Barbara facilitated research on one of these programs in which SAMM was offered as part of the treatment received by offenders who were processed through a mental health treatment court (MHTC) (Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2003). In this study offenders who volunteered to participate were randomly assigned to be processed either through the MHTC or treatment as usual (TAU). Mental health treatment courts offer participants the opportunity to engage in a non-adversarial criminal processing and intensive court supervision in lieu of incarceration. The goal of a MHTC is to serve the offender therapeutically while at the same time protect public safety.

In Cosden and colleagues’ study (2003), the MHTC followed an assertive community treatment model in which case managers assisted participants in obtaining resources, including transportation, section 8 housing vouchers, vocational training, and skills training in community re-entry and substance abuse management maintenance. SAMM was offered as the substance abuse management maintenance component of the MHTC service. TAU consisted of traditional, adversarial court proceedings and a referral to county mental health services upon release from jail, as well as access to housing vouchers and Department of Rehabilitation vocational services.

Outcomes assessed at 6- and 12-month follow-up periods indicated that both groups improved on measures of life satisfaction, distress, and independent living. Additionally, the MHTC group showed significant reductions in substance abuse and significantly
fewer new criminal convictions than TAU participants. Unfortunately, from this study it is not possible to determine the effectiveness of SAMM in isolation from the benefits of other components of the MHTC experience. However, it is reasonable to speculate that SAMM did contribute to the successful outcomes of the MHTC group, particularly the reduction in substance abuse.

*Adapt Civil Programs to Address the Unique Needs of Offenders*

In addition to integrated treatment and CBT approaches, the literature suggests that civil programs should 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, by definition 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, specifically that: interventions should be clearly conceptualized and theoretically driven, treatment intensity should be matched to participants’ level of risk, criminogenic needs should be targeted, and treatment should be
adapted to offenders’ characteristics (Andrews et al., 1990; Lipsey & Wilson, 1998; Redondo, Garrido, & Sanchez-Meca, 1999). Each of these recommendations is next 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 should be “clearly conceptualized and theoretically driven” with methods founded on empirical support (McGuire, & Hatcher, 2001). Often these methods utilize social learning or cognitive-behavioral frameworks. Gendreau (1996) identified cognitive-behavioral interventions as a most effective for correctional rehabilitation.

**Match Treatment Intensity to Level of Risk**

A second principle is that effective treatments should 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 or more responsive to lower levels of treatment intensity (Andrews, Bonta, & Hoge, 1990).

**Target Criminogenic Needs**

A third principle is that effective treatments should 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). Criminogenic needs are differentiated from static risk factors, which are risk factors that cannot be changed and, therefore, 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 in 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 offender (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 these eight risk factors 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;

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 one 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 6 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 6-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 6-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 re-incarceration, 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 include multiple observations over time, or 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 either to the treatment group or to 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. 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 more impressive 20% reduction in recidivism rates for program completers compared to controls was evident. 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.

The criminogenic needs of offenders with DD have been explored in one study. Dickens (2005) administered two measures of criminogenic needs to a sample of 35 adult male inmates with DD (65.7% Caucasian, 25.7% African American, 8.6% Hispanic). 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. Additionally, all
participants were identified as having a substance use disorder as indicated by their results on the Substance Abuse Subtle Screening Inventory (SASSI; Miller, Roberts, Brooks, Lazowski, 2003).

To develop a single list of criminogenic needs, the Antecedents to Crime Inventory (ACI; Serin & Mailloux, 2001) and Criminogenic Needs Interview (CNI; Evans & Skeem, 2003) were administered and 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 combined into an “integrated list” of key criminogenic needs to target in treatment.

The ACI is a 54-item, self-report questionnaire designed to assess nine risk domains thought to be antecedents to criminality for general offenders based on a review of the empirical literature. The nine risk domains measured are: Impulsivity, Social Pressure, Excitement, Anger, Social Alienation, Substance Use, Financial, Interpersonal Conflict, and Family Conflict. Responses are made on a four-point Likert-type scale, with total scores for each domain ranging from 0 to 18.

In Dickens’ (2005) study, the ACI results indicated that 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 suggested that these areas were identified by participants as contributing to the occurrence of their offences and, therefore, 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 Dickens (2005) did not collect data from inmates without DD, participants’ mean scores for each domain were compared with the norms for general offenders reported by Serin and Mailloux (2001). This comparison was made to determine the extent to which criminogenic needs that are commonly found in the general prison population are experienced by inmates with DD. Significant differences were found between the sample and norm means in all of the domains except the Financial domain, with the DD inmate sample endorsing higher levels of difficulties compared to general offenders. This suggested 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.

The CNI is a semi-structured interview that guides participants through the environmental, behavioral, and emotional events that led up to their most recent crime. The CNI consists of open-ended questions about the crime that explore the interviewee’s perception of factors that contributed to the crime. 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: Offense Information; Basic Needs (e.g., accommodations, employment, financial); Relationships (e.g., peers, family, intimate); and Symptoms (e.g., substance use, anger/violence, emotional/health, medications/interactions, supervision, and problem solving skills).
To determine the nature of any unique criminogenic needs associated with DD inmates' offenses, a qualitative data analysis of the CNI data was performed using the N5 software package to organize and code data. 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. This process yielded 19 needs, which are presented with their frequencies in Appendix 1.

Given the similarities between the needs identified by the ACI and the CNI, as well as commonalities within each measure, the final step in Dickens' (2005) analysis was to review commonalities among criminogenic needs elicited by the ACI and CNI and integrating the results into consistent categories. This integrated list represented the major problem areas that seemed related to participants' crimes, and can be used to inform treatment development for inmates with DD. The integrated list was 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 three CNI needs: Pattern of Heavy Substance Use; Increase in Substance Use; and 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. Substance Misuse is
an important criminogenic need that is shared between general offenders and offenders with DD. A substantial amount of research supports substance abuse as a key criminogenic need for general offenders (Andrews & Bonta, 2003; Bonta et al., 1998; Brown, 1998; Dowden & Brown, 1998; Motiuk, 1998; Motiuk & Brown, 1993; Serin & Mailloux, 2001; Zamble & Quinsey, 1991, 1997).

Interpersonal Deficits included two CNI needs: Relationship Problems and Lack of Social Supports, as well as ACI domains: Family Conflict, Interpersonal Conflict, and 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. One facet of Interpersonal Deficits, family and relationship problems, seems to be well represented as a need for general offenders as well. 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). The social isolation component of Interpersonal Deficits does not seem to be a useful predictor of recidivism for general offenders (Motiuk & Brown, 1993; Zamble & Quinsey, 1997) and may be more specific to offenders with DD.

Mental Illness is a domain that may be unique to inmates with DD inasmuch as it was elicited chiefly from the CNI. This domain combined the following CNI needs: Absence of Mental Health Treatment, Mood/Anxiety Symptomology, Psychotic Symptoms, Complications with Medications, and 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.

For general offenders, anger has been identified as a moderate predictor of recidivism (Brown, 1998; Dowden, Blanchette, & Serin, 1999; Motiuk & Brown, 1993; Selby, 1984; Zamble & Quinsey, 1997). While a couple of studies report that general offenders who recidivate experience a substantial incidence of emotional problems during the months leading up to their crimes (Zambie & Quinsey, 1991, 1997), other studies have found that the presence of mental illness symptomology was not a criminogenic need for general offenders (Brown, 1998; Motiuk & Brown, 1993), or for mentally disordered offenders (Bonta et al., 1998). In fact, Bonta and colleagues (1998) found an inverse relationship between having a mental disorder and recidivism. It is possible that Mental Illness could be a need that is more pronounced within a DD sample than other offender samples, even mentally disordered offenders.

Deficient Cognitive Processing combined the CNI need, Problems of Cognitive Processing, with the ACI domain 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. This need seemed to cut across many other criminogenic needs in that individuals have problems coping with mental health problems, substance misuse, interpersonal relationships, and basic needs. For general offenders the literature also describes problems of coping, problem solving abilities, and impulsivity as important

Adherence to Criminal Subculture integrated CNI needs: Antisocial Attitudes, Rationalizations for Law Violations, Antisocial Peers, and Immediate Gratification, with ACI domains: Excitement and 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.

Adherence to Criminal Subculture also seems to be a need that offenders with DD share with general offenders. Studies with general offenders indicate that antisocial attitudes, antisocial peers, peer pressure, and excitement are predictive of recidivism (Andrews & Bonta, 2003; Brown, 1998; Law, 1998; Goggin, Gendreau, & Gray, 1998; Motiuk & Brown, 1993; Serin & Mailloux, 2001).

Unmet Basic Needs encompassed CNI needs: Financial Problems, Employment Problems, and 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. Similarly, studies with general offenders have suggested
that problems with employment, finances, and living accommodations are criminogenic (Goggin et al, 1998; Motiuk & Belcourt, 1996; Motiuk & Brown, 1993; Serin & Mailloux, 2001; Zamble & Quinsey, 1991).

Dickens (2005) concluded that overall, the results suggested that treatment needs for inmates with DD are not that different from general offenders. One difference that did exist was that offenders with DD had a more salient mental health need. Thus, it was recommended that treatments for inmates with DD should focus on both standard criminogenic needs and mental health in order to maximize their opportunity for a successful return to the community.

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 responsivity 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 has suggested that
individuals' level of intrinsic and extrinsic motivation influenced 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. 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).

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 ($r = -0.23$), attended more treatment sessions ($r = 0.20$), and were rated by clinicians as having higher degrees of treatment involvement ($r = 0.23$). Conversely, patients’ level of extrinsic motivation was related only to the number of treatment sessions missed ($r = -0.19$). 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 direct. 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. First, high extrinsic motivation, without intrinsic motivation, is related to poor treatment retention and outcome. Second, 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

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2 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 & Groffnick, 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.
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, Caroll, O’Malley, & Rounsaville, 2000; Graeber, Moyers, Griffith, Guajardo, & Tonigan, 2000 as cited in Miller & Rollnick, 2002; Swanson, Pantalon, & Cohen, 1999).

In a 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).

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; McMurran & 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 limited.  

Principles Derived From Treatment Programs for Offenders with Dual Diagnoses

In addition to principles from civil outpatients and prison offenders, a few studies provide principles directly for inmates with DD. Edens and colleagues (1997) contacted state and federal prisons nationwide 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

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3 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.
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).

Recently, survey procedures similar to Edens and colleagues (1997) were conducted, and 27 treatment programs for inmates with DD were identified in state and federal correctional facilities (Peters, LeVasseur, & Chandler, 2004). Of the programs identified, 20 agreed to participate in a telephone survey in which descriptions of the programs were gathered. All of the 20 programs represented modifications of existing treatment services to accommodate the needs of inmates with DD. The modifications that were made were consistent with those reported by Edens and colleagues (1997). Most of the programs identified in the survey were modified therapeutic communities and were located in
isolated treatment units, away from the general inmate population, within specialized prisons that are “treatment-oriented.”

Few of the specialty programs for offenders with DD have been empirically evaluated (Chandler, Peters, Field, & Juliano-Bult, 2004; Edens et al., 1997). Identified studies that assessed outcomes of programs for inmates with DD are presented here. These programs follow one of two treatment approaches: intensive case management (Godley et al., 2000), or modified therapeutic communities (DeLeon, Sacks, Wexler, 2001; Field, 1995; Research Unit, Oregon Department of Corrections, 1996; Sacks, Sacks, McKendrick, Banks, & Stommel, 2004; Van Stelle, Blumer, & Moberg, 2004; Van Stelle & Moberg, 2004; von Sternberg, 1997).

Godley and colleagues (2000) examined the effectiveness of an intensive case management approach that included screening and assessment services in prison, and linkage to community-based treatment providers, advocacy, housing assistance, skills training, and transportation assistance. Note that the only services received while incarcerated were the screening and assessment services, all other services were community-based. Recipients of these services were non-violent offenders with DD.

Results indicated that during the 6-month follow-up period in the community, participants had a significant decrease in criminal activity, and increases in the quality of daily functioning and retention in substance abuse treatment. Given that the majority of services were community-based, the extent to which this program can be labeled a “prison-based treatment program” is limited. Nevertheless, it does highlight the importance of providing inmates with information and linkage to community-based services upon release.
Therapeutic communities (TCs), which are residential, comprehensive, long-term programs aimed at restructuring the lifestyles and personalities of the participants, have traditionally been less effective for individuals with DD (DeLeon, 1993; Messina, Burdon, Hagopian, & Prendergast, 2004). The core principles of TCs include: providing a highly structured daily regimen, fostering personal responsibility and self-help in addressing life difficulties, using peers as role models, viewing change as gradual and stage-wise, stressing work and self-reliance through the development of vocational and independent living skills, and promoting pro-social values and relationships (Wexler, 2003). Modified TCs, which incorporate increased program flexibility, decreased intensity, and greater individualization, have found some success with inmates with DD (Wexler, 2003).

The Turning Point Alcohol and Drug Program at the Columbia River Correctional Institution in Oregon is a modified TC for female inmates (Research Unit, Oregon Department of Corrections, 1996). This program consists of five 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, led to the inclusion of mental health care.

Interventions were provided in a group format and focused 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 provided 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).
Corrections, 1996). Specifically, compared to a matched comparison group, Turning Point participants had 21% fewer convictions and 35% fewer parole revocations.

The Estelle Unit, located within a correctional facility in Texas, is a modified TC that serves male and female felony probationers and parole violators. This program offers three 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 suggested high rates of treatment retention, and lower rates of criminal recidivism and drug use following treatment relative to a comparison group (von Sternberg, 1997).

The Personal Reflections program, located at the San Carlos Correctional Facility in Pueblo, Colorado was developed to address the triple issues of substance abuse, mental illness, and criminal thinking for male inmates (DeLeon et al., 2001; Sacks et al., 2004). This modified TC combined cognitive behavioral techniques with TC principles to address these issues and promote recovery. Additionally, the Personal Reflections program provided participants with linkage to a community-based modified TC upon release from prison.

Sacks and colleagues (2004) reported that participants in the Personal Reflections program had significantly lower re-incarceration rates at 12-month follow-up compared to a comparison group receiving standard prison-based mental health treatment. However, when participants in the Personal Reflections group were divided into those who only participated in the Personal Reflections program and those who participated in the program plus aftercare in a community-based TC, differences emerged.
Specifically, no significant differences were found in recidivism rates between the Personal Reflections only group and the standard mental health treatment group. Significant differences were found between the Personal Reflections plus TC aftercare group and the standard mental health treatment group on measures of rates of re-incarceration, criminal activity, and criminal activity related to substance use. Thus, it seemed that community-based aftercare was a key component in reducing recidivism rates.

Lastly, Van Stelle and colleagues (2004) reported on the treatment retention rates for DD inmates participating in the Mental Illness Chemical Abuse (MICA) Treatment Program at Oshkosh Correctional Institution, located in Oshkosh, Wisconsin. The MICA Treatment Program is a modified TC for male inmates with severe, persistent mental illness and substance disorders. Of the 179 inmates admitted to the program over a 5 year period, 45 inmates (25%) completed the program. An evaluation of program completion revealed that lower psychopathy scores and less severe acute psychiatric symptoms at intake were predictive of program completion.

Van Stelle and Moberg (2004) assessed outcomes for MICA Treatment Program completers, inmates who were terminated from the program, and a comparison group who were eligible for the program but did not have enough time remaining on their sentence to participate in the program. The program completers were significantly more likely than the other two groups to receive additional treatment services (e.g., mental health and substance use treatments) while still incarcerated prior to release. These services were provided by an institution outreach program offered to MICA Treatment Program completers. Thus, the majority of program completers not only participated in
the modified TC, but continued receiving prison-based mental health and substance treatment services outside of a TC setting, which may have confounded the effects of the TC treatment.

For post-release outcomes, program completers and program terminations were grouped together; they will be referred to as program participants. Program participants and the comparison group were assessed at 3-month and 12-month follow-ups on indicators of substance use, mental health, stability, and criminal recidivism. Analyses revealed that program participants were significantly more likely than the comparison group to be abstinent from substances at the 3-month follow-up, but there were no differences at the 12-month follow-up. Additionally, no differences were found between the groups on the number of positive urine analysis tests.

Psychotropic medication compliance was evaluated as a mental health indicator. At 3-month follow-up, program participants were significantly more likely than the comparison group to have consistently taken prescribed medications since release. Additionally, program participants were significantly more likely to be rated as "stable" by their parole/probation officers. No significant differences in mental health indicators were seen at 12-month follow-up. Indicators of stability (i.e., having housing and a social support system) were not different between groups. Indicators of criminal recidivism included arrests and reincarceration.

Number of arrests at 3-month follow-up was not significantly different between groups; however, program participants had significantly fewer arrests at 12-month follow-ups and fewer reincarcerations at both time measurements. Path analysis was conducted to summarize the relationships between outcomes. A significant model
indicated that program participation led to medication compliance, which impacted
substance use, and these two factors interacted to improve mental health stability. Both
mental health stability and abstinence lead to more positive community outcomes.

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: an
integrated manner; a short, simplistic, and repetitive form to accommodate any cognitive
deficits; and a non-confrontational stance. Recommendations regarding treatment content
include: a clearly conceptualized, theoretically driven, and empirically driven model;
assessment of participants’ needs and orientation to the treatment; cognitive-behavioral
techniques; and interventions for increasing motivation levels and decreasing
criminogenic needs, such as substance misuse, interpersonal deficits, mental illness,
deficits in cognitive processing, adherence to criminal subculture, and unmet basic needs.

Although no prison-based treatment programs for DD conditions encompass all of
these recommendations, the prison-based programs described previously do incorporate
many of these recommendations. The modified TCs offer integrated mental health and substance use treatments, utilize cognitive-behavioral techniques, and have begun to assess program outcomes.

While these programs are promising, additional improvements could be made, such as implementing treatment components aimed at increasing treatment motivation and targeting additional criminogenic needs. Incorporating treatment motivation practices could increase program completion in programs that report large drop-out rates (see Van Stelle et al., 2004; Van Stelle & Moberg, 2004).

The development of evidence-based treatments for inmates with DD should not be restricted to case management and modified TCs. Offenders with DD vary widely in the severity of their mental illness and substance use disorders (Chandler et al., 2004). For example, in their survey of prison-based programs for DD, Peters and colleagues (2004) found that 26% of inmates in these programs were diagnosed with depression, 19% post-traumatic stress disorder, 15% bipolar, 15% schizophrenia, 13% anxiety disorders, and 6% schizoaffective disorder. Thus, it is recommended that a range of services should be developed and offered in prisons to meet the varying needs of inmates with DD (Chandler et al., 2004).

Despite this recommendation, the vast majority of prison-based programs adhere to one model of treatment (i.e., modified TCs), and often target only the most severe mental disorders. As a result of targeting only severe disorders (e.g., schizophrenia), many inmates with DD might not meet required inclusion criteria for many modified TCs, leaving them without specialized treatment alternatives for DD (see DeLeon et al., 2001; Sacks et al., 2004; Van Stelle et al., 2004; Van Stelle & Moberg, 2004).
Furthermore, modified TCs represent an extensive, long-term treatment option for inmates with DD, which often have long waiting lists for admission. All programs identified by Peters and colleagues (2004) were filled to capacity and all had waiting lists. Given that the average length of stay in a modified TC is 10 months, eligible inmates often had to wait for long periods of time for treatment (Peters et al., 2004). For example, the Estelle program reported a waiting list of 168 inmates for 189 treatment slots; the average waiting time was 4 to 5 months. The Turning Point program reported 300 to 500 inmates on their waiting list for 50 treatment slots. Many of the inmates on the Turning Point waiting list did not have enough time left on their sentence to make it into treatment.

If modified TCs with long waiting lists are the only treatment option for inmates with DD, then many may run the risk of being released into the community without the opportunity to participate in specialized treatment. Without treatment, offenders with DD are at risk for a host of negative outcomes, including reincarceration (Hartwell, 2004). Briefer treatment options should be explored for their effectiveness in addressing the needs of inmates with DD. If effective, briefer treatment programs could provide a more economic option for prisons, and could be offered as an alternative to modified TCs.

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 the need for treatment of these individuals. 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 the *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 research support for the general effectiveness of psychotherapies, and a 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). 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, & Kransnow, 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).

4 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 I A. 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).
However, manual content can represent general, conceptual overviews of how therapy should proceed (Addis, & Kransnow, 2000). When practitioners know (through training or experience) that not all manuals are “cookbooks,” they have a significantly more positive attitude toward manuals (Addis, & Kransnow, 2000; Morgenstern, Morgan, McCrady, Keller, & Carroll, 2001; Najavits, Weiss, Shaw, & Dierberger, 2000).

The Present Research

Currently, there are few empirical studies of “what works” for offenders with DD. Studies that do exist are limited to intensive case management and modified TCs. Studies exploring the effectiveness of different treatment programs for inmates with DD are warranted to expand and improve treatment options to address the varied and unique needs of this population.

The present research examined the utility of a community-based treatment manual that has been modified, based on the integrated list of treatment recommendations for prison-based use with offenders with DD. Recommendations for treatment format include that treatment be presented in: an integrated manner; a short, simplistic, and repetitive form to accommodate any cognitive deficits; and a non-confrontational stance.

Recommendations regarding treatment content include: a clearly conceptualized, theoretically driven, and empirically driven model; assessment of participants’ needs and orientation to the treatment; cognitive-behavioral techniques; and interventions for increasing motivation levels and decreasing criminogenic needs, such as substance misuse, interpersonal deficits, mental illness, deficits in cognitive processing, adherence to criminal subculture, and unmet basic needs. Additionally, the modifications were
informed by this authors’ previous research that explored the criminogenic needs of inmates with DD (Dickens, 2005).

The treatment manual that was modified was the Substance Abuse Management Module (Samm; Roberts, Shaner, & Eckman, 1999). Samm was modified for an institutionalized offender population by: (a) adding a component to Samm that address DD offenders’ mental health criminogenic need; and (b) deleting components of Samm that are irrelevant, inappropriate, or impractical for institutionalized offenders. Mental illness was chosen as the criminogenic need to add to the manual because previous research identified mental illness as a salient, unique need for inmates with DD (Dickens, 2005).

Dickens (2005) found that a primary component of the need mental illness was depressive symptomology. In fact, 77.14% of that sample reported mood symptomology characterized by feelings of worthlessness, hopelessness, low self-esteem and self-worth, insecurity, suicidal ideation, and sadness. Additionally, the Personality Assessment Inventory (Morey, 1991) was administered to the sample, and there was a significant elevation on the Depression scale, which reflected feelings of unhappiness, self-doubt, and hopelessness.

It was expected that the participants in the present study would resemble Dickens’ (2005) sample in terms of their mental illness need because the present study was conducted at the same prison and utilized the same recruitment procedures as the previous research. Thus, the component that was added to the manual to address the mental illness criminogenic need will target depression. The modified manual is referred to as the Substance Abuse Management Module- for Offenders (Samm-O).
The aim of the present study was to determine the effectiveness of SAMM-O in (a) engaging inmates with DD in treatment, (b) decreasing depression symptoms, and (c) increasing abstinence-related skills and knowledge. To accomplish these aims a non-controlled trial of SAMM-O, with a pre-post-test design, was conducted with inmates with DD at a Western prison.

SAMM was chosen as the basis from which to build a modified, specialty treatment for DD inmates for three primary reasons. First, SAMM encompasses the majority of recommendations reviewed earlier for treating DD inmates. Specifically, SAMM is a clearly conceptualized, theoretically driven, integrated, cognitive-behavioral model that incorporates motivational counseling in a group format. SAMM’s interventions are relatively short, simplistic, and repetitive to accommodate cognitive deficits that often accompany mental illness, and are non-confrontational.

The second reason that SAMM was chosen as a basis for treatment development is because it is a manualized treatment that provides a standard, systematic, and well-articulated method for treatment delivery. The well-articulated techniques and the general process both permit careful modifications for inmates with DD, and allow researchers to replicate the methods for program evaluation, comparisons, and dissemination to other sites (Dobson, & Shaw, 1988).

Despite its systematization, the SAMM manual is not a “cookbook” that is unlikely to be accepted by practitioners (see Najavits, et al. 2000; Dobson, & Shaw, 1998; MHIRC). Instead, the SAMM manual presents a theoretical rationale for the treatment approach, describes the specific techniques to be used with examples, suggests problems that might be encountered and possible solutions for those problems, and provides in-session
materials to use and relevant handouts for patients. There is an emphasis on maintaining positive processes, including the therapeutic alliance.

The third reason that SAMM was chosen was because evaluations of SAMM have been conducted with DD individuals, and the results are promising (see above section Cognitive-Behavioral Treatment Approaches: SAMM as a Prototype).

By way of overall review, the present research builds on previous research by Dickens (2005), which identified the criminogenic needs of inmates with DD, to modify an extant treatment manual to address the needs of incarcerated individuals with DD. These modifications included: (a) adding a component to address DD offenders’ mental health criminogenic need; and (b) deleting components that are irrelevant, inappropriate, or impractical for institutionalized offenders. The modified manual was implemented and evaluated in a prison setting with inmates with DD.

By taking on this task the present study sought to respond to the Council of State Governments’ (2002) call for researchers to “step up to the plate” by developing empirically supported treatments, as well as attending to the need for variety in services to address the heterogeneous needs of inmates with DD (Chandler et al., 2004).
CHAPTER 3

METHOD

A Preliminary Note Regarding the Present Research in a Prison Context

Research that is conducted in a prison setting is subject to a wide range of challenges that must be considered at the outset. The feasibility of any given study, of course, must be pragmatically considered prior to conducting the research. The feasibility of a study in a prison, however, is influenced by additional and unique logistical challenges, cost-benefit ratios, participant motivations, and methodological considerations.

A prison is a highly controlled environment that creates certain logistical challenges for conducting research. For example, the timeliness of research is often compromised in a prison setting. In this controlled setting, inmates and researchers must often be escorted by guards from location to location. Given the many responsibilities of the guards, escorts are seldom available immediately upon request. When inmates must be escorted individually to a testing location, there is often a waiting period between when a researcher requests an inmate and when the guard delivers the inmate. In previous research (Dickens, 2005), the waiting period commonly varied from 15 minutes to well over an hour.

Additionally, two “counts” are taken per day during the hours that the researcher was typically at the prison. A prison “count” is when all inmates must stay in their designated
areas while guards ensure that all inmates are accounted for. Complications that sometimes occur during count time have required the researcher to wait up to three hours for an inmate. Unfortunately, this is not an uncommon occurrence, and it substantially increased data collection time. Other unpredicted occurrences, such as prison lock-downs, can further extend the duration of data collection. When a lock-down occurs, inmates are not allowed to leave their cell and the researcher is not able to collect data. In this researcher's experience, lock-downs typically last for one or two days, but have lasted for up to three months. Obviously, these logistical challenges make prison-based research more time consuming than most comparable research in community settings.

Researchers who conduct studies in prison must also satisfy a unique cost-benefit ratio imposed by prison personnel. From the perspective of the prison, research can be especially costly. For example, in the present study, the initial recruitment was conducted with the assistance of a prison psychologist. The prison psychologist sacrificed time that might have been allocated to inmate care to do this.

As another example, guards were needed to secure the movement of inmates to and from locations used for pre-testing, treatment groups, and post-testing. Together, this was a substantial amount of movement within the prison that guards were required to secure. Ensuring security did not end after an inmate was delivered to the researcher. Guards and/or other prison personnel maintained visual contact with the researchers to heighten safety during data collection and treatment. Much time and man-power was utilized in this process.

The prison also had to provide the researchers with rooms in which to conduct testing and treatment. Space is a limited resource in the prison and must often be shared among
many individuals (e.g., staff, lawyers, researchers). Overall, then, the process of research is particularly costly to a prison. Due to this cost, a prison expects comparable benefits in exchange, and is unlikely to permit research in which the costs are judged to outweigh the benefits.

The level of participant motivation can also affect the feasibility of a study conducted in a prison setting. Inmates’ motivations may vary depending on their perceived benefit from participation. In previous research by Dickens (2005), inmates with DD indicated a high level of interest, with a mean of 4.31 on a scale ranging from 1 “not at all interested” to 5 “very interested,” in obtaining treatment specifically designed to help them manage mental illness symptoms and substance problems while in prison. Based on this finding, it was anticipated that inmates would be relatively willing to volunteer to participate in the present study to receive treatment for DD. However, if an inmate is not guaranteed something in return for his time (e.g., completing assessments only) he may be less likely to volunteer. Indeed, this became a problem in the present study, as indicated in the subsection below entitled Challenges with participant identification and recruitment.

Methodological constraints often occur as a result of the above practical issues. Ideal research designs for the evaluation of a treatment, like a controlled outcome study, may not always be feasible in the prison setting. Control groups and larger sample sizes increase the resources expended by the prison. Before such a large contribution is made by the prison, the prison finds it reasonable first to investigate the feasibility and promise of a treatment.

While still requiring many resources, as evidenced in the descriptions above, a non-controlled trial can provide a somewhat more cost-effective alternative to a controlled...
trial. While improvements on outcome measures during a non-controlled trial cannot be definitively linked to the treatment, they can suggest that a treatment is potentially effective, thus providing justification to the prison to support a more resource intensive controlled trial.

Conversely, if no improvements are found in a non-controlled trial, then the treatment can be adjusted or eliminated before even more resources are spent. This is especially relevant in the present study because the treatment in this study is different from any of the DD treatment programs currently offered in prisons; therefore, a foundation of support needed to be developed before more resource-intensive evaluations could be undertaken.

In summary, research conducted in a prison setting must balance ideal with feasible research designs. Factors affecting feasibility include logistical challenges (e.g., time constraints, space limitations), a cost-benefit ratio of prison resources to perceived benefits to the prison, participant motivation to volunteer, and methodological considerations. Given all of these challenges facing researchers in prisons, it is no surprise that there have been many more treatment programs used in prisons than there are treatment programs that have been evaluated for effectiveness in prisons (Peters et al., 2004).

Participants

To address the aims of the present study, the Substance Abuse Management Module – For Offenders (SAMM-O) was delivered in group format to inmates with DD at one Western state prison. Two treatment groups were included in this study. There were a
total of 28 adult male inmates from a medium security prison who began participating in this research, with 14 inmates randomly assigned per treatment group.

Although 5 to 10 members is often referred to as an ideal group size, the upper limit can vary based on two factors (Yalom, 1970). First, group size may be a function of the duration of the meeting. With a longer meeting duration, over the typical 90 minutes, more individuals can actively participate. The duration for a SAMM-O meeting was two and a half hours, allowing for a larger group size. Second, group size may vary depending on the degree of thoroughness with which individual problem areas are addressed. The content of SAMM-O is psychoeducational rather than therapeutic. While individual problems could be addressed, the sessions were lead by the manual content rather than an in depth exploration of individuals’ problems. For these two reasons, a slightly larger group size was acceptable.

Of the 28 initial participants, 3 were prevented from completing participation (as described in the section Identifying Participants and Recruitment below). Accordingly, all subsequent data descriptions and analyses were based on the 25 participants who completed the program (morning group n = 12, afternoon group n = 13).

Participants’ ethnic backgrounds were as follows: 60% Caucasian, 20% African American, and 20% Hispanic. Ages ranged from 24 to 54 years old (M = 40.32, sd = 9.15). In regard to educational level, 20% of the participants had completed some high school, 32% were high school graduates, 20% held GEDs, 24% completed some college, and 4% completed a bachelor degree or beyond.

A participant’s 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: 24% participants had offenses in the category theft (e.g., theft, possession of stolen property), 16% murder (e.g., attempted murder, murder, voluntary manslaughter), 16% sex offenses (e.g., statutory sexual seduction, lewdness, sexual assault with a minor, and attempted offenses), 8% robbery (e.g., robbery, armed robbery, attempted robbery, robbery with violence), 8% drugs (e.g., possession, trafficking), 8% fraud (e.g., fraud, forgery, uttering), 8% escape (e.g., escape, unlawfully at large, failing to appear), 8% possession of weapon (e.g., possession of a weapon, use of a deadly weapon), 4% kidnapping (e.g., kidnapping, unlawful confinement, forcible seizure), 4% assault (e.g., assault causing bodily harm, wounding, threatening), 4% obstruction of justice (e.g., obstruction of justice, assaulting a police officer, resist arrest), and 4% miscellaneous (e.g., miscellaneous minor charges, vandalism, causing a disturbance, mischief).

There were six inclusion criteria for participation in this study. The first inclusion criterion was that participants had to have a prison-recorded diagnosis of an Axis I mood disorder. These diagnoses were made by mental health personnel at the prison during intake and subsequent evaluations. The primary diagnoses for the sample were: 60% major depression (of these 8% had psychotic features), 36% bipolar (of these 4% had psychotic features), and 4% depressive disorder not otherwise specified. Additionally, 64% of the participants had multiple diagnoses recorded. These included: 20% of the total sample who were additionally diagnosed with dysthymia, 16% posttraumatic stress disorder, 12% schizoaffective, 8% schizophrenia, 4% anxiety disorder not otherwise
specified, and 4% attention deficit hyperactivity disorder. Records also indicated that
12% of the participants had panic attacks but did not indicate a specific anxiety disorder.

The majority of the participants (n = 14) were taking psychotropic medication(s) and
did not have any changes in their medication(s) during the course of the present study, 9
participants were not on any medication, and 2 participants changed their medications.

The second inclusion criterion was the presence of a substance use disorder. This
criterion was determined by the principle investigator (PI), who administered the
Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller, Roberts, Brooks,
Lazowski, 2003) during the recruitment procedures for the present study.

The third eligibility criterion required that participants have at least 6 months
remaining on their sentence and not be on the transfer list (indicating that the inmate will
be transferred to another correctional facility or camp in the near future) in order to allow
sufficient time for completion of the treatment program and post-tests.

The fourth inclusion criterion was that participants had to display current depressive
symptomology as indicated by a score of 18 or above on the Beck Depression Inventory
– II (BDI-II; Beck, Steer, & Brown, 1996). This test was also administered during
recruitment procedures by the PI.

The fifth inclusion criterion was that participants could not be experiencing active
psychotic symptoms. This inclusion criterion was a requirement set forth by the
participating prison based on safety concerns and supervision requirements.

The final, sixth, inclusion criterion stipulated that participants could not be currently
participating in the prison’s OASIS program, which is a therapeutic community for
substance misuse, as this would confound the study results.
Materials

During the recruitment process, the Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller, Roberts, Brooks, Lazowski, 2003) and Beck Depression Inventory – II (BDI-II; Beck, Steer, & Brown, 1996) were administered by the principal investigator (PI) in group format to consenting potential participants to determine if they met the substance disorder and depressive symptomology eligibility criteria.

The following assessments were used in order to determine the effectiveness of SAMM-O in: (a) engaging inmates with DD in treatment, (b) decreasing depression symptoms, and (c) increasing abstinence-related skills and knowledge. First, to evaluate treatment engagement, participant’s treatment group attendance was tracked throughout the treatment at each session, and consumer satisfaction feedback was evaluated at post-treatment using the Consumer Satisfaction Interview. Second, the BDI-II was administered to assess change in depression symptomology from pre- to post-treatment. Third, abstinence-related skills and knowledge were evaluated pre- and post-treatment using a modified version of the Knowledge and Skills Test (KST; Roberts, Shaner, & Eckman, 1999). Additionally, demographic information was obtained by the PI during pre-testing in order to describe participants’ characteristics.

A fuller description of the instruments used in this research is given in the following.

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

The SASSI-3 is a brief screening tool for identifying individuals who have a high probability of having substance dependence and was used as an inclusion criterion for this study. Scoring of the SASSI-3 provides the user with 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-3 is composed of 10 scales. There are two face-valid scales; one tapping alcohol misuse (Face-Valid Alcohol, 12 items) and the other concerning drug misuse (Face-Valid Other Drug, 14 items). 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 (67 items). 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. The average time for test administration is reported to be 15 minutes.
Beck Depression Inventory - II (BDI-II; Beck, Steer, & Brown, 1996)

The BDI-II is a 21-item self-report questionnaire designed to assess characteristics or symptoms of depression experienced during the previous two weeks. The BDI-II was administered during the recruitment phase to establish inclusion. The BDI-II score obtained during the recruitment phase was also used as a participant’s pre-test dependent variable score of depressive symptomology. After treatment completion, a post-test BDI-II score was obtained as an indicator of treatment outcome.

The BDI-II takes approximately 10 minutes to complete. Responses to each item are made on a four-point Likert-type scale, ranging from zero (indicating a lack of a characteristic or symptom) to three (indicating a strong endorsement of an item). Item scores are summed to arrive at the total score, which can range from 0 to 63. As stated in the test manual (Beck et al., 1996), recommended cut off scores indicating the severity of major depression within a clinical sample are as follows: 0 to 13 minimal depression, 14 to 19 mild depression, 20 to 28 moderate depression, 29 to 63 severe depression. For the present study, scores of 18 or above met inclusion criteria.

Research suggests that the BDI-II is a reliable and valid measure of depression symptomology (Beck et al., 1996). The coefficient alpha for an outpatient sample (N = 500) was .92, which indicated good reliability. Convergent and divergent validity has been shown using various measures of depression and anxiety. For example, the BDI-II has been shown to be significantly more positively correlated (r = .71) with the Hamilton Psychiatric Rating Scale for Depression (HRSD; Hamilton, 1960), than it is with the Hamilton Rating Scale for Anxiety (HARS; Hamilton, 1959) (r = .47).
Knowledge and Skills Test (KST; Roberts et al., 1999) Modified for Offenders

The Knowledge and Skills Test (KST; Roberts et al., 1999) is a 44-item interview designed to assess drug abstinence-related knowledge and skills that are consistent with the materials taught in the SAMM manual. During the assessment, the test-administrator asks the test-taker about various key concepts related to relapse prevention (e.g., What is a high-risk situation?). Questions include asking the test-taker to role-play how he/she would respond in various high-risk, substance-related scenarios. A point is given for each response that is consistent with the concepts and skills taught. Total scores can range from 0 to 120 points. The manual reports a mean score of 41 (sd = 11.8) for individuals with DD prior to treatment, and a mean of 102 (sd = 12.6) after treatment.

In order to address the needs of an inmate sample, the SAMM manual was modified by the PI in two ways to create the offender version (SAMM-O). First, a cognitive behavioral therapy (CBT) component for depression was added to SAMM to address the criminogenic need of “mental illness”. The second modification of SAMM included deleting components of SAMM that are irrelevant, inappropriate, or impractical for institutionalized offenders, based on this researcher’s previous experience with the target population (Dickens, 2005).

To be consistent with the modifications that were made in SAMM-O, test items that corresponded to modules that were taken out of the original SAMM manual were omitted. Thus, the modified for offenders version of the KST (KST-O) consisted of 30 items (see appendix B), with total scores ranging from 0 to 75. Administration time for the KST-O is approximately 30 minutes, and it was administered pre- and post-treatment.
Demographics Questionnaire

The demographics questionnaire (see appendix C) was used to gather information about participants’ age, ethnicity, educational level, mental health diagnoses, and criminal history. The PI collected self-report demographic information from each participant during the pre-treatment testing session. Information regarding instant offense and mental health diagnosis was gathered from prison records.

Consumer Satisfaction

The consumer satisfaction interview (see appendix D) was used to gather feedback about participants’ likes and dislikes regarding the treatment group. The consumer satisfaction interview was conducted at the end of the post-treatment testing session by the PI or treatment co-facilitator.

Participants were asked in a single item to rate the helpfulness of the treatment group on a Likert-type scale ranging from one (“not at all helpful”) to five (“very helpful”). Additionally, qualitative feedback was elicited to obtain more detailed descriptions of ways in which the treatment group was helpful, participants’ likes and dislikes about the treatment, and improvements than might be made to the treatment.

Procedure

Identifying Participants and Recruitment

The prison psychologist initially identified potential participants as those who were currently listed as “category II” inmates. Inmates listed as category II are those who are receiving or have received mental health services of any type. Next, all inmates who were currently in the OASIS program were eliminated from the pool of potential participants.
Also eliminated were inmates employed in prison industries and inmates housed in the structured living unit because it was initially intended that the treatment groups would be held on weekdays. Inmates employed in prison industries worked on all weekdays and the structured living unit houses inmates who participate in military-like programming during weekdays. Additional category II inmates were eliminated if they had less than 6 months left on their prison sentence or were on the transfer list. Finally, inmates who did not have a recorded Axis I mood disorder were not included in the sample. This process of elimination resulted in a list of 52 potential participants.

An invitation letter was sent to these 52 inmates. This invitation letter briefly explained the present research study and invited the inmates to meet with the PI to find out more about the study and, if subsequently they were interested, to participate in a screening to determine if they would be eligible to participate in the study. Further, the invitation instructed inmates to send a kite (i.e., memo sent within the prison system) to the prison psychologist if they would like to have their name released to the PI and attend the stated meeting.

Of the 52 inmates who received invitation letters, 26 potential participants attended the group meeting with the PI and all 26 subsequently agreed to participate in the screening. The screening was then conducted during this initial meeting. The 26 screened inmates gave prior consent to allow the PI to evaluate their study eligibility, which included a consent to complete the SASSI-3 and BDI-II and consent for the PI to obtain their prison-recorded Axis I diagnosis. Of the 26 inmates screened, the 19 individuals who were identified as substance dependent by the SASSI, who scored 18 or above on the BDI, and who had an Axis I mood disorder constituted the eligible pool of
participants for the present study. Of the 19 inmates from the eligible pool, 14 met individually with the PI and were invited to participate in the study. Unfortunately, five inmates from the eligible pool were unavailable to meet with the PI due to various unanticipated events (i.e., lockdown, transferred to another institution, or paroled).

During the individual meetings with the PI, informed consent forms were provided to each inmate and reviewed by the PI to obtain inmates’ voluntary and informed consent to participate. There were 12 eligible inmates who gave their consent to participate and who completed an informed consent quiz to ensure their understanding of the nature of the study (all inmates who took the informed consent quiz passed it). Demographic information was collected from these inmates and the KST-O pre-test was administered. The two eligible inmates who declined to participate in the study were thanked and excused.

Challenges with Participant Identification and Recruitment

Some unanticipated challenges complicated the process of participant identification and recruitment. These challenges were largely due to changes in prison policies that had occurred some time after this researcher completed her thesis research at the participating prison. These policy changes were not communicated to this researcher until after the initial participant identification process described above was set to begin and, thus, subsequently extended the recruitment process.

The first policy change affected inmates’ eligibility for the OASIS program. Previously, a diagnosis of a serious mental illness (SMI) was an exclusion criterion for OASIS. However, this was changed by the prison so that inmates with SMI could participate in OASIS. This change posed a challenge for the present study because many
inmates who would have previously been considered for participation in the research were now ineligible. As such, the number of potential participants obtained, as described above, for the present study was lower than had been expected and resulted in fewer study participants than was intended (proposed N = 30).

The second relevant policy change was that inmates began receiving meritorious credit for specific prison-based programs approved by the Nevada Department of Corrections (NDOC), which did not include the present research. Meritorious credit translates to some number of days that are taken off the end of an inmate’s sentence in exchange for participating in various prison programs, including mental health treatments. Since inmates were now eligible to receive meritorious credit for mental health programming, some were reluctant to engage in a research treatment program that did not offer this credit.

In an attempt to compensate for the challenges above, the following steps were taken. First, the PI sought permission from the prison warden to conduct the treatment groups on weekends. Holding treatment groups on weekends allowed inmates who would be otherwise unavailable during the week, such as inmates working in prison industries and those who are housed in the structured living unit, to be potential participants in the treatment, thus increasing the eligible pool from which to recruit. Permission to conduct the treatment groups on weekends was graciously granted, and the original list of category II inmates was re-examined to identify potentially eligible inmates from prison industries and the structured living unit.

Second, permission was sought from the NDOC to give meritorious credit to inmates who complete the present research. After reviewing the present research project and this
request, the NDOC agreed to grant 15 meritorious credits for participation in this research, which translates into 8 days deducted from the end of the participant’s prison sentence. By granting meritorious credit for participation in this research, an incentive was provided that is common practice for engaging in other (competing) programs at the participating prison.

New invitation letters, which included information regarding the 15 meritorious credits, were sent to the category II inmates identified in prison industries and the structured living unit, as well as to inmates from the original pool of 52 who did not attend the screening. There were 24 inmates who responded to this second invitation by sending a kite to the prison psychologist indicating their interest in the study. All 24 inmates met with the PI, were screened, asked to give informed consent, and pre-tested in the same manner as described above. The only difference between the first round of screening and second was that the first screening was conducted in one large group whereas the second round of screening occurred in several small groups of inmates (2 to 10 inmates at a time) due to space limitations.

Of the 24 inmates screened, 19 were considered eligible to participate based on the screening criteria and consented to participate in the study. Of the 19 who consented, 16 inmates were available when the treatment group began. The remaining three inmates were no longer available because one refused to participate and two had changes in work schedule.

In a final recruitment attempt to entice interest, a third invitation letter was sent to inmates who had previously received a letter but did not respond; however, this final attempt did not yield any further interest.
In summary, 12 participants were recruited through the initial round of screening and 16 participants were recruited through the second round of screenings, for a total of 28 participants who began the treatment program. Through the entire recruitment process, a total of 80 potential participant inmates received invitation letters, 50 of whom indicated interest and participated in the screening procedures (62.5% response rate).

Obtaining the Final List of Participants

Out of the 50 inmates who were screened, 38 met all eligibility criteria. Of the 38 eligible inmates, 3 declined to participate in the study, leaving 35 who agreed to participate. However, before the start of the treatment groups, two inmates had changes in their work schedule that conflicted with the treatment group times, two were paroled from prison, two were locked down in solitary for disciplinary reasons, and one entered OASIS. As a result, 28 inmates were available to begin the treatment. Unfortunately, three of the participants were prevented from completing the study for the following reasons: two were locked down in solitary for disciplinary reasons and one was transferred to another correctional facility.

It was decided that the three participants who did not complete the study should not be treated as “drop-outs”. The purpose of tracking drop outs was to determine if the treatment was viewed in an unfavorable manner by participants or caused any adverse reactions. Clearly, the three participants who did not complete the treatment did not willfully drop out of treatment due to any adverse response to the treatment program, but were instead prevented from participating due to factors outside of their own control. Thus, the present study included 25 inmates who participated through completion of the protocol.
Pre-Treatment Tests

Pre-treatment test measures included the demographics questionnaire, BDI-II, and KST-O. The BDI-II was administered in group format during the screening procedures after informed consent was given for the screening. The demographics questionnaire and KST-O were conducted individually with each participant after informed consent was obtained for study participation. To clarify, informed consent was sought on two occasions. First, willing participants gave informed consent to participate in the screening procedures to determine study eligibility, which included consent to complete the SASSI-3 and BDI-II and consent for the PI to obtain their prison-recorded Axis I diagnosis. Second, informed consent was given for study participation, which included taking the demographics questionnaire and KST-O; participating in the treatment group; and responding to the post-treatment administration of the BDI-II, KST-O, and consumer satisfaction interview.

The Treatment Program: Modifying and Implementing SAMM-O

SAMM-O was created by modifying an existing treatment manual (SAMM, Roberts et al., 1999) that was created for community-based civil samples. SAMM consists of eight basic training and nine skills training modules that are conducted in group format. The basic training modules are designed to teach substance relapse prevention principles. The skills training modules reinforce and extend the basic training principles by providing specific skills needed to apply the principles.

In order to address the needs of an inmate sample, SAMM was modified by the PI in two ways. First, a component was added to SAMM to address one of the criminogenic
needs, other than substance misuse, that was found to be important for inmates with DD in Dickens’ (2005) research. Although six criminogenic needs were identified in that research (i.e., substance misuse, interpersonal deficits, mental illness, deficits in cognitive processing, adherence to criminal subculture, and unmet basic needs), it would be logistically difficult to incorporate all of these needs into one treatment. Thus, the present study focused on the criminogenic need of “mental illness” in addition to the substance misuse need that is already targeted by SAMM.

Mental illness was chosen because it was identified as a unique, highly problematic need for offenders with DD (Dickens, 2005). A primary aspect of the mental illness need for the target population is depression. To address this need, cognitive behavioral therapy (CBT) for depression was incorporated. This component followed the principles presented in the books *Feeling Good: The New Mood Therapy* and *The Feeling Good Handbook* by Burns (1999a, b), which focus on how thoughts affect mood.

The second modification of SAMM included deleting components of SAMM that are irrelevant, inappropriate, or impractical for institutionalized offenders, based on this researcher’s previous experience with the target population (Dickens, 2005). Components that were deleted included two basic training modules (i.e., emergency card and money management) and four skills training modules (i.e., refusing drugs offered by a dealer, getting an appointment with a busy person, asking someone to join you in a healthy pleasure, and negotiating with a representative payee).

More explicitly, although the target population has financial difficulties, reliance on representative payees for money management is uncommon. Additionally, the target population seemed to receive pressure to use substances from friends and family rather
than from dealers. Other SAMM modules (i.e., getting an appointment with a busy person, asking someone to join you in a healthy pleasure, emergency card) target the severe social skills and cognitive deficits commonly seen among individuals with severe psychotic illness. Therefore, these modules would have been inappropriate for the target population who were diagnosed with mood disorders and had higher levels of social and cognitive functioning.

The product of these modifications, SAMM-O, was delivered to two treatment groups of inmates consisting of 14 participants each who were randomly assigned from the pool of eligible inmate participants with DD. The basic training principles and skills taught in SAMM-O, along with an explanation of each, are presented in appendix E. For an outline of the mental health component (CBT for depression) added to SAMM-O see appendix F.

The duration of the treatment was 8 weeks. During that time, each group met on Saturdays for 2 ½ hours. Originally, the treatment groups were set to be conducted on eight consecutive Saturdays. However, the prison was locked down on the second scheduled Saturday, so the second session was postponed 1 week. There were no subsequent interruptions in scheduled treatment sessions, thus the 8-week treatment program was completed over a 9-week time span. Both treatment groups were jointly conducted by the PI and a co-therapist.

Post- Treatment Tests

Upon treatment completion, all post-treatment tests were conducted individually with participants. Post-test measures included the BDI-II, KST-O, and the consumer satisfaction interview, which were administered in the stated order. The PI conducted the majority of the post-test protocols (23 of 25); however, the co-therapist conducted two
post-test protocols because these were administered on the final day of the treatment
group after completion of the group when both the PI and co-therapist were at the prison.
The remaining post-tests were conducted by the PI over a one-week time frame. Each
post-test took approximately one hour per inmate to complete.

Co-Therapist

A co-therapist jointly facilitated the two treatment groups with the PI and conducted
two post-tests sessions. The co-therapist was an advanced male graduate student in
clinical psychology. A co-therapist was used in the present study for two reasons. The
first reason was for practical purposes. Given the large group size, the presence of a co-
therapist was almost essential in managing group discussions and processes.

The second reason was for safety concerns. Given the high demands on prison
guards, it could not be guaranteed that security staff would always maintain visual
contact with the treatment group. Additionally, the PI was female and had to manage
inappropriate sexual verbiage or behavior by the inmates. The presence of a male co-
therapist increased the security of the group and discouraged the occurrence of sexual
harassment. The PI provided the co-therapist with training in the principles and
procedures of co-facilitating SAMM-O and administration of post-test measures.
CHAPTER 4

RESULTS

The aims of the present study were to determine the effectiveness of SAMM-O in: (a)
engaging inmates with DD in treatment, (b) decreasing their depression symptoms, and
(c) increasing their drug abstinence-related skills and knowledge. To accomplish these
aims, an 8-week, non-controlled trial of SAMM-O with a pre-post-test design was
conducted with nonpsychotic inmates with DD.

Three hypotheses are addressed in this chapter. First, it was hypothesized that the
morning and afternoon treatment groups would not differ at baseline in demographic or
dependent variables, allowing the data from the two groups to be collapsed for further
analyses. Second, it was hypothesized that participants' scores on the BDI-II would
decrease, and KST-O scores would increase, from pre-treatment baseline to post-
treatment. Third, it was hypothesized that the treatment would be acceptable to
participants as indicated by participant attendance and consumer satisfaction feedback.

Hypothesis 1: Baseline Differences Between Groups

In order to increase power in detecting significant changes from baseline to post-
treatment on the outcome measures, collapsing the data from the two treatment groups
was desirable. Before these data could be collapsed, however, it was necessary to
determine if the groups differed on demographic or dependent variables at baseline. Given that participants were randomly assigned to the treatment groups, no significant differences between groups were expected.

**Baseline Differences on Demographic Variables**

Education, ethnicity, crime, and age were examined to determine if there were any pre-existing differences between participants in the morning and afternoon treatment groups on these demographic variables. Education, ethnicity, and crime were collapsed into fewer levels to increase power for the following analyses. Level of education was collapsed into three levels (i.e., some high school, high school/GED completed, and college/some college), ethnicity was collapsed into two levels (i.e., white and non-white), and crime was collapsed into two levels (i.e., violent and non-violent offenses).

In Figure 1 the percentage of participants at the various levels of education, ethnicity, and crime are displayed for the morning and afternoon treatment groups. In the morning group, 66.7% of the participants were white and 33.3% were non-white, contrasted with 53.8% white and 46.2% non-white in the afternoon group. Regarding educational level, the morning group contained 25% some high school, 33.3% high school, and 41.7% college, and the afternoon group contained 15.4% some high school, 69.2% high school, and 15.4% college. On crime, 41.7% of the morning group and 46.2% of the afternoon group committed violent offenses, while 58.3% of the morning group and 53.8% of the afternoon group committed non-violent offenses. Regarding age, the mean for the morning treatment group was 40.17 ($SD = 10.44$) and 40.46 ($SD = 8.20$) for the afternoon treatment group.
A one-way ANOVA was performed to determine if there were any significant baseline differences between the morning and afternoon treatment groups in age. The analysis indicated that there were no significant differences between the morning and afternoon treatment groups at baseline on age \([F(1, 24) = .01, p = .94]\). Baseline differences between the morning and afternoon groups for education level, ethnicity, and crime were analyzed using chi-square. Results indicated that there were no significant baseline difference between the morning and afternoon groups on education level \(\chi^2_{19}(2) = 3.37\), ethnicity \(\chi^2_{.79}(1) = .07\), or crime \(\chi^2_{.82}(1) = .05\).
Baseline Differences on Dependent Variables

As indicated in Figure 2, participants’ mean score at baseline on the BDI-II was 32.25 (SD = 10.85) for the morning treatment group and 33.69 (SD = 7.63) for the afternoon treatment group. On the KST-0 the baseline mean in the morning treatment group was 16.17 (SD = 5.94) and 18.69 (SD = 8.71) for the afternoon treatment group.

Figure 2 Baseline Dependent Variables by Group

Baseline data for the dependent measures were examined using a one-way ANOVA to determine if there were any pre-existing differences between the morning and afternoon treatment groups. There were no significant pre-existing differences between the treatment group held in the morning compared to the afternoon treatment group on the BDI-II pre-test \( [F (1, 24) = .43, \ p = .52]\) or the KST-O pre-test \( [F (1, 24) = .71, \ p = \)
Thus, baseline data on the BDI-II and KST-O from the morning and afternoon treatment groups were collapsed respectively for subsequent analyses.

Hypothesis 2: Changes in Dependent Variables

To evaluate the effectiveness of SAMM-O in decreasing depression symptoms and increasing drug abstinence-related knowledge and skills, scores on the BDI-II and KST-O were examined using two repeated measures analyses of variance (ANOVA) with a Bonferroni correction to reduce type I error. It was hypothesized that a significant decrease in BDI-II scores, and a significant increase in KST-O scores, would be obtained from baseline to post-treatment.

To determine if demographic variables influenced treatment outcomes, five separate ANOVAs were performed with age, education, ethnicity, crime, and psychotropic medication for the BDI-II and KST-O post-tests.

Results for Depression Symptomology

Possible scores on the BDI-II can range from 0 to 63, with higher scores indicating more severe depressive symptomology. In the present study, inmates had to obtain a minimum score of 18 to meet the inclusion criterion. The range of participants’ scores on the BDI-II pre-test was 18 to 50 and the post-test scores ranged from 5 to 41. As shown on the left side of Figure 3, participants’ mean pre- and post-test scores on the BDI-II were 32.52 ($SD = 9.20$) and 17.32 ($SD = 9.98$) respectively.
Figure 4 compares the number of participants who scored in the minimal, mild, moderate, and severe ranges of depression symptomology on the BDI-II at pre- and post-test. As indicated in Figure 4, none of the participants’ pre-test scores were in the minimal range, 4% were in the mild range, 36% were in the moderate range, and 60% were in the severe range on the BDI-II. At post-test, 44% of the participants endorsed symptoms in the minimal range, 24% in the mild range, 12% in the moderate range, and 20% in the severe range.
The change in depression scores from pre- to post-treatment was analyzed statistically by using a repeated measures ANOVA. A significant main effect was obtained, $F(1, 24) = 46.09, p < .001$, which indicated that a significant decrease occurred in depressive symptomology from baseline to post-treatment as measured by the BDI-II.

When individual responses to treatment were examined, 21 participants (84% of the total sample) showed a decrease in BDI-II scores from baseline, 3 participants (12%) showed an increase, and 1 participant (4%) showed no change. A bivariate correlation was performed to examine the relationship between BDI-II pre-test scores and the magnitude of change on the BDI-II scores. A significant positive correlation was found between BDI-II pre-test scores and BDI-II change scores [$r(25) = .54, p = .006$]. This indicated that participants who began treatment with greater depressive symptomology showed the greatest decrease in depressive symptomology by the end of the treatment.
Results for Drug Abstinence-Related Knowledge and Skills

Possible scores on the KST-O range from 0 to 75, with higher scores indicating greater drug abstinence-related knowledge and skills. Participants’ scores on the KST-O pre-test ranged from 4 to 31, while the post-test scores ranged from 27 to 64. The right side of Figure 3 shows that participants’ mean pre- and post-test scores on the KST-O were 17.48 (SD = 7.47) and 52.00 (SD = 6.95) respectively.

Figure 5 displays a summary of the frequency of participants who scored in various ranges on the KST-O at pre- and post-test. On the pre-test, 16% of the participants scored in the 0 to 10 range, 52% scored in the 11 to 20 range, 28% scored in the 21 to 30 range, 4% scored in the 31 to 40 range, and no participants scored in the 41 to 50 range or over 51. At post-test, no participants scored in the 0 to 10 or 11 to 20 ranges, 4% scored in the 21 to 30 range, none in the 31 to 40 range, 32% in the 41 to 50 range, and 64% in the 51 and greater range.

Figure 5 Summary of Pre- and Post-Test KST-O Scores
As before, the change in KST-O scores from pre- to post-treatment was analyzed statistically using a repeated measures ANOVA. As expected, there was a significant main effect, $F(1, 24) = 563.76, p < .0001$, which indicated a significant increase in drug abstinence-related skills and knowledge from baseline to post-treatment as measured by the KST-O.

When examining individual responses to treatment, 25 participants (100% of the total sample) showed an increase in KST-O scores from pre- to post-treatment. A bivariate correlation was performed to examine the relationship between KST-O pre-test scores and the magnitude of change on the KST-O scores. A significant negative correlation was found between KST-O pre-test scores and KST-O change scores $r(25) = -.56, p = .004$. This indicated that participants who began treatment with less drug abstinence-related knowledge and skills showed the greatest increase in drug abstinence-related knowledge and skills by the end of the treatment.

Results for Demographic Influence

To determine if the demographic variables and psychotropic medication influenced the treatment outcomes, five separate ANOVAs were performed, using the collapsed versions of participants’ age (split at the median), level of education (some high school, high school/GED completed, and college/some college), ethnicity (white and non-white), crime (violent and non-violent), and psychotropic medication (taking medication and not taking medication) on the obtained BDI-II post-test and KST-O post-test scores. As reported previously, 16 participants were taking medications throughout the course of the study and 9 were un-mediated. The means and standard deviations on the DBI-II post-test for each of the demographic groups are presented in Table 1. The first analysis
indicated that there was not a significant relationship between age \( F(1, 24) = .01, p = .91 \), education \( F(2, 24) = .47, p = .63 \), ethnicity \( F(1, 24) = .90, p = .357 \), crime \( F(1, 24) = 2.88, p = .10 \), or psychotropic medication \( F(1, 24) = 3.18, p = .09 \) and BDI-II post-test scores.

Table 1 BDI-II Post-Test Scores by Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 41</td>
<td>17.53</td>
<td>7.72</td>
</tr>
<tr>
<td>Over 41</td>
<td>17.08</td>
<td>12.33</td>
</tr>
<tr>
<td>Education Level</td>
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<td></td>
</tr>
<tr>
<td>Some High School</td>
<td>18.6</td>
<td>13.6</td>
</tr>
<tr>
<td>High School</td>
<td>15.46</td>
<td>8.46</td>
</tr>
<tr>
<td>College</td>
<td>19.90</td>
<td>10.76</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>18.87</td>
<td>10.00</td>
</tr>
<tr>
<td>Non-White</td>
<td>15.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Crime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>21.00</td>
<td>12.51</td>
</tr>
<tr>
<td>Non-Violent</td>
<td>14.43</td>
<td>6.55</td>
</tr>
<tr>
<td>Medication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking Medication</td>
<td>19.88</td>
<td>11.22</td>
</tr>
<tr>
<td>No Medication</td>
<td>12.78</td>
<td>5.12</td>
</tr>
</tbody>
</table>

Table 2 displays the means and standard deviations on the KST-O post-test for each of the demographic groups. Similarly, there was no significant relationship obtained between age \( F(1, 24) = .01, p = .91 \), education \( F(2, 24) = 1.10, p = .35 \), ethnicity \( F(1, 24) = .05, p = .82 \), crime \( F(1, 24) = .75, p = .40 \), or psychotropic medication \( F(1, 24) = .60, p = .45 \) and KST-O post-test scores. Thus, it would appear that demographic variables and psychotropic medication did not significantly influence treatment outcomes.
Table 2 KST-O Post-Test Scores by Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 41</td>
<td>51.84</td>
<td>9.06</td>
</tr>
<tr>
<td>Over 41</td>
<td>52.17</td>
<td>3.97</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some High School</td>
<td>48.00</td>
<td>3.10</td>
</tr>
<tr>
<td>High School</td>
<td>52.62</td>
<td>8.76</td>
</tr>
<tr>
<td>College</td>
<td>53.71</td>
<td>3.99</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>52.27</td>
<td>8.55</td>
</tr>
<tr>
<td>Non-White</td>
<td>51.60</td>
<td>3.86</td>
</tr>
<tr>
<td><strong>Crime</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>53.36</td>
<td>4.99</td>
</tr>
<tr>
<td>Non-Violent</td>
<td>50.93</td>
<td>8.20</td>
</tr>
<tr>
<td><strong>Medication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking Medication</td>
<td>52.81</td>
<td>3.25</td>
</tr>
<tr>
<td>No Medication</td>
<td>50.56</td>
<td>11.02</td>
</tr>
</tbody>
</table>

Hypothesis 3: Acceptability of Treatment

Treatment acceptability was evaluated by examining participants’ attendance and consumer satisfaction feedback.

**Attendance**

To evaluate the acceptability of SAMM-O by participants, treatment group attendance was tracked. Attendance was computed for the entire sample of 25 inmates rather than for each individual treatment group. This was done because occasionally participants assigned to one treatment group would attend their non-assigned group due to unexpected schedule conflicts (e.g., weekend visits from family).

Figure 6 shows the number of participants who attended each treatment session. As can be seen, attendance was fairly consistent across the eight treatment sessions with no discernable falling off in attendance as the therapy proceeded. It is also discernable from
Figure 6 that some inmates missed some therapy sessions. Indeed, the number of treatment sessions attended by each participant ranged from five to eight sessions. The modal number of sessions attended was eight with a mean attendance of 6.96 treatment sessions ($SD = 1.02$). The overall percentage of attendance was 88.04%.

There were two separate one-way ANOVAs performed to determine if attendance affected treatment outcome. For these analyses participants were grouped according to number of sessions that they attended. The groups were 5, 6, 7, and 8 sessions. The mean DBI-II and KST-O post-test scores and corresponding standard deviations for the groups are presented in table 3. There was no significant relationship between the number of sessions attended and the BDI-II post-test $[F(3, 24) = .47, p = .70]$ or the KST-O post-test $[F(3, 24) = .26, p = .86]$. This analysis indicated that there was no significant dose-
response relationship between attendance and treatment outcomes within the small range of variation of treatment session attendance observed in this research.

Table 3 BDI-II and KST-O Post-Test Scores by Attendance

<table>
<thead>
<tr>
<th>Number of Sessions</th>
<th>BDI-II Post-Tests</th>
<th>KST-O Post-Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>5</td>
<td>23.00</td>
<td>18.38</td>
</tr>
<tr>
<td>6</td>
<td>19.00</td>
<td>12.18</td>
</tr>
<tr>
<td>7</td>
<td>14.00</td>
<td>9.86</td>
</tr>
<tr>
<td>8</td>
<td>17.00</td>
<td>7.63</td>
</tr>
</tbody>
</table>

Consumer Satisfaction

Consumer satisfaction information was gathered by the PI or co-therapist at the end of the post-treatment testing session using the consumer satisfaction interview. During this interview, the participant was asked to rate the helpfulness of the treatment on a Likert-type scale ranging from one ("not at all helpful") to five ("very helpful"). In response to the question “How helpful was the treatment group” participants mean rating was 4.24 (SD = 0.83) indicating a high degree of helpfulness.

Additionally, participants were asked for qualitative feedback regarding ways in which the treatment group was helpful, participants’ likes and dislikes, and improvements than might be made to the treatment. The qualitative responses were evaluated to explore the meaning of the quantitative rating. Participants thought the treatment was helpful for a variety of reasons; however, some general themes emerged. First, a large majority (n = 21, 84%) of the participants indicated that various substance relapse prevention concepts taught in SAMM-O were very helpful. One of the most commonly stated concepts was

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learning to recognize and deal with high-risk situations. Participants also indicated that learning how to make “u-turns” was particularly helpful, as well as understanding the difference between a “slip” and a “full-blown relapse”.

The second most common response (n = 13, 52%) called attention to the helpfulness of the cognitive therapy component of SAMM-O. Participants enjoyed learning about what cognitive distortions are, how cognitive distortions ultimately lead to undesirable actions, ways to combat their cognitive distortions, and how more effectively to handle their emotions. Anecdotally, the main guard for one of the units where many participants were housed informed the PI that he had noticed changes in the behavior of the inmates from the treatment groups. He indicated that they handled their emotions better, controlled their tempers, and caused less trouble. He told the PI, “I don’t know what you’re doing in there, but it’s working.”

In addition to the above two main themes, some participants (n = 8, 32%) revealed that they had initially been pessimistic, thinking that they would not learn anything new, but ended up learning a lot and enjoyed the novel pairing of the substance component with the mental health component. Other participants (n = 5, 20%) indicated that the treatment group was helpful because it made them more optimistic about their future and more hopeful that they can succeed in substance recovery.

One participant stated that the treatment was helpful because it helped him realize that, “I’m not hopeless; there is a way to get off [drugs].” Another participant said that it was helpful to him because, “It took away the idea that you’ll always be an alcoholic no matter what. It gave me a brighter light at the end of the tunnel;” while another mirrored, “it gives the individual more power and control [over their addiction], not like AA.”
few participants (n = 3, 12%) indicated that they enjoyed learning from other group
participants and having a forum to express their voice. One participant stated that he had
talked more about his problems by session three than he had in all of his years in prison.

When asked, "What did you like about the treatment," participants (n = 14, 56%)
often commented on the group facilitators. Participants indicated that the facilitators had
"positive attitudes," were very caring, and made the material interesting. The style and
conduct of the facilitators seems to have been particularly notable to the participants in
contrast to the prison personnel. These participants echoed the common sentiment among
the group that the prison personnel displayed more negative attitudes and were much less
caring if not "burnt out".

Many participants expressed that the treatment material was well organized, clear,
and broken down in a step-by-step fashion that facilitated learning. Another
representative comment emphasized the ability of the facilitators to manage group
outbursts and refocus participants on the topic at hand. Participants also appreciated
facilitators’ responsiveness to questions, stating that facilitators “took time to answer all
of the questions, were not scared to answer anything” and “took time to make sure we got
it”.

Several participants (n = 11, 44%) indicated that they liked group because they gained
insight about their difficulties. In one participant’s words, “I got more in touch with
myself. It gave me a more structured way to go about relapse; even if you slip you can
still regain control.” Another participant commented on the insight he gained from the
cognitive therapy component, “I liked taking thoughts and breaking them down, seeing
the distortions, writing down pros and cons to the thoughts. It helps you figure out why you did what you did – why you committed crimes and drugs.”

Participants (n = 10, 40%) also reported enjoying the interactive nature of the treatment group. For example, one participant stated, “I got more out of it because I could ask questions. Most places you just sit and listen.” Participants reported feeling at ease in the group, and commonly reflected one participant’s words, “Everybody was upfront about personal things and I learned from others”. Another said, “I saw I had some of the same thoughts and feelings as other participants, so I’m not weird.”

Participants were also asked about what they did not like about the treatment group. The two most common responses to this inquiry were criticisms of other group participants’ behaviors (n = 9, 36%), and statements indicating no dislikes (n = 8, 32%). Criticisms of other group participants’ behaviors encompassed the idea that others’ behaviors were “disruptive” or “immature” at times.

The remaining responses to this inquiry were varied. A few participants (n = 3, 12%) indicated logistical concerns, such as “it took up my Saturday morning,” “Saturdays and Sundays are the only days we have off,” and “it was far to walk [to the treatment room] in the heat”. An additional few participants (n = 3, 12%) indicated that they would have liked to have more time focused on the mental health component as compared to the substance component. There was one participant who disliked doing roll-plays in front of the other group members, and stated, “I don’t want to be too deep in front of others because they might tell others on the yard.” Lastly, there were two participants who experienced some difficulty logically following the cognitive behavioral techniques used
in the mental health component. This is in contrast to the large majority of participants who found the cognitive behavioral techniques particularly helpful.

In response to the question, “What could have made the treatment group more helpful?” participants’ comments touched on a variety of topics. Some participants (n = 8, 32%) made suggestions for enhancing content, such as including video to illustrate topics and providing additional handouts/pamphlets (e.g., list of new psychotropic medications and side effects). Comments made by other participants (n = 6, 24%) indicated a preference for either individual therapy (in addition to or substitution for group) or smaller group size. There was some discrepancy in feedback regarding treatment length, with some participants (n = 5, 20%) indicating a desire for an increased number of sessions and a comparable number of participants (n = 7, 28%) indicating satisfaction with treatment length.

Other participants’ (n = 5, 20%) responses to this inquiry suggested that the treatment group could have benefited from activities designed to promote group cohesion and trust. Some of these participants thought that other participants were not always being honest and should have participated more. There was one participant who admitted, “I couldn’t say some of the things I’ve done because other participants might tell guards or other inmates because I’ve done some bad things.” There were four participants who could not think of any suggestions to make the treatment more helpful.

In summary, the treatment was well received by participants. Participants found the treatment materials, concepts, and techniques relevant and helpful. The pairing of substance treatment with depression treatment was appropriate. Participants enjoyed the attitudes and efforts espoused by the group facilitators. Additionally, participants
benefited by the interactive nature of the group and the experiences disclosed by group members.

It is possible that disclosure and trust could have been enhanced by incorporating initial group cohesion activities. Participants liked the use of handouts and suggested that additional materials/pamphlets could be incorporated. Content enhancement through the use of multimedia was recommended, such as video clips of concepts and/or role plays. In fact, the original SAMM treatment manual does include a video of role plays; however, media accommodations within the prison were limited. At times, participants' behaviors became disruptive to the group, but were well contained and re-directed by the facilitators. Overall, the feedback indicated that the treatment yielded a high level of consumer satisfaction.
CHAPTER 5

DISCUSSION

The present study examined the utility of a community-based treatment manual for DD that was modified to address the needs of incarcerated individuals. These modifications were informed by Dickens’ (2005) research and included: (a) adding a component to address DD offenders’ mental health criminogenic need; and (b) deleting components that are irrelevant, inappropriate, or impractical for institutionalized offenders. The result of this effort was a brief, eight-week group treatment program referred to as the Substance Abuse Management Module – for Offenders (SAMM-O). SAMM-O was implemented at a Southern Nevada prison in a non-controlled trial with a pre- post-test design. The aim of the present study was to determine the effectiveness of SAMM-O in: (a) engaging inmates with DD in treatment, (b) decreasing depression symptoms, and (c) increasing drug abstinence-related skills and knowledge.

The development and evaluation of SAMM-O attended to a significant void in corrections mental health care. The dearth in empirically supported treatments for prisoners with DD has been consistently recognized (Chandler et al., 2004; Council of State Governments, 2002; Edens et al., 1997). Existing prison-based treatments for DD have largely focused on one model of treatment (i.e., modified therapeutic communities) and restricted inclusion criteria to more severe mental illnesses such as schizophrenia
Thus, extant DD treatment programs fall short in addressing the diversity seen in prisoners' mental health diagnoses (Chandler et al., 2004; Peters et al., 2004). Another limitation of modified therapeutic communities (TCs) is the lengthy waiting lists for admission, which places inmates with DD at risk of being released into the community without the opportunity to participate in specialized treatment (Peters et al., 2004).

Given the restrictions in inclusion criteria and the extended wait lists that are characteristic of modified TCs, along with the paucity of prison-based treatment alternatives, the treatment needs of many offenders with DD are going unmet. Without specialized treatment, offenders with DD are at an increased risk of multiple poor outcomes in the community, including increased risk of criminal recidivism (Hartwell, 2004). SAMM-O complements existing prison-based DD treatments because it targets prisoners with mood disorders rather than only those with more severe diagnoses like schizophrenia. Also, SAMM-O is eight-weeks in duration which allows more participants to cycle through the treatment program.

By offering both modified TCs and briefer treatment programs that target various mental health diagnoses, correctional institutions would satisfy the treatment needs of more inmates and increase the likelihood of successful post-release community outcomes. Results from the present research indicated that SAMM-O has potential to be an effective, brief prison-based treatment program.
Depression Symptomology and Drug Abstinence-Related Knowledge and Skills

A treatment component to address depression was incorporated into the SAMM-O manual because depression was identified as the primary aspect of offenders’ mental health criminogenic need in Dickens’ (2005) research. The depression treatment component utilized cognitive behavioral therapy (CBT) and followed the principles presented in the books *Feeling Good: The New Mood Therapy* and *The Feeling Good Handbook* by Burns (1999a, b), which focus on how thoughts affect mood.

CBT was chosen as the treatment intervention because it is an empirically supported treatment for individuals with depression (Craighead, Craighead, & Ilardi, 1998), and the use of cognitive-behavioral techniques was recommended as one of the integrated treatment principles gleaned from examining the treatment literature for DD civil outpatients, general offenders, and DD inmates. Studies examining the efficacy of the book *Feeling Good: The New Mood Therapy* have shown significant, long-lasting decreases in depressive symptomology for individuals seeking treatment for a major depressive episode (Jamison & Scogin, 1995; Smith, Floyd, Jamison, & Scogin, 1997).

In the present study, depression symptomology was measured using the Beck Depression Inventory - II (BDI-II, Beck et al., 1996). Prior to participation in SAMM-O, participants’ BDI-II scores indicated that they were experiencing depression symptomology that ranged from mild to severe, with the majority of the participants endorsing severe depression symptomology. As hypothesized, participants’ BDI-II scores decreased significantly from pre- to post-treatment. At post-treatment assessment, participants’ level of depression symptomology ranged from minimal to severe; however,
the majority of the participants indicated that they were experiencing minimal depression symptomology.

One interesting finding of the present study was that BDI-II post-test scores were not significantly influenced by participants’ psychotropic medication status. That is, participants who were taking psychotropic medication (mostly anti-depressants) during the course of the study did not achieve significantly different BDI-II outcome scores compared to participants who were not taking psychotropic medication. This result suggested that participants’ decrease in depression symptomology resulted from SAMM-O rather than the use of psychotropic medications.

Overall, the majority of the participants (84%) showed a decrease in depressive symptomology from pre- to post-treatment. Given that the depression treatment component of SAMM-O was cognitive-behavioral, these results offer additional support to findings indicating that in general, inmate populations are most responsive to cognitive-behavioral interventions (Edens et al., 1997; Gendreau, 1996; McGuire & Hatcher, 2001).

The substance abuse component of the treatment was taken from the Substance Abuse Management Module (SAMM; Roberts et al., 1999). Studies evaluating the effectiveness of SAMM with civil populations have demonstrated significant increases in participants’ drug abstinence-related knowledge and skills as measured by the Knowledge and Skills Test (KST; Roberts et al., 1999) and number of days abstinent from drugs, as well as a significant decrease in substance use as measured by urine analysis from pre- to post-treatment and at three-month follow-up (Shaner et al., 1997, 2003). Another study compared SAMM to treatment as usual and found that SAMM participants had
significantly fewer hospitalization days, and significantly more SAMM participants maintained sobriety up to six months post treatment as indicated by urine analysis (Ho et al., 1999).

In the present study urine analyses were not feasible; however, participants did show a significant increase in drug abstinence-related knowledge and skills as measured by a version of the KST that was modified in the present study for use with offenders (KST-O). Although a direct comparison cannot be made because of the modifications made to the assessment measure, the magnitude of the change in the drug abstinence-related knowledge and skills obtained in the present study was comparable to that found by Shaner and colleagues (1997, 2003). In the present study all participants demonstrated an increase in drug abstinence-related knowledge and skills after participation in SAMM-O.

Demographic variables (i.e., age, ethnicity, education level, and crime) did not significantly influence the BDI-II or KST-O treatment outcomes. This result suggests that SAMM-O can be a useful treatment for individuals with diverse characteristics. This is particularly important given that the resource limitations often found in prisons would likely detract from a prison’s ability to offer several treatment variations to accommodate diverse inmates.

Acceptability of Treatment

In the present study, acceptability of treatment was inferred by examining participant attendance and consumer satisfaction feedback. Poor treatment attendance and high dropout rates are common challenges facing DD treatment programs (Drake et al., 1989). Shaner and colleagues (2003) reported that a 61% retention rate was typical for
individuals in community-based DD treatment. For prison-based DD treatment, Peters and colleagues (2004) reported that of the modified therapeutic communities that reported statistics regarding graduation rates, the average graduation rate was 70%. Still further, Van Stelle and colleagues (2004) reported only a 25% retention rate for the Mental Illness-Chemical Abuse (MICA) Treatment Program at Oshkosh Correctional Institution. In the present study, the retention rate was 100% and the overall attendance rate was 88.04%.

It should be noted that participants were given meritorious credit for completing the present study. It is possible that the provision of meritorious credit may have inflated the observed attendance and/or retention rates. However, meritorious credit was given to all participants who completed the post-treatment assessments regardless of how many treatment sessions they attended. Therefore, receiving meritorious credit was not dependent upon attending treatment sessions. Thus, it seemed less likely that the provision of meritorious credit would have significantly impacted the attendance rate, but may have influenced the retention rate.

The provision of meritorious credit for program participation was a common practice in the participating prison, as it is in other prisons that offer DD treatment programs (Eden et al., 1997). As such, meritorious credit may be viewed as a standard practice rather than a notable reward for inmates participating in DD treatment programs.

The consumer satisfaction feedback suggested that, overall, participants found the substance relapse prevention and cognitive behavioral components of the treatment quite helpful. Participants thought that these treatment components included information, skills, and techniques that could be practically applied in their lives. Participants
appreciated the pairing of substance abuse treatment with mental health treatment. This pairing is consistent with the recommendation from the literature that indicates that substance abuse and mental health treatments for individuals with DD should be integrated to optimize palatability (Rosenthal et al., 1992) and effectiveness (Drake et al., 1998; Hills, 2000).

Other positive aspects of SAMM-O that were reported by participants included: SAMM-O increased participants’ optimism about their ability to achieve recovery; the group facilitators had positive attitudes, presented the material in a clear manner, and managed group process well; SAMM-O increased participants’ insight into their problems; and participants enjoyed the interactive nature of the group.

On the down side, there was feedback that suggested that some participants thought that the behaviors of other participants were, at times, disruptive to the group. Examples of disruptive behaviors included being argumentative, interrupting others, long stories, and loud voice tone. It was noted, however, that the group facilitators were well adept at managing disruptive participant behaviors.

Some participants indicated that they might have preferred individual therapy in addition to or in place of group therapy. These participants seemed more sensitive to disruptive behaviors, saw themselves as “different” from other inmates, and seemed more introverted. However, with large inmate populations and limited resources, the group modality has been the treatment of choice in prisons since the mid 1900’s (Morgan, Winterowd, & Ferrell, 1999).

There were also participants who felt uncomfortable sharing personal information with a group and questioned the trustworthiness of other group members. The sentiments
regarding confidentiality are common in prison-based treatment settings (Morgan et al., 1999). When facilitating prison-based group treatments it is recommended that confidentiality and limitations to confidentiality be fully addressed with each inmate individually during pre-group sessions and during group sessions. These recommendations were adhered to during the present study. Despite these precautions, the possibility that confidentiality may be broken by group members remains present in any prison-based treatment group (Morgan et al., 1999).

Lastly, some participants indicated that additional handouts and multimedia formats could have enhanced the treatment content. Handouts reflecting manual content were regularly provided to participants. A flip chart and chalk board were used to convey various topics and display participants' responses. Media resources were not available in the treatment setting.

Overall, participant attendance and consumer satisfaction feedback indicated that SAMM-O had a high degree of palatability to participants.

Adjustments to the SAMM-O Manual

The results of the present study suggest that SAMM-O was effective in decreasing depression symptomology and increasing drug abstinence-related knowledge and skills, and was palatable to participants. However, the process of treatment development is continual. By making some adjustments to SAMM-O, future outcomes may be further improved.

One adjustment that may be beneficial in future applications of SAMM-O is incorporating initial activities designed to promote group cohesion. Group cohesion
activities could increase participants' level of comfort with each other, promote
counters between participants, and decrease feelings of isolation. If group cohesion
was strengthened then the desire for individual treatment and/or discomfort with self-disclosure might be lessened.

Another modification would be to include additional handouts on relevant topics. For example, one topic that was discussed during the treatment was the importance of recognizing and reporting side effects of psychotropic medications. Participants had many questions regarding the particular side effects of the psychotropic medications that they were on and side effects of newer psychotropic medications. A handout listing new psychotropic medications and potential side effects would have been useful.

Lastly, if the facility can accommodate it, the use of multimedia could enhance treatment delivery and content clarity. For example, the original SAMM included a video of the role plays used during the skills training phase. The video is useful because it allows the treatment participants to see the skills modeled by individuals who have characteristics similar to the treatment participants.

Limitation of the Present Study

The present study sought to evaluate the effectiveness of a manualized treatment for offenders with DD. Towards this end, a non-controlled trial of SAMM-O was conducted with a pre- post-test design. While this design was practical for the present study, it was vulnerable to both internal and external threats to validity.
Regarding internal validity, the absence of a control group with random assignment raises the question of whether or not the main effects were in fact due to the treatment program or due to some other factor(s) (Shadish, Cook, & Campbell, 2002). Threats to internal validity that may have influenced the outcomes of the present study included history effects and regression to the mean.

History effects are any events that occur between the pre- and post-tests, other than the treatment, that could account for the results (Shadish et al., 2002). For example, two events occurred during the treatment phase that may have affected participants’ depression symptomology. First, the prison hosted a Susan G. Komen Race for the Cure, which raised money to support the fight against breast cancer. For this event, inmates who made a small monetary contribution were permitted to run in a race, attend a barbeque, and received a t-shirt. Second, Father’s Day occurred, for which many families brought inmates’ children out to the prison for a visit.

For some inmates who participated in one or both of these events, it is possible that positive feelings could have resulted from contributing to a worthy cause, seeing their children, and/or the occurrence of uncommon activities that broke up the monotony of everyday prison life. Thus it might be possible that positive feelings resulting from those events, rather than the treatment, accounted for the decrease in depression symptomology. Had a control group been available, any history effects would have affected the control and treatment groups similarly and any significant differences between the groups could have been more confidently attributed to SAMM-O.
Another potential threat to the internal validity of the present study was regression to mean. Regression to the mean is the tendency for extreme scores obtained on a measure to become less extreme on subsequent administrations of the same measure (Shadish et al., 2002). Regression to the mean occurs due to random measurement error. Random measurement error occurs because an obtained score on a measure is composed of the true score plus measurement error. Extreme scores are assumed to have more random measurement error. This can be particularly troublesome for studies in which participants are chosen for inclusion based on extreme scores because regression to the mean may be mistaken for a treatment effect.

It is possible that regression to mean may be a factor in the reduction of BDI-II scores found in the present study. An elevated score on the BDI-II was an inclusion criterion for participation in the present study. However, the elevation necessary was a score of at least 18 which reflected mild not severe scores for depression symptomology. In other words, although participants were chosen based on elevated scores, they did not necessarily have to have extreme scores.

As it turned out, participants’ mean BDI-II score at baseline was 32.52, indicating severe depression symptomology. However, participants’ high scores on the BDI-II may have been less reflective of random measurement error and more consistent with participants’ previously diagnosed mood disorders. Furthermore, the use of reliable measures reduces regression to the mean (Shadish et al., 2002) and the BDI-II is a reliable measure (Beck et al., 1996).

History effects and regression to the mean seemed like less feasible alternative explanations for the significant increase in KST-O scores obtained in the present study.
The content of the KST-O reflected information specifically taught during SAMM-O and it is difficult to conceive of plausible alternative ways participants could have gained that information. The only other substance abuse treatment that participants could have concurrently been involved in was Alcoholics Anonymous (AA).

Although information regarding concurrent participation in AA was not systematically obtained from SAMM-O participants, one participant informed the PI that he was in AA during the time of the present study. Several other participants commented that they either had never participated in AA or they had participated in the past and were not involved in AA at any point during the present study.

The one SAMM-O participant who was in AA at the time of the present study stated that he had participated in AA for several years and was the current facilitator of the prison-based AA program. His KST-O pre-test score was 19 (possible range was 0 to 75), which indicated a low level of baseline drug abstinence-related knowledge and skills. Given that an AA facilitator scored low on the KST-O pre-test despite his long-time participation in AA, it would seem that the content of SAMM-O was rather different from the content of the prison-based AA program. Therefore, changes on the KST-O were not likely due to AA participation, but rather SAMM-O participation.

Similar to history effects, regression to the mean did not seem to be a plausible explanation for the KST-O results for two reasons. First, obtaining a low score on the KST-O was not an inclusion criterion for the present study. Thus extreme scores, which are more susceptible to regression effects, were not selected for out of a larger group of scores. Second, 100% of the participants demonstrated an increase in KST-O scores from
pre- to post-treatment. It seemed rather unlikely that random measurement error could account for that level of change in all participants.

*External Threats to Validity*

External validity essentially addresses the extent to which results generalize from the sample to the larger population (Shadish et al., 2002). Threats to external validity can include interactions between the treatment effects and various units, treatment variations, outcomes, and settings.

Unit interactions occur when the treatment effects found with the sample do not generalize to other people who have characteristics that are different from the sample. For example, the sample in the present study was comprised of male inmates only. Therefore, the extent to which the obtained results would be replicated with female inmates is questionable. The same statement can be made about diversity in diagnoses, given that all participants in the present study had a mood disorder diagnosis.

In the present study, ethnicity, education level, age, crime and psychotropic medication were all examined to determine if any of these characteristics interacted with the treatment effects. None of these characteristics were found to have a significant effect on the treatment outcomes. However, the utilization of a larger sample size would have provided greater power to detect any significant differences that may or may not have been present.

Another potentially important unit factor resulted from the fact that random sampling was not used to select participants in the present study. Instead, inmates volunteered to participate and there may be some systematic differences between these self-selected inmates and inmate who did not volunteer. One possible difference between volunteers
and non-volunteers is motivational level. Volunteers may have higher levels of
motivation for treatment participation and/or change. If that were found to be true then
the treatment effects may have been dependent upon participants’ high level of
motivation and similar treatment effects might not be found with inmates who are
mandated to SAMM-O treatment.

The relationship between treatment outcome and self-selection versus a mandate for
treatment is not necessarily clear. While some researchers argue that mandated treatment
is unlikely to lead to lasting change in outcome variables (Miller, 1995; Miller &
Flaherty, 2000), others suggest that even individuals who are mandated to treatment can
achieve positive lasting changes (Ryan et al., 1995; Farabee et al., 2002). There is an
assumption that mandated individuals may lack intrinsic motivation for change and the
absence of intrinsic motivation is associated with unstable or minimal treatment gains
(Miller, 1995; Miller & Flaherty, 2000). Although mandated individuals are obviously
extrinsically motivated, this does not preclude them from also having intrinsic
motivation.

Studies have shown that it is possible for external events (e.g., a mandate) to produce
either extrinsic and/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 et al, 1983). For example, Farabee and
colleagues (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

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demonstrating intrinsic motivation even in the face of a mandate. Ryan and colleagues (1995) found that the most optimal treatment outcomes were found among participants who exhibited high levels of both intrinsic and extrinsic motivation.

Following from the above research, it can be assumed that participants’ motivation level would be a significant factor influencing the outcomes of future applications of SAMM-O. Future studies would need to evaluate the ability of SAMM-O to facilitate intrinsic motivation among mandated participants who are low on intrinsic motivation. One way to increase intrinsic motivation and thereby increase positive treatment outcomes is through motivational interviewing (Martino et al., 2002; Martino et al., 2000; Graebner et al., 2000 as cited in Miller & Rollnick, 2002; Swanson et al., 1999).

While SAMM-O does include motivational interviewing during group treatment sessions (Drake et al., 2003; Drake, Mueser, Brunette, & McHugo, 2004), it is unclear how this may impact participants’ level of intrinsic motivation or treatment outcomes. Therefore, the extent to which the results obtained in the present study will generalize to mandated participants is unknown, yet hopeful.

A second threat to external validity is the interaction between the treatment effects and treatment variations. A treatment effect found with one treatment variation may or may not hold across other variations of the treatment (Shadish et al., 2002). Some treatment variations that could possibly occur with future applications of SAMM-O include changes in treatment group size and differences in the characteristics of treatment facilitators (e.g., experience, empathy, gender). Although the content of SAMM-O is manualized to encourage treatment consistency, treatment variations may occur anyway and could potentially change outcome generalizability.
A third threat to external validity is the interaction between treatment effects and outcomes (Shadish et al., 2002). Treatments may appear to be more or less effective depending on the type of outcome examined. Certainly, an important outcome of SAMM-O that was not measured in the present study was the ability of SAMM-O to produce meaningful results post prison release. Of particular interest is whether or not the reduction in depression symptomology and increase in drug abstinence-related knowledge and skill would translate into a decrease in criminal recidivism.

The utility of depression as a criminogenic need (i.e., a dynamic risk factor that, when changed, leads to a reduction in recidivism) for offenders with DD has yet to be established. In Dickens' (2005) research “mental illness” was identified as a unique, highly problematic need for offenders with DD. A primary aspect of the mental illness need was depression. While that research did identify mental illness, particularly depression, as an influential factor in participants' commission of crimes, additional research needs to investigate further the criminogenic nature of that need.

In order to establish that a need is criminogenic it must be shown 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, only criterion (a) was fulfilled. Examining the effects of SAMM-O on post-release recidivism would address criteria (b) and (c) and determine whether or not depression is a criminogenic need for offenders with DD.
Substance abuse is a well established criminogenic need for general offenders (Andrews et al., 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 et al., 1998) and mentally disordered offenders (Bonta et al., 1998). Dickens (2005) research suggested that substance abuse may also be an important criminogenic need for offenders with DD. Examining the recidivism rates for SAMM-O participants could clarify the criminogenic status of substance abuse for offenders with DD.

A final threat to external validity is the interaction between treatment effects and settings (Shadish et al., 2002). This threat raises the question of whether similar treatment effects would be found across different prisons, possibly varying by geographic region and/or security level. Another setting variation that could potentially produce different outcomes would be the delivery of SAMM-O to offenders in the community, possibly as a condition of parole or as part of a jail diversion program. Future research would need to evaluate the effectiveness of SAMM-O in a variety of settings to determine its generalizability.

Future Directions: Where To Go From Here

The results from the present study indicated that SAMM-O is a promising, brief treatment program for inmates with DD. To further establish SAMM-O as an effective prison-based treatment for inmates with DD, a controlled outcome study with random assignment is warranted. Such a study would address the limitations of the present study and firmly establish the relationship between the treatment and the outcomes.
Given that the overall goal of a treatment targeting criminogenic needs is to reduce recidivism, future research needs to move beyond the prison walls and track community-based outcomes. Community-based outcomes might include measures of substance use, such as urine analyses, depression, and arrest and re-conviction rates. Tracking community-based outcomes would serve multiple functions. First, it would provide data regarding the longer-term effectiveness of SAMM-O. Second, it would provide evidence regarding the utility of depression and substance use as criminogenic needs for offenders with DD.

Future research could also address the extent to with SAMM-O generalizes across variances in population, such as gender and ethnicity, and variances in location, such as region and prison security level. It would also be important to evaluate the effectiveness of SAMM-O across different treatment providers. Although SAMM-O is manualized to increase consistency in treatment content and delivery, it is possible that characteristics of the facilitators (e.g., enthusiasm, empathy) might impact treatment outcomes.

In summary, SAMM-O is a promising, innovative prison-based treatment for inmates with DD. The potential for SAMM-O to fulfill gaps in corrections mental health treatment is exciting. SAMM-O is a brief treatment option and targets inmates with DD who might be left out of existing modified TCs due to their diagnosis or lengthy waiting lists. If future research validates the effectiveness of SAMM-O in both short- and long-terms outcomes, then SAMM-O can be a viable cost-efficient treatment for inmates with DD.
APPENDIX A

FREQUENCIES FOR CNI CATEGORIES

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

KNOWLEDGE AND SKILLS TEST - FOR OFFENDERS (SAMM-O)

High-Risk Situations

1. What is a high-risk situation?
   A situation in which it is very difficult to avoid using drugs
   A combination of people, places, events, and things
   The situation is very tempting because it is easy to use
   Total Points:  Score 0 for any other answer
                  Score 1 for one answer above
                  Score 2 for two or more answers above
   Prompts: If the patient does not provide one of the answers, prompt one time by asking, “Can you tell me more?”

2. Can you give me three examples of high-risk situations?
   Having large sums of money
   Having more than a couple of dollars in my pocket
   Hanging out with people who use alcohol or drugs
   Going to a neighbor’s where drug dealers are available
   When my mental illness symptoms flare up
   If I have medication side effects that won’t go away
   Feeling depressed or lonely or angry or stressed
   Other:
   Total Points: When scoring this item, the answers listed above are just a few examples of the possible categories of high-risk situations, which include people, places, things, thoughts, emotions or stating denial of the risk of using
                 Score 0 for less than two high-risk situations/categories
                 Score 1 for two correct answers
                 Score 2 for three or more correct answers
   Prompts: Prompt two times by asking, “Are there any more?”
             If the patient is unable to answer the question, skip to question 4.

3. Why is it important to identify your personal high-risk situations?
   So I can recognize when I am at high risk to use drugs
   If I know my high-risk situations, then I can take steps to avoid them
   If I know my high-risk situations, then I can be prepared to refuse drugs
If I know my high-risk situations, then I can be better able to escape them.

Total Points: Score 0 for no correct answer
Score 1 for two correct answers
Score 2 for three or more correct answers

Prompt: Prompt a maximum of two times by asking, “Can you tell me more?”

4. Suppose you got into a high-risk situation where you are approached by a friend or family member who wants you to use drugs with him. What would you do in this situation?
   ___ I would refuse to use drugs
   ___ I would leave the situation
   ___ I would make a U-turn

Total Points: Score 0 for no correct answers
Score 1 for two correct answers
Score 2 for three or more correct answers

Prompt: Prompt a maximum of two times by asking, “Is there anything else you would do?”

5. Let’s suppose you are in that situation. I will be an old friend who wants you to use with me. I pull out (drug of choice) and offer it to you. (refer to sample dialogue)
   Techniques for Refusing Drugs Offered by a Friend or Relative – score 1 point for each technique used.
   ___ Is direct. Says he’s not interested.
   ___ Uses the broken record technique at least one time
   ___ Levels with the person (e.g., says that drugs were causing problems and it’s better to leave them alone)
   ___ Suggests an alternative; requests to do something other than use drugs
   ___ Expresses feelings directly; says how he feels about being pressured
   ___ Leaves the situation

Damage Control

6. When you slip and use drugs (after a period of sobriety), what kind of feelings or thoughts might you experience and what might you do because of those feelings?
   ___ When I slip and use drugs, I could have feelings or thoughts of failure
   ___ I might as well continue using drugs

Total Points: Score 0 for any other answer
Score 1 for one answer above
Score 2 for two answers above

7. Tell me two advantages of understanding how a drug slip can affect you?
   ___ I can anticipate and better understand these thoughts and feelings of failure if I slip
   ___ I will be able to know that these thoughts and feelings are to be expected
   ___ I can acknowledge the feelings and then refocus my attention and get back on track

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It will be easier to stop using early
I can escape the high-risk situation easier
I can choose to do a healthy pleasure instead

Total Points: Score 0 for less than two advantages
Score 1 for two advantages
Score 2 for three or more advantages

Prompt: If less than two answers are provided, prompt one time by asking, “Are there any others?”

8. Suppose you are in a high-risk situation and you take a hit and realize you are on the verge of relapsing. Tell me two things you could do in that situation.
   __ Remind myself that I am in a high-risk situation
   __ Stop using drugs early before it does any more damage to my relationships, health, and finances
   __ Refuse to use drugs any more
   __ Leave

Total Points: Score 0 for less than two answers
Score 1 for two correct answers
Score 2 for three or more correct answers

Prompt: You may prompt a maximum of two times by asking, “Is there anything else you would do?”

9. Let’s say you are actually in that situation. I’m going to be the person who takes out a bag, opens it up, and puts it on the table. I offer you some (drug of choice). You take a few hits and decide you don’t want to have a full-blown relapse. (refer to sample dialogue)

Techniques for Damage Control – score 1 point for each technique used.
   __ Doesn’t make eye contact
   __ Stands up and turns away
   __ Starts walking out of the room
   __ Says in a firm voice tone, “I gotta go”
   __ Uses the broken record technique by continuing to say, “I gotta go now”
   __ Keeps moving, doesn’t stop for anything

Note: If patient refuses drugs but stays, score 1 for refusal technique and 0 for all remaining techniques in role play

Support Persons
10. What is a support person?
   __ Someone who I can call to get help when I am tempted to use
   __ Someone with whom I can discuss drug slips and who can help me get back on track to maintain abstinence
   __ Someone who can help me remember the disadvantages of using and the advantages of quitting
   __ Someone who can problem-solve and help me identify alternatives to using (healthy pleasures, coping techniques, escaping, etc.)

Total Points: Score 0 for no correct answers
11. What would you use a support person for?
   __ I can call him/her for support when I am in a high-risk situation
   __ To help me problem-solve my high-risk situations
   __ To help me use healthy pleasures instead of using drugs
   __ To help me remember to use the skills to avoid using drugs and to do healthy pleasures
   Total Points: Score 0 for less than two correct answers
                  Score 1 for two correct answers
                  Score 2 for three or more correct answers
   Prompt: Prompt once by asking, “Can you tell me more?”

12. Tell me at least two qualities or characteristics of a good support person.
   __ Someone who I know, trust, and who cares about me
   __ Someone who is accessible
   __ Someone who does not use
   Total Points: Score 0 for less than two answers
                  Score 1 for two correct answers
                  Score 2 for three or more correct answers
   Prompt: Prompt a maximum of two times by asking, “Are there any others?”

13. In this situation, I will pretend to be someone who you would like to be your support person. Your task will be to ask me to be your support person. (refer to sample dialogue)
   Techniques for Getting a Support Person – score 1 point for each technique used.
   __ Tells the person he needs his/her help
   __ Explains why he needs a support person
   __ Is direct in asking the person to serve as his support person
   __ Answers any questions that the person asks about his or her responsibilities
   __ If the person agrees, asks for his/her telephone number and writes it down
   __ Thanks the person for agreeing to help

14. It is helpful to report a drug slip to your support person. In this situation, I will play the role of your support person. You will report your drug slip to me. You visited a friend over the weekend and took a couple hits of (drug choice) but then stopped. You come by my office to talk about it. (refer to sample dialogue)
   Techniques for Reporting a Slip – score 1 point for each technique used.
   __ Greets the person politely
   __ Is direct, doesn’t beat around the bush
   __ Says he would like to discuss the circumstances surrounding his slip
   __ Describes the high-risk situation and how he escaped from it
   __ Remarks about the things he has been doing recently to keep his sobriety program intact (attending groups, meeting with support person, etc)
___Asks for help in figuring out how to prevent entering into a similar high-risk situation in the future
___Thanks the person for assistance

Drug-Habit Chains
15. What is a drug-habit chain?
   ___A drug-habit chain is made up of the things that I do over and over again that lead me to drug use
   Total Points: Score 0 for no correct answer
               Score 1 for answer above
   If the patient is unable to answer the question, skip to question 18

16. What is the main advantage of knowing your own drug-habit chain?
   ___I can get out of the chain that leads me to drug use (like making a U-turn)
   Total Points:  the patient only needs to articulate the idea of getting out of the chain, and does not have to use the term U-turn
               Score 0 for no correct answer
               Score 1 for answer above

17. Describe your #1 drug-habit chain.
   ___Describes a thought that precedes drug use
   ___Describes a feeling that precedes drug use
   ___Describes making a plan to obtain drugs
   ___Describes the action taken to obtain the drug
   ___Describes using the drug in a specific situation
   Total Points: Score 0 for one category to describe his/her #1 drug-habit chain
                Score 1 for two categories
                Score 2 for three or more categories
   Prompt: Prompt one time by asking, “Is there anything else?”

Warning Signs
18. When it comes to drug relapse, what are warning signs?
   ___A warning sign tells you that you have taken a step toward using drugs
   ___Describes triggers, cravings, making a plan, getting and using the drug
   Total Points: Score 0 for no correct answer
                Score 1 for answer above
                Score 2 for two answers above
   Prompt: Prompt one time by asking, “Can you tell me more?”
   If the patient is unable to answer the question, skip to question 22

19. What are the main advantages of knowing your own personal warning signs?
   ___I can avoid high-risk situations
   ___I can do a healthy pleasure instead of using drugs
   ___I can make a U-turn to escape using drugs
   ___I can use coping techniques to avoid using drugs
   Total Points: Score 0 for no correct answers
Score 1 for two correct answers
Score 2 for three or more correct answers
Prompt: Prompt one time by asking, “Are there any more?”

20. What is your highest-risk situation?
   ___ Having large sums of money
   ___ Having more than a couple dollars in my pocket
   ___ Hanging out with people who use
   ___ Going to a neighborhood where drug dealers are present
   ___ When my symptoms of mental illness flare up
   ___ Having side effects from my medication that won’t go away
   ___ Feeling depressed, lonely, or angry
   ___ Feeling stressed
   ___ Other:
   Total Points: Score 0 for no answer
                 Score 1 for identifying high-risk situation
If the patient is unable to answer the question, skip to 22

21. Think about the high-risk situation of (name the high-risk situation that the patient identified in the last question). Tell me one warning sign for that high-risk situation.
   ___ Describes a thought that precedes drug use
   ___ Describes a feeling that precedes drug use
   ___ Describes a symptom that causes discomfort that precedes drug use
   ___ Describes making a plan to obtain drugs
   ___ Describes the action taken to obtain the drug
   ___ Describes a situation in which he/she uses drugs
   Total Points: Score 0 for no correct answer
                 Score 1 for one warning sign
                 Score 2 for two or more warning signs
Prompt: Prompt two times by asking, “Are there any more?”

U-turns

22. What is the definition of a U-turn?
   ___ Any step that takes me further away from drugs
   ___ Things like healthy habits, removing triggers, riding the wave, emergency paper (concrete examples such as taking medications, taking a shower, etc. are acceptable responses)
   Total Points: Score 0 for any other answer
                 Score 1 for one correct answer
                 Score 2 for two correct answers
Prompt: Prompt one time by asking, “Can you tell me more?”
If patient is unable to answer the question, skip to question 26
23. Let’s say that you are in the following situation. You are thinking a lot about using (drug of choice) when you get a large sum of money. What is at least one U-turn you could make in that situation?

   ___ Call a support person
   ___ Give money to a support person
   ___ Use emergency paper to review disadvantages of using
   ___ Get someone to join me in a healthy pleasure

Total Points: Score 0 for no correct answer
             Score 1 for one correct answer
             Score 2 for two or more correct answers

Prompt: Prompt one time by asking, “Can you think of any others?”

24. Let’s say that you are in another situation. This time you are experiencing side effects of your medication and you are thinking about using. Tell me one U-turn you could make in that situation.

   ___ Report troubling side effects to my doctor
   ___ Call me support person to talk about my discomfort
   ___ Use my emergency paper to get telephone numbers or use coping techniques
   ___ Other:

Total Points: Score 0 for no correct answers
             Score 1 for one correct answer
             Score 2 for two or more correct answers

Prompt: Prompt one time by asking, “Can you tell me any more?”

25. In this situation, you are at a friend’s house and you are experiencing cravings. Tell me one U-turn you would make in this situation.

   ___ If I slip and use, stop using immediately and leave
   ___ Say no to drug offers
   ___ Report a lapse to support person or treatment team
   ___ Call a support person
   ___ Get a friend to join me in a healthy pleasure instead of using
   ___ Use my emergency paper to review coping techniques

Total Points: Score 0 for no correct answers
             Score 1 for one correct answer
             Score 2 for two or more correct answers

Prompt: Prompt one time by asking, “Can you tell me any more?”

Healthy Pleasures

26. What is a healthy pleasure?

   ___ Healthy pleasures are things that feel good
   ___ Healthy pleasures are good for you

Total Points: Score 0 for no correct answers
             Score 1 for one correct answer
             Score 2 for two or more correct answers

Prompt: Prompt one time by asking, “Can you tell me any more?”
If patient is unable to answer the question, skip to question 28
27. What are some of your favorite healthy pleasures?
   Total Points: Score 0 for no correct answers
                Score 1 for one correct answer
                Score 2 for two or more correct answers
   Prompt: Prompt one time by asking, “Are there any more?”

Healthy Habits
28. What is a healthy habit?
   ___ Healthy habits are things that you do over and over that lead to healthy
       pleasures
   Total Points: Score 0 for incorrect answer
               Score 1 for correct answer above
   If patient is unable to answer question, skip to question 30

29. What are three healthy habits that are very important to you?
   Total Points: Score 0 for less than three correct answers
               Score 1 for three correct answers
               Score 2 for three correct answers, unprompted
   Prompt: If less than three answers are given, prompt a maximum of two times by
           asking, “Are there any more?”

30. It is helpful to report side effects of psychiatric medication. Side effects can
    cause great discomfort and for some this can be a reason to use drugs. In this
    situation, suppose you were a side effect of your psychiatric medication. I will
    play the role of your doctor and you will be you. Your task is to report the side
    effect to me. You have an appointment to see me. (refer to sample dialogue)
    Techniques for Reporting Symptoms and Side Effects to a Doctor – score 1 point
    for each technique used.
   ___ Greets doctor politely
   ___ Describes the symptom or side effect in detail
   ___ Describes how long the symptom or side effect has been present
   ___ Describes the severity of the problem by explaining how it interferes with
       daily activities
   ___ Asks directly for doctor’s help
   ___ Repeats doctor’s instructions
   ___ Asks how long it will take to get relief
   ___ Thanks doctor for assistance
APPENDIX C

DEMOGRAPHICS QUESTIONNAIRE

Demographic Information

Subject ID #:______________  Today’s Date:_________

DOB:______________

Admission Date:___________

Approximate Release Date:_________

Ethnicity: Caucasian___
African American___
Hispanic___
Asian___
Other (specify):___________

Educational Level:
Some High School (grade)___
High School Graduate___
GED___
Some college___
Bachelor Degree or beyond___
Technical/Trade School___

Mental Health Diagnoses (Date):
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Instant Offence/Sentence:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
APPENDIX D

CONSUMER SATISFACTION INTERVIEW

1. How helpful was the treatment group, given a scale of 1 to 5, where 1 is “not at all helpful” and 5 is “very helpful” (circle one)?

2. In what way(s) was it helpful?

3. What did you like about the treatment?

4. (if rated 2 or lower) Why do you think the treatment group didn’t work?

5. What didn’t you like about the treatment group?

6. What could have made the treatment group more helpful?
APPENDIX E

SAMM-O BASIC TRAINING PRINCIPLES AND SKILLS

Basic Training

1. Damage Control
   - Main point: If you slip and use drugs or alcohol again, stop early and get right back into treatment. This will reduce damage to your health, relationships, and finances.

2. Habits and Craving Control
   - Main point: Drug abuse is learned and can be unlearned.

3. High-Risk Situations
   - Main point: Do not get into situations where drugs are hard to avoid. If you do, leave or escape the situation immediately.

4. Warning Signs
   - Main point: You can avoid high-risk situations by learning to recognize the signs that you might be headed toward drug use.

5. Healthy Pleasures and Healthy Habits
   - Main point: You can avoid drug use by focusing on the things that are most important to you.

6. Why Quit Drugs?
   - Main point: Make sure you can always remember why you decided to quit using drugs.

Skills Training

1. Quitting After a Slip
   - Main point: It is never good to slip, but if you do slip, leave the situation early before you go too far. This is a big part of practicing damage control.

2. Reporting a Slip
   - Main point: If you slip, get back on track as soon as possible. Knowing how to discuss the slip with your support person and members of your clinical team can help you learn how to prevent slips in the future.

3. Refusing Drugs Offered by a Friend or Relative
Main point: Do not worry that your friend or family member will be offended if you refuse drugs from them. People who really care about you do not try to force you to do things that are bad for you.

4. Getting a Support Person
   - Main point: Quitting drugs can be easier with the help of someone you know and trust.

5. Reporting Symptoms and Side Effects to a Doctor
   - Main point: Symptoms and side effects may increase the temptation to use drugs or alcohol. Knowing how to report symptoms and side effects to your doctor can help you stay on track.
Day 1 Topic: Understanding Depression & Providing a Rationale for CBT

1. Introduction to Feeling Depressed
   a. What does depression feel like? – Exploring symptoms & experiences
   b. What do you do when you are depressed
      i. Negative coping strategies
         1. links between negative mood and substance use & other risky behaviors (e.g., criminal activities)
      ii. Positive coping strategies

2. How to fight depression: Introduction to CBT
   a. Understanding the connection between the way you think & feel & behave.
      i. Whenever you are feeling depressed. It is because you are thinking depressed.
      ii. Thoughts influence the way you feel, which in turn affects the way you act and see the world around you.
      iii. Your thoughts and attitudes – not external events – create your feelings.
      iv. Specific kinds of negative thoughts cause specific kinds of negative emotions.
         1. Sadness or depression – Caused by thoughts of loss (romantic rejection, death of a loved one, loss of a job, failure to achieve an important personal goal)
         2. Guilt or shame – Caused by the belief that you have hurt someone or that you have failed to live up to your own moral standards. Guilt results from self-condemnation, whereas shame involves the fear that you will lose face when others find out about what you did.
         3. Anger, irritation, annoyance, or resentment – Caused by your belief that someone is treating you unfairly or trying to take advantage of you.
         4. Frustration – Caused when life falls short of your expectations. You insist that things should be different. It
might be your own performance (“I shouldn’t have made that mistake”), what someone else does (“He should’ve been on time”), or an event (“Why does the traffic always slow down when I’m in a hurry”).

5. Anxiety, worry, fear, nervousness, or panic – Caused by thoughts that you are in danger because you think something bad is about to happen (“What if I get caught” “What if I can’t make my bills”).

6. Inferiority or inadequacy – Caused when you compare yourself to others and conclude that you are not as good as they are because you are not as talented, attractive, charming, successful, intelligent, etc.

7. Loneliness – Caused when you tell yourself that you are bound to feel unhappy because you are alone and you are not getting enough love and attention from others.

8. Hopelessness or discouragement – Caused when you think that your problems will never go away and things will never improve. (I will never get over this depression.)

v. The key to fighting depression is to change the way you think. Changing your thinking will change the way you feel and get rid of your depression.

vi. Homework: Identifying the links between your own thoughts and feelings = Recording Events-Thoughts-Emotions

**Days 2 & 3 Topic: Understanding Cognitive Distortions**

3. Review homework – recap the link between Events-Thought-Emotions

4. What does depressed thinking look like?
   a. Introduction to Cognitive Distortions
      i. Cognition = a thought
      ii. Cognitive distortion = thinking errors, thoughts are twisted or inaccurate in some way
      iii. Cognitive distortions lead to negative feelings
      iv. Note: not all negative feelings are unhealthy or inappropriate. Sometimes negative feelings are reasonable responses. We must learn how to cope with realistically negative situations and feelings. This is just as important as learning how to rid yourself of distorted thoughts and feelings.

   b. List of 10 Cognitive Distortions (give a handout of these)
      i. All-Or-Nothing Thinking = The tendency to evaluate your personal qualities in extreme black or white categories. Forms the basis for perfectionism. If a situation falls short of perfect, you see it as a total failure. Causes you to fear any mistake or imperfection because you will then see yourself as a complete loser, and you will feel inadequate and worthless. This is an unrealistic way of thinking because life is rarely completely either one way or the
other. This sets you up for unrealistic expectations and contributes to depression.

1. Ex. A recovering alcoholic goes to a party and has one drink. He then thinks, “well I’ve blown my sobriety now, I might as well keep drinking.”

ii. Overgeneralization = You see a single negative event as a never-ending pattern of defeat by using words such as “always” or “never” when you think about it.

   1. Ex. A man asks a woman out on a date. She says “no” because she has a prior engagement. He concluded, “I’m never going to get a date. No woman will ever want to go out with me. I’ll be lonely all of my life.”

iii. Mental Filter = You pick out a single negative detail and dwell on it exclusively, so that your vision of all reality becomes darkened, like the drop of ink that colors the entire beaker of water. Like wearing tinted glasses that filter out anything positive. All that is allowed to enter your conscious mind is negative. Bad habit that can cause you to suffer unneeded anguish.

   1. Ex. You receive many positive comments about your presentation to a group of associates at work, but one of them says something mildly critical. You obsess about his reaction for days and ignore all of the positive feedback.

iv. Disqualifying the Positive = You reject positive experiences by insisting that they “don’t count” for some reason. In this way, you maintain a negative belief that is contradicted by your everyday experiences. You don’t just ignore positive experiences, you turn them into negative experiences. Discounting the positive takes the joy out of life and makes you feel inadequate and unrewarded.

   1. Ex. Someone gives you a compliment about your appearance, and you discount it by saying, “She was just being nice.” Or, if you do a good job, you may tell yourself that it was not good enough or that anyone could have done as well.

v. Jumping to Conclusions = You make a negative interpretation even though there are no definite facts that convincingly support your conclusion.

   1. Mind Reading = You arbitrarily conclude that someone is reacting negatively to you, and you don’t bother to check this out.

      a. Ex. A student is falling asleep while I’m lecturing and I conclude that the audience thinks I’m a bore. In reality, the student was just up late partying.

      b. May respond to this by withdrawing or counterattack
2. The Fortune Teller Error = You anticipate that things will turn out badly, and you feel convinced that your prediction is an already-established fact.
   a. Ex. Why bother studying, I know I'm going to fail.
   b. Contributes to felling of hopelessness

vi. Magnification or Minimization = You exaggerate the importance of negative things (such as your goof-up, shortcomings, and problems) or some else’s achievement. Also, inappropriately shrink positive things until they appear tiny (your own desirable qualities), or the other fellow’s imperfections.
   1. Ex. The “binocular trick.” It’s like using binoculars to magnify your weaknesses and turning them around to minimize your strengths.

vii. Emotional Reasoning = You assume that your negative emotions necessarily reflect the way things really are: “I feel it, therefore it must be true.” You let your feelings guide the way you act.
   1. Ex. “I feel guilty. I must be a rotten person.” “I feel angry. This proves I’m being treated unfairly.” “I feel hopeless. I must really be hopeless.”

viii. Should Statements = You try to motivate yourself with shoulds and shouldn’ts, as if you had to be whipped and punished before you could be expected to do anything. You tell yourself that things should be the way you hoped or expected them to be. “Musts,” “oughts,” and “have tos” are also offenders. Should statements that are directed against yourself lead to guilt, frustration, pressure, and loss of motivation. When you direct should statements toward others or the world in general, you feel anger, frustration, and resentment. You need to either change your expectations to approximate reality or always feel let down by human behavior. Also, all these should statements can make you feel rebellious and you get the urge to do just the opposite.
   1. Ex. I should do this.

ix. Labeling = This is an extreme form of all-or-nothing thinking. Instead of describing your error, you attach a negative label to yourself. Labeling involves describing an event with language that is highly colored and emotionally loaded. Labeling is irrational because you are not the same as what you do. Human beings exist, but “fools,” “losers,” and “jerks” do not. These labels are just useless abstractions that lead to anger, anxiety, frustration, and low self-esteem. When someone else’s behavior rubs you the wrong way, you attach a negative label to them. Then you feel that the problem is with that person’s “character” or “essence” instead with their thinking or behavior. You see them as totally bad. This makes you feel hostile and hopeless about improving things and leaves little room for constructive communication.
1. Ex. Usually begins with “I’m a ____” “I’m a looser.” Regarding criminal behavior – I committed a crime, I did something bad. “I am a bad person. I am a failure.” The victim or society may label you too. “He is evil. He is bad.” This changes you into a monster, rather that focusing just on a person who did a bad thing and does not always do bad things.

x. Personalization and Blame = Personalization occurs when you hold yourself personally responsible for an event that is not entirely under your control. Leads to a great sense of responsibility, guilt, shame, and inadequacy. Some people do the opposite. They blame other people or their circumstances for their problems, and they overlook ways that they might be contributing to the problem. Blame usually does not work very well because other people will resent being the scapegoat and they will just toss the blame right back in your lap. Also, it keeps you from changing things that you do have some control over.

1. Personalization Ex. If you kid gets bad grades on a report card, you say, “I must be a bad father. This shows how I’ve failed.”

2. Blame Ex. “It is the cops’ fault that I’m always getting arrested. Why do they keep riding me?”

5. Practice to recognize cognitive distortions
   a. Ex.1 Suppose someone criticizes you. You get upset and think, “I never do anything right. I’m such a loser.” These thoughts make you feel inadequate and guilty. What are the distortions in these thoughts?
      i. Possible answers: all-or-nothing thinking, overgeneralization, mental filter, discounting the positive, magnification, emotional reasoning, labeling, personalization
   b. Ex. 2 You are lonely and you decide to attend a social affair for singles. Soon after you get there, you have the urge to leave because you feel anxious and defensive. The following thought are running through your mind: “They probably aren’t very interesting people. Why torture myself? They’re just a bunch of losers. I can tell because I feel so bored. This party will be a drag.”
      i. Possible answers: labeling, magnification, jumping to conclusions, emotional reasoning
   c. Ex. 3 You receive a layoff notice from your employer. You feel mad and frustrated. You think, “This proves the world is no damn good. I never get a break.”
      i. Possible answers: all-or-nothing thinking, mental filter
   d. Ex. 4 (Elicit real life examples from participants)

6. Learning to recognize your own cognitive distortions
   a. Activity during the session = Think of the last time you felt sad. Write down a brief description of the situation that made you sad. What actually
happened? Next, write down the negative thoughts and feelings you were having in the situation described. Did you feel hurt? Hopeless? Lonely? Discouraged? What messages were you giving yourself? Last, see if you can identify any cognitive distortions, and write them down.

i. Explore some of participant’s responses
b. Homework – Record event, feeling, automatic thought, cognitive distortion

Day 4 Topic: Combating Cognitive Distortions
7. Reviewing Homework – helping each other identify cognitive distortions
8. How to combat cognitive distortions
   a. Using the 3-column technique to recognize your cognitive distortions & talk back
      i. Purpose = To substitute more objective rational thoughts for the illogical, harsh self-criticisms that automatically flood your mind when a negative event occurs. This will help you develop a more realistic self-evaluation system.
      ii. When to do it? When an upsetting event occurs & you have negative feelings.
      iii. The 3-columns: Automatic Thought – Cognitive Distortion – Rational Response
      iv. What is a “rational response?”
         1. It’s not just trying to rationalize or cheer yourself up, it is the truth. If your rational response is not convincing and realistic, then it will not help you to feel better. Make sure you believe in your rebuttal to self-criticism. If you cannot think of a rational response right away, come back to it later. After times passes you will usually be able to see the other side of the argument.
         2. Practicing rational responses will help you develop a more realistic system of self-evaluation
      v. Activity during the session = Get into small groups, give each group a vignette that describes a person’s depressing situation and automatic thought(s), have the group identify & write down the cognitive distortion(s) and come up with some rational responses. Have each group share/discuss their responses with the class.
         1. If a group has difficulty doing this, the facilitators can provide guidance and also solicit help from other class participants.
      vi. Homework - Try it this week! Do the 3-column Technique when you feel depressed.

Day 5 & 6 Topic: Continuing to Combat Cognitive Distortions
9. Reviewing Homework –
   a. Ask for volunteers who will share their homework.
b. Ask if anyone had challenges coming up with rational responses & help them come up with some.

a. After writing down your negative thought, ask yourself, “What is the evidence for and against this thought?”
   i. Check the facts – Sometimes we think things are bad because we feel so bad, but the facts say otherwise. Use the facts to create a rational response.

b. Process some examples
   i. Ex. “I never do anything right. I’m such a loser.”
      1. Examine the evidence for and against: “Is it true that I never do anything right? What are some of the things I do well? What are the things I’m not so good at?”
   ii. Activity: Elicit some cognitive distortions from the participants and have the group examine the evidence. Write their responses on the board.

a. After writing down your negative thought, ask yourself, “Is there a way I could test this out to see if it is really true?”

b. Ex. “I’ve lost all of my friends. Nobody likes me anymore.” – To test this out using an experiment, call each of your friends and ask them to go to lunch with you. This will give you some real data to see if your thoughts are true or not.

c. Activity: In small groups – Have small groups write downs a cognitive distortion, and then come up with an experiment to test it out. Have the groups share their examples with the class.

12. See the interaction between thoughts and emotions: Using the 6-column technique

b. Put an example on the board

c. Homework: Try the 6-column technique this week!

Day 7 Topic: Using the Downward Arrow Techniques to Identify Core Dysfunctional Beliefs

13. Review Homework: Elicit examples from participants who would like to share.
Address any challenges in completing/understanding the homework (see if other participants can help resolve challenges).

14. Introduction to the Downward Arrow Technique
a. Purpose: To help you become more aware of the beliefs and attitudes that may be causing problems for you. These core beliefs and attitudes are always operating in your mind, and they influence the way you react to the good and bad things that happen in your life.
b. How to do it: Rather than combating a negative thought, embrace it and see where it takes you. Here are the steps:
   i. Identify a negative thought about an upsetting situation and write it down.
   ii. Draw a downward arrow underneath the negative thought. The arrow means, “If this thought were really true, why would it be upsetting to me? What would it mean to me?”
   iii. Identify and write down your response to this. This is your second negative thought.
   iv. Draw another downward arrow underneath your second negative thought.
   v. Keep repeating this process until you have generated all the negative thoughts that you can. This will lead you to your core beliefs and attitudes about yourself.
   vi. Are your “worst fears” really as bad as you thought?
   vii. Once you have identified your core beliefs/attitudes you can determine whether your core beliefs/attitudes help you or hurt you using a Cost-Benefit Analysis:
      1. List the advantages and disadvantages of believing in your core belief/attitude.
      2. Are there more advantages or disadvantages?
      3. If there are more disadvantages, then you will want to revise your belief/attitude
   viii. How to revised you core belief/attitude:
      1. Examine the evidence for and against your core belief/attitude. Do an experiment to test it out.
      2. Write a new belief/attitude that is not self-defeating and is more realistic.

c. Go over a couple examples. (choose examples that are relevant to the participants based on the issues that they bring up on earlier days)

d. Homework: Try the Downward Arrow Technique this week!

Day 8 Topic: Putting It All Together - A Review of the CBT Tools We Have Learned
15. Review Downward Arrow homework & address any challenges/difficulties with the task.
16. Elicit participation from participants in reviewing the material to consolidate what has been learned.
17. Review:
   a. The connection between the way we Think, Feel, & Behave
   b. Various types of Cognitive Distortions
   c. Ways to combat cognitive distortions
      i. 3-column Technique – using “rational responses”
      ii. Examining the Evidence
      iii. Doing an Experiment
      iv. 6-column Technique
      v. Downward Arrow Technique
18. Where to go when you need more help? – Affordable Mental Health & Substance Use Prevention Services in the Las Vegas Community
   a. Community Counseling Center (369-8700)
      i. Address: 1120 Almond Tree Lane Suite 207 (off of Maryland Parkway), Las Vegas, Nevada 89104
      ii. Offers low cost (sometimes as low as $5 per session depending on your income) individual and/or group counseling for any issue. They have good treatment groups for substance relapse prevention. Also treatment for anger management, domestic violence, HIV/AIDS. There is an initial evaluation that costs $50.
      iii. Also offers Meadow House
           1. Meadow House I and Meadow House II are transitional house environments for men coming out of the Criminal Justice System. Environments are sober living and supervised.
   b. Center for Individual, Couple, and Family Counseling (895-3106)
      i. Located on the University of Nevada Las Vegas (UNLV) campus
      ii. Address: 4505 Maryland Parkway
      iii. Offers low cost individual counseling for any issue (such as depression, anger, self-esteem, substance use, and more). No one is turned away for inability to pay. Therapists are UNLV graduate students who are supervised by UNLV psychology and counseling professors.
   c. Bridge Counseling Associates (474-6450)
      i. Located on W. Charleston
      ii. Fees on a sliding scale (request)
      iii. Offers outpatient group and/or individual mental health and substance misuse services and vocational services (individual employment assessment, employment planning & training).
   d. Montevista Hospital (364-1111)
      i. Address: 5900 West Rochelle Avenue
      ii. Offers a variety of mental health, psychiatric (medications), substance relapse prevention, and substance detoxification services.
      iii. Treatments can be offered during hospitalization, partial hospitalization (day treatment, you do not stay overnight), outpatient, and support groups.
      iv. They offer a free professional assessment and referral to determine what your treatment needs are and what services they can offer you.
      v. They accept Medicaid.
   e. Mojave Mental Health
      i. For Las Vegas adults needing services including case management.
         4000 E. Charleston, Suite B-230
         Las Vegas, NV 89104
         Phone: (702)968-5000
ii. For Las Vegas adults needing doctor's clinic (psychiatric medications), outpatient therapy, group counseling, or residential treatment.
   4000 E. Charleston, Suite A-130
   Las Vegas, NV 89104
   Phone: (702)968-4000

iii. Offers treatment for a variety of mental health and substance use issues, case management, and help finding group homes. Also offers services (treatment, housing, employment) to homeless people who have both mental illness and substance problems.

iv. Offers transportation to and from treatment, if needed.

v. Must be eligible for Medicaid.

f. Southern Nevada Adult Mental Health Services (486-6000)
   i. Address: 6161 West Charleston Boulevard, Las Vegas, NV 89146
   ii. Offers a variety of mental health and substance treatments at various locations throughout the community. Includes inpatient, outpatient, individual, group, and medication services.

   iii. Services are offered at low-cost depending on income, accepts Medicaid.

g. Nevada State Welfare (486-5000)
   i. Located on Belrose St (additional offices on Charleston, Flamingo, & Owens); NO FEES
   ii. Offers public assistance, medical assistance, employment, and enrollment in Medicaid & Medicare

h. Westcare (385-2020)
   i. Administration location: 5659 Duncan Drive Las Vegas NV 89108, Fees on a sliding scale
   ii. Offers substance abuse and addiction treatment, homeless shelters, vocational counseling, and mental health programs.
   iii. Also runs Harris Springs Ranch (872-5382), which is a long-term therapeutic community for substance abuse. Provides transitional living, and aftercare/community care.
   iv. Also runs Community Triage Center (383-4044)
      1. Crisis Stabilization
      2. Intake, Assessment and Treatment Referral
      3. Drug and Alcohol Detoxification
      4. Mental Health Evaluation and Treatment
      5. Homeless Outreach Services
      6. 24-hour Transportation Support System

i. For Emergencies – Available 24 Hours:
   i. Montevista Hospital Crisis Team 364-1111
      1. 5900 W. Rochelle Ave
   ii. Southern Nevada Adult Mental Health Crisis Unit 486-8020
      1. 6161 W. Charleston Blvd.
   iii. Suicide Prevention Center 731-2990
REFERENCES


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