Incorporating Naturally Occurring Social Support in Interventions for Former Prisoners with Substance Use Disorders: A Community-based Randomized Controlled Trial

Carrie Pettus Davis, MSW

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Approved by

Matthew Own Howard, Ph.D.

Jeffrey Draine, Ph.D.

Rebecca Macy, Ph.D.

Jack Richman, Ph.D.

Amelia Roberts-Lewis, Ph.D.

Anna Scheyett, Ph.D.

ABSTRACT

CARRIE PETTUS-DAVIS: Incorporating Naturally Occurring Social Support in Interventions for Former Prisoners with Substance Use Disorders: A Community-based Randomized Controlled Trial
(Under the direction of Matthew Owen Howard, PhD)

Improvements in post-release outcomes of former prisoners (FPs) are linked to behavior and attitudes influenced by social relationships and social support. However, social and behavioral scientists continue to underutilize naturally occurring social support in interventions for FPs with substance use disorders. The exponentially rising incarceration rates in the United States disproportionately impact vulnerable and disadvantaged groups in our society. A range of efforts are needed to address specific sociostructural problems contributing to these trends, but in the interim people release from prison everyday and these individuals can benefit from social work informed interventions. The following three papers draw much needed attention to a neglected and low cost resource – naturally occurring social support – that could substantially improve the outcomes of FPs.

The first paper challenges the assumption that FPs have little positive support. Next, the paper describes an intervention, *Support Matters*, that incorporates naturally occurring social support, that was developed and tested in North Carolina using a randomized controlled trial design. *Support Matters* is grounded in three theoretical frameworks and is manualized to promote fidelity to the intervention.

The second paper describes the feasibility and acceptability evaluation results of *Support Matters*. This evaluation was conducted within the randomized controlled trial of *Support Matters* that assesses the effectiveness of the intervention in reducing substance misuse and re-arrest. In light of the difficulties that are frequently encountered when transferring evidence to practice, these evaluations are of critical importance during the formative stages of empirically supported interventions. This paper describes the feasibility and acceptability outcomes from the views of former prisoner participants, support partners, and group facilitators.

The third paper presents preliminary findings from the randomized controlled trial used to compare the effects of *Support Matters* to routine post-release services offered to a sample of 40 male prisoners with substance use disorders releasing to a large urban county. Findings indicate that *Support Matters* participants experience increases in subtypes of social support from family and report more opportunities for reciprocity of support compared to their routine services counterparts. Arrest outcome trends approached statistically significant differences in reduced arrest rates for *Support Matters* participants.

To my husband Matt Davis, my parents Donna and Lamar Pettus, and my growing family.

To the people most affected by our social injustices who inspire me to continue trying to make a difference.

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INCORPORATING SOCIAL SUPPORT IN INTERVENTIONS FOR FORMER PRISONERS WITH SUBSTANCE USE DISORDERS: CONCEPTUAL FRAMEWORK AND PROGRAM MODEL

Representing an all time high and increasing trend, nearly 740,000 prisoners were released from state and federal prisons in 2008 (Sabol, West, & Cooper, 2009). Prisoner reentry – the release of prisoners back to communities – is a pressing public safety issue. The failure of prisons to end criminal behavior is evidenced by results from the most recent national study using a probability sample indicating that 68% of former prisoners were re-arrested within 3 years (Langan & Levin, 2002). The 183,675 persons re-arrested were charged with 744,480 new crimes, an average of four crimes per person (Langan & Levin, 2002).

Prisoners with substance use disorders[1] contribute disproportionately to the revolving door of re-incarceration. Substance use disorders are substantially more prevalent among the prisoner than general population. Over 83% of prisoners report prior substance misuse[2] and approximately half of state and federal prisoners meet diagnostic criteria for a substance use disorder (Mumola & Karberg, 2006). Nationally, a majority of prisoners with substance use

[1] For the purposes of this paper, "substance use disorders" is an umbrella term for substance abuse and substance dependence as determined by DSM – IV criteria. A substance use disorder is defined as substance use that leads to significant impairment or distress in at least 2 areas of social and interpersonal functioning for that individual.

[2] Substance misuse is defined as the behavior of substance use that is functionally impairing or personally distressing to the person in question.

disorders reported at least 3 prior prison sentences (Mumola & Karberg, 2006). Given that many prisoners have histories of substance misuse and are otherwise ill-equipped for reintegration (Cuomo et al., 2008; Leukefeld et al., 2009) support for former prisoners with substance use disorders is crucial. Once released, but lacking supports, former prisoners often return to high-risk behaviors (Graffam et al., 2004; Seiter & Kadela, 2003; Willis & Grace, 2009).

Post-release outcomes of former prisoners with substance use disorders are linked to behavior and attitudes influenced by social relationships and social support. Key dynamic risk factors for relapse to substance misuse or criminal behaviors include substance-involved peers (Andrews, Bonta, & Wormith, 2006; Schroeder, Giordano, Cernkovich, 2007; Skeem et al., 2009), "criminal thinking" (Gendreau, Little, & Goggin, 1996; Lipsey, Landenberger, & Wilson, 2007; Mooney et al., 2008), stress (Chandler et al., 2009; Zhao et al., 2010), and low social support (Heaps et al., 2009; Shinkfield & Graffam, 2009; Skeem et al., 2009). Protective factors include reliable partnerships, stable families, and positive social support (Bersani, Laub, & Nieuwbeerta, 2009; King, Massoglia, & MacMillan, 2007; Laub & Sampson, 2003).

Despite evidence for the positive role social support can play in the lives of former prisoners with substance use disorders, social and behavioral scientists continue to underutilize social support in interventions with former prisoners with substance use disorders. The neglect of social support as a resource may be a result of perceptions that former prisoners have no positive social support available to them because they have burned bridges or have mostly been surrounded by poor or negative support. Some may also believe that prisoners who have been incarcerated for long periods of times may have once had social

support, but this support has atrophied or vanished entirely. These assumptions remain largely unchallenged, may be erroneous, and could be severely limiting our ability to positively influence former prisoners' behaviors and well-being.

This paper challenges the assumption that former prisoners have little or no social support and presents a conceptual model to guide social support interventions with former prisoners with substance use disorders. Following a review of the literature examining availability of social support for former prisoners with substance use disorders, we assess social support interventions with related service populations. Then, a conceptual model based on an integrated theoretical framework is presented. Finally, a social support intervention currently being tested in North Carolina is described. In an era of mass incarceration and mounting pressure to identify interventions that will reduce high re-incarceration rates, this paper draws attention to a neglected, potentially effective, and low cost resource – naturally occurring social support -- for criminal justice interventions. The paper also offers a model of a novel intervention upon which future efforts can build.

Background

Social Support Defined

The importance of social relationships to health and well-being has been underscored in research areas such as stress, mental health, chronic illness, and substance use disorders (Cohen, Underwood, & Gottlieb, 2000; Sarason & Sarason, 2009). Social support occurs in the context of relationships, and refers to the provision or exchange of resources that individuals perceive as available or those that are actually provided by others (House, 1981) – social support has both material and psychological aspects. Provision of social support can occur through formal mechanisms or informal support relationships. *Formal social support*

refers to publicly or privately financed resources (McCamish-Svensson, et al., 1999). Examples of formal social support include support received from medical doctors, nurses, counselors, educators, or clinicians. Informal social support refers to provision of support by people who do not receive pay to provide services or support to the individual (McCamish-Svensson, et al., 1999) such as volunteers, clergy, or mentors. *Naturally occurring support relationships* are a subtype of informal social support. Naturally occurring relationships may include parents, siblings, partners, or friends. These relationships are developed in the course of an individual's life and not in the context of organized support provision.

Social support can be negative or positive in nature. Although it is counterintuitive to think of support as potentially negative in nature, *negative support* occurs if either the outcome of the support is negative (e.g., reinforcement of substance misuse) or the recipient perceives the support as negative (e.g., assistance is provided on damaging terms) (Antonucci, 1985; Wilcox & Vernberg, 1983). For example, a family member that provides encouragement, but who models substance using behaviors or a romantic partner that offers material support, but who is abusive is negative social support. Social support can also be experienced as negative if the recipient is not physically or psychologically ready to receive the proffered support or is in conflict with a support provider (Antonucci, 1985). *Positive* social support enhances a person's physical and/or psychological well-being (Sarason & Sarason, 1985). This paper primarily focuses on informal positive social support provided by naturally occurring relationships.

Availability of Social Support for Former Prisoners

Much of the research on the availability of social support for former prisoners focuses on the validity of former prisoners' perceptions of support and the relationship between the

nature of such support and substance misuse and criminal behavior outcomes. Descriptive studies indicate that former prisoners have naturally occurring social network members who offer the former prisoner some type of post-release social support (Martinez & Christian, 2009; Nelson, Deess, & Allen, 1999). Although this support is available, former prisoners underestimate the amount of post-release social support attainable to them (Brooker, 2005; Martinez & Christian, 2009; Naser & LaVigne, 2006). For example, in a longitudinal study of 413 male prisoners, 69% of men perceived post-release support as available. However, 86% of men received assistance from family members at release and 55% continued to receive that support 3-months after release (Naser & La Vigne, 2006). The support prisoners' received included provision of housing and financial assistance as well as assistance obtaining future housing and employment. Similar results were reported in a qualitative study of 6 dyads of former prisoners and family members providing social support (Martinez & Christian, 2009).

Former prisoners' social networks are comprised of positive and negative supports and these supports have varied effects on outcomes. Shinkfield and Graffam's (2009) longitudinal study of 79 former prisoners with histories of substance misuse concluded that social support was crucial to post-release success. Most study participants maintained a small network of supportive friends and family. Studies of former women prisoners indicate that stigma interferes with their ability to connect with sources of positive social support (Olphen et al., 2009). Women who do connect with positive social support, tend to have some supporters who are constructive and others who increase the likelihood of relapse to substance misuse (Falkin & Strauss, 2003). Giordano and colleagues (2003) followed 127 females and 127 males for thirteen years assessing the influence of peers and marital status

on criminal behaviors. The researchers found that spousal and friend criminality were significant predictors of self-reported criminal behavior. Negative social support (i.e., partner or peer criminality) had a smaller effect on women than men. For men and women, positive spousal support was a gateway for establishing positive social support from companions. Similarly, results of a longitudinal study of 89 former prisoners indicated that of those men with mostly negative social support, 57.1% reported substance misuse in the past 30 days compared to 14.3% (p = .023) of men with mostly positive social support (Seal et al., 2007). Study results supported the notion that positive social support can substantially reduce former prisoners' relapse to substance misuse and criminal behaviors.

Although empirical evidence demonstrates that positive support can help former prisoners to reduce substance misuse and criminal behaviors, there is also evidence this same support can lead to increased stress levels, which may contribute to relapse to negative behaviors. Some studies suggest that there may be an inverse relationship between social support and outcomes of former prisoners. In a mixed methods study of 89 former prisoners, qualitative findings indicated the men's social support experiences were fluid and that, at times, positive social support was perceived as too overwhelming (Seal et al., 2007). Many men reported connections to positive social support persons immediately after release from prison. Some men reported feeling too overwhelmed by obligations to positive social supports. Feeling overwhelmed, the men would slowly withdraw from positive support persons and drift back to friends with whom they could sell drugs and regain social status, such as respect from women. Shinkfield and Graffam's (2009) study of social support found that positive support was predictive of reduced recidivism, but participants' continued misusing substances over a 4-month follow-up period. A study of 39 Israeli former prisoners

found similar effects of "positive" social support. The men reported high levels of conflict and distress related to differences in post-release expectations between the former prisoners and social supports, particularly when support providers had no history of drug-involvement or knowledge of addiction recovery.

It is clear from this review of existing social support research that although social support is available to many former prisoners, the interactions between former prisoners and support providers can be complex. Well-intended support providers may not have the skills needed to provide support; the former prisoner may not be receptive to available support or may not have the skills required to access support; or there may be a mismatch between the former prisoners' support needs and the resources available from the support provider. Each of these scenarios suggests that social support relationships are dynamic in nature and that a spectrum of support needs and resources may be observed in relationships between providers and recipients of support. The mixed evidence vis-a-vis effects of social support on former prisoners' outcomes underscores the need for actively and thoughtfully involving positive support persons in interventions with former prisoners. Former prisoners and support persons can then work together to match support needs, expectations, and resources.

Current Social Support Interventions with Former Prisoners

Although rarely employed with former prisoners, social support interventions have been tested with a range of clinical populations seeking to overcome challenges associated with physical or mental disorders. To gain a better understanding of current informal social support-related programs available to former prisoners, academic health and social science databases were searched. All social support intervention studies designed specifically for adult former prisoners published between 2000 and 2009 were reviewed. A modified

definition of informal social support interventions was used, which defines these programs as "systematic activities designed to change the existing quality, level, or function of an individual's personal social network or to create new networks and relationships [to mobilize social support to achieve specific outcomes]" (Budde & Schene, 2004, pp. 342). As such, the interventions reviewed included programs that used volunteers, family, peers, and/or agency staff to increase the amount of informal social support available to program participants. Four studies were identified.

Circles of Support and Accountability.

Circles of Support and Accountability (COSA) was first implemented in Canada. COSA is founded on the restorative justice perspective that a consensus approach (between victims and offenders) should be used in criminal justice interventions and that formal agencies often fail to provide support needed by former prisoners (cf., Hannem & Petrunik, 2007; Wilson, Picheca, & Prinzo, 2005; Wilson & Prinzo, 2002). COSA pairs formerly incarcerated (high-risk) sex offenders with a relapse prevention team comprised of 4 to 6 community volunteers. Team members help participants with numerous activities including: obtaining stable work and housing; running errands; identifying positive recreational opportunities and community resources; negotiating conflicts with formal and informal support systems; managing life disappointments; and celebrating successes. To promote community inclusion, team members meet participants at churches, homes of volunteers, restaurants, and coffee shops.

The largest COSA evaluation included a sample of 60 COSA participants and 60 matched non-COSA controls followed over a three-year period (Wilson, Picheca, & Prinzo, 2005). Participants were matched with regard to estimated risk to reoffend, length of time in

the community, and prior involvement in sex offender treatment programs. Results showed that COSA participants were significantly less likely to sexually re-offend (5% vs 16.7%), violently reoffend (15% vs 35%), or reoffend in general (28.3% vs 43.4%) than control subjects.

Project Greenlight.

Project Greenlight was a short-term demonstration project initially implemented in a correctional facility in New York and then moved to a community-based agency because of staffing difficulties (cf., Bobbit & Nelson, 2004). Project Greenlight was a multi-component transitional program for male prisoners and former prisoners. The *Greenlight Family Reintegration* component of Project Greenlight emphasized social support from family members. Current and former prisoners could invite family members to participate in one of 3 types of family sessions: a) couples – group work focused on prisoner participants' relationship with his partner; b) co-parenting – group work emphasized the participants' relationship with his children; or c) family of origin – work concentrated on the participant's relationship with his parents, siblings, extended or informal family.

The Project Greenlight evaluation did not find statistically significant differences in the quality of family relationships between program and non-program participants (Wilson, 2007; Wilson & Davis, 2006). However, family relationship and recidivism outcomes were not assessed separately for Project Greenlight participants – in other words, all participants were included in the outcome analysis regardless of whether or not they received family support-related services. Qualitative outcomes of participants involved in the social support module of the Greenlight intervention were positive. Program staff reported numerous instances in which family support persons were better able to understand participants'

support needs, reassure participants about the family's expectations, and work together to develop a transitional plan that would support the participant in his success.

Ready 4 Work.

Ready4Work was a demonstration project tested in 11 US sites (cf., Bauldry, Korom-Djakovic, McClanahan, McMaken, & Kotloff, 2009). Ready4Work aimed to increase former prisoners' rates of employment and strengthen the social networks and social support available to former prisoners through mentoring. Approximately half of all Ready4Work participants participated in mentoring. Sites used either a group mentoring model or a one-to-one mentoring approach. Regardless of the mentoring model, each program shared the same goal of offering positive support to participants and providing positive role models. Mentoring focused primarily on providing emotional support regarding the frustrations of finding employment. Some mentors also assisted in connecting participants to job leads and with transportation or child care.

Results showed that participants who met with mentors at least once a month were twice as likely to obtain employment as those who were not mentored and they needed less time to find their first job. Mentored participants were 35% less likely to have recidivated (i.e., re-arrest, reconviction, or re-incarceration) at the end of one year. Within the group of mentored participants, the longer participants were engaged in mentoring, the greater their odds were of finding employment. Also, each additional month of mentoring was associated with a small decline in the risk of recidivating. Qualitative interviews with mentored participants showed that they felt supported by mentors because mentors helped them to stay motivated and goal oriented, helped to reduce stress, and provided participants with important information about job opportunities and basic life skills.

La Bodega.

La Bodega is a program in New York City for former prisoners and probationers with substance misuse histories and their families (cf., Sullivan et al., 2002). The program provides a range of case management and supplemental services (e.g., walk-in services, workshops, support groups) to the participants and their families. La Bodega is designed to build support around offender participants in order to reduce the likelihood of relapse to substance misuse and criminal behavior. Family counseling sessions were designed to help the family set program goals and map the formal support available to family members so that they may focus on each other for other areas of support needs. The other aspect of family counseling sessions focused on challenges within the family unit.

The initial program evaluation recruited over three-fourths of comparison group participants from the Division of Parole (Sullivan et al, 2002). At six-months follow-up, treatment group participants reported a 38% reduction in illegal substance use ($p < .05$) compared to a 13% reduction reported by comparison participants. Qualitative results showed that family members learned how to change support behaviors to encourage substance abstinence versus enabling substance misuse. Family members also reported that case managers helped them to understand addiction, potential consequences of various support-intended actions, the pressure that the offender participants felt, and how to communicate about these pressures.

Social Support Interventions: Lessons from the Substance Use Disorder Literature

Informal social support interventions with former prisoners reflect a mix of reliance on naturally occurring social support from family members and informal social support from community volunteers and mentors. In the substance use disorder treatment field, emerging

research on social support interventions incorporating naturally occurring support persons provides promising evidence of the feasibility and effectiveness of such programs. Currently, three published models exist. These interventions are based on the principle that naturally occurring support can promote successful relapse prevention outcomes.

Network Therapy.

Network Therapy was developed by Marc Galanter and a test of the intervention with cocaine addicts is described by Galanter and colleagues (2002). Network Therapy sought to build skills of participants by using a cognitive-behavioral approach to relapse prevention; incorporating the involvement of the participant's naturally occurring social network members in order to enhance outcomes of the intervention; and seeking to reinforce skills learned in treatment sessions by completing treatment activities outside of the treatment sessions. Network Therapy was delivered by clinicians conducting individual treatment sessions. The individual therapy sessions occurred twice a week for 24-weeks.

Feasibility and treatment outcomes of Network Therapy suggest that a similar social support intervention approach for former prisoners with substance use disorders might be effective. Of participants who attended Network Therapy after the first week, almost half completed the full 24-week course. Almost 80% of participants secured a naturally occurring support network (M=1.5 members, SD = .68) to attend all sessions. Support network members were evenly divided among friends and family members. The number of network sessions attended was significantly associated with reduced relapse (r = -.39, p <. 05). Participants with negative urine tests for substance misuse attended two times the number of network sessions compared to participants with positive urine tests. Remarkably, the relationship between number of individual sessions attended and negative urine screens for

cocaine use was nonsignificant (Galanter et al., 2002). A more recent randomized controlled trial of Network Therapy with opiate-dependent participants demonstrated similar results to the prior study (Galanter et al., 2004). Network Therapy participants were more likely than controls to submit opiate-free urine samples at their last three sessions (50% vs. 23%, $p < .05$).

Motivated Stepped Care.

Motivated Stepped Care (*MSC*) is a program included in the addiction treatment services unit at a university medical center in Boston and is described in detail by Kidorf and colleagues (1997) and Brooner and Kidorf (2002). The third phase of the MSC program includes a social network intervention. Based on the assumption that the absence of alternative positive social supports results in participants remaining enmeshed in negative social relationships, the intervention is designed to help participants meet other drug-free individuals, create or enhance drug-free social support, and to help participants access social reinforcement for drug abstinence.

Participants identify a drug-free adult friend, family member, or community volunteer to attend four weekly group sessions and to meet with the participant once per week outside of the session. The support person monitors and documents the participant's weekly participation in social and recreational-activities with drug-abstinent persons and helps the participant identify and attend drug-free social activities. During group sessions, participants and support persons report the previous week's activities and the participant's adherence to weekly goals.

The MSC social support program has not been evaluated, but descriptive statistics indicate it is a feasible intervention approach. Over a two-year period, approximately 74% of

dyads completed the program. Women had a higher completion rate than men (91% versus 62%), but took longer to complete the program (16.4 vs. 7.4 weeks, p = .002). Interaction effects of gender were not tested. There was not a control group and follow-up outcomes of those who completed and did not complete the program have not been reported.

Social Behavioral and Network Therapy.

Social Behavioral and Network Therapy (SBNT) is an intervention for people with alcohol- use disorders. It is based on the premise that people with alcohol use disorders need a positive social network to improve the likelihood of successful recovery outcomes. SBNT was described in detail by Copello and colleagues (2002). SBNT seeks to place the emphasis of treatment on the participant's social environment.

SBNT was developed for people who already have social support providers in their social network and individuals who need help developing a supportive social network. The goal is to maximize the participant's "positive social support for a change in drinking behavior" (Copello et al., 2002, p. 349). SBNT can occur in network sessions with the network member support provider or in individual sessions with the participant. The therapist can also work directly with the support provider even if the participant ceases to attend sessions. The primary goal of treatment is to build or enhance a positive network supportive of reducing drinking behavior. A secondary aim is to work to reduce exposure to social network members that support alcohol misuse. For people who do not have positive supportive network members, the goal of treatment is to build the network so that by the end of treatment, the participant can identify at least one new person who is supportive of the participant's changed drinking behavior. This approach is based on the assumption that the

intervention is equally relevant for people who are more socially isolated when they begin treatment.

One study of SBNT reported treatment and feasibility outcomes for 24 cases receiving the intervention (Copello, Williamson, Orford, & Day, 2006). Network member support providers attended sessions in 80% of cases. Support providers were primarily (70%) family members. Pre-post test outcomes indicated significant reductions in substance misuse and dependence. There were not significant changes in network composition of heavy drug users for participants, however there were significant increases in family cohesion and family satisfaction as well as reductions in conflict between participants and their support providers.

Implications for Support Interventions for Former Prisoners with Substance Use Disorders

Despite criminal history status, few social support interventions exist that actively involve naturally occurring support providers with the aim of promoting positive cognitive and behavioral outcomes of program participants. Although the three interventions for persons with substance use disorders described above actively incorporate naturally occurring support persons into program activities, there remains a limited understanding of the effects of such interventions. Currently published data consist of descriptive, preliminary, or feasibility results.

This review of interventions has several implications for intervention research with former prisoners with substance use disorders. First, skill development for participants and their support providers is feasible and important. Retention of support providers in the reviewed programs indicates that support providers are willing and able to attend programs with participants. Their sustained involvement further suggests the support providers find

value in the knowledge and skills gained during the program sessions. Similar to family and mentor-based interventions with former prisoners, substance misuse interventions largely relied on informal support providers for emotional resources and the formal service agency for informational or material resources. These support programs differed from those with former prisoners in that support providers were also expected to provide instrumental support (e.g., offering assistance such as providing transportation or labor, or helping the recipient to develop a needed skill set) between treatment sessions. Although the feasibility of this expectation of support providers was not discussed, it may be an effective approach to matching the support needs of participants with their social support providers' resources. Relatedly, a simultaneous focus on strengthening the support provided by existing relationships and expanding the support network of participants appears to be a promising strategy to reduce strain on existing social support resources.

Conceptual Model for Naturally Occurring Social Support Interventions

Naturally occurring social support interventions for former prisoners with substance use disorders should be grounded in epidemiology research and theory. In this section, an integrated theoretical framework is proposed to inform naturally occurring social support interventions. Then, a conceptual model for one novel social support intervention is introduced. Finally, the *Support Matters* program currently tested in North Carolina is described.

Theoretical Framework

Numerous scholars theorize that aspects of social relationships are predictors of, and explanations for, discontinued delinquent or criminal behaviors (Andrews, Bonta, & Wormith, 2006; Gendreau Little, & Goggin, 1996; Hawkins & Weis, 1985; Hirschi 1969;

Laub & Sampson, 2003; Welch et al., 2008). Social relationships are thought to play a role in criminal behaviors by influencing the cognitions, beliefs, and behaviors of individual actors. Two prominent theories of deviancy and intervention are *Social Bond Theory* and the *Social Development Model*. Combined with the *Social Support Perspective*, an integrated theoretical framework suggests pathways for reducing the influence of antecedent risk factors for former prisoners and promoting positive outcomes through social support interventions.

Social support perspective.

The *social support perspective* provides a wide lens through which to view the ways in which social relationships influence individual responses to stresses, ailments, and success. Social support is a multidimensional meta-construct (Cohen, 1992; Sarason & Sarason, 2009; Vaux, 1988) and a wide range of definitions of social support have been used. Hupcey (1998) classified theoretical definitions of social support into five categories: (a) type of support; (b) perceptions of support; (c) intentions or behaviors of the provider of support; (d) reciprocity or exchange of support; and (e) social network support.

Cohen and colleagues (2000) proposed two models of social support that include propositions that encompass much of the social support definitions and research to date. Both models imply social support to be a positive interaction (Hupcey, 1998; Rook & Dooley, 1985; Vangelisti, 2009). The *stress-buffering* model proposes that social support is related to well-being in those cases in which individuals are under stress. According to this model, perceived or received social support operates by reducing maladaptive physiological or psychological responses to stress. Further, social support provides a distraction from or solution to the problem.

The *main effect model* says that resources from social relationships have beneficial effects regardless of whether individuals are experiencing stress. This model states that social support is a result of integration into a social network. The social network exposes individuals to social controls and peers that influence adaptive (normative) health behaviors. Participation in social networks provides predictability, purpose, and a sense of stability and belonging. This interconnectedness contributes to psychological states that are physiologically and psychologically beneficial. Isolation is considered a stressor and having multiple network ties results in multiple sources of support. Multiple sources of support increase the likelihood of an individual receiving the quality and quantity of support needed in the event of a stressor.

Social bond theory.

Similar to other social control theories, social bond theory assumes that humans, irrespective of their age, must be controlled in order to prevent deviant actions (Salotti & Payne, 2007; Shoemaker, 2005). The distinguishing assumption of social bond theory is that it is the strength of social bonds to conventional others that protects against deviancy rather than individual traits (Shoemaker, 2005). According to Hirschi's (1969) social bond theory, delinquency is a result of weak social bonds, poor attachment to others, low involvement in conventional activities, and a lack of commitment to conventional lifestyles and beliefs (Longshore et al., 2004). Hirschi (1969) described the social bond as consisting of four elements: attachment, commitment, involvement, and beliefs. *Attachment* pertains to the psychological and emotional connection to others and the degree to which others' opinions and feelings are held important. *Commitment* is a result of a rational assessment one makes about the benefits of conformity compared to investments associated with nonconformity.

Involvement refers to participation in prosocial (i.e., consistent with conventional norms) and deviancy-free activities. *Belief* addresses the acceptance of prosocial values (Hirschi, 1969; Shoemaker, 2005). The four elements of the social bond vary together to form the strength or weakness of social bonds (Shoemaker, 2005). The more an individual is attached to (prosocial) others, the more the individual believes in conventional values, and the more that person invests in involvement with conventional activities, the less likely they are to engage in deviant behavior (Chriss, 2007; Hirschi, 1969; Salotti & Payne, 2007).

Social development model.

The Social Development Model (SDM) is an integrated theoretical framework that incorporates empirically-supported elements of social control (bond), social learning, and differential association theories to explain the etiology of deviant behavior and why these behaviors continue (Brown et al., 2005; Catalano & Hawkins, 1996; Huang et al., 2001). SDM is also used as a comprehensive developmental approach to preventing delinquent behaviors (Hawkins & Weis, 1985). SDM posits that behaviors are learned from socializing units. Within these socializing units there are opportunities for involvement with activities and others; perceived rewards for involvement in activities; development of attachment to others; and values and beliefs that are incorporated into standards of conduct within particular units. According to the SDM, the propitious match of an individual's skills with the social network or setting influence that individuals continued involvement in conventional lines of action.

SDM assumes that delinquency is a result of experiences that occur during social development and that causal elements have stronger influences at different stages in social development (Hawkins & Weis, 1985). SDM is comprised of four primary propositions

(Hawkins & Weis, 1985). Involvement with conventional others will only lead to social bonds if these experiences are evaluated positively. An individual must have the skills necessary for involvement with conventional society in order for social bonds to develop. Social bonds to conventional society will prevent deviant behavior directly and indirectly through social network associations. Conforming behaviors must be positively reinforced.

An Integrated Theoretical Framework to Inform Social Support Interventions for Former Prisoners with Substance Use Disorders

The causes of continued substance misuse and criminal behavior after prison are numerous and complex, and there have been many theories that examine desistance from substance misuse and crime. The literature highlights the social environment, and specifically social relationships of desisting former prisoners. The integration of the social support perspective, social bond theory, and SDM allows for a more cogent explanation of desistance from substance misuse and crime after an individual's release from prison. Social bond theory seeks to understand deviant behavior (i.e., criminal behavior and substance misuse) as behavior that is expected in humans and is only prevented by bonds to others that repress deviancy. However, social bond theory does not consider motivations to form and maintain attachments or bonds with some people or institutions and not others. SDM accepts the assumption of social bond theory, but rejects the notion that social bonds alone are sufficient to describe deviant behaviors. SDM builds on social bond and other theories and explains deviant behavior as a result of the interaction between individual skills and reinforcement in the social environmental (via socializing units) that causes individual cognitions, beliefs, and behaviors. Social bond theory and SDM posit that the quantity of conventional norms, values, and behaviors in the social network to which the individual is bonded, predict the

likelihood of deviant behavior. The social support perspective indicates that "quantity" of a particular set of norms, values, and behaviors is not sufficient to explain the role of social relationships in explaining behaviors. Instead, the social support perspective suggests the dynamics of human relationships must be examined from both perspectives in a social relationship and that social reinforcement can only be understood in the context of matched expectations between a provider and recipient of reinforcement. The three perspectives combined suggest that within social networks, it is the appropriate match of social support needs and provision that reinforces an individual's emotions, beliefs, and behaviors that buffer internal and external stresses, and, in turn, promote positive and adaptive outcomes.

Conceptual Model and Description of a Naturally Occurring Social Support Intervention

Combined, the social support perspective, social bond theory, and social development model inform a conceptual framework for a naturally occurring social support intervention for former prisoners with substance use disorders. The framework builds on existing empirical support for the importance of social relationships in discontinued criminal behavior and substance misuse and suggests a new practice approach to fully utilize social support in post-release interventions with former prisoners. One example of a naturally occurring social support intervention for former prisoners is *Support Matters*. In the remaining sections, the conceptual framework and *Support Matters* intervention is further described.

Support Matters program overview.

Support Matters is currently being pilot tested in North Carolina with 80 men recently released from prison. *Support Matters* combines effective substance misuse treatment approaches with the inclusion of naturally occurring support persons in the program model.

Manualized to ensure fidelity, *Support Matters* uses a cognitive-behavioral approach to promote involvement in positive social support networks. Former prisoners identify a known positive support partner in the community and the prisoner-partner dyads attend 10 weekly group sessions of skills and cognitive behavior training.

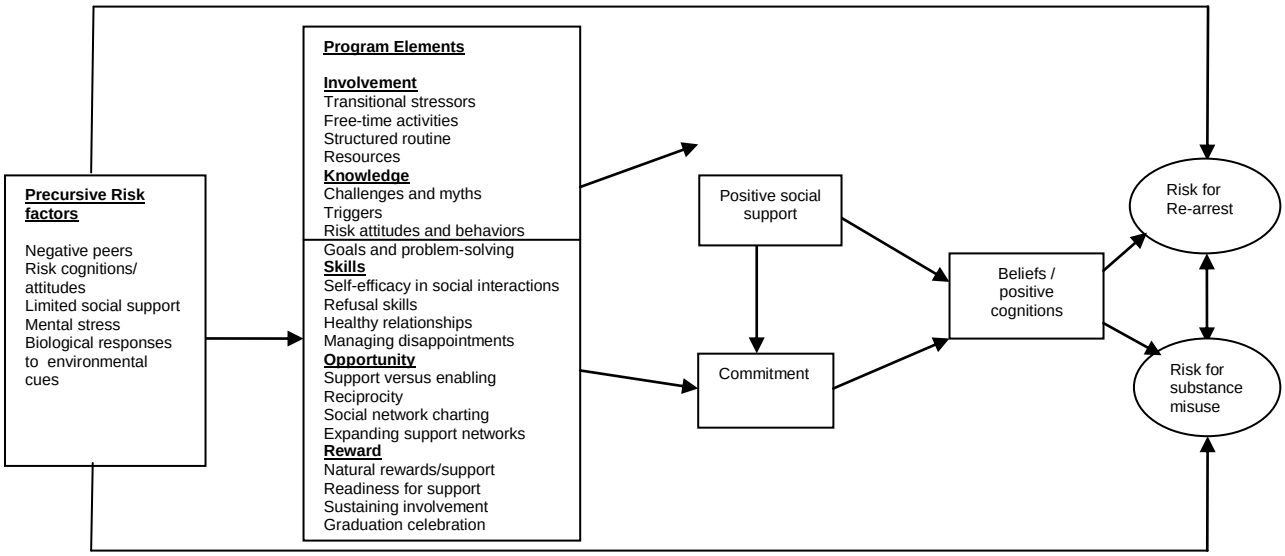
Support Matters involves a positive support person as an integral part of the intervention meant to enhance the recently released prisoner's awareness of, and attachment to, existing positive social support persons. The program aims to reconfigure a person's social network from one dominated by antisocial behaviors (e.g., people who misuse psychoactive substances and engage in criminal behaviors) to a social network supportive of the person's desistance from substance misuse and crime. Meeting with up to four other dyads, the support partners and the former prisoner participants work together to establish realistic expectations, develop reciprocity of support, and learn the skills necessary to implement strategies to reduce the likelihood of participants' relapse to substance misuse or criminal behaviors.

Conceptual framework.

Grounded in empirically supported theoretical frameworks, this conceptual framework draws on the evidence-base regarding precursive risk factors for continued criminal behavior. The model suggests pathways for reducing the impact of such risk factors through building and strengthening positive social support, that in turn, promotes commitment to positive social norms and the incorporation of positive beliefs. The conceptual model (see Figure 1) proposes theoretically informed constructs that will inhibit the impact of risk factors for continued substance misuse and criminal behavior.

Figure 1

Support Matters *Conceptual Model*



Risk factors. A substantial amount of evidence exists identifying precursive risk factors that contribute to continued substance misuse and criminal behavior. Thus far, the most salient predictors of re-offending include antisocial peers, nonconforming cognitions and attitudes, poor social support, high mental stress (e.g., from no or limited work), and environmental cues for negative behaviors (Aos, 2006; Chandler, Fletcher, & Vokow, 2009; Cullen & Gendreau, 2000; NIDA, 2006; Petersilia, 2007; Western, Lopoo, & Maclanahan, 2004; Zhao et al., 2010). Recent attention to biological responses to environmental cues is largely driven by neuroscience findings.

A rapidly developing neuroscience informed perspective on substance misuse within criminal justice populations suggests creative ways that social support may reduce maladaptive behaviors of former prisoners. Some researchers argue that neuroscience findings indicate that people with substance use disorders become conditioned to

environmental substance misuse cues (Chandler, Fletcher & Vokow, 2009). When re-exposed to these cues, the reward/motivational neurocircuitry is activated and can trigger an intense desire to use substances. The disrupted neurocircuits increase the likelihood of a person's difficulty in making adaptive decisions when exposed to the cues. Furthermore, repeated substance misuse leads to the formation of memories that condition the individual to expect gratifying responses when exposed to stimuli associated with those substances. Because people with addictions have higher levels of temporal discounting, they are more likely to choose immediate rewards over future rewards. This neurobiological evidence suggests that effective interventions with people who misuse substances must include efforts to reduce exposure to environmental cues (e.g., substance-using peers) and increase immediate rewards for non-using behavior (e.g., involvement in positive social activities).

Program elements as a part of the conceptual model. *Support Matters* program elements address each component of the proposed integrated theoretical framework: increasing opportunity for involvement with and commitment to others who provide positive social support (*social bond, social support),* promoting knowledge and skills for positive cognitions and behaviors (*social learning),* and rewarding positive relationships by identifying and engaging with positive reinforcement in the daily lives of participants (*social development model)* (see Table 1).

Support, commitment, and beliefs as social mediators. *Social support*. Appropriately matched positive social support from an individual's naturally occurring social network improves a person's well-being. People in this network can include a family member, friend, partner, sponsor, neighbor, or others. The relationship between positive social support and internalization of prosocial beliefs is mediated by commitment.

Table 1

Support Matters Program Summary: Module and Session Content

Module	Construct	Primary Guiding Theory and Proposition	Program Elements
Module 1, Session 1 Module 1, Session 2	Involvement	Social Bond -Increase involvement with those committed to conventional norms. Social support -Support to reduce stress.	Realistic expectations of reentry. Benefits and risks of chosen free-time activities. When, who, and how to ask for support. Structured daily routine.
Module 2, Session 1 Module 2, Session 2	Knowledge	Social Development -New knowledge must be reinforced within social units. Social Development -New knowledge must be reinforced within social units.	Environmental cues that trigger relapse. Using support to buffer triggers. Skills for managing emotions, decision-making, goal setting, and problem solving with prosocial supports.
Module 3, Session 1 Module 3, Session 2	Skills	Social Development -New knowledge must be combined with enhanced skills. Social support -Increase positive support.	Coping skills for responding to stress and stigma. Self-efficacy in social interactions with new prosocial others. Refusal skills to resist negative social pressure. Promote social and emotional health in relationships. Manage disappointments.
Module 4, Session 1 Module 4, Session 2	Opportunity	Social Bond -Increased opportunities for involvement to enhance commitment to, beliefs in, conventional norms. Social support -Increase network size and quality of support.	Re-assess daily activities. Opportunities for reciprocity in social support. Social network chart – extent of positive support, negative support, gaps in support. Strategies to expand prosocial support.
Module 5, Session 1 Module 5, Session 2	Reward	Social Development -Changes in cognitions and behaviors must be reinforced in natural environment.	Identify rewards associated with social support and reciprocity of support. Plan ways to sustain support networks. Graduation and evaluation.

Commitment. For the purposes of this framework, the construct commitment is defined as a mental state and refers to the rational conclusion one makes about the benefits of conformity to conventional norms compared to the investments associated with nonconformity. Examples of evidence of commitment includes choices of peers and partners who engage in conventional lines of action or a decision to take a lower paying legal job over a higher paying illegal job. Positive social support influences commitment which, in turn, influences the development of positive social beliefs and cognitions.

Beliefs. For the purposes of this study, cognitions/beliefs refers to acceptance or internalization of values and norms that promote desistance from criminal or deviant behaviors such as more a "conforming" orientation toward societal norms. Positive social beliefs are developed as a result of a commitment to positive social lines of action and positive social support. Positive social beliefs will decrease the likelihood an individual will engage in criminal behaviors.

In summary, *Support Matters* seeks to reduce the influence of risk factors by building and strengthening positive support that promotes positive relationships (commitment), positive cognitions (thoughts, beliefs), and positive behaviors. Program elements are designed to inhibit effects of precursive risk factors and promote mediators (social support, commitment, beliefs) that reduce the hazard of substance misuse and re-arrest.

Intervention description.

Support Matters comprises five modules, with two sessions devoted to each module. Each session includes (a) an introduction of session topics, (b) participant verbal reports of their take-home activities, (c) two group activities, roles plays, and discussion, and (d) a session summary. The former prisoner participant and support person work together on

activities so the information and skills learned can be reinforced outside of group sessions (see Table 1).

Involvement (Module 1). This session is primarily informed by social bond theory and aims to increase participant's involvement with those committed to conventional norms. Session 1 explores and emphasizes realistic expectations of the prisoners' return to the community. Dyads work on an activity to identify free-time activities as well as benefits and risks of different activities. Session 2 addresses when, who, and ways to ask for support. Dyads work together to develop a structured daily routine to support the participant's transition back to the community.

Knowledge (Module 2). This session is primarily informed by the social learning theory aspect of the Social Development Model. The Social Development Model posits that knowledge is important to outcomes but that, consistent with social learning theories, new knowledge must be reinforced in social units. Session 1 content focuses on enabling participants to identify environmental cues or triggers likely to lead to relapse to criminal behaviors or substance misuse. Session content also teaches participants how to use their positive social support to help reduce the risk associated with those triggers. Session 2 is an experiential session in which participants practice managing emotions, decision-making, goal-setting, and problem-solving approaches that help extend the positive social support network.

Skills (Module 3). Social development theorists argue that knowledge will not have a lasting effect on outcomes, unless new knowledge is combined with enhanced skills. Session 1 teaches dyads coping skills for responding to feelings of stigma, and self-efficacy skills related to social interactions. During Session 2, participants learn and practice refusal skills

to resist social pressure to associate with others who are a negative influence. Dyads learn ways to promote social and emotional health in relationships and to manage disappointments.

Opportunity (Module 4). Social bond theory suggests that increases in opportunities for involvement with prosocial others will result in a commitment to, and belief in, conventional norms and values. During Session 1, dyads complete activities on reciprocity in social support. In Session 2, each dyad re-assesses the participant's social support using a social network chart. The chart helps dyads to identify the extent of positive and negative influences, gaps in support, and ways the participant can expand his positive social support network.

Reward (Module 5). The Social Development Model posits that, consistent with social learning theory, changes in cognitions or behaviors are only sustainable if these changes are reinforced in the individual's natural environment. This module helps dyads to establish and sustain a commitment to positive social relationships and positive cognitions. During Session 1, dyads identify rewards associated with social support and reciprocity of support. The dyads plan ways to sustain social support networks. Session 2 is dedicated to a graduation celebration.

Conclusion

Almost two decades ago, Francis Cullen warned criminologists that social support – a key factor in reducing criminal behaviors – continued to be ignored as an opportunity for interventions (Cullen, 1994). Today, there remains little discussion of concrete strategies for incorporating naturally occurring supports into interventions with recently released prisoners.

This paper reviewed the availability of social support for former prisoners, existing social support interventions, and briefly described *Support Matters*- a naturally occurring

social support program in the pilot test phase. Current research demonstrates the availability of positive social support for former prisoners. The integrated theoretical framework instructs interventionists to emphasize matching the social support needs of participants with available social support resources within participants' naturally occurring social environment. When there is a limited or no positive existing social network, efforts must be made to build a positive social network and increase the skills of the former prisoners to recognize and access needed social support. When there is a poor match of support needs and available support resources, efforts need to be diverted toward building skills of support recipients and providers. Developing the skills of providers requires that the support providers be actively involved in interventions.

The described intervention, *Support Matters,* illustrates how social support interventions can be used with former prisoner populations to a) increase *involvement* with positive social support relationships; b) improve *knowledge* about the role of positive support and risks for relapse to crime, c) develop *skills* to reduce risks for continued criminal behavior and improve outcomes of interactions with positive social support networks, d) generate more *opportunity* for sustaining relationships with positive social support networks through reciprocity, and e) promote sustaining reduced relapse to crime through identifying and promoting naturally occurring *rewards* for continued involvement with positive social supports.

This paper provides the justification for naturally occurring social support interventions and a model program upon which future intervention researchers can build. Limitations in the existing research highlight areas of additional needed attention for future intervention research. It is unclear how to best predict and improve a propitious match

between the types of support former prisoners feel they need and the type of support provided by social network members. Moreover, few studies have explored mechanisms by which social support is influencing outcomes. Evaluations of social support interventions should include an examination of changes in the knowledge and skills of support providers in the intervention. Finally a continued need exists for treatment fidelity assessment and randomized controlled trials of social support interventions.

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USING NATURALLY OCCURRING SOCIAL SUPPORT IN INTERVENTIONS FOR RECENTLY RELEASED PRISONERS WITH SUBSTANCE USE DISORDERS: A FEASIBILITY AND ACCEPTABILITY EVALUATION WITHIN A RANDOMIZED CONTROLLED PILOT TRIAL

In the last decade there has been growing interest in social work informed interventions with criminal justice system-involved populations (Epperson et al., 2009; Scheyett, Pettus-Davis, McCarter, & Brigham, 2011) This change is likely a result of social workers' increasing awareness of the overrepresentation of severely disadvantaged groups in the US prison system as well as the high incarceration rates of ethnic minority groups (Binswanger et al., 2007; Epperson et al., 2009; Hammett, 2006; Mumola & Karberg, 2006). The US "experiment" in mass incarceration (Mauer & Kris, 2007; Travis, 2004) is an affront to social and economic justice. Exponentially rising incarceration trends of vulnerable populations over the past 40 years suggest a number of socio-structural factors that must be addressed (e.g., institutionalized racism, chronically impoverished communities, state and federal policies restricting access to resources and social capital). In the interim, individuals release from prison daily back to communities and families and those affected by incarceration can benefit from social work informed interventions.

The extant literature on precursive risk factors for former prisoners' continued problematic behavior (e.g., prior criminal behavior, limited access to resources, substance misuse) after release from prison has identified malleable mediators which human service

interventions have targeted. The objectives, aims, and content of these programs vary greatly as do the magnitude of treatment effects which range from negative outcomes to small or medium effect sizes (Aos, 2006; Cullen & Gendreau, 2000). Despite current social service interventions attempts to improve outcomes of former prisoners, nearly two-thirds of people released from state prisons are reincarcerated within three years (Langan & Levine, 2002). Although it is known that former prisoners continue to struggle to find employment, stable housing, and to have basic health and mental health needs met post-incarceration (Petersilia, 2007), we know less about why existing interventions are reporting limited treatment effects (Lattimore & Visher, 2009). One possibility is that current interventions are difficult to implement as designed or are not acceptable to service providers and program recipients. Current published program evaluations provide little information about feasibility aspects of the interventions or whether the interventions are acceptable to targeted participant groups.

In light of the known difficulties encountered when translating scientific evidence to practice in social work interventions, evaluation of feasibility and acceptability is of critical importance during formative stages of efforts to design and test empirically supported interventions (Berquist, Gehl, Lepore, Holzworth, & Beaulieu, 2008; Lyon, Garvie, Briggs, He, McCarter, & D'Angelo, 2009; Van Eijken, Melis, Wensing, Rikkert, & Achteberg, 2008; van Oostrom, van Mechelen, Terluin, de Vet, & Anema, 2009). Feasibility and acceptability evaluations assess how interventions can be implemented in practice and how well the interventions are received. This information makes it possible for social work practitioners and researchers to examine the utility of an intervention for a targeted participant group. Despite arguments that knowledge about the feasibility and acceptability of interventions is needed to promote delivery of empirically supported interventions, few feasibility

evaluations alongside randomized controlled trials exist in social work literature (Fraser, Richman, Galinsky, & Day, 2009; Lyon et al., 2009; van Oostrom et al., 2009).

The aim of this study was to investigate the feasibility and acceptability of a social support intervention, *Support Matters*, for recently released prisoners with substance use disorders. Positive social support from family members or friends (i.e., naturally occurring support) plays a beneficial role in decreasing substance misuse and reducing criminal behavior in former prisoners (Giordana, Cernkovich, & Holland, 2003; Laub, & Sampson, 2003; Skeem, Louden, Manchak, Vidal., & Haddad 2009). However, extensive literature searches identified no existing post-release interventions for former prisoners with substance use disorders that actively incorporate a naturally occurring positive social support person into the program. Despite evidence for the role positive social support can perform in the lives of former prisoners and in those with substance use disorders, social scientists continue to underutilize social support in interventions with this population.

Support Matters is a post-release program that combines cognitive-behavioral treatment approaches with the inclusion of a naturally occurring support person in the program model. Prior to release, participants identify a known positive support partner in the community and the former prisoner-support partner dyads attend 10 post-release sessions of cognitive-behavioral training. A positive support partner is considered to be someone who provides at least one type of support to the former prisoners: emotional, tangible, instrumental, informational. To participate in *Support Matters*, the positive support partner cannot report using illicit substances, drinking to the point of intoxication on a weekly basis, have a history of violence with the former prisoners, or be under criminal justice supervision. *Support Matters* is novel in that it seeks to build skill sets (e.g., accessing and providing

support, managing stress; recognizing and buffering environmental triggers for relapse) of both former prisoners and their support partners that are maintained after service delivery ceases.

Support Matters is based on epidemiological data and a preliminary evaluation of the availability of naturally occurring social support (Pettus-Davis & Scheyett, 2011, *forthcoming*). The conceptual model of *Support Matters* is grounded in three theoretical frameworks (social support perspective, social bond theory, and the social development model) and manualized to promote fidelity to the intervention. The integrated theoretical frameworks posits that building and strengthening positive social support, will in turn, promote commitment to positive social norms and the incorporation of cognitions/beliefs that will inhibit the impact of risk factors for continued substance misuse and criminal behavior.

This feasibility and acceptability evaluation was carried out as a part of a randomized controlled pilot trial of *Support Matters* to assess its effectiveness in reducing post-release arrest rates and substance misuse among former prisoners with substance use disorders. In the ongoing trial, we will focus on the effectiveness of *Support Matters*. This paper describes the feasibility and acceptability outcomes of *Support Matters* from the perspectives of former prisoner participants, support partners, and group facilitators as measured by enrollment, retention, participant satisfaction, acceptability, and fidelity data. Specifically, we sought to understand the implementation factors of *Support Matters* in a community-based setting from researchers and practitioners perspectives. We also sought to understand any barriers to participation in *Support Matters* from the client group (former prisoner and support partner dyads). Finally, to better assess the acceptability of *Support Matters,* we gathered data from

practitioners and dyad recipients about how well the intervention was received and suggested changes to *Support Matters*.

Methods

Phase I: Intervention Overview and Implementation

Overview.

Support Matters program elements address each component of the integrated theoretical framework: increasing opportunity for involvement with and commitment to others who provide positive social support (*social bond, social support),* promoting knowledge and skills for positive cognitions and behaviors (*social development model),* and rewarding positive relationships by identifying and engaging with positive reinforcement in the daily lives of participants (*social development model). Support Matters* comprises five modules, with two sessions devoted to each module. Each session includes (a) an introduction of session topics, (b) participant verbal reports of their take-home activities, (c) two group activities, roles plays, and discussion, and (d) a session summary. The former prisoner participant and support person work together on activities so the information and skills learned can be reinforced outside of group sessions. *Support Matters* treatment group sessions are delivered by two co-facilitators who are trained in group therapy work.

Implementation.

Development and implementation of *Support Matters* included a substantial amount of consultation with clinical research experts, former prisoners and their family members, detailed reviews of existing literature, and relationship building with community partners. The principal investigator (PI) also collaborated with the state Department of Correction to conduct a preliminary evaluation of the availability of social support for former prisoners

(Pettus-Davis & Scheyett, 2011). The findings from the preliminary study were informative for the *Support Matters* trial in a several ways. First, former and current prisoners were generally able to identify one or more naturally occurring supports available post-release. Second, findings indicated that variations exist in the types of social support available suggesting that intervening with support persons could increase their ability to help meet the needs of the former prisoners. Finally, correctional staff perceived naturally occurring support as largely unavailable for prisoners indicating that staff may be underutilizing a meaningful and positive resource for post-release transition to community life.

Support Matters was tested at an established community agency that has been serving former prisoners for 20 years. This ensured a strong control condition for the study. The *Support Matters* team was recruited and trained by the PI. The team includes the PI, a project coordinator, four masters-level social work interns, and two group facilitators who were existing staff at the community agency. To prepare for the pilot study, the PI conducted a trial run of the intervention with volunteers who reflected study participant criteria prior to testing the intervention, created a training video for group facilitators to promote consistency in intervention delivery, and trained group facilitators by modeling the intervention with initial cohorts.

Phase II: Pilot Study/Feasibility/Acceptability

Study setting.

The *Support Matters* trial took place between July 2009 and January 2011. Prisoner participants returning to one large urban county in North Carolina were recruited from any one of 10 state prisons. Ten prisons were selected for recruitment based on average number

of releases per month and proximity to the project site. The trial was approved by University and Department of Correction Institutional Review Boards.

Pilot study sample.

Using a census sampling approach, all prisoners who planned to release to the county of the project site were screened for eligibility 25 to 45 days prior to release from prison. Eligible prisoners included English-speaking men, aged 18 and older, who were assessed as having a substance use disorder, and who were cognitively able to understand study participation. Cognitive dysfunction was assessed by the clinical judgment of research team member interviewers. There were 8 cohorts of participants with a recruitment goal of 5 dyads (former prisoners and their support partners) in each treatment cohort and each control cohort. For each of the 8 cohorts, the research team aimed to recruit up to 20 former prisoners who could identify a positive social support partner. This oversampling approach was used to balance attrition that could occur between prison release and the first data collection point. Support partners were identified by the former prisoners and were screened by a research team member prior to the prisoner's release. Support partners who reported actively misusing psychoactive substances, were under criminal justice supervision, or who reported fearing the former prisoner were not eligible to participate. Group facilitators were recruited from existing staff at the community agency where *Support Matters* is delivered and were trained in group therapy work. The professional facilitators were paired with masters-level social work interns. Facilitators agreed to study participation at recruitment.

Pilot study was implemented as a randomized controlled design.

The study used a two-group, randomized controlled design with a third *limited support* comparison condition. Participants who identified a support partner who agreed to

participate in the study were randomized to treatment (*Support Matters* and routine services) or control (routine services-only) conditions. Routine services included case management, life skills development workshops, and job services at the agency where *Support Matters* was also provided. Participants who could not identify a SP who was willing and able to participate were placed in the *limited support* comparison condition. *Limited support* participants also received routine services. Primary observations included standardized measures that were delivered to *treatment* and *control* participants at 4 time points – prerelease, pre-intervention, post-intervention, and a 3-month follow up after the intervention. Weekly measures were also collected for *treatment* and *control* conditions during the first 12 weeks post-release and then every 3 weeks for the last 12 weeks of the post-release data collection period. *Limited support* participant data included pre-release interviews and re-arrest and service use post-release data. Accessibility and feasibility data were gathered from former prisoners, support partners, and group facilitators using qualitative and quantitative instruments.

Sample characteristics post-randomization.

A total of 58 dyads were randomized to treatment (n=30) or control conditions (n=28) (Table 2). The mean age for *Support Matters* participants was 33 and for control group participants was 28. Most participants were African American: *Support Matters* (93%) and control group (89%). The majority of participants in both groups were convicted of property offenses: *Support Matters* participants (47%) and control participants (46%). The second most frequent offense of conviction was a violent offense: *Support Matters* (30%) and control (29%). A majority of participants identified their mother as a positive support person: *Support Matters* (37%) and control group participants (54%). The second most frequent

Table 2

Key Baseline Characteristics for Treatment and Control Group Participants

Characteristic	*Support Matters* (*n* = 30) %(n)	Control Group (*n* = 28) %(n)	Chi-Square / T-tests p-values
Offense Category			0.97
Sex offense	7% (2)	7% (2)	
Violent offense	30% (9)	29% (8)	
Drug offense	10% (3)	14% (4)	
Property offense	47% (14)	46% (13)	
Other	7% (2)	4% (1)	
Age	M = 33(SD=12.1)	M = 28(SD= 8.1)	0.20
Dyad Relationship			0.36
Mother	37% (11)	54% (15)	
Grandmother	7% (2)	4% (1)	
Spouse	13% (4)	0% (0)	
Girlfriend	17% (5)	18% (5)	
Father	7% (2)	0% (0)	
Brother	10% (3)	18% (5)	
Friend	3% (1)	4% (1)	
Other	7% (2)	4% (1)	
Race			0.58
African American	93% (28)	89% (25)	
White	7% (2)	11% (3)	
Housing/Living Situation			0.23
Family	57% (17)	71% (20)	
Partner	27% (8)	14% (4)	
Friend	3% (1)	11% (3)	
Temporary Shelter	13% (4)	4% (1)	

** Chi-square tests were used for categorical variables and a t-test was used for age.

support partner identified was a girlfriend: *Support Matters* (17%) and control group (18%). The racial composition of the support partners mirrored the former prisoner participants. The majority of participants were living with family members: *Support Matters* (57%) and control group (71%). There were no statistically significant differences in these characteristics for the treatment and control conditions. Of the group facilitators 86% were Caucasian and 14% African American.

Feasibility and Acceptability Measures

Administrative data were collected on *Support Matters* and control group participants. Additional participant satisfaction and qualitative data were collected from former prisoner and support partner participants randomized to the *Support Matters* treatment condition. Qualitative interviews data regarding fidelity, feasibility, and acceptability of *Support Matters* were also collected from the facilitators, the project coordinator, and the PI.

Administrative data.

Enrollment, attendance, retention, demographic, and completeness of data were gathered through a review of study participant's files participants.

Participant satisfaction data.

Support Matters former prisoner participants completed participant satisfaction measures upon graduation from the intervention. The *Group Climate Questionnaire* (GCQ; MacKenzie, 1983) is a 12-item instrument that measures participants' perceptions of the group acceptance of members and group norms. The Cronbach's alpha for this sample was 0.69. Participant satisfaction was further measured with a 25-item *Client Satisfaction Questionnaire* (CSQ; De Wilde & Hendricks, 2005; Larsen et al., 1979). The Cronbach's alpha for this sample was 0.90. Former prisoners also completed open-ended questions that asked about what they liked least and most about the intervention and if they would have changed anything about the intervention.

Focus groups and qualitative interviews.

Support Matters support partners participated in a one-time focus group after the last group session that was explored the feasibility and acceptability of the groups to support partners. In addition to general feedback about *Support Matters,* focus group questions were

designed to assess whether the support partner understood and agreed with concepts of *Support Matters*, incorporated the information learned during groups sessions into their interactions with their partners, and felt *Support Matters* was effective.

At the end of the *Support Matters* groups for each cohort, facilitators were interviewed about experiences specific to the cohort and general feasibility and acceptability questions about delivering the intervention and how participants responded to *Support Matters*. These questions were designed to solicit information about their overall feedback on the intervention as well as any specific group dynamics.

Fidelity.

Fidelity to the treatment manual was assessed by the PI and project coordinator based on biweekly group observations. The PI and project coordinator then rated fidelity using an 8-item checklist constructed for this evaluation. The checklist assessed consistency in the group facilitators delivering the intervention (i.e., were there substitute facilitators), how closely the facilitators followed the treatment manual, whether there were at least 2 dyads at each group session, the extent to which group members completed the take-home activities designed for skill transference, group scheduling issues, and the consistency with which support partners attended group sessions. Either the PI or the project coordinator attended more than 70% of the group sessions and completed the fidelity checklist upon graduation of each cohort.

Feasibility and Acceptability Data Analysis

Quantitative data on participant recruitment and refusal characteristics were assessed using descriptive statistics and mean comparison tests. Participant satisfaction scores and fidelity data were assessed with descriptive statistics and reported with measures of central

tendency and variability using Stata SE 11 (Statacorp, 2009). Qualitative data included the dyads' written responses to open-ended interview questions, audio recorded interviews and focus groups with support partners and group facilitators, and PI and program coordinator group observations. The open ended items and observations were coded and summarized in tabular format. The responses of support partner participants were transcribed and loaded into ATLASti.5 (Muhr, 2004). Data were interpreted with an open-coding and theme development approach. A summary of themes is reported for this evaluation.

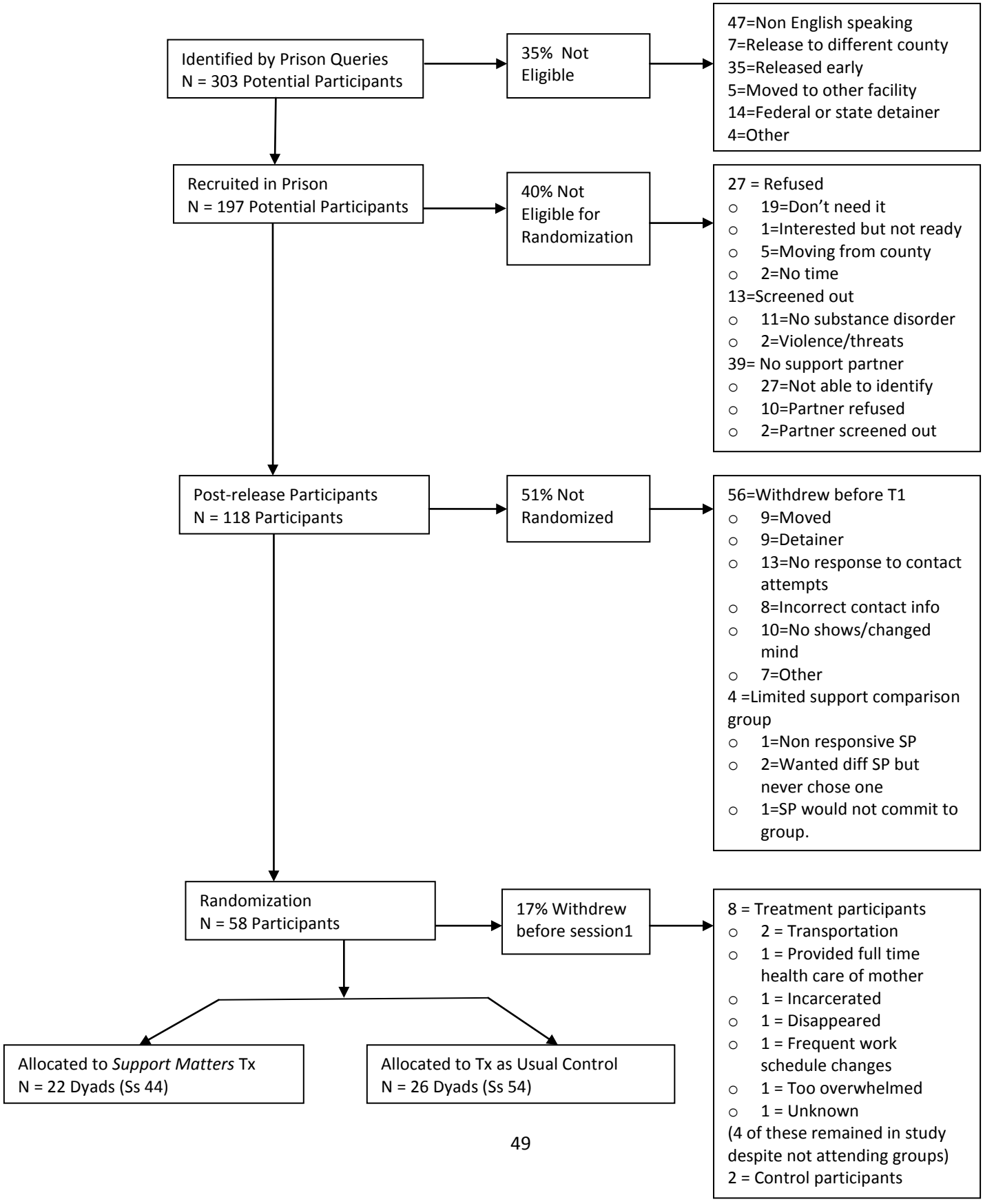
Results of Feasibility and Acceptability Evaluation

Recruitment

Prison queries identified 303 potential participants (see Figure 2). Of these, 106 (35%) were ineligible for participation. Reasons for ineligibility included that the prisoner: was non-English speaking (41%); had plans to release to a different county (7%); was released earlier than planned and thus fell outside of the recruitment window (30%); moved to a facility where recruitment was not occurring (5%); had an outstanding detainer with federal or state authorities (13%); and other varied reasons (4%). Of the 197 prisoners recruited by researchers to be in the study, 79 (40%) were ineligible for post-release randomization. Of these, 27 (14%) refused to participate. Of those who refused, the majority said that they did not need the program (70%). Others said they had plans to move out of the county immediately upon release (18%), that they were interested in the program but were not ready to commit to a post-release program (4%), or that they did not have time to participate (7%). Another 39 (20%) prisoners agreed to participate, but were assigned to the limited support condition because they were unable to identify a positive support partner. Of these participants, 69% were not able to name a positive support partner, 26% identified a

Figure 2

Sampling Protocol Chart from Identification of Potential Participants to Randomization



support partner, but the partner refused, and 5% of the support partners identified were screened out. Finally, of those prisoners approached, 13 (16%) were deemed ineligible because of past violence or threats against a support partner or because the participant did not have a substance use disorder.

A total of 118 prisoner participants were eligible for post-release interviews. Of these, 60 (51%) attrited before the first post-release interview. In 93% of the cases reasons for attrition included: the participant moved (16%); the participant was arrested on an existing detainer (16%); the participant did not respond to contact attempts (23%); the contact information for the participant was no longer accurate (14%); the participant was a "no show" for interview attempts or changed his mind about involvement in the study (18%); and other varied reasons (13%). The remaining 7% of attrition cases was equally a result of the support partner being non-responsive, the participant reportedly wanting to identify a different support partner but never doing so, or the support partner changed his/her mind about willingness to attend group sessions.

Enrollment Post-Randomization

Of those randomized, eight of the dyads randomized to *Support Matters* did not show up to the first treatment group session and two of the control dyads withdrew in the same timeframe. The reasons listed for withdrawal for those randomized to *Support Matters* were varied. Two participants indicated difficulties with transportation, but then when they were offered transportation cited other problems such as a death in the family. One participant's mother had surgery and he reported that he was required to provide full time homecare for her. Another participant was incarcerated for a new offense before groups started and one participant disappeared from his family's home. One participant said his frequent changes in

work schedule prevented him from committing to group sessions. Another participant did not show up to group for the first session and the dyad's phone was disconnected and they changed addresses. The final participant said he was just too overwhelmed to attend groups. One control group participant dropped out of the study because he moved to another county for employment and the other control group participant was re-incarcerated.

Support Matters Retention Post-Randomization

As described above 87% of participants randomized were enrolled in either the treatment or control conditions (i.e., remained in the study until the intervention commenced). Five participants enrolled to *Support Matters* attended the first group session, but did not any subsequent group sessions. Thus, of those participants who attended the first *Support Matters* session, 77% of them attended all subsequent sessions (i.e., sessions 2-10). Reasons participants dropped out of *Support Matters* (*n*=5) after attending the first session included: relapsing to crack use after the first group session and participant choose not to attend (1); feeling overwhelmed by work and family obligations (1); moving to another state (1); frequently changing work schedule (1); and several out of town trips that required the participant to miss the first four group sessions (1). In contrast, a full 100% of participants (*n*= 17) who attended the 2nd session remained for the entire intervention period (sessions 2 – 10).

Study Retention Post-Randomization

Study retention rates were notably high at 88% retention between randomization and the final follow up data collection point. This high level of study retention was possible because the majority of those who were randomized to treatment and did not attend group (*n* =4), agreed to remain in the research portion of the trial. Reasons former prisoner participants

in either the treatment or control conditions dropped out of the study prior to completing the final interview at 6 months post-release included: moved out of the county or state; overwhelmed by work and family obligations; unable to reach at all contact numbers and addresses at final interview; and re-arrested. Support partner participants attrited from the study at a similar rate of 22%. The reasons support partners did not complete the 6-month follow up qualitative interview included either the support partner could not be reached at phone numbers or addresses the research team had on file or interviews were scheduled with the participant, but the participant did not show up. Of the support partners who attrited, all but one were assigned to the control condition of the study.

Feasibility and acceptability data collected through participant satisfaction and qualitative interviews were also high. All (100%) former prisoner and support partner *Support Matters* participants completed participant satisfaction interviews and feasibility and acceptability focus groups. Approximately 86% of the group facilitator post-intervention period interviews were completed. Those interviews that were not completed were a result of researcher error and in one case the facilitator was hospitalized for a medical emergency and thus was not contacted for an interview.

Former Prisoner Participant Satisfaction Results

Mean results from the participant satisfaction questionnaires completed by the former prisoners suggest former prisoners were highly satisfied with the intervention. Participants completed questions about the group climate as well as their general satisfaction with the intervention. Participants reported that the members liked and cared about each other, were respectful to each other, and worked hard to understand and incorporate the material discussed in groups. Participants experienced the group environment positively and found the

group sessions helpful. Selected questions representing the range of feedback from the questionnaires are reported in Table 3.

Participants also completed open-ended responses regarding their satisfaction with the intervention. Participants were asked what they found the least and most helpful, if there was anything they wished would have happened or not have happened, and if there were any changes they would make to *Support Matters*. Participants reported the group helped them to self reflect, find help in other places, and better understand what to expect from life after prison. Participants also reported liking the fellowship and having people to listen and understand them as most helpful.

Most participants said that nothing was the least helpful to them with the exception of two participants who said that the "drug talks" and that "different situations didn't apply to everybody" was the least helpful. Most participants said they would not change anything about the group other than having more group sessions in a week or adjusting groups so the program lasted longer. Two participants felt the situations discussed in group should focus on issues beyond those that involve drugs. Two different participants suggested having the program in a different facility – one that was separate from the greater agency that provides the routine services and the other participant wanted a location that was "suitable for those dealing with addictions, because it's easy to find drugs in the area." Participants said there was nothing they wished would or would not have happened.

Feasibility and Acceptability Themes from Support Partner Focus Groups

The support partners reported experiencing *Support Matters* positively. The support partners said they applied the concepts discussed in groups to other aspects of their lives, learned things about their dyad partner that they had not thought about before, and were able

Table 3

Selected Support Matters Group Climate and Participant Satisfaction Scores by Item: Descriptive Statistics

Group Climate Questionnaire Items	M(SD) Range	Client Satisfaction Questionnaire	M(SD) Range
Members liked and cared about each other	4.9(1.5) 1-6	I would come back here if I needed help again	4.7(1.6) 1-6
Members tried to understand why they do things.	5.0(1.1) 2-6	I get the kind of help here that I really need	4.8(1.5) 1-6
The issues discussed were important and there was participation	5.0(1.2) 2-6	People here accept me for who I am	5.7(0.6) 4-6
Members challenged and confronted each other to sort things out.	3.1(2.6) 0-6	The biggest help I get here is learning how to help myself	4.3(1.6) 1-6
Members did things in a way that were acceptable to the group.	3.5(2.0) 0-6	People who know me say this place has made a positive change in me	4.3(3.4) 0-6
Members rejected and distrusted each other.	0.7(0.3) 0-1	People here have shown me how to get help from other places	4.5(1.9) 0-6
Members revealed personal and sensitive information	2.4(2.1) 0-6	The help I get here is better than I expected	4.4(1.7) 1-6
Members appeared tense and anxious	0.8(1.4) 0-5	I look forward to the sessions I have with people here	4.5(2.1) 0-6

**Scale 1: not at all = 0, a little bit =1; somewhat=2; moderately = 3; quite a bit = 4; a great deal = 5; extremely =6.
** Scale 2: none of the time=0; very rarely=1; a little of the time=2; some of the time=3; a good part of the time=4; most of the time=5; all of the time=6.
*** Results of full satisfaction scores available from author by request.

to incorporate attending groups into their normal routines. However, support partners did mention that attending groups in the evening was sometimes difficult as was starting group sessions with little understanding of what to expect from the program.

Supported partners reported they incorporated concepts learned in group into conversations outside of groups – both with their dyad partners and others. Support partners said they would read the handouts after groups and sometimes read them with family members as well. One support partner also said that her son (the former prisoner participant)

influenced his father's side of the family by discussing concepts they discussed in group with those family members. Some support partners also said they began to notice aspects of their own social relationships within their social network and areas in which they could improve (or limit) interactions with problematic relationships. However, few support partners mentioned how they helped their dyad partners to avoid or reassess relationships within the former prisoners' social network.

Support partners also said that it was extremely helpful for them to practice the difference between enabling and supportive behaviors and some said that they were able to alter their interactions with the dyad partner as a result of this knowledge. Three support partners said that as the groups progressed, they realized they had never been good about setting boundaries with their dyad partners. They also reported they finally felt like it was acceptable to say "no" to their dyad partners or to tell their dyad partners when they felt the way they were being treated was unacceptable. One support partner said she realized this by watching another dyad in the group.

Support partners consistently reported how helpful it was for them to learn about their partner's prison experience and that, regardless of the number of times the partner had been in prison, they had not talked about the dyad partner's prison experience before. Support partners talked a lot about not having thought about the dyad partner's prison experience before or understood what it was like to go to and release from prison to the degree that they understood it after they openly discussed the experiences within and outside of group sessions. Support partners said conceptualizing their dyad partners' release from prison as a "transitional" period helped the support partners to adjust expectations – often times in a way that was more realistic. For example, support partners reassessed what they perceived as a

realistic timeframe for someone to secure employment after incarceration. The support partners felt that they adjusted expectations of themselves as well and said that after attending the group sessions, they also recognized that they were also experiencing a transitional period.

No support partners reported difficulty incorporating attending groups into their routine schedule. On the contrary, it was common for support partners to say "I don't know what I am going to do on Monday nights now [that groups are over]." During the post-intervention interviews, almost all support partners reported they wished groups would have been longer. Partners offered a range of options for the groups being longer, such as attending group more times during the week, for longer hours, and one person said that group sessions should meet for at least 6 months. Support partners also said they wished they had been able to meet with group facilitators prior to their dyad partners' release so they could learn more about what to expect during the transitional period and also what to expect out of group sessions. One partner explained that she thought she could have learned more, more quickly had she been more prepared with all of the information she was going to get during group sessions.

Support partners reported a number of things they liked most about group sessions such as the activities that occurred in groups, the level of openness and acceptance by other group members, and the genuine care and concern conveyed by group facilitators. Support partners also discussed changes they would make to activities, but otherwise did not mention things they found unacceptable about group sessions.

Support partners reported learned the most from participating in the role plays and indicated that their dyad partners seemed to really enjoy role play activities as well. Support

partners recommended including more role plays in future sessions. Support partners felt that small groups were best (3 dyads or less) and, in those cases in which it was just two dyads, support partners said they were glad that it was just two dyads and they think if the other people that were supposed to attend the group initially, showed up, that it would not have been as good as an environment. Support partners reported feeling like other members in the group were very caring and nonjudgmental. They reported sharing information they have not shared with anyone else before attending the group sessions. Support partners said they shared personal information because they felt accepted by group members. Support partners also said the intervention was highly acceptable to them because the group facilitators demonstrated a genuine concern for group members and took the time to get to know participants. Facilitators treated the groups in a way that conveyed it was more important to the facilitators, than just being a job. The only suggestion support partners made about changes to the program was to include more role plays and to reduce activities that required the dyads and/or participants to do self-reflection writing.

Feasibility and Acceptability Themes from Group Facilitator Interviews

Results from facilitator interviews indicated that facilitators felt that *Support Matters* is feasible and acceptable as evidenced by the level of engagement of participants and indications that participants were learning from the content discussed in group sessions. Facilitators discussed being challenged with confronting denial in some participants, determining whether there was too much information in a given session to be absorbed by participants, and accommodating the different learning levels and relationship characteristics.

Overall, facilitators said *Support Matters* was highly feasible for participants. A need for transportation and child care was rarely problematic for group members. Facilitators

attributed this lack of difficulty to there being a bus stop across the street, participants calling on family members to assist with child care, and that most of the support partners had transportation and the dyads would attend group together. Facilitators felt the $5 incentive also helped to offset the cost of gas or bus passes[3]. However, they did not feel the $5 incentive was large enough to entice participants to attend groups.

Support Matters groups were closed sessions (i.e., the entire cohort started and completed the group intervention at the same time) and the content of each session built on the prior session. Thus, the facilitators worked with group members to accommodate changes in the group members' schedules. For example, if one of the participants secured a job that precluded the participant from attending the originally planned time for the groups, the facilitators and group members worked together to identify a new date and time the group would meet consistently during the week. Facilitators and group members also worked around holiday schedules and group cancellations because of weather. Occasionally, facilitators would combine sessions (e.g., session 4 & 5) if rescheduling the group was not feasible. Otherwise, the group would be rescheduled and the content reviewed as originally planned.

Facilitators believed participants were learning from group sessions and incorporating the material discussed during group into other aspects of their lives. Facilitators said that dyads would bring up issues in group and indicate that in the past, they had never talked with their partner about such topics. Facilitators felt like participants viewed group sessions as a safe place to test out new conversations and open lines of communication around issues that they otherwise weren't willing to, or were afraid to address, with their dyad partners. All

[3] A $5 incentive was given to treatment and control group participants each week during the intervention period. Control groups received the incentive as well to reduce the likelihood of differential attrition related to incentives.

group facilitators indicated that the session that contrasted enabling and supportive behaviors was a key learning opportunity for support partners. Although the support partners could conceptually understand enabling behaviors, they could not identify enabling behaviors in their own lives or in role plays. By the end of the session, the dyad members were able to identify such behaviors and would frequently bring up enabling behaviors in subsequent groups, indicating that the participants were incorporating this concept into their lives outside of group sessions.

Although facilitators never directly reported they felt *Support Matters* was infeasible, they did discuss aspects of group sessions that were challenging for facilitation purposes. Many facilitators said they had difficulty discerning when, if, and how to confront denial in group members. Some group members denied that they had substance misuse problems and other group members denied having difficulties with the many of the topical areas discussed in group, despite the support partners' counter perspectives. Notably, the issue of denial was entirely pointed toward the former prisoners and the facilitators did not indicate that support partners were in denial of any problematic behaviors – their own or the former prisoners.

Facilitators noted that there was as wide of a range of support partners as there was of former prisoners. Some support partners were enthusiastic and energetic about helping the former prisoner in any way possible and, to some extent, centering their own lives around that former prisoner. Other support partners reported being tired of providing support and "at the end of their rope", although those same support partners continued to show up to group sessions. Some facilitators said this range of differences was difficult to balance in some groups and also made it difficult to determine how much some of the "weary" supporters were getting from group sessions.

Similarly, facilitators had some difficulties balancing different skill levels of the dyads. They believed that some former prisoners' learning impairments required facilitators to slow down the presentation of material covered in group in order to make sure all participants understood the content of the groups. Facilitators also reported that support partners had a range of skills in being able to understand and apply the material discussed in group sessions. More often than not, facilitators reported that they just could not tell if the support partner had the skills to grasp or use the information from the sessions. Facilitators expressed concern that there was so much information in the treatment manual to be covered, that they often did not have time to get at underlying issues, work more on communication problems, or really allow the group to go at the speed that it needed to for all members to be able process the complexities of difficulties in their lives.

In a similar theme, two facilitators reported they wanted more time to get to know the dyads prior to group startup per cohort – either while the participant was still incarcerated or immediately after release. One of these facilitators felt like it would have been helpful to have an additional support group for the support partners. Moreover, the facilitator wanted to have breakout sessions during the *Support Matters* group meetings in which the former prisoners and support partners would go into separate rooms and discuss a given topic. Then, dyads would come back as a group and work on a related activity regarding the topic.

Facilitators said they believed the intervention was acceptable to dyads because dyads consistently showed up to group meetings. Facilitators called *Support Matters* group members during the week between group sessions to remind participants about group meeting the following week and also to check on the dyad's general progress throughout the week. Facilitators believed these calls may have helped participants to be more engaged in

the intervention and reported participants' commenting that participants believed facilitators really cared about their well-being even more than just doing their job.

Many facilitators said participants talked about how much they enjoyed activities done during group meetings and that participants were enthusiastic about role play activities. Although it seemed that many participants did not complete the take-home activities, some did. Of those who did not complete them, they were more likely to report doing a different version of the take-home activity. For example, participants were more likely to do activities such as identify a problematic behavior on TV or in a movie during the week and talk about how the problematic behavior was or was not resolved using skills discussed in group sessions. Facilitators believed take-home activities would be more applicable to participants if the activities were more concrete in nature (versus thinking and reflection activities) and if there were fun activities that required interaction between dyads that were less emotionally intense. For example, instead of the dyads talking about a problem behavior each week they could be asked to go for a walk and incorporate a fun conversation into that event together and report that experience to the group members.

Finally, facilitators said participants demonstrated that the intervention was helpful to the dyads because the dyads not only discussed acknowledging areas that needed to change in their existing social network and how they were making these changes, the dyads (particularly the support partners) contacted each other for support outside of group meetings. Support partners exchanged phone numbers in order to get together after group sessions were over and in one case, one of the support partners threw a baby shower for the other support partner. Furthermore, group facilitators said the dyads frequently said they did

not want group to end, indicating the degree to which the intervention was acceptable for both members of the dyads.

Fidelity Assessment

Total fidelity scores varied widely across cohorts, with a fidelity score range of 16 to 39 of 40 possible points (Table 4). The total mean fidelity score was 30.1 (SD=7.1). Factors contributing most to lower fidelity scores included the participants not completing take home activities (this appeared to be a combination of participant motivation and the group facilitators not requiring the activities to be completed); delays in group session commencement per cohort due to research-related logistical factors; and participants completing in-group activities as a total group rather than as dyads. Fidelity scores were highest for support partners consistently attending group, having two or more dyads in the group, and the cohorts having consistent co-facilitators for group sessions.

Discussion

This evaluation examined the feasibility and acceptability of *Support Matters* from three perspectives: the researcher; the dyad participants; and the group facilitators. Overall, results indicate that *Support Matters* is feasible and acceptable to practitioners and recipients. The findings further indicated that it is realistic to test *Support Matters* in a randomized controlled design that requires recruiting current prisoners and delivering the intervention after their release to the community. However, the results also highlighted areas that, upon improvement, would increase the generalizability and transportability of the intervention and study.

Although treatment and study retention remained high post-randomization, a notable amount of attrition occurred between the time a participant was recruited into the study and

Table 4

Fidelity Assessment Scores: Descriptive Statistics across Cohorts per Item

Items	Mean (SD) Range
Consistent group facilitators	4.4 (1.2) 2-5
2 or more dyads	4.4 (1.8) 0-5
Followed treatment manual closely	4.3 (0.7) 3-5
Participants completed take home activities	2.7 (2.1) 0-5
Delays in group sessions* (i.e., starting or ending the treatment period- not whether or not people showed up late to group)	1.9 (2.4) 0-5
Rescheduling of group sessions for reasons other than holidays*	1.3 (0.8) 0-5
Support partners consistently attended group sessions	4.5 (0.9) 3-5
Participants completed FP/SP in dyads during group (versus completing the activities as a group)	3.0 (2.1) 0-5
Total fidelity score across cohorts	30.9 (7.1) 16-39

*Items reversed scored for calculation of total fidelity score. **Item responses: None of the time=0; A little bit of the time=1; Some of the time=2; More times than not=3; Almost all of the time=4; All of the time=5.

randomization to treatment and control conditions. The refusal rate of 14% was low, but because it is important that researchers retain participants wherever possible, work should still be done to reduce this percentage. For example, some participants may have refused because there was not enough information given in the recruitment script about the post-release program or about how the support partners would be contacted. In this trial, the researchers did not start using a brochure with the recruitment script until later in the recruitment stages. Notably, with the exception of the last cohort, the refusals were fewer

after brochures were used. The reduced refusal rates could have been a result of the brochures or it could have been a result of the research team becoming more seasoned at recruitment. Regardless, it is an area in which new strategies can be incorporated in advance and monitored throughout future evaluations.

The other phenomenon contributing to the 40% reduction in sample size at initial contact was that approximately 20% of the participants could not identify a positive support partner. However, it is unclear whether the participants simply did not know someone or if the participants were uncomfortable listing the name and contact information of a potential support partner prior to being able to contact the support partner himself in advance. The research team only had one contact with the participant prior to release from prison and that was at recruitment. In future evaluations, a strategy could be included wherein the participant is approached about the study and identifying a positive support partner first and then a subsequent contact occurs in which the support partner contact information is collected allowing the participant time to think about who this support partner might be, potentially call the support person, and collect contact information for the support person prior to meeting with a research team member again.

The other large attrition point occurred between post-release and the first data collection point in the community. This period was anywhere from 2 days to 2 weeks. The majority of attrition in this category was a result of participants either repeatedly not showing up to scheduled interviews (but not willing to refuse) or failed contact attempts because the contact information provided was not correct, expired, or phone calls were never returned. Future evaluations could incorporate motivational interviewing contacts prior to the participants' release, as well as verify contact information prior to the participants' release. In

this study, locator sheets were used in which the participant provided the contact information of friends, family, and service providers as available prior to release. These locator sheets (Stefancie, Schaefer-McDaniel, Davis, & Tsemberis, 2004) were helpful in locating participants after release in most cases. However, sometimes the locator sheet information was incorrect or the people listed on the locator sheet were not comfortable providing information to a stranger over the phone. Future evaluations could include a mechanism for the participant to notify individuals on the locator sheet that they might be contacted by a research team member or group facilitator.

In order to best understand how feasible and acceptable *Support Matters* is from a client's perspective, the evaluation focused on those former prisoners and support partners randomized to the treatment condition. Results showed that, overall, dyad members were highly satisfied with *Support Matters*. Factors that contributed most to this satisfaction were the openness of group facilitators and other group members, the genuine concern demonstrated by facilitators, and that the content of the intervention challenged participants to examine their social relationships and communicate about social relationships in a different (and positively perceived) way than they had previously. Dyad participants also identified two significant changes that need to be considered for implementation of *Support Matters* in the future. First, participants almost unanimously agreed that the intervention needs to be longer than 10 weeks. It could be that participants have fully reached the engagement stage of change as sessions are coming to end and they need more time to fully integrate and practice treatment concepts. Or another explanation might be that the participants like the supportive active of the group sessions. Future evaluations could include a control group support group comparison condition to test out this latter consideration.

The second adaptation suggested by participants was to incorporate more role plays and more concrete "hands on" activities and less reflection activities. Because this recommendation came from more than a few individuals, it suggests that this preference is not simply a matter of individual learning styles, but an approach that resonated (and perhaps was less threatening than intensive self-reflection that required a lot of writing) more with participants than the existing activity approaches.

Group facilitators also reported a primarily positive appraisal of the feasibility and acceptability of the *Support Matters* intervention. Suggesting that *Support Matters* fit well within the organizational structure of the community agency in which it was delivered, there were no comments about complications or challenges related to incorporating the program (nor the additional control group members) into the agency programming. Facilitators also reported experiencing the groups positively. Facilitators suggested some changes to the structure of the program and the contact with participants outside of groups. Facilitators echoed participants' experiences with activities and similarly suggested changes to adjust activities to be more concrete. Facilitators also indicated a concern that there was too much information to be fully learned by participants in a short time – resembling remarks of participants that there should be "more" of the intervention. However, the bulk of the feedback from facilitators was around being able to adapt the intervention to the different learning levels and circumstances of the dyads within a group setting. Some facilitators suggested this latter issue could be best addressed by having more individual contact with dyads prior to the prisoner participant's release from prison and by having individual meetings outside of group sessions throughout the intervention period. Each of these approaches would add a significant time commitment to the intervention, but future

evaluations should give consideration to some sort of variation that would allow these individual and relationship differences to be addressed.

Implications for Future Evaluations

The feasibility and acceptability evaluation was conducted with a relatively small sample at one program site. Results indicate that additional research studies would be valuable and needed. To better assess the generalizability of *Support Matters,* larger and multi-site trials are needed that incorporate recommended adaptations gleaned from this evaluation. In addition, future studies should include assessments of exchanges of support and related stress occurring within the dyads, within the group members, and between group members and facilitators to understand mechanisms that most contribute to acceptability of the intervention, and ultimately, the effectiveness of *Support Matters*. Finally, in order to assess the feasibility of the intervention within the socio-political climate of communities, a detailed analysis is needed to explore how existing policies may provide disincentives for natural support providers to remain involved in the lives of former prisoners to the optimal extent.

More men and women are going to prison than ever before in the history of this country; nearly 95% of them will be released back to communities and families (Langan & Levine, 2002; Visher & Travis, 2003). It is critical that social work professionals understand the unique needs of this population and seek to intervene in relevant practice settings and by conducting intervention research. An exploration of the role of naturally occurring social support interventions in the positive outcomes of former prisoners will help inform social workers about the complexity of needs associated with of former prisoners and their support partners and the capacity for communities and support providers to influence outcomes. The

incorporation of naturally occurring support programs such as *Support Matters* has the potential to sustain treatment effects for former prisoners long after the formal services cease. Moreover, these support interventions can empower communities to not only influence the well-being of its returning members, but to contribute to the well-being of the community itself by reducing the negative consequences of the revolving door of prisons.

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INCORPORATING SOCIAL SUPPORT IN INTERVENTIONS FOR FORMER PRISONERS WITH SUBSTANCE USE DISORDERS: PRELIMINARY RESULTS FROM A COMMUNITY-BASED RANDOMIZED CONTROLLED TRIAL

Incarceration rates have increased 628% since the 1970s (Mauer & Kris, 2007; Travis, 2004). U.S. prisons and jails house approximately 2 million people on any given day; 95% of these prisoners return to communities each year (Sabol, West, & Cooper, 2009). The failure of prisons to end criminal behavior is evidenced by the most recent national probability study that showed 68% of former prisoners were rearrested or reincarcerated within 3 years of release (Langan & Levin, 2002). One factor contributing to high recidivism rates is the prevalence of substance use disorders among prisoners, which compromises their successful transition to communities[4]. Nearly half of all state prisoners are substance misusers[5] compared to only 2% of the general U.S. adult population (National Institute on Drug Abuse, 2006). Nationally, 78% of prisoners who report misusing substances had prior

[4] Currently, the DSM-IV divides substance abuse and substance dependence and refers to substance use disorders as a subcategory of substance-related-disorders. For the purposes of this paper, "substance use disorders" is an umbrella term for substance abuse and substance dependence. A substance use disorder is defined as substance use that leads to significant impairment or distress that is evidenced by at least 2 of the following: use results in failure to fulfill major life roles in work, school, at home, or with family; use that puts one in physically dangerous situations; continued use despite having recognized persistent related social or physical problems; legal problems as a result of use; a developed tolerance for the substance; failed attempts at discontinuing use of the substance; withdrawal symptoms when not using the substance; foregone activities important to the individual because of substance use; using the substance more often or longer than intended; spending a large amount of time using the substance; or strong urges or cravings for the substance. The presence of substance use disorders at pre-release interviews was assessed using the Substance Abuse Module, which is the substance use section of the CIDI-SAM (Cottler, Robins, Lee, & Helzer, 1989).

[5] For the purposes of this paper, substance misuse is defined as substance use that is functionally impairing or personally distressing to the person in question.

incarcerations (Belenko, 2006), suggesting that community stabilization is particularly challenging for this population.

In addition to the obvious consequences of crime, the high prevalence of incarceration and reincarceration is significant because of the disproportionate representation of ethnic minority and vulnerable groups in prisoner populations. Similar to individuals with substance use disorders, persons with mental illnesses are overrepresented in prisons. Prisoners with mental illnesses constitute 6% to 24% of the prison population, and up to 56% of prisoners report a history of mental illness or display overt symptoms of mental illness (Ditton, 1999; James & Glaze, 2006). Researchers estimate that persons with mental illnesses face a risk of arrest 800% greater than their risk of psychiatric hospitalization and 150% greater than involvement with any type of psychiatric care (Morrisey, Myer, & Cuddeback, 2007).

African American men and women are disproportionately incarcerated at alarming rates. The rate of incarceration for African Americans is 7 times greater than that of Caucasians (Mauer & Kris, 2007). One study reported that if trends in incarceration continue, of those males born in 2001, 1 in 3 African Americans, 1 in 6 Latino Americans, will go to prison at some point their lives, compared to 1 in 17 Caucasians (Bonczar, 2003).

Furthermore, national incarceration and re-incarceration trends are concentrated in poor urban centers resulting in excessive burden on families, children, and social structures of those communities (Bushway, Stoll, Weiman, 2007 ; Glaze & Marushak, 2008)). The revolving door of prisons strains national budgets and draws down valuable resources that are needed for other social programs -- nationally $107 billion is spent annually on drug crime enforcement and punishment (NIDA, 2006).

This paper presents preliminary results of a social support intervention, *Support Matters,* that seeks to reduce post-release substance misuse and criminal behavior in an effort to improve the likelihood of former prisoners' success in the community after incarceration. *Support Matters* focuses on social support, social cognitions, and behaviors and is designed to enhance former prisoners' connection to positive social support in order to disrupt those factors that contribute to risk for relapse to criminal behaviors and substance misuse post-release.

A substantial body of research has identified risk-related aspects of social relationships that influence post-release success. Risk factors include deviant cognitions/attitudes, negative associates, psychological stress, environmental cues, and limited social support (Andrews & Dowden, 2006; Chandler, Bennett, & Volkow, 2009; Mooney et al., 2008; Skeem et al., 2009). Criminological theorists have proposed and tested the predictiveness of a number of risk mechanisms for criminal behaviors (including illicit substance use) or desistance from such behaviors. The cumulative results of this research have suggested that social relationships influence cognitions, beliefs, and behaviors of individual actors that have important implications for individual criminality.

One theory posits that behaviors are learned from socializing units (Hawkins & Weis, 1985). Within socializing units there are opportunities for involvement with activities and others; perceived rewards for involvement; attachment to others; and values and beliefs that are incorporated into standards of conduct within particular socializing units. In turn, an individual's continued involvement in a given socializing unit is influenced by the match between that individual's skills and internalized values and norms compared to those of the socializing unit (Brown et al., 2005; Catalano & Hawkins, 1996; Huang et al., 2001). Thus, if

a socializing unit demands more conventional norms and lines of action, an individual will only stay involved in that unit if he or she has a skill set and thinking patterns that are consistent with the expectations of those norms. Conversely, an individual will only stay involved in a "deviant" socializing unit to the extent that the individual's skills match those required of full participation in the deviant unit and these same skills are reinforced by the deviant socializing unit.

Other researchers have focused on individual risk mechanisms. For example, peer behavior is an important risk factor for initiation to and maintenance of substance misuse and criminal behavior (Giordana, Cernkovich, and Holland, 2003; Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Kammen, 1995; Mooney et al., 2008; Skeem et al., 2009). Similarly, prior studies show that family history of criminality is a risk factor for criminal offending (Church, Wharton, & Taylor, 2009; Gendreau, Little, & Goggin, 1996). In general, the lack of post-release positive social support has consistently been associated with continued substance misuse after prison and other problematic behaviors (Andrews, Bonta, & Wormith, 2006; Mooney et al., 2008; Schroeder, Giordano, Cernkovich, 2007).

In a frequently cited meta-analysis of effective correctional practices, authors concluded that key characteristics of successful programs include ample positive reinforcement for conforming (i.e., prosocial) social behaviors and provision of prosocial contexts that encourage and reinforce criminal offenders' attempts to maintain law-abiding lifestyles (Gendreau, Little, & Goggin, 1996). Furthermore, the results indicated that those programs that show the most effect on subsequent criminal behavior are cognitive-behavioral programs that target criminal thinking, also described as antisocial attitudes or thinking errors (Yochelson & Samenow, 1976). Recent research has supported the strong treatment effects

of cognitive behavioral interventions (Aos, 2006; Landenberger & Lipsey, 2005). Extant research suggests that interventions designed to increase positive social support should reduce criminal re-offending and other problematic behaviors for prisoners post-release.

Despite the strong theoretical and empirical support for the promotive aspects of prosocial relationships and the positive role of social support in the lives of prisoners returning to communities, few, if any, interventions have been designed specifically to strengthen social support for former prisoners. Whereas some post-release programs use volunteer community-support persons, in *Support Matters*, involvement of a support person—who is identified by the former prisoner— is an integral part of the intervention meant to enhance former prisoner participant's awareness of and attachment to existing social support persons. Furthermore, current interventions used in some post-release programs focus solely on dynamics of the family unit. In contrast, *Support Matters* aims to reconfigure a person's social network from one dominated by deviant behaviors (i.e., people who misuse substances or engage in criminal behaviors) to a social network supportive of the person's recovery from substance misuse and desistance from crime.

Research in the substance misuse field provides promising evidence of the feasibility and effectiveness of social support interventions (often referred to as network interventions). Published "network interventions" use a cognitive-behavioral approach to relapse prevention and incorporate the active treatment involvement of participants' naturally occurring social network members. Network members reinforce participants' use of skills learned in intervention sessions. This reinforcement helps participants to generalize skill application to extra-treatment contexts. Initial findings demonstrate the interventions have been effective at achieving high rates of support network provider participation, significantly reducing post-

intervention substance misuse, and significantly increasing family cohesion (Broomer & Kidorf, 2002; Copello, Williamson, Orford, & Day, 2004; Galanter et al, 2004).

Support Matters builds on the evidence base of precursive risk factors and effective programs for people with criminal histories as well as the evidence base of interventions for people with substance use disorders. By combining such evidence with empirically-supported theoretical propositions about predictors of crime and continued criminal behaviors, *Support Matters* aims to increase former prisoners' likelihood of success in transitioning to the community. The intervention seeks to reduce the deleterious influence of risk factors through building and strengthening positive social support, which promotes commitment to and beliefs in prosocial values, norms, and networks.

A randomized controlled trial was conducted to compare the effects of *Support Matters*, a cognitive-behavioral post-release social support intervention, to routine post-release services offered to a sample of male prisoners releasing to a large urban county in North Carolina. We hypothesized that *Support Matters* participants would demonstrate significantly greater improvements than control participants in the proximal outcomes: (a) extent of social support, (b) commitment to social support, and (c) social cognitions/beliefs. In addition, we hypothesized that *Support Matters* participants would demonstrate significantly less post-release substance misuse and arrests than control participants on follow up assessments.

Method

Sample Characteristics

The sample was comprised of male prisoners with substance use disorders residing in any one of ten prisons selected as research sites in North Carolina. Prisons were selected

based on their proximity to the *Support Matters* project site in Charlotte (Mecklenburg County), North Carolina.

Potential participants met inclusion criteria if they were 18 years of age or older, reported a lifetime history of a substance use disorder, and planned to live in Mecklenburg County, North Carolina immediately upon release from prison. Prisoners were assessed as having a substance use disorder if they reported significant impairment or distress as a result of substance misuse in two or more aspects of social roles and interpersonal functioning (refer to footnote 2 for full definition). Potential participants who could not speak English fluently were excluded from the study. We targeted the intervention to men returning to Charlotte because the majority of North Carolina prisoners return to Charlotte or one other large urban area in North Carolina (NDOC, 2010). The Charlotte metropolitan area had an estimated population of 1,745,500 in 2009 (U.S. Census Bureau, 2009). National trends report that most prisoners release to urban communities (Visher & Travis, 2003), making testing of interventions in urban centers relevant locally and nationally.

Table 5 presents baseline characteristics of participants randomized to *Support Matters* (intervention condition) and to the routine services control condition. A majority of participants were African American (88%). Study participants had a mean of 0.82 (SD = 1.31) prior convictions and had spent an average of 931 (SD=905) days in prison for their current incarceration. The mean age of the sample was 29 (SD=10.3). Approximately 28% of the sample had graduated high school at the time of release from prison and 45% were employed at the time of arrest. One-third of participants (33%) were in prison for property offenses, followed by 25% of participants who were incarcerated for violent offenses. Most participants (70%) reported using psychoactive substances daily in the 12 months prior to

Table 5

Baseline Characteristics of Support Matters *and Control Groups, and Total Study Participants*

Sample Characteristics (n = 40)	Treatment (n=20) % (n) or M (SD)	Control (n=20) % (n) or M (SD)	Total (N =40)	T-tests/Chi-square. P-values
African American (otherwise, Caucasian)	85%(17)	90%(18)	88%(35)	p = .228
Age	33.3(11.4)	25.9(7.7)	29.6(10.3)	p = .019*
Not married at incarceration	90% (18)	100%(20)	95%(38)	p = .147
Completed high school	30%(6)	25%(5)	28%(11)	p = .723
Employed at time of arrest	50%(10)	40%(8)	45%(18)	p = .525
Housing Status at Release				p = .173
Family	60%(12)	65%(13)	63%(25)	
Partner/Spouse	20%(4)	15%(3)	18%(7)	
Friend	0%(0)	15%(3)	8%(3)	
Temporary Shelter	20%(4)	5%(1)	13%(5)	
Prior Convictions	1.3 (1.5)	0.4(0.2)	0.8(1.3)	p = .039*
Sentence Length in days	1118(1037)	744.5(728.4)	931.3(905.1)	p = .195
Postrelease Supervision Required	35%(7)	25%(5)	30%(12)	p = .476
Most serious offense category				p = .996
Sex offense	10%(2)	10%(2)	10%(4)	
Violent offense	25%(5)	25%(5)	25%(10)	
Drug offense	25%(5)	20%(4)	23%(9)	
Property offense	30%(6)	35%(7)	33%(13)	
Other	10%(2)	10%(2)	10%(4)	
Substance Use Experiences				
Substance of choice				p = .067
Alcohol	40%(8)	10%(2)	25%(10)	
Marijuana	35%(7)	65%(13)	50%(20)	
Other (crack, cocaine, heroin, ecstasy)	25%(5)	25%(5)	25%(10)	
Frequency of substance use pre-prison				p = 1.00
None	0%(0)	0%(0)	0%(0)	
Weekly or less	30%(6)	30%(6)	30%(12)	
Daily	70%(14)	70%(14)	70%(29)	
Unit amount of substance use per week	30.8(25.0)	24.4 (21.8)	27.7(23.4)	p = .398
Age of onset of alcohol use	14.5(5.0)	15.4 (2.5)	14.9(3.9)	p = .515
Age of onset of marijuana use	14.7(2.9)	14.5 (3.1)	14.6(2.9)	p = .859
Age of onset of other illicit substance	19.0(5.5)	19.1 (4.2)	19.1(4.8)	p = .975
Prison-assessed as needing treatment	90%(18)	85%(17)	88%(35)	p = .316
Self –assessed need for alcohol tx				p = .114
None to slight need	70%(14)	90%(18)	80%(32)	
Moderate to extreme need	30%(6)	10%(2)	20%(8)	
Self –assessed need for drug tx				p = .465
None to slight need	70%(14)	80%(16)	75%(30)	
Moderate to extreme need	30%(6)	20%(4)	25%(10)	

Table 5 (continued)

Sample Characteristics (n = 40)	Treatment (n=20) % (n) or M (SD)	Control (n=20) % (n) or M (SD)	Total (N =40)	T-tests/Chi-square. P-values
Psychiatric Experiences				
Lifetime mental health hospitalizations	0.3 (1.1)	0.05 (0.2)	0.2(0.8)	p = .437
Lifetime mental health outpatient tx	5.6 (9.8)	2.0 (3.0)	3.8(7.4)	p = .137
Lifetime psychotropic medications	11%(2)	6% (1)	8%(3)	p = .547
Lifetime antisocial personality	65%(13)	50%(10)	58%(23)	p = .337
Experience / witnessed traumatic event	90%(18)	60%(12)	75%(30)	p = .028*
Current pervasive thoughts of trauma	45%(9)	20%(4)	33%(13)	p = .091
Pervasive and disruptive worries	25%(5)	60%(12)	43%(17)	p = .025*

* $p < .05$

incarceration. Half of participants reported marijuana as their substance of choice, 25% reported alcohol, and the remaining 25% indicated either crack, cocaine, heroin, or ecstasy as their substance of choice. Using the *Substance Abuse Screening Inventory* (SASSI), the Division of Prisons assessed 88% of study participants as needing some type of substance misuse program. However, only 20% of participants reported a moderate-to-extreme need for treatment for alcohol misuse and only 25% reported a moderate-to-extreme need for illicit substance misuse treatment. Participants reported an average number of prior outpatient mental health treatment episodes of 3.78 (SD=7.39) and an average of prior lifetime mental health hospitalizations of 0.15 (SD =0.82). Approximately 81% of participants planned to live with a family member, spouse, or partner upon release.

Intervention Conditions

***Support Matters* (treatment condition).**

The 10-session, cognitive-behavioral, *Support Matters* intervention was informed by the "Network Therapy" work of Gallanter and colleagues (2002, 2004) and Roberts-Lewis (2001). *Support Matters* is a post-release group-based intervention delivered to former

prisoners and their self-selected positive support partner who together attend 2-hour weekly group sessions. The sessions seek to improve and develop a wide range of cognitive and relational skills. These skills include, but are not limited to: identifying, accessing, and providing positive social support; enhancing interpersonal skills for managing emotions and stress; and recognizing environmental triggers for relapse to substance misuse and criminal behaviors and the ways in which to use social networks to help buffer those triggers. *Support Matters* was delivered to 8-total cohorts between October, 2009 and October, 2010. *Support Matters* was co-delivered by masters level social workers or masters level social work interns. In addition, an existing staff member at the project site who was not trained as a social worker, but who had more than 20 years of group work experience with disadvantaged client groups also co-facilitated group sessions. Each cohort had two facilitators co-deliver the 10 group treatment sessions. There was a total pool of 7 group facilitators.

***Center for Community Transitions* (control condition)**.

The Center for Community Transitions (CCT) is a non-profit agency in Charlotte, North Carolina that has been providing transitional and post-release services to current and former prisoners for more than 20 years. Although routine services often refers to parole or post-release supervision after prison, the routine services providing at CCT include interventions researchers have found to be effective at promoting positive outcomes of former prisoners (Mallik-Kane, & Visher, 2008;,Seiter, R.P., & Kadela, K.R. 2003; Visher et al, 2005; Wilson et al, 2000). The *CCT* services include case management, life skills workshops, and job training and job development programs. CCT services are provided by staff with a range of educational backgrounds and experiences providing services to former prisoners. These professionals had either bachelors' degrees or masters degrees. Some staff

were professionals with a history of incarceration, some staff were new professionals with just 2 years of social service work experience, and other staff had over 20 years of social service work experience.

Participants in each study condition were randomly assigned to *Support Matters* or routine services interventions after providing informed consent and on a volunteer basis. Participants were not required to participate as a condition of release from prison or as a condition of post-release supervision (i.e., parole or probation).

Procedures

Ten prisons were selected for recruitment based on proximity to and average number of monthly prisoner releases to Mecklenburg County. Every prisoner meeting study eligibility criteria and releasing from prison within 25 to 45 days was approached by a research team member. During that meeting, a lengthy consent process was conducted with the potential participant. Every potential participant who agreed to participate in the study completed the pre-release assessment protocol the same day. Those participants who reported no or limited histories[6] of substance misuse were ineligible for post-release randomization and interviews. Participants' substance misuse history was assessed by the *Substance Abuse Module* (SAM) (Cottler, Robins, Lee, & Helzer, 1989; refer to footnote 2 for detailed description).

During the pre-release assessment interviews, participants were asked to identify up to four positive support partners who could be contacted about their potential participation in the study. If participants could not identify a positive support partner to attend *Support*

[6] No history of substance misuse was defined as reporting either no psychoactive substance use at all, or reporting substance use that was never perceived as functionally impairing or distressful. A person was considered to have a limited history of substance misuse if the misuse caused limited difficulties in fewer than 2 aspects of social roles or interpersonal functioning and that such impairment occurred for less than 12 months and that time period was more than 12 months prior to incarceration.

Matters group sessions with the participant, the participant was not eligible to be randomized to the *Support Matters* or control intervention conditions. Participants who could identify a support partner and who reported a history of substance misuse as assessed by the SAM were contacted for an interview post-release (i.e., T1 assessments). The potential support partner was also contacted by phone and screened prior to the prisoner's release from prison. Potential support partners were ineligible to participate if they reported currently using illegal substances or drinking to the point of heavy intoxication weekly, being under any form of correctional supervision within the past two years, or a history of violence with the former prisoner participant. If the support partner was eligible and agreed to participate, a pre-intervention assessment interview (T1) was scheduled to occur with the support partner and the prisoner upon the prisoners' return to the community.

During T1 interviews, a research team member met with the participant and support partner to discuss the intervention conditions again and the randomization procedures. Participants also completed individual assessment interviews with a research team member at the end of the T1 interviews. Randomization occurred after T1 interviews were completed. A majority of T1 interviews were conducted by the study project coordinator or another research team member. The principal investigator (PI) created a name card for each dyad who completed the T1 interview and the name card for each dyad was placed in one envelope. An equal number of group status cards were created and placed in another envelope. The PI would then draw a dyad name out of one envelope and a group status card (*Support Matters* or *Control*) out of the other envelope. The PI did not know the randomization status of the participants until all cards were drawn at which point they were unfolded. The PI created a list of the *Support Matters* dyads and the *Control* dyads and

contacted the project coordinator to notify the coordinator of the participant's status. The project coordinator or another research team member would then contact the participants for referral to *Support Matters* or *Control*.

T1 interviews and randomization occurred per cohort. A maximum of 10 dyads were randomized to either *Support Matters* or *Control* conditions per cohort. In essence, cohort 1 completed T1 interviews and was randomized while cohort 2 was still incarcerated; cohort 2 completed T1 interviews and was randomized while cohort 3 was still incarcerated and so on.

All study procedures were approved by University of North Carolina at Chapel Hill and North Carolina Department of Correction Institutional Review Boards. Participants in both conditions received $5 for completing weekly interviews during the intervention period. *Support Matters'* participants completed these interviews each week when they attended the group treatment sessions. *Control* participants completed weekly interviews over the phone and were mailed the $5 in cash. Longer interviews using standardized assessment instruments were also conducted post-release (i.e., T1, T2, T3). Participants in both conditions received $10 after the end of each of the T1, T2, and T3 interviews. The maximum a participant could receive in total remuneration was $90.

Measures

Participants completed standardized social support, psychosocial, and substance use instruments prior to the intervention period (T1), immediately following the intervention (T2), and 3 months after the intervention (T3). The intervention period began within approximately three weeks of all the cohort members' release from prison. The intervention period lasted 10 weeks and T2 interviews occurred within 7 to 10 days of completing the intervention. The T3 data collection period occurred 3 months after T2 and was

approximately 6 to 7 months after a participant released from prison depending on their release date during the study window. Standardized instruments were administered orally by a research team member in the same order across participants (i.e., social support interview, substance misuse interview, cognitions and beliefs interviews, and then a second social support interview).

Social support.

Social support refers to a process of social interaction that involves the provision or exchange of social resources that persons perceive to be available or are actually provided by others (Cohen, Underwood, & Gottlieb, 2000; House, 1981). *Positive* social support enhances a person's physical and/or psychological well-being (Sarason & Sarason, 1985). This paper primarily focuses on informal positive social support provided by naturally occurring relationships. Informal social support refers to provision of support by people who do not receive pay to provide services or support to the individual such as volunteers, clergy, or mentors (McCamish-Svensson, et al., 1999). *Naturally occurring support relationships* are a subtype of informal social support. Naturally occurring relationships may include parents, siblings, partners, or friends. These relationships are developed in the course of an individual's life and not in the context of organized support provision. A person is considered supportive if the person offers at least one of the following forms of support: emotional, informational, instrumental, or tangible support.

The *Social Support Behaviors Scale* (Vaux, Riedel, & Stewart, 1987) is a 45-item measure using a Likert-type response scale that asks participants to rate the likelihood of family members and friends providing different types of support (emotional, practical,

financial, advice-guidance, and socializing[7]). Participants assess likelihood by responding to described support behaviors with one of the following options "no one would do this," "someone might do this," "someone would certainly do this," or "most would certainly do this." Participants complete the interview describing family members first and then friends. Subscales have moderate inter-correlations and yield a total social support score from family members and a total social support score from friends. Cronbach's alphas were calculated with this sample for each support-type subscale for family and friends: emotional (family alpha = .87; friend =.94) practical (α =.82; .α = .91); financial (α =.89; .α = .91); advice-guidance (α =.84; .α = .97); and socializing (α =.85; .α = .93).

The *Social Support Network Inventory* (Flaherty & Gaviria, 1981) is a10-item scale that assesses actual support received from people respondents feel provide them with the most support. Participants first indicate the total number of persons who they feel have provided support to them in the past two months. Participants then select up to five people they believe have provided the most support to them. For each support person, participants define their relationship with that support provider and the frequency with which the participant interacts with the support provider, the general supportiveness of the provider, and the closeness of the relationship to the support provider. The scale then includes 10-items that assess different types of support provided by each person and opportunities for reciprocity of support from the participant to the support provider. Participants rate support provision and reciprocity in terms of frequency using item response options "Never," "Seldom," "Sometimes," "Often," and "Always." The Cronbach's alpha for this sample was .74.

[7] For the purposes of this study, practical and financial support are referred to as "tangible support," advice-guidance is referred to as "informational support," socializing is called "instrumental support," and emotional support remains the same.

Commitment.

Commitment is defined as a mental state and refers to the rational conclusion one makes about the benefits of positive social support relationships and networks compared to the investments associated with other relationships, networks, or behaviors. Commitment to positive social support is measured with the *Network Orientation Scale* - a 20-item interview that measures the individual's unwillingness to maintain, nurture, or utilize the social support that he has (Vaux, Burda, & Stewart, 1986). The *Network Orientation Scale* yields a total score. The total score reflects participants' level of agreement (i.e., strongly agree, agree, disagree, strongly disagree) with statements such as "I often get useful information from other people"; If you confide in other people, they will take advantage of you "; "Its okay to ask favors of people"; and "People should keep their problems to themselves." Higher scores indicate a more negative network orientation. The Cronbach's alpha for this sample was .70.

Cognitions/beliefs.

For the purposes of this study, cognitions/beliefs refers to acceptance or internalization of values and norms that promote desistance from criminal or deviant behaviors such as more a "conforming" orientation toward societal norms. Changes to cognitions and believes were measured by the *TCU Criminal Thinking Scale.* This scale is a 37-item measure of attitudes and beliefs (Knight et al., 2006). The TCU is divided into 6 subscales that measure six constructs – entitlement, justification of antisocial acts, refusal to accept responsibility for criminal behaviors, power orientation, callousness, and rationalization of criminal behaviors – and Cronbach's alphas for this sample were established for each subscale. Entitlement ($\alpha = .66$) conveys a sense of privilege and confusion of wants and needs paired with a belief that the world "owes" the respondent

special consideration. Justification (α = .71) reflects thinking that criminal actions are minimized and justified because of external circumstances or social injustices. Responsibility (α = .57) for criminal behaviors assesses the degree to which the respondent accepts responsibility and blames responsibility on others. Power orientation (α = .68) is a measure of a need for power and control to the extent that the person is willing to resort to manipulation and violence against others in order to maintain power. Callousness (α = .70) addresses a lack of emotional involvement with others. Rationalization of criminal behaviors (α = .67) specifically addresses the respondents' beliefs that their behaviors are no different than criminal acts committed regularly by people in authority positions. Higher scores on each scale indicate higher presence of that construct; some scales are reverse scored.

Substance misuse outcomes.

This initial evaluation of distal outcomes focuses on the occurrence and frequency of substance misuse at T3 using a standardized substance misuse instrument. The *Chemical Use, Abuse, and Dependence Scale* (McGovern & Morrison, 1992) is a semi-structured interview designed to assess problems with alcohol and all other illicit drugs of abuse. The CUAD determines the amount of use for each substance, the frequency of use, and consequences of use. The Cronbach's alpha for this sample is .96.

Arrest outcomes.

Arrest rates as a measure of recidivism was selected because it is a key indicator of adjustment difficulties, whereas re-incarceration does not capture this until a new crime or major violation of release has occurred. Arrest data were obtained from participant self-reports during weekly interviews and official records. In all cases, participant reports match official records. Therefore, official records were used for the outcome analysis. Arrest data

were collected directly from county courthouses in Mecklenburg County and the five surrounding counties (Gaston, Cabarrus, Rowan, Union, Iredell). Arrest data include date of each arrest, reason for arrest, the total number of charges per arrest, and the total number of arrests that occurred per participant from the time of release to the end of the study window. Data are not available for out-of-state arrests, however less than 7% of re-arrests occur out of state (DOC, 2008).

Data Analysis

Bivariate correlations, mean comparisons tests (t-tests), chi-squares, pairwise correlations, repeated-measures ANCOVA, and regression analyses were used to test hypotheses and compare group differences over time. Proximal outcomes as indicated by the constructs social support, commitment, and cognitions/beliefs were assessed with repeated-measures ANCOVAS examining within and between group effects across T1, T2, and T3 controlling for covariates that differed significantly between groups prior to treatment. Mauchly's Test of Sphercity was conducted in the repeated measures ANCOVA models. When the sphercity assumption was not met, the Greenhouse-Geisser F statistic for multivariate tests was obtained for within-subjects effects. Distal outcomes of relapse to substance misuse and/or re-arrest were examined using logistic and multiple regression models controlling for covariates that differed significantly between groups prior to treatment.

Results

Baseline Group Differences

Table 5 summarizes baseline group differences for study participants randomized to *Support Matters* or the routine services *Control* condition. There were no significant pre-

intervention differences between *Support Matters* and *Control* groups on race, marital status, education, employment status at arrest, housing status post-release, post-release supervision status, type of most serious offense, substance misuse variables, or history of mental health outpatient treatment episodes and hospitalizations. The groups differed significantly on four characteristics. *Control* condition participants were younger (M=26 vs M = 33) and had higher reports of worries that interfered with the participants' ability to concentrate on other tasks (60% vs 25%). *Support Matters* participants had a greater number of prior convictions (M= 1.3 vs M=0.4) and reported more traumatic experiences (90% vs 60%).

Attrition

Although no participants refused randomization, 35% (n=7) of those randomized to *Support Matters* attrited from treatment prior to the second treatment group session. Of these, 3 participants attended the first treatment group session and then did not return and 4 participants never attended the first treatment group session. Only 1 participant attrited from the *Control* condition. Table 6 summarizes the group differences between study participants randomized to treatment who remained in the intervention and those who attrited from treatment. There were no significant pre-intervention differences between the group retained in treatment and the group that attrited from treatment. Only the difference with regard to the most serious offense category approached statistical significance. The retained group had notably more prior violent offenses (38% vs 0%) and notably fewer drug offenses (8% vs 57%). Participants who attrited from *Support Matters* (*n* =7) and *Control* conditions (*n*=1) were asked why they had decided to discontinue participation. The reasons listed for withdrawal for those randomized to *Support Matters* were varied. One participant indicated difficulties with transportation, but when he was offered transportation, he cited other

Table 6

Pre-intervention Characteristics of Support Matters *Retained & Attrited Groups, and Total Participants*

Sample Characteristics (n = 20)	Retained (n=13) % (n) or M (SD)	Attrited (n=7) % (n) or M (SD)	Total (N =20)	T-tests/Chi-square. P-values
African American (otherwise, Caucasian)	92%(12)	71%(5)	85%(17)	p = .212
Age	34.0 (11.7)	32.0 (11.5)	33.3(11.4)	p = .718
Not married at incarceration	92%(12)	86%(6)	90% (18)	p = . 639
Completed high school	38%(5)	14%(1)	30%(6)	p = .260
Employed at time of arrest	62%(8)	29%(2)	50%(10)	p= .160
Housing Status at Release				p = .249
Family	54%(7)	71%(5)	60%(12)	
Partner/Spouse	15%(2)	29%(2)	20%(4)	
Friend	0%(0)	0%(0)	0%(0)	
Temporary Shelter	31%(4)	0%(0)	20%(4)	
Prior Convictions	1.2(1.7)	1.3(0.9)	1.25 (1.48)	p = .939
Sentence Length in days	1270.4(1016.9)	835.7(1095.7)	1118(1037)	p = .386
Postrelease Supervision Required	46%(6)	14%(1)	35%(7)	p = .154
Most serious offense category				p = .077
Sex offense	8%(1)	14%(1)	10%(2)	
Violent offense	38%(5)	0%(0)	25%(5)	
Drug offense	8%(1)	57%(4)	25%(5)	
Property offense	31%(4)	29%(2)	30%(6)	
Other	16%(2)	0%(0)	10%(2)	
Substance Use Experiences				p = .702
Substance of choice				
Alcohol	38%(5)	43%(3)	40%(8)	
Marijuana	31%(4)	43%(3)	35%(7)	
Other (crack, cocaine, heroin, ecstasy)	31%(4)	14%(1)	25%(5)	
Frequency of substance use pre-prison				p = .260
None	0%(0)	0%	0%(0)	
Weekly or less	38% (5)	14%(1)	30%(6)	
Daily	61%(8)	86%(6)	70%(14)	
Unit amount of substance use per week	29.5(23.1)	33.3 (29.9)	30.8(25.0)	p = .753
Age of onset of alcohol use	15.2 (5.3)	13.0 (4.2)	14.5(5.0)	p = .381
Age of onset of marijuana use	15.5 (3.2)	13.2 (1.7)	14.7(2.9)	p = .114
Age of onset of other illicit substance	20.7 (5.9)	15.5 (2.1)	19.1(5.5)	p = .612
Prison-assessed as needing treatment	92% (12)	100% (7)	90%(18)	p = .694
Self –assessed need for alcohol tx				p = .260
None to slight need	62%(8)	86%(6)	70%(14)	
Moderate to extreme need	38%(5)	14%(1)	30%(6)	
Self –assessed need for drug tx				p = .919
None to slight need	69% (9)	71%(5)	70%(14)	
Moderate to extreme need	31% (4)	29%(2)	30%(6)	

Table 6 (continued)

Sample Characteristics (n = 20)	Retained (n=13) % (n) or M (SD)	Attrited (n=7) % (n) or M (SD)	Total (N =20)	T-tests/Chi-square. P-values
Psychiatric Experiences				
Lifetime mental health hospitalizations	0.4 (1.4)	0.0 (0)	0.3(1.1)	p = .512
Lifetime mental health outpatient tx	7.9 (11.2)	0.5 (0.8)	5.6(9.8)	p = .129
Lifetime psychotropic medications	15% (2)	0.0 (0)	11%(2)	p = .310
Lifetime antisocial personality	69% (9)	57% (4)	65%(13)	p = .589
Experience / witnessed traumatic event	85% (11)	100% (7)	90%(18)	p = .274
Current pervasive thoughts of trauma	54% (7)	29% (2)	45%(9)	p = .279
Pervasive and disruptive worries	31% (4)	14% (1)	25%(5)	p = .417

p <.05

problems such as a death in the family. One participant moved out of state after the first session. One participant's mother had surgery and he reported that he was required to provide full time homecare for her. Another participant was incarcerated for a new offense before treatment groups started and one participant disappeared from his family's home before treatment groups started. One participant said his frequent changes in work schedule prevented him from committing to group sessions. Another participant did not show up to group for the first session and the dyad's phone was disconnected and they changed addresses. The control group participant dropped out because he moved to another county for employment.

Outcomes

Table 7 summarizes mean changes in the proximal outcomes social support, commitment, and cognitions/beliefs over the course of the study. Tables 8 and 9 summarize mean rates of substance misuse and re-arrest at T3 for *Support Matters* and *Control* conditions, respectively. Repeated-measures ANCOVAS were run for each of the proximal outcomes. Each model examined main effects and intervention-by-time effects. The models controlled for substance of choice, disruptive worries, and those variables that differed

Table 7

Mean, Standard Deviations, and F – Statistics for the Proximal Outcomes of Social Support, Commitment, and Cognitions/Beliefs

Measures (n by group)	Treatment (n=13) M (SD)	Control (n=19) M (SD)	F Statistics Between-group Time by intervention effects
Number of Supportive People (Txt=10, Control=17)			
Time 1	4.20 (2.20)	4.71 (2.14)	
Time 2	4.00 (2.40)	4.65 (1.87)	F(1,18)=1.33;
Time 3	4.00 (1.70)	4.41 (1.81)	p=.262; n^2 =.069
Number of Most Supportive (Txt=10, Control=17)			
Time 1	3.60 (1.43)	3.41 (1.50)	
Time 2	3.30 (1.34)	3.59 (1.34)	F(1,18)=0.00;
Time 3	3.50 (1.51)	3.82 (1.51)	p=.991; n^2 =.000
Family Social Support (Txt=10, Control=16)			
Time 1	117.60 (12.51)	100.81 (26.51)	
Time 2	103.10 (27.95)	100.31 (27.79)	F(1,17)=2.97;
Time 3	108.50 (20.18)	99.63 (32.49)	p=.062; n^2 =.189
Friends Social Support (Txt=10, Control=16)			
Time 1	83.20 (28.67)	86.50 (29.43)	
Time 2	77.80 (28.01)	87.06 (26.04)	F(1,17)=0.42;
Time 3	83.50 (29.05)	86.75 (27.61)	p=.524; n^2 =.189
Reciprocity of Support (Txt=10, Control=17)			
Time 1	1.92 (0.85)	2.54 (0.76)	
Time 2	2.52 (0.75)	2.73 (0.63)	F(1,18)=6.45
Time 3	2.43 (0.87)	2.63 (0.84)	p=.020; n^2 =.264
Network Orientation Scale (Txt=10, Control=17)			
Time 1	47.40 (6.64)	48.53 (6.56)	
Time 2	47.40 (3.47)	46.65 (4.84)	F(1,18)=0.27
Time 3	48.50 (4.30)	46.76 (3.63)	p=.872; n^2 =.001
TCU - Entitled (Txt=10, Control=17)			
Time 1	18.86 (6.16)	18.07 (4.37)	
Time 2	19.14 (4.78)	18.74 (6.35)	F(1,18)=1.00
Time 3	20.29 (4.03)	18.57 (5.53)	p=.330 n^2 =.053
TCU - Justify Behaviors (Txt=10, Control=17)			
Time 1	18.83 (6.24)	20.10 (6.73)	
Time 2	19.50 (2.95)	19.12 (6.12)	F(1,18)=0.27
Time 3	18.00 (5.26)	19.90 (6.68)	p=.872; n^2 =.001
TCU - Coldness (Txt=10, Control=17)			
Time 1	23.00 (6.55)	22.35 (5.97)	F(1,18)=0.97;
Time 2	27.00 (6.06)	22.71 (6.59)	p=.338; n^2 =.051
Time 3	25.00 (5.10)	22.94 (6.37)	
TCU - Personal Irresponsibility (Txt=10, Control=17)			
Time 1	20.67 (5.45)	23.43 (5.91)	
Time 2	23.67 (5.89)	22.45 (7.32)	F(1,18)=0.29;
Time 3	23.17 (5.63)	20.98 (6.40)	p=.594; n^2 =.016

Table 7 (continued)

Measures (n by group)	Treatment (n=13) M (SD)	Control (n=19) M (SD)	F Statistics Between-group Time by intervention effects
TCU - Criminal Rationality (Txt=10, Control=17)			
Time 1	35.17 (7.13)	31.28 (6.73)	
Time 2	36.00 (9.47)	32.25 (6.62)	F(1,18)=0.48;
Time 3	36.50 (8.69)	32.25 (6.56)	p=.495; n^2 =.026
TCU - Power Orientation (Txt=10, Control=16)			
Time 1	26.33(9.78)	27.50(5.82)	
Time 2	28.00(6.28)	26.33(4.45)	F(1,18)=1.47;
Time 3	29.00(5.75)	26.33(7.11)	p=.240; n^2 =.076
Emotional Support Friends(Txt=10, Control=15)			
Time 1	18.60(7.61)	19.93(6.99)	
Time 2	17.10(6.50)	20.27(6.61)	F(1,17)=1.08;
Time 3	16.20(6.86)	20.87(5.64)	p=.312; n^2 =.060
Financial Support Friends(Txt=10, Control=15)			
Time 1	12.70(5.22)	12.93(6.11)	
Time 2	12.70(5.45)	13.00(6.41)	F(1,17)=0.09;
Time 3	10.90(6.00)	12.93(3.93)	p=.761; n^2 =.006
Guidance Support Friends(Txt=10, Control=15)			
Time 1	23.70(8.35)	25.07(8.60)	
Time 2	21.30(8.08)	24.27(7.04)	F(1,17)=1.19;
Time 3	19.10(6.99)	25.60(6.24)	p=.290; n^2 =.065
Practical Support Friends(Txt=10, Control=15)			
Time 1	13.90(5.95)	14.67(6.41)	
Time 2	13.30(5.75)	15.93(5.09)	F(1,17)=4.21;
Time 3	13.00(5.18)	15.87(4.24)	p=.156; n^2 =.199
Socialization Support Friends(Txt=10, Control=15)			
Time 1	14.30(5.01)	15.67(3.63)	
Time 2	13.40(4.60)	14.73(4.23)	F(1,17)=0.57;
Time 3	11.60(6.11)	13.93(3.93)	p=.460; n^2 =.033
Emotional Support Family (Txt=10, Control=15)			
Time 1	25.50(2.71)	23.13(6.45)	
Time 2	23.00(5.55)	22.60(7.19)	F(1,17)=2.48;
Time 3	24.70(4.80)	22.67(7.72)	p=.133; n^2 =.128
Financial Support Family (Txt=10, Control=15)			
Time 1	20.70(2.83)	17.33(6.45)	
Time 2	17.50(6.20)	17.13(6.47)	F(1,17)=4.76;
Time 3	19.50(3.68)	16.33(6.17)	p=.043; n^2 =.219
Guidance Support Family (Txt=10, Control=15)			
Time 1	32.00(4.29)	28.67(6.43)	
Time 2	27.90(7.63)	28.47(6.63)	F(1,17)=1.94;
Time 3	28.80(7.26)	27.00(9.19)	p=.181; n^2 =.102
Practical Support Family (Txt=10, Control=15)			
Time 1	20.30(2.45)	18.07(5.53)	
Time 2	18.80(5.39)	18.07(6.06)	F(1,17)=4.21;
Time 3	18.20(3.29)	17.80(6.08)	p=.056; n^2 =.199

Table 7 (continued)

Measures (n by group)	Treatment (n=13) M (SD)	Control (n=19) M (SD)	F Statistics Between-group Time by intervention effects
Socialization Support Family (Txt=10, Control=15)			
Time 1	19.10(2.18)	15.33(4.43)	
Time 2	15.90(4.63)	15.20(4.02)	F(1,17)=7.93;
Time 3	17.30(3.52)	15.47(5.23)	p=.012; n^2 =.318

Note: Means and standard deviations listed by time and group. F-Statistics are for between-group effects.

significantly between treatment and control conditions pre-intervention (age, prior convictions, previous mental health treatment, traumatic experiences).

Intervention effects on social support.

With regard to the amount of social support, there were neither significant main effects nor intervention-by-time effects on total scores. However, there was a significant intervention-by-time effect when examining participants' reported experiences with giving support to their support providers (i.e., reciprocity support) $F(1,18)=6.45$, $p=.020$, $np^2=.264$. *Support Matters* participants reported increased reciprocity at T3. There was an absence of significant main effects or intervention-by-time effects on total or subscale scores for perceived availability of social support from friends.

Although there were no main effects of family social support, there were significant intervention-by-time effects on family social support subscales. *Support Matters* participants reported increases in tangible social support from T2 to T3 while *Control* participants reported a reduction in such support over time $F(1,17)=4.76$, $p=.043$, $np^2 = .219$. Similarly, *Support Matters* participants' experienced greater increases in instrumental support from family members between T2 and T3 in contrast to *Control* participants whose reports of

instrumental support remained relatively unchanged. The intervention-by-time effects for the amount of social support from family approached statistical significance F=(1,17)=2.97, p=.062, np^2 = .189. *Support Matters* participants reported greater amounts of social support from family members than their counterparts at T3.

Intervention effects on commitment.

There were neither significant main effects nor intervention-by-time effects on total scores for commitment to social support.

Intervention effects on cognitions/beliefs.

There were no significant main effects or intervention-by-time effects on subscales for changes in thinking patterns or beliefs.

Substance misuse outcomes.

Table 8 presents full and reduced logistic and multiple regression models that assessed substance misuse outcomes at T3. The full model included those characteristics that statistically significantly differed between the *Support Matters* and *Control* groups pre-intervention as well as the participants' substance of choice at T3. In both the full and reduced models, there was one statistically significant finding. Other things being equal, every one-unit increase in the substance of choice at T3 increased the frequency of substance misuse by 1.38 units in the full model and 1.18 units in the reduced model. Pairwise correlation results showed that reciprocity support scores were negatively associated with reports of substance misuse at T3 (r = -.413, p = .032) and the reported frequency of substance misuse at T3 (r = -0.402, p = .037).

Table 8

Logistic and Linear Regression Analyses of Predictors of Substance Misuse at 3-month Post-Intervention Follow-up in Treatment and Control Groups

Variable	Substance Misuse Occurrence % (n) Mean (SD)	Full Logistic Regression Sub Misuse Odds Ratio (p value)	Reduced Logistic Regression Sub Misuse Coefficient (p value)	Full Multiple Regression Model Coefficient (p value)	Reduced Multiple Regression Model Coefficient (p value)
Support Matters (otherwise, *Control*)		0.65 (.745)	0.61 (.640)	-0.92 (.236)	-0.54 (.386)
Age		0.96 (.572)	0.99 (.978)	-0.03 (.414)	-0.04 (.174)
Self-Assessed Treatment Need		4.70 (.226)	3.55 (.260)	0.57 (.426)	0.55 (.438)
Substance of choice at T3		2.43 (.077)	2.70 (.035*)	1.37 (.000*)	1.18 (.000*)
Prior convictions		1.51 (.434)	NA	0.04 (.886)	
Previous MH Treatment		1.06 (.442)	NA	0.02 (.554)	
Trauma reoccurrence		0.25 (.287)	NA	-0.11 (.876)	
_Constant		NA	NA	2.10 (.126)	2.46 (.023)
Pseudo R^2		0.18	0.15		
Adjusted R^2				0.52	0.49
*Support Matters (*Sub Misuse***)*	61%(8)				
*Control (*Sub Misuse*)*	68%(13)				
*Support Matters (*Frequency of misuse****)*	1.84(1.99)				
*Control (*Frequency of misuse*)*	2.94(2.06)				

* Two-tailed, p<.05
**Substance misuse is defined as 0 = No, 1 = yes.
***Substance misuse is defined as frequency of use per week at T3.

Re-arrest.

Table 9 presents logistic and multiple regression models that assessed group re-arrest outcomes at T3. The full model included those characteristics that statistically significantly differed between the *Support Matters* and *Control* groups pre-intervention as well as the participants' substance of choice at T3. There were no statistically significant findings in the full model. However, in the reduced model, treatment condition effects approached statistical

Table 9

Logistic and Linear Regression Analyses of Predictors of Arrest at 3-month Post-Intervention Follow-up in Treatment and Control Groups

Variable	Arrest Occurrence % (n) Mean (SD)	Full Logistic Regression Arrest* Odds Ratio (p value)	Reduced Logistic Regression Arrest Coefficient (p value)	Full Multiple Regression Model Coefficient (p value)	Reduced Multiple Regression Model Coefficient (p value)
Support Matters (otherwise, *Control*)		0.21 (.322)	0.05 (.059)	-.14 (.655)	-.17 (.511)
Age		1.04 (.557)	1.06 (.334)	-.02 (.284)	-.026 (.068)
Self-assessed Treatment Need		6.41 (.223)	4.14 (.263)	-.02 (.931)	-.015 (.958)
Substance of choice at T3		0.48 (.224)	0.53 (.226)	-.06 (.624)	-.088 (.414)
Prior convictions		0.63 (.487)	NA	-.08 (.560)	
Previous MH Treatment		0.80 (.253)	NA	-.021 (.249)	
Trauma reoccurrence		0.53 (.690)	NA	.34 (.284)	
_Constant			NA	1.09 (.068)	1.23 (.007)
Pseudo R^2		0.27	0.20		
Adjusted R^2				.06	.08
*Support Matters (*Arrested***)*	15%(2)				
*Control (*Arrested*)*	37%(7)				
*Support Matters (*Total Arrests****)*	0.07(0.27)				
*Control (*Total Arrests*)*	0.47(0.77)				

* Two-tailed, p<.05
**Arrest is defined as 0 = No, 1 = yes.
***Arrest is defined as total number of arrests during the study window.

significance $p = .059$ and the effects trended in the direction hypothesized. This trend indicates that when holding age, self-assessment of need for treatment, and substance of choice equal, *Support Matters* participants' odds of arrest are reduced by 95%. Using multiple regression analysis, the same models were tested with total number of arrests as the outcome variable. Similar to the logistic regression analysis, there were no statistically significant findings in either the full or reduced models. Pairwise correlations indicated that

tangible support from family members was negatively correlated with re-arrest at T3 (r = .415, p = .020).

Discussion

Does support matter? Nearly a century of research suggests that social relationships influence continuance of or desistance from deviant behaviors. Clifford Shaw and Henry McKay's research on social disorganization and control theories in the early part of the 20th century prompted decades of related research. This body of literature examines the transmission of deviant behaviors and criminal behaviors through social relationships in social networks. Almost two decades ago, leading criminologist Francis Cullen, urged experimental criminologists to incorporate social support in the development of correctional interventions (Cullen, 1994). Although almost no intervention work has been performed to formally incorporate social support into post-release programming, criminologists continue to examine the mediating and moderating effects of social support on such things as former prisoners' hostility and psychological well-being (Holchstetler, DeLisi, & Pratt, 2010; Listwon, Colvin, Hanley, & Flannery, 2010). Preliminary findings from this trial of *Support Matters* converge with the extant literature to some extent. *Support Matters* participants reported increases in certain types of social support over time and trends toward reductions in arrests. However, the findings largely present a more complicated picture of social support and interventions designed to increase the quality of social support for former prisoners with the ultimate goal of improving former prisoners' post-release outcomes. Providing an important contribution to existing knowledge, the findings from this study magnify critical considerations for intervention researchers seeking to work in this area.

Randomization and Attrition

The goals of randomization were not fully achieved. Statistically significant results indicated that the participants randomized to *Support Matters* were older, had a more extensive criminal history, and were much more likely to have experienced a traumatic event and appeared to be evidencing post-traumatic stress syndrome-like symptoms. *Control* group participants reported more worries that could be functionally impairing. Closer examination of between-group mean differences suggests that participants randomized to *Support Matters* were a more severely impaired group than those randomized to the *Control* condition. Those participants randomized to *Support Matters* had average sentence lengths that were almost two times that of their counterparts and they were much more likely to be living in a temporary shelter once released to the community, were much more likely to report alcohol as their substance of choice and less likely to claim marijuana as their substance of choice. Furthermore, partcipants randomized to *Support Matters* assessed themselves to be at a higher need for substance misuse treatment than the *Control* group and had substantially more prior mental health hospitalizations and outpatient treatment episodes.

Although there were no statistically significant pre-intervention differences between participants randomized to treatment and who received treatment and those who attrited from treatment, the large group differences across many of the variables cannot be ignored. The lack of statistical significance may be a result of the small sample size. Other than being more likely to have completed high school and to have been employed at the time of arrest, those who remained in *Support Matters* reported more functional impairments than attriters. Whereas no attriters reported living in a temporary shelter, over 30% of their non-attriting counterparts were in temporary housing situations pre-intervention. Retained participants

reported longer sentences, a much higher need for substance misuse treatment, higher rates of disruptive worries, and substantially greater mental health hospitalizations and outpatient treatment episodes. It appears that participants who remained in treatment were more likely to have mental health problems than attirters. This finding could suggest that people with histories of mental health problems are more amenable to treatment. Attriters were more likely to report a younger age of onset of illicit substance misuse and more frequent use prior to prison. Attriters were also more likely to be convicted of drug offenses, whereas all of the violent offenders remained in the *Support Matters* program. Overall it appears that those who remained in treatment had more extensive histories of mental health problems and assessed themselves in greater need of substance misuse treatment. Conversely, attriters viewed themselves less in need of substance misuse treatment, but have had more substance use problems as evident by an earlier onset of substance misuse and more frequent use prior to incarceration.

Group differences for participants who ultimately received the full treatment and control conditions mirrored those found at initial randomization. *Support Matters* participants were older, had statistically significantly more prior convictions, had more experiences of traumatic events, reported more PTSD-like symptoms, and had more prior mental health treatment episodes. They were also more likely to be on post-release supervision, report alcohol misuse problems rather than marijuana, and report a greater need for substance misuse treatment.

Examination of the methodological approach for randomization does not suggest researcher bias contributed to the group differences. Furthermore, the PI who conducted randomization was blind to most of the pre-intervention characteristics that differed between

groups. Results from pairwise correlations indicate that the two key variables – age and prior convictions -- that significantly differ at baseline between *Support Matters* and *Control* groups are highly positively correlated. (r = .69, p <.001). These two variables are considered key because prior research has long indicated that age and prior convictions are predictive of subsequent incarcerations for former prisoners (Gendreau, Little, & Goggin, 1996). The age/priors correlational findings highlight a critical methodological implication for future researchers -- stratified random sampling approaches should be used when studying current and former male prisoners even with small samples such as those found in pilot studies.

There was also notable differential attrition between those randomized to treatment and those randomized to control conditions. Ostensibly, the reasons that people attrited from treatment after randomization seemed to have little to do with the treatment itself. In those cases in which a randomized participant moved out of town or was re-incarcerated prior the intervention, it is clear there is little to no connection to the intervention itself. However, other reasons provided for attrition such as "no transportation" even though transportation was offered, caring for a physically ill parent, or a frequently changing work schedule suggest greater inquiry is needed to determine if these provided reasons disguised a lack of interest in the program or motivation for treatment for individuals with certain characteristics. Although not statistically significant, the trends in the group means between the treated and attrited groups suggest that those with less extensive histories of impaired functioning, but more extensive substance misuse prior to incarceration are less motivated to participate in the intervention. Furthermore, the majority of participants who attrited agreed to remain in the research aspect of the study which involved weekly phone interviews and 2 additional one-to-two hour assessment interviews with very little remuneration in return. This

could suggest that the intervention demands too much time of some people or that some people may view it as unnecessary. Future interventionists in this area should include motivational interviewing or supportive enhancement therapy approaches prior to the participants' release from prison and assess whether these approaches increase program retention post-release.

Sample Size and Power

The dearth of statistically significant findings in this preliminary analysis could be the result of a number of factors – pre-treatment group differences, inadequate measures, or limited treatment effects – it is difficult to determine at this early stage. However, it is evident that the small sample size, large number of variables, and low statistical power complicate the ability to detect significant effects that may otherwise be present. The small sample size also limits the generalizability of the study findings.

We used Stata SE11 (Statacorp, 2009) to determine the statistical power of the current study and the power needed to conduct more sophisticated statistical analyses. The sample size analyzed in the ANCOVA and regression models varied based on the attrition and missing data. The sample size ranged from $n = 17$ to $n = 32$ for the models. Assuming an average study sample size of 24, this evaluation has 0.39 statistical power. Because treatment effects of the intervention would be most appropriately assessed with meditational and survival models using structural equation methods and Cox Regression Proportional Hazards with time varying covariates, a power analysis was conducted to determine future adequate sample sizes. To be powered at .80 a total sample size of 364 is needed. This sample size would allow for longitudinal and mediational models as well as testing for nesting and rater effects. The logistic regression model of arrest outcomes at T3 was promising because

treatment effects vis-a-vis arrest rates were approaching statistical significance. This finding suggests there is a potential for fairly large treatment effects – as such, even if a sample size of 364 were not achieved, a larger sample closer to that number could provide substantial improvements in being able to detect treatment effects. Despite the sample size and statistical power limitations of this study, important programmatic and future research implications are evident.

Program Components

The significant findings of increases in positive social support from family members highlights important considerations regarding program components included in future interventions. First, consistent with other studies of social support (Vangelisti, 2009), the amount of family support was not a significant factor, but rather the types of support provided by family members was seemingly more important. Thus, it is critical that social support interventions address support, not globally, but rather accounting for different types of support and the role these types of support may play in an individual's well-being. Second, despite common perceptions that former prisoners have "burned bridges" with family members, preliminary findings from this study demonstrate that family are present and provide apparently important resources for former prisoners. More needs to be understood about the families of former prisoners that are providing social support to prisoners as they return to the community. Evaluations should include family social support provided through engagement in a program such as *Support Matters* as well as support provision that occurs naturally in the daily context of interactions with the former prisoners. More knowledge about the support mechanisms provided by families will help to inform future program

components, such as helping family members to match their skills to provide support and the types of support needed by former prisoners.

Many of the mean scores on social support measures decreased over time rather than increasing as hypothesized - -particularly in the case of support from friends for the *Support Matters* participants. However, reductions in perceived support from family and friends from pre-intervention to the 3-month follow up is not necessarily a negative finding or an indication of a lack of treatment effect. *Support Matters* program elements included teaching participants' tools for assessing positive and negative support, and mixed support. Pre-intervention measures did not assess the "positiveness" or "negativeness" of all participants' network member support providers. Reductions in perceived support availability could reflect participant's improved ability to recognize the type of positive support he needs and that he is starting to rely less, or at least to think less feasible, support from others who are perceived as anything but positive.

Measures

Although numerous measures were used to assess changes in social support, commitment, and cognitive/beliefs, the murkiness of findings from this study amplify measurement issues needing attention in future social support intervention research. Future studies should examine pre- and post- intervention knowledge and skills, and interactional dynamics with support providers such as stress associated with support partner relationships. Similarly, a better understanding of the relational characteristics of support partners and providers is needed and much more information is needed about the characteristics and skills of support providers. It also appears that the current measures may not be assessing key mechanisms of change or much needed areas of attention from interventions. For example,

experiences of trauma and PTSD-like symptoms were prominent in both the treatment and control samples and could be related to post-release functioning. However, these factors were only superficially assessed by study measures. Furthermore, the findings that there were not statistically significant changes (and little variations in the means over time) in cognitions/beliefs of treatment participants could indicate either that the intervention was not effective in this area or that those factors were not key mechanisms of change. However, the fact that reliability scores were low for this sample for the measures of cognitions/beliefs should also be considered problematic and new measures should be explored in future research. Because this research is still in the preliminary phases, incorporating qualitative measures may better indicate mechanisms of change that can subsequently be examined with quantitative measures.

Next Steps

Considering the extant literature on the positive role social relationships can play in the lives of former prisoners, the idea that "support matters" in the lives of former prisoners is fairly agreed upon. Yet, still preliminary and formative are answers to the question of how support from naturally occurring relationships can be utilized in formal social support interventions with former prisoners. This study is one of the first to contribute to that knowledge development endeavor. Many of the next steps needed for future research have been outlined above, such as a need for random stratified sampling, larger sample sizes, and improved measures. Included in these methodological steps should be mid-intervention measures (i.e., halfway through treatment) and longer follow-up periods post-intervention.

Substantively, it is notable that the overwhelming majority of participants were African American even though race or ethnicity was not a sampling factor. As originally

designed, the intervention was not tailored to a particular race or ethnic group – but the predominant representation of African Americans suggests that race and ethnic tailoring should be explored.

This paper presented preliminary findings from the first trial of *Support Matters*. The study used a complex research design that collected data on participants who were not able to identify support partners or were screened out of the sample because of a limited or no history of substance misuse. The focus of this first paper was to examine outcome differences between participants randomized to either *Support Matters* or *Control* conditions. Future papers will examine broader group and individual characteristics of people who agreed to participate in the study but were not eligible for randomization. Additionally, longitudinal qualitative data were collected from the former prisoner participants and their support partners. An examination of these data combined with the quantitative findings will be conducted. It is hoped that these data will provide deeper understanding of participants' post-release experiences as well as additional intervention effects that may not have been evident in this initial evaluation.

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INTEGRATIVE SUMMARY

Social support is so commonly experienced that few persons would question notions that people do better when supported by others. However, numerous researchers studying animals and humans have examined the functions of social support mechanisms particularly during times of physical and mental distress (Benda, 2001; Cobb, 1976; Cassel, 1976; Lawn, Smith, & Hunter, 2009; Levy, 2008; Lippold & Burns, 2008; Uchino, 2009). Interventionists in medical and mental health fields have sought ways to formally incorporate social support from family, friends, and volunteers in the treatment of their client groups. Researchers studying individuals engaged in criminal behaviors continue to explore the extent to which social support reduces problem behaviors. A more unchartered territory is examining how to incorporate former prisoners' naturally occurring support into interventions.

Another layer of complexity surfaces for social support when developing interventions for former prisoners. Prisoners have been legally removed from support networks, a process which invariably imposes unique barriers to natural relationships. Release from incarceration does not imply a reunion with key support figures in a prisoner's life. For example, if a former prisoner's spouse is enrolled in a federal housing program, he or she may not be able to live with the spouse after release from prison. Moreover, in many cases support providers have been harmed directly or indirectly by the former prisoner's behavior. Further complicating matters, incarcerated individuals have disproportionately higher rates of social, physical, and mental impairments compared to the U.S. population.

Former prisoners typically have a greater range of support needs than persons in the general population and thus demand a greater skill set from their support providers. Coupled with increased needs, support demands are likely highest for former prisoners immediately upon release from prison -- a time of disorientation for the prisoner and their support network.

Within these three papers, we have taken on the challenging task of theoretically explaining the role of social support in the lives of former prisoners, proposing an intervention to enhance the positive effects of social support, and evaluating a novel social support intervention. We recognize that naturally occurring social support occurs mostly within the opaque boundaries of individual's private lives. Our endeavor has produced new theoretical, research, and conceptual considerations to be pursued in future studies.

Theoretical Considerations

In paper 1, the conceptual model for *Support Matters* is described as being grounded in the theoretical propositions of the social support perspective, social bond theory, and social development model. Conjointly, the three perspectives suggest that within social networks, it is the appropriate match of social support needs and provision that reinforces an individual's emotions, beliefs, and behaviors that buffer internal and external stresses, and, in turn, promote positive and adaptive outcomes. We argued that rather than relying on one or two theories, the integration of these three perspectives allows for a more cogent explanation of desistance from substance misuse and crime after an individual's release from prison. Upon further evaluation of *Support Matters* it seems the current integrated theoretical framework falls short of explaining what comprises or promotes an "appropriate match" of social support needs and support provision. Similarly, this framework does not address the

extent to which the prisoners' needs and support are provided or the process by which individuals and groups knowingly assess the adequacy of this matching process.

The literature review in paper 1 indicates that former prisoners tend to have a range of social networks comprised of members who provide various types of support. Some social networks promote prosocial lifestyles, whereas other social networks reinforce continued substance misuse or criminal behaviors. In this sense, it could be argued that the former prisoner also has a range of skills and needs that are already appropriately matched within the various types of networks in which they are involved. Beyond the extent to which skills and needs are optimally matched, what contributes to the individual's choice of which network to most draw upon for support or, otherwise, which network to most identify? In future conceptualizations of *Support Matters,* a theory that better targets social psychological aspects of support provision and receipt may best address this question. One theory to consider is Stryker's Identity Theory.

Sheldon Stryker's (1968) Identity Theory predicts links between identity and role behavior. Identity affects behavior and behavior may also affect identity. The likelihood that a given identity will be invoked in any given situation is referred to as identity salience. In some situations, identities are called for concurrently. In these situations, the hierarchy of salience of identities determines which identity will be invoked. Networks of commitments among social relationships exist and the greater the commitment to a network, the more likely a person will play the role of the identity associated with that network (Stryker, 1968).

For former prisoners, the greatest commitment to networks tying the former prisoner to his "prosocial" or "criminal" identity prior to incarceration may be the best predictor of his "prosocial" or "criminal" role performance post-incarceration. Thus, even in those cases in

which prisoners were living with prosocial support providers, if the prisoner had greater commitment to "criminal" social networks, the role behaviors of that network would be highest in the hierarchy of salience of identities. Assuming that values and roles required in prisons are more likely consistent with a "criminal" identity (Roy & Dyson, 2005), the resulting placement of that "criminal' identity ensures that in post-release situations, the criminal identity would be more likely invoked before an alternative prosocial identity.

A support partner's expectations of the former prisoner's post-release roles can create opportunities for the men to re-confirm (or confirm for the first time) their prosocial identity. However, if due to past behaviors of the former prisoner, the support partner expects the former prisoner to continue in his "criminal" role, these expectations may counterproductively reinforce his criminal identity. Such expectations could be verbalized or reinforced through nonverbal actions – at which point match of skills may be less salient, rather, it is the match of expectations that is of grave importance. The propositions of identity theory urge future applications of *Support Matters* to examine, and help participants to examine, their identity salience and perceived roles pre-and post-incarceration. Simultaneously, program components can be modified in such a way to help participants and their support partners to create greater salience with more prosocial roles. This adjustment of identity salience is particularly important in cases when former prisoners remain exposed to mixed social networks; for example, when they return to the same neighborhoods in which there is a high degree of substance misusing or criminal behaviors.

Research Considerations

The feasibility and acceptability evaluation described in paper 2 demonstrated the need for changes in the *Support Matters* research and program design. Findings from paper 3,

further clarified the changes needed. As indicated in paper 2, future trials of *Support Matters* should incorporate more components pre-release. In this trial, study participants were contacted one time prior to release. During this contact the prisoner: engaged in a lengthy consent procedure; was provided detailed information about the *Support Matters* and *Control* condition services; was asked to identify a support partner; and was told to provide that support partners' phone number and address during the initial contact. Participants were not allowed time to think about available options for support partners, contact potential support partners in advance, or return to their cells to retrieve support partner contact information. Moreover, the research team member did not engage the participant in any type of motivational strategies to encourage involvement in the study.

Future trials of *Support Matters* should include multiple contacts with participants prior to release. Research team members should help participants to identify and assess potential positive support partners. Team members should also talk with participants about how to ask for support prior to release and how to continue to ask for support after release. Asking for support may be particularly difficult for participants after release when they feel more pressure to be independent or are perceiving real or actual messages that they are overly burdening support providers. Finally, given that in this trial participants largely selected their mothers or partners as support partners, future research team members could also challenge prisoners to think about whether their mothers are the support partners that would best meet their needs. Or, if there are potential support partners (such as pastors or neighbors) with whom the prisoner had a close pre-prison connection that could help the prisoner to broaden his existing networks and into new growth-inspiring networks.

The results and conceptualization of the combined papers consistently indicated that support providers need more program and research attention in future evaluations. In the feasibility evaluation, support partners and group facilitators discussed a desire for support skills orientation and training prior to the prisoner's release. This orientation and training would help support partners to better understand what to expect (and how to match expectations) of the former prisoners after release, how to assess the needs of the former prisoners, and strategies for matching the resources the support provider has with those needs. During the training, support providers could be encouraged to develop realistic assessments of the type and amount of support they can provide and to be able to honor their limitations without feeling guilt or overtaxing themselves on support provision. Once the prisoner is released, the dyads can work together to identify ways other support resources can supplement the former prisoner's needs.

Surprisingly, almost unanimously support partners, participants, and facilitators said that the 10-week intervention was not enough. Adding pre-release components to future trials may address some of this feedback. However, it is unclear from the feedback whether the existing timeframe is "not enough" because of the amount of material covered in the sessions, because the participants are just beginning to understand and incorporate concepts from *Support Matters* at the 10-week program endpoint, or because they simply like and benefit from the support. Future evaluations could include buffer sessions of *Support Matters* that are offered at increasing time intervals after completion of the initial 10-week program. Included in these buffer sessions could be computer activities that can be practiced and shared as a group through a program network site. To better understand whether the positive

acceptability of *Support Matters'* results are simply the result of being involved with a group, future evaluations could compare *Support Matters* to a support group versus routine services.

Conceptual Considerations

Extant research addresses many individual-level characteristics of current and former prisoners. However, less is discussed about what is occurring in the spatial, temporal, and intrapsychic contexts for former prisoners and their social relationships immediately after release from prison. Specifically for the transitional period from prison back to communities (i.e., the first 6 months) what are the most salient aspects of social support via social relationships that are influencing the cognitions and behaviors of former prisoners? What are the key tipping or turning points? To what extent are former prisoners' support providers simultaneously encouraging substance misuse or criminal behaviors while also meeting his support needs?

As discussed in paper 1, prior research suggests that positive social support can be stress-provoking for some former prisoners. Neither former prisoner nor support partner stress was assessed in this evaluation of *Support Matters.* Future conceptualizations of the research and program design must include means for answering questions related to stress. Are *Support Matters* participants experiencing positive support as overwhelming? If so, what contributes to the feelings of being overwhelmed? To what extent and in what manner is stress occurring between support partners and participants and how is this stress, if present, influencing well-being for the former prisoner and the support partner? Could enhanced engagement in social support be inadvertently triggering relapse? If stress is occurring, is stress happening similarly or differently in *Control* condition participants and support partners?

When incorporating naturally occurring support into interventions we must consider the historical contexts of the norms and expectations of that relationship. The current trial of *Support Matters* inadvertently ignores much of that relational history. Although *Support Matters* is not intended to be a relational-dynamics counseling intervention, future efforts should seek to address questions such as: What does it mean when people are picking family members (mostly mothers) that were largely a part of their lives when they were engaging in substance misuse and criminal behaviors before prison? How can *Support Matters* incorporate more program elements on skill development for support partners without unintentionally placing blame on support partners for the former prisoners' behaviors? Can we expect support providers to bridge former prisoners to more positive social networks when the support providers may be distrustful of former prisoners because of their previous behaviors? Should former prisoners be encouraged to pick a support partner they had less contact with prior to incarceration? Finally, what can we learn from people who have no positive supports about integrating into positive social networks without the assistance of external interventions?

In recent years, in attempts to explain the concentration of incarceration and reincarceration rates in certain areas, a few scholars have proposed that incarceration has become a "normal" experience in some communities (Rose & Clear, 1998; Petersilia, 2003). A high prevalence of incarceration should not be confused with "normal." In the human experience, there is nothing normal about being forcibly removed from one's home and social relationships and placed in restrictive, resource deprived, physical structures. Although these same scholars rightfully argue that social structures are largely to blame for the mass incarceration rates, they fail to recognize how the microstructures – the social relationships

and social networks – have the potential to buffer the egregious injustices of the greater social structures. The inquiry into social support required by naturally occurring social support interventions such as *Support Matters* is founded in, and reinforces, the belief that individuals and communities can be resilient in the face of adversity. Results of the *Support Matters* trial are not devoid of socio-structural or policy implications. If we can confirm that enhancing certain social support mechanisms promotes well-being and reduces crime and substance misuse, it behooves communities to re-examine policies that inhibit the provision of naturally occurring (free) sources of support for former prisoners. The three papers presented in this document represent the beginning of a much lengthier inquiry into social support for former prisoners and the individual, relational, communal, and societal implications.

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