HOGG FOUNDATION FOR MENTAL HEALTH
GRANT PROGRAM

PROJECT CRE-001
EVALUATION OF DSHS RE-ENTRY PROJECT (RIDER 73)

FINAL EVALUATION REPORT

Jennifer M. Reingle Gonzalez, PhD
Associate Professor & Assistant Regional Dean
Department of Epidemiology, Human Genetics and Environmental Sciences
University of Texas School of Public Health
5323 Harry Hines Blvd., V8.112
Dallas, Texas 75390
Jennifer.m.reingle@uth.tmc.edu

TABLE OF CONTENTS

	Page
Executive Summary	3
Background & Aim	5
Literature Review	6
Methods	8
Quantitative Methods	8
Quantitative Results	10
Qualitative Methods	18
Qualitative Results	19
Summary & Discussion	23
References	26

EXECUTIVE SUMMARY

The Mental Health Peer Support Re-entry Pilot Project was conceptualized to leverage peer experiences to empower justice-involved persons to successfully transition from jail into communities. These formerly justice-involved individuals, Certified Peer Support (CPS) specialists, facilitate participant engagement in community-based mental health programs and services. The long-term goal of this project is to enhance the re-entry process through continuity of care, decrease recidivism rates, and promote substance abuse and mental health recovery.

In this evaluation report, I will present results from an independent evaluation of the impact of Certified Peer Support (CPS) specialists on recidivism and recovery of people in jail across each of the three project sites (Tarrant County, Harris County and the Rio Grande Valley). Between 2016 and 2018, CPS staff provided mental health peer support services to facilitate successful transition from incarceration to community-based services. Peer support services included building a relationship with an individual based on mutuality and unconditional regard, guiding the individual to identify strengths and priorities for needed services, and working with the individual to reduce barriers to support successful re-entry into clinically appropriate community-based services. This model included pre-release in-reach, discharge planning, needs assessment, navigation and long-term relationship management among justice-involved individuals with a mental health condition in need of community-based care upon release.

This report details the results of a mixed-methods evaluation. Qualitative data, including focus groups and one-on-one interviews, were collected from seven peers and three clients who were actively working with their peers at the time of the interview. For 94 participants with repeated assessments, quantitative data were abstracted from treatment agencies and the Adult Needs and Strengths Assessment (ANSA) to measure changes in key outcomes attributable to the project over time.

Results from the outcomes evaluation suggested that criminal behavior and associated problems declined significantly over time. Specific declines were observed in arrests, criminal planning, and recent history of criminal acts. No significant declines in hospitalizations, behavioral health symptomology, life domain functioning, housing or employment were detected.

Results from the qualitative component of this project suggested that peers applied their personal experiences to assist clients in seeking treatment for substance use and mental health symptomology, locating housing, and employment. A number of structural barriers, such as limited access to housing and long wait lists for clinical care, prevented peers from addressing client needs. Peer time was routinely consumed with obtaining documentation for clients, as identification was needed before any treatment or healthcare services may be used, or housing or employment can be sought. Few peers reported assisting clients with improving their social support, although peers provided measurable social support to clients enrolled in the program. Improving clients' social support was challenging for peers because friends and family can serve as triggers for substance use and offending. Many peers suggested that their experience as a peer aided in their own recovery, while also serving as an opportunity for client-peer rapport building. Overall, peers most often found themselves working to address clients' housing and treatment needs, rather than criminal behavior directly. Notably, very few peers mentioned recidivism prevention when asked about their activities with clients. This indicates that peers were less

concerned with the ultimate outcome of re-arrest; instead, they were focused on connecting with clients and ensuring treatment and housing needs were met.

Overall, results from this project suggested that, although peers were not directly working to address recidivism and criminal behavior, substantial and statistically significant declines in criminal behavior (but not hospitalizations, mental health or substance use symptomology, life domain functioning, housing or employment) were detected. Specifically, reductions in arrests, criminal planning, and recent history of criminal acts were identified. Qualitative data suggest that the treatment plan and dose of treatment for each individual participant varies, and therefore, it may be difficult to detect modest improvements in substance use symptomology (for example) with a sample size of only 94 individuals who participated in this pilot longitudinally. Future studies should examine the effectiveness of peers in reducing risk behaviors on a larger scale to be adequately powered to detect small behavioral improvements over time.

BACKGROUND & AIM

The Mental Health Peer Support Re-entry Pilot Project was conceptualized to leverage peer experiences to empower justice-involved persons to successfully transition from jail into communities. These formerly justice-involved individuals, Certified Peer Support (CPS) specialists, facilitate participant engagement in community-based mental health programs and services. The long-term goal of this project was to enhance the re-entry process through continuity of care, decrease recidivism rates, and promote substance abuse and mental health recovery in community-based settings.

Across three municipalities, the peer specialist provided pre-release in-reach, discharge planning, needs assessment, navigation, and long-term relationship management among adults with a mental health condition who needed community-based care upon release. Peer support services included building a relationship based on mutuality and unconditional regard, guiding the individual to identify strengths and priorities for needed services, and working with the individual to reduce barriers to support successful re-entry into clinically appropriate, community-based services.

All peers received intensive training and certification by ViaHope (ViaHope, n.d.), a program recognized by the Texas Health and Human Services commission. The ViaHope program was developed in collaboration with the Appalachian Consulting Group, the leading provider of peer specialist training programs in the United States. ViaHope offered an in-person, weeklong 43-hour certification program. The training covered twenty modules, including the history of peers, communication, the stages of recovery, effective listening, group facilitation and recovery dialogues, recovery environments, promoting self-help, fear, holistic care, ethics, and a module on the federal and state mental health systems. A written certification exam was offered following the training so that trainees could use the title, Certified Peer Specialist. Twenty continuing education units were required every two years for peers to retain their certification status.

Peers were recruited, employed and paid by a mental health service provider in each of the three geographic locations. At each site, peer positions were posted on job boards and distributed virtually on county-wide listservs. To qualify for employment as a peer, an individual must have been at least 18 years old, had a mental health diagnosis or current / previous use of mental health services, be willing to use his/her own experiences to help others recover, and completed a high school diploma or GED.

This report will describe results from an evaluation of the impact of Certified Peer Support (CPS) specialists on recidivism and recovery of people in jail across each of the three sites (Tarrant County, Harris County and the Rio Grande Valley). Recommendations for program replication and areas for improvement are also discussed in this report.

To evaluate whether, and to what extent, the Mental Health Peer Support Re-entry Pilot Program enhances recovery, a mixed methods approach was used. Quantitative data were gathered from each site to assess improvement in behavioral outcomes and recidivism rates among program participants. Adult Needs and Strengths Assessment (ANSA) data were gathered longitudinally (administered every 90 days) to track participant hospitalizations, mental health and substance – related symptomology, residential stability, employment status, living skills and self-care. Focus groups including stakeholders, project staff and CPS specialists were also conducted at each site to qualitatively assess the impact of the CPS program on project outcomes.

LITERATURE REVIEW

Approximately 600,000 people are released from prison each year in the United States (Bureau of Justice Statistics, 2014). Transition planning for discharge, re-entry, and community reintegration is inconsistently implemented in U.S. jails and prisons, which results in formerly incarcerated adults being responsible to individually find stable housing and employment opportunities, mental health and substance use treatment, and transportation. The majority of incarcerated adults are unsuccessful at connecting to such services (Harding, Wyse, Dobson, & Morenoff, 2014), leading to a high degree of instability and material need (Harding et al., 2014), frequent relapse on illicit drugs, increased mortality from drug overdose and other causes (Binswanger et al., 2007), and high recidivism rates (Cullen, Jonson, & Nagin, 2011).

Peer re-entry specialists ('peers') were originally conceptualized to ease the burden of community re-entry by leveraging peers' previous lived experience with the criminal justice system. Previous studies found peer mentors to significantly improve community re-entry (Luther, Reichert, Holloway, Roth, & Aalsma, 2011; Schinkel & Whyte, 2012), with a particularly beneficial impact on abstinence self-efficacy after incarceration (Davidson et al., 1999; Marlow et al., 2015) and adherence to substance use treatment upon release (Cook, Koutsenok, & Lord, 2009). Peer mentors frequently accompany individuals into the community, transport them to appointments, hold them accountable to treatment plans, and provide access to community networks for engagement and social inclusion (Substance Abuse and Mental Health Services Administration, 2017). Peers may be employed by substance use or mental health provider organizations and non-profit organizations. In their day-to-day roles, peers develop meaningful relationships with offenders re-entering society (also referred to as patients or clients) and act as their mentor. Peers arrange for client transportation to job interviews, physician visits and other appointments; create a social environment supportive of recovery, and identify housing, employment, healthcare and treatment resources to support their clients. Peer supports also play a role in encouraging their mentee to shed the psychosocial beliefs and behaviors that were formed as mechanisms for survival in the criminal justice system (Davidson & Rowe, 2008).

Re-entry support for mental health conditions and substance use disorders is an especially critical need in prison populations (Bagnall et al., 2015). Smelson et al. (2016) studied the role of peer support specialists in working with populations who experienced serious mental health conditions and chronic homelessness in a project called, "Maintaining Independence and Sobriety Through Systems Integration, Outreach, and Networking" (MISSION). MISSION peer support specialists were extensively trained to help clients attain affordable, stable housing. Trained peers also assisted in helping clients identify and avoid triggers, secure educational and vocational training, and formalize and adapt to new routines while also engaging in recovery activities. Results from this study suggested that 80% of clients obtained housing (Smelson et al., 2016).

Implementation of peer support specialists has resulted in health-related protective behaviors across a variety of outcomes. For instance, peer coaches were employed in a randomized clinical trial to encourage Hepatitis A and B vaccination among homeless men on parole. Randomly assigned coaching protocols ranged from extensive involvement, including weekly phone calls and in-person interaction, to minimal peer coaching, which represented the baseline level of care provided (Nyamathi et al., 2015). Aims of the intensive peer coaching included the promotion of self-management in coping, assertiveness and therapeutic non-violent communication. Vaccine

completion rates did not significantly vary depending upon level of peer support provided (Nyamathi et al., 2015). Among adolescent males in the Netherlands, peer mentoring reduced cognitive distortions (Brugman & Bink, 2010). Sacks and colleagues (2004) found that peer support in a group setting helped offenders regain a sense of personal responsibility for their substance use and helped to identify and treat maladaptive behavior.

Peer-based programs, particularly those implemented while individuals are incarcerated (versus community-based peer programs), have been studied globally in their ability to reduce crime risk, mental health symptomology and treatment uptake, substance use disorder recovery support and faith support. The effectiveness of peer-based programs in jail and prison settings are well documented. For instance, Ross and colleagues (2006; n=2,506) studied the impact of intensively trained peer-educators in leading HIV prevention programs across 36 Texas prisons. Results of this study indicated that "students" (i.e., prisoners) were more likely to admit that they were unsure about their own HIV status, and express plans to be tested for HIV than those who did not participate in the program. Further, in a randomized trial focused on HIV education, Grinstead and colleagues (1999) found that pre-release peer HIV prevention education decreased risky sexual behavior with those who received the peer program being more likely to use condoms the first time they had sex following their release. Those who received the program were also less likely to use drugs, specifically via injection, and less likely than those who did not receive the program to share needles in the two weeks following release from incarceration (Grinstead, Zack, Faigeles, Grossman, & Blea, 1999).

A small number of studies have examined the outcomes of peer programs for community-based offenders. In a prospective longitudinal study of adults with serious mental health conditions, citizenship training and peer support, when combined with standard clinical treatment and jail diversion services, was associated with a decrease in alcohol use in comparison those who received standard clinical treatment and jail diversion services only (Rowe, Bellamy, Baranoski, Wieland, O'Connell et al., 2007). Further, the study results presented a group-by-time interaction during which the experimental group (e.g., those who received citizenship training and peer support in addition to standard care) experienced a significant decrease in alcohol use while those in the comparison condition experienced an increase in alcohol consumption.

While peer support programs have shown to be effective (LeBel, 2007; Rowe, Bellamy, Baranoski, Vigilante & Flynn, 1998; Wieland, O'Connell et al., 2007; Whyte, 2011), their widespread implementation is relatively new and comprehensive evaluations are continually needed in order to test the degree of fidelity, adoption, and effectiveness across diverse populations. Therefore, the purpose of this pilot project was to leverage the capacity of CPS staff to ease community transition among justice-involved individuals across three Texas sites. The specific objectives of this project included decreased hospitalizations, decreased recidivism rates, decreased symptomology of mental health and substance use problems, and increased life domain functioning (including residential stability, employment, life skills and self-care). In addition to these objectives, we expected to observe seamless care continuity in substance abuse and mental health services provision as the participant transitions from jail to the community.

The specific aim of this evaluation effort was to evaluate the impact of CPS on hospitalizations, decreased recidivism rates, decreased symptomology of mental health and substance use problems, and increased life domain functioning (including residential stability, employment, life skills and self-care) among participants.

METHODS

In the two locations with more than one peer, peers were assigned to clients' by supervisors who identified and screened potential clients and administered a needs assessment. Supervisors assigned peers to clients based upon sex (in the one site with a male peer) and language (e.g., Spanish-speaking clients were assigned to Spanish-speaking peers). Peers and their clients met at least once while the client is in jail for pre-release guidance and planning. After release, clients received individualized, peer mentoring, recovery coaching and recovery management. No requirements in terms of number of meetings were provided; however, peers were permitted to meet with clients immediately after release as clients needed additional support and services. After the client was in the community for several weeks, meetings between peers and clients became less frequent. Peers were trained to taper coaching and mentoring after 3 months to promote client autonomy; however, clients-maintained enrollment for as long as necessary. Peers were required to maintain case management notes, and a peer support supervisor met with peers periodically to discuss client progress and planning.

The Committee for the Protection of Human Subjects at the University of Texas School of Public Health approved the data collection protocol for this project.

QUANTITATIVE METHODS

Quantitative Data Collection

Data were collected from 211 men and women from May of 2016 through August of 2018 who were referred to the project in each of the three locations (Harris County, Tarrant County, and Tropical Texas). Upon intake to the project, a team leader trained in peer support administered an Adult Needs and Strengths Assessment (ANSA), and follow-up assessments were administered every 90 days for participants continuing to receive services under the program. A total of 94 participants had more than one ANSA. All baseline assessments were done face-to-face (typically while the participant was incarcerated) by a Qualified Mental Health Provider (QMHP). ANSA data were entered into CMBHS, a state-mandated reporting system, by QMHPs at each site. De-identified ANSA data, participant demographics and re-arrest data were provided to Dr. Gonzalez by the Department of State Health Services for the purposes of this evaluation.

Measures

Demographics and Self-Report Data Collection

Demographics (age, sex, race/ethnicity) were collected at intake to treatment services by the licensed mental health authority (LHMA). All data were immediately entered into a client profile and abstracted by the Texas Department of State Health Services. Residential and employment status were gathered as a part of a community assessment at intake only. This brief, 5-question assessment was administered in tandem with the ANSA by QMHPs at each site.

Hospitalizations

Hospitalizations were operationalized using four items from the ANSA assessment: 1) number of hospitalizations in the past 180 days; 2) number of hospitalizations less than or equal to 30 days within the past 2 years; 3) number of hospitalizations greater than 30 days within the past 2 years;

and number of psychiatric crisis episodes in the past 90 days. Response options included 0, 1, 2, or 3+ hospitalizations. Because these items had different time frames and represented different types of medical and psychiatric needs, a scale was not created, and each variable was analyzed independently.

Recidivism Rates and Criminal Behavior

Recidivism during the last 30 days was captured using the item, "Number of arrests in the last 30 days". Values for this measure ranged from 0 to 1 arrest. A summary scale was also created using the criminal behavior module in the ANSA, which was triggered if participants reported having recent or acute problems with criminal behavior in which action was required by the peer. The criminal behavior module measured seriousness, history, arrests, planning / spontaneity, community safety, legal compliance, peer influences, immediate family criminal behavior influences, and environmental influences on criminal behavior, with 0 indicating that an individual was not experiencing problems with a given behavior, and 3 indicating that an individual was experiencing severe / acute problems with the behavior in question. A summative scale was created to measure overall problems with criminal behavior ($\alpha = .71$).

Symptomology of Mental Health and Substance Use Problems

Mental health symptoms were operationalized using 12 items from the ANSA. Specifically, individuals were rated on a scale of 0-3 (0 indicates no evidence of problems with each disorder, and 3 indicated that the disorder was causing severe and dangerous problems consistent with a DSM diagnosis). The disorders measured included: psychosis/thought disturbance, cognition, depression, anxiety, mania, impulse control, interpersonal problems, antisocial behavior, adjustment to trauma, anger control, substance use, and eating disturbances. A summative scale was created to measure overall mental health symptoms ($\alpha = .77$).

If an assessor rated a participant as a 2 or 3 on substance use (2=causing problems, consistent with diagnosable disorder and 3=causing severe and dangerous problems), the substance use module was triggered. This subset of items measured individuals' severity of use, duration of use, phase of recovery, peer influences, environmental influences, and recovery in the support community on a scale of 0-3 (0=no evidence of problems; 3=severe/acute problems, act immediately). A summative scale was created to measure overall substance use problems ($\alpha = .68$).

Increased Life Domain Functioning

Life domain functioning was measured using 15 items from the ANSA. Specifically, individuals were rated on a scale of 0-3 (0 indicates no evidence of a problem, and 3 indicates that the participant is experiencing severe problems in each domain). The life domains measured included physical and medical functioning, family functioning, employment, social functioning, recreational functioning, intellectual / developmental functioning, sexuality, living skills, residential stability, legal problems, sleep, self-care, decision-making, involvement in recovery, and transportation. A summative scale was created to measure overall life domain functioning ($\alpha = .76$).

Other Summary Scales

To examine changes in secondary outcomes, summary scales were also created for suicide risk, dangerousness, and trauma. These modules were triggered if a QMHP identified any history of suicide or ideation (for suicide module), any history or risk of danger to others (for dangerousness module), and any problems adjusting to trauma that may be consistent with a diagnosable disorder

(for trauma module). The Cronbach's alpha coefficients were .55 for suicide, .85 for dangerousness, and .81 for trauma.

Data Analysis

Normality for outcome variables was examined using histograms, means and standard deviations. Normally distributed variables were compared using univariate, longitudinal regression models (xtreg) while not normally distributed continuous variables were compared using the Wilcoxon Signed Rank test. Bivariate comparisons between categorical variables were tested using Pearson's chi square statistics and Fisher's exact test when cell sizes were less than 10. Frequency and cross-tabulations, as well as means, medians and ranges, were used to generate descriptive statistics.

For the main outcomes evaluation, we used bivariate and multivariate linear models to estimate beta coefficients and 95% confidence intervals. We constructed multivariate models to adjust for age, sex, and race/ethnicity for all variables that declined over time in unadjusted models. The *xtreg* function was used for normally distributed outcome variables, and the *xtpoisson* function was used for count variables that did not approximate a normal distribution. An *a priori* α of .05 was used to determine statistical significance. Stata/IC 14 (College Station, TX) was used for all statistical modeling.

QUANTITATIVE RESULTS

Participant Description

ANSA data were collected for 211 Rider 73 participants. A repeated ANSA was completed for 94 participants, and the number of ANSA assessments administered for each participant ranged from 1 (N=211) to 9 (N=1).

Descriptive information about the participants served is provided in Table 1. More than half of participants were male (59.7%), and the average age at first ANSA was 36 (range 18-68). Forty-four percent of participants self-identified as Black (non-Hispanic), 36.5% were Hispanic of any race, and 19.0% were non-Hispanic White. At the first ANSA assessment, most participants were not actively in the labor force (39.3%), and more than half had independent housing (54.5%).

Table 1. Sample description, first ANSA assessment, N=211.

	N(%)
Client Description	
Male	126 (59.7%)
Age at first ANSA (Median, Range)	36 (18-68)
Race	
White, non-Hispanic	40(19.0%)
Black, non-Hispanic	93(44.1%)
Hispanic	77(36.5%)
Other race	1 (.5%)
Employment Status	
Employed	11 (5.2%)
Transitional / Sheltered Employment	1(.5%)
Unemployed, looking for work	31 (14.7%)
Not in the labor force	83 (39.3%)
Residential Status	
Independent Housing	67 (54.5%)
Group home, hospital, intermediate care facility	10 (8.1%)
Homeless/correctional facility	46 (37.4%)

Aim: To evaluate the impact of CPS on hospitalizations, decreased recidivism rates, decreased symptomology of mental health and substance use problems, and increased life domain functioning (including residential stability, employment, life skills and self-care) among participants.

Overall Changes Over Time

For longitudinal analyses, data were limited to 94 participants who had more than one ANSA assessment to examine change over time; changes which were likely attributable to CPS. Sensitivity analyses were conducted using the entire sample of 211 individuals, and results were not markedly different from those presented below. Detailed results from unadjusted regression models of time on overall ANSA domains are provided in Table 2. Overall, limited changes in overall risk behavior, health and social indicators were observed. However, a statistically significant decline in criminal behavior was detected between the administration of the first ANSA and the last ANSA assessments ($p<.001$).

Table 2. Unadjusted change over time for overall programmatic outcomes, N=94 participants.

	First ANSA N=94	Last ANSA N=94	P for change over time
Behavioral Health Summary Scale	12.21(4.33)	11.69 (4.16)	.362
Risk Behavior Summary Scale	3.79(1.74)	3.72(2.12)	.714
Suicide Risk Summary Scale	2.31(1.38)	2.21(1.33)	.882
Dangerousness Summary Scale	5.68(3.22)	7.32(4.77)	.05
Criminal Behavior Summary Scale	9.51(3.21)	7.26(3.74)	<.001***
Trauma Summary Scale	12.58(6.03)	14.06(5.66)	.191
Substance Use Summary Scale	9.66(3.31)	9.11(3.51)	.257
Life Domain functioning Summary Scale	15.96(5.44)	14.44(5.97)	.732
Stable Housing	34(57.63%)	34(57.63%)	.999
Stable Employment	5 (8.20%)	5 (8.20%)	.999
Arrests in last 30 days	11(11.7%)	11(11.7%)	.999

***p<.001

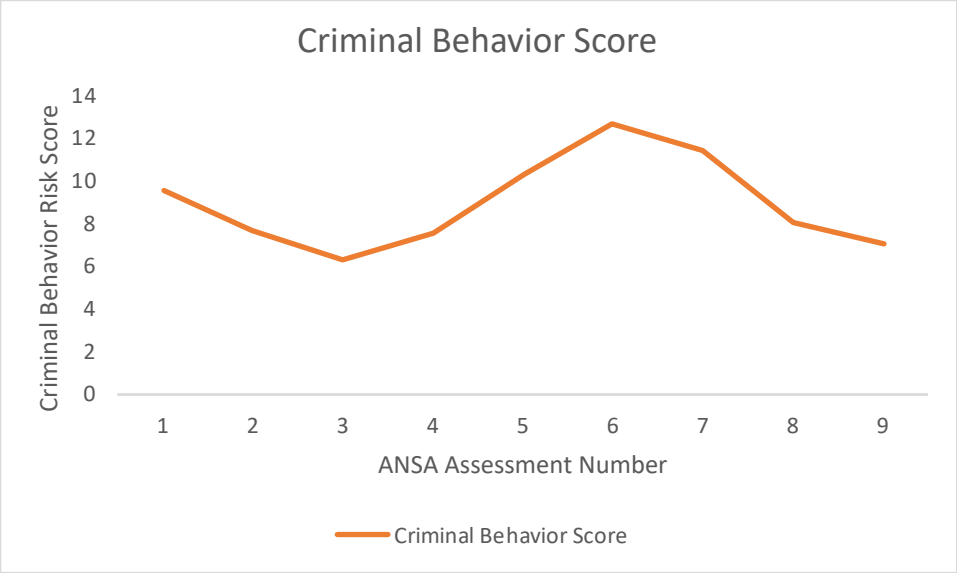

Figure. Trend in criminal behavior over time.
*Note. The number of participants who were administered 5 or more assessments was less than 10. Therefore, the overall trend represented a decline over time.

Because the unadjusted models (Table 2) showed a decline in criminal behavior over time, this model was adjusted for confounding variables age, sex and race/ethnicity. As depicted in Table 3, results suggest a linear decline in criminal behavior over time. These declines were statistically significant even after controlling for age, sex, and race/ethnicity.

Table 3. Adjusted change over time for criminal behavior, N=86 participants.

	Beta	95% Confidence Interval	p
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-1.51	-2.79- -.24	.020*
Last ANSA	-2.32	-3.44- -1.20	<.001***
Male sex	.50	-.85-1.85	.465
Race			
White, Non-Hispanic	Ref	Ref	Ref
Black, non-Hispanic	1.38	-.28-3.05	.103
Hispanic	.05	-1.89-1.99	.961
Age	-.001	-.05-.05	.972

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

Decreased Recidivism and Criminal Behavior

Table 4 further deconstructs the change in criminal behavior over time. As mentioned above, criminal behavior declined significantly between the first and final ANSA assessment (p<.001). Further, the proportion of participants who experienced any problems because of their criminal history, arrests, and criminal planning (e.g., engagement in pre-planned criminal acts) declined significantly over time.

Table 4. Change over time for criminal behavior and recidivism subscale items.

	First ANSA N=75	**Last ANSA N=47**	**P for change over time**
Criminal Behavior Sum	9.51(3.21)	7.26(3.74)	<.001*
Sub-Scale Items	N(%) with any evidence of problems		
Seriousness	69(92%)	39(17.0%)	.051
History	74(98%)	44(93.6%)	.009**
Arrests	67(89.3%)	40(85.1%)	.029*
Planning	45(60.0%)	19(40.4%)	.044*
Community Safety	45(60%)	18(38.3%)	.119
Legal Compliance	33(44.0%)	26(55.3%)	.205
Peer Influences	55(73.4%)	27(57.4%)	.216
Immediate Family Criminal Behavior Influences	39(52.0%)	17(36.2%)	.364
Environmental Influences	57(76.0%)	28(59.5%)	.221

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

Sub-scale items that changed significantly over time were adjusted for age, sex and participant race/ethnicity in Table 5. Problems related to criminal history (p=.003) and planning criminal acts (p=.033) declined between the first and last assessment, and frequency of recent arrests declined significantly and consistently over time.

Table 5. Adjusted change over time for criminal behavior subscale items, N=86 participants.

	Beta	**95% Confidence Interval**	**p**
Change over time		History	
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.01	-.24-.22	.937
Last ANSA	-.31	-.51- -.11	.003**
		Arrests	
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.30	-.54- -.06	.014*
Last ANSA	-.23	-.44- -.01	.041*
		Planning	
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.44	-.96-.09	.106
Last ANSA	-.55	-1.05- -.05	.033*

*p<.05
***p<.001
Note. All models adjusted for race/ethnicity, sex and age.

Hospitalizations

Table 6 depicts the change in psychiatric and medical hospitalizations over time. No significant changes in number of psychiatric hospitalizations in the last 90 or 180 days, connections to primary care, or medical / emergency department visits were detected.

Table 6. Change over time for hospitalization and crisis intervention outcomes, N=94 participants.

	First ANSA N=94	**Last ANSA N=94**	**P for change over time**
Number of psychiatric hospitalizations in last 180 days (Median, Range)	0 (0-3)	0(0-3)	.711
Number of psychiatric episodes in the past 90 days (Median, range)	0 (0-3)	0(0-3)	.209
Connections to primary care (Median, range)	2 (0-3); Action required	2 (0-3); Action required	.760
Medical/ER visits (Median, range)	0 (0-3); No evidence of problems	0.5 (0-3); mild problems	.299

Decreased symptomology of mental health problems

Table 7 depicts the change in mental health symptoms over time. Although no overall changes were detected, reductions in antisocial behavior, particularly for those who had the most severe symptomology and associated problems at baseline, were detected (p=.003).

Table 7. Change over time for mental health symptomology scale and subscales.

	First ANSA N=94	Last ANSA N=90	P for change over time
Behavioral Health Sum	12.21(4.33)	11.69 (4.16)	.362
Sub-scale items	N(%) with any evidence of problems		
Psychosis/Thought Disturbance	67(71.3%)	59(65.6%)	.478
Cognition	55(58.5%)	53(57.6%)	.691
Depression	87(92.5%)	87(96.6%)	.649
Anxiety	83(90.4%)	85(94.4%)	.475
Mania	69(73.4%)	61(67.8%)	.268
Impulse Control	76(80.8%)	71(79.9%)	.298
Interpersonal Problems	66(70.2%)	68(75.6%)	.162
Antisocial Behavior	50(53.2%)	48(53.3%)	.003**
Adjustment to Trauma	57(60.6%)	63(70.0%)	.127
Anger Control	72(76.6%)	65(72.2%)	.235
Substance Use	76(80.8%)	78(85.7%)	.238
Eating Disturbances	22(23.4%)	17(18.9%)	.240

**p<.01

Because the decline in antisocial behavior was statistically significant in unadjusted models, multivariate regression models were fit to examine whether this effect remained after controlling for age, sex and participant race/ethnicity. Results from this regression model are displayed in Table 8. After accounting for participant demographics, the effect of time on antisocial behavior did not persist.

Table 8. Adjusted change over time for antisocial behavior, mental health symptomology subscale item, N=94 participants.

	Beta	**95% Confidence Interval**	**p**
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.27	-.67-.12	.177
Last ANSA	-.23	-.59-.14	.220
Male sex	.06	-.27-.39	.715
Race/Ethnicity			
White, Non-Hispanic	Ref	Ref	Ref
Black, non-Hispanic	.32	-.14-.77	.170
Hispanic	.22	-.29-.73	.400
Age	.01	-1.60-.02	.319

*p<.05

Decreased symptomology of substance use problems

Changes over time in the symptomology of substance use problems are detailed in Table 9. Although no overall change was detected in the summary score, duration of use declined significantly (p=.012) over time.

Table 9. Change over time for substance use symptomology scale and subscales.

	First ANSA N=36	**Last ANSA N=28**	**P for change over time**
Substance Use Sum	9.66(3.31)	9.11(3.51)	.257
Sub-scale items	N(%) with any evidence of problems		
Severity of Use	35(97.2%)	27(96.4%)	.177
Duration of Use	35(97.2%)	26(92.8%)	.012*
Phase of Recovery	34(94.4%)	27(96.4%)	.632
Peer Influences	30(83.3%)	23(82.1%)	.936
Environmental Influences	30(83.3%)	23(82.1%)	.634
Recovery in Support Community	26(72.2%)	22(78.6%)	.163

*p<.05

Because the decline in duration of use was statistically significant in unadjusted models, multivariate regression models were fit to examine whether this effect remained after controlling for age, sex and participant race/ethnicity. Results from this regression model are displayed in Table 10. After accounting for participant demographics, the effect of time on duration of substance use did not persist.

Table 10. Adjusted change over time for duration of substance use, substance use symptomology subscale item, N=50 participants.

	Beta	**95% Confidence Interval**	**p**
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.16	-.54-.22	.399
Last ANSA	-.28	-.64-.08	.130
Male sex	.10	-.21-.40	.541
Race/Ethnicity			
White, Non-Hispanic	Ref	Ref	Ref
Black, non-Hispanic	-.02	-.42-.38	.921
Hispanic	-.11	-.53-.30	.587
Age	.003	-.01-.02	.677

*p<.05

Increased life domain functioning

Changes over time in the symptomology of life domain functioning are detailed in Table 11. Although no overall change was detected in the summary score, several subscale items declined significantly over time. Specifically, employment problems (p=.012), social functioning problems

(p=.011), living skill deficits (p=.038), and legal problems (p<.001) declined significantly over time. Most participants had substantial legal problems at baseline, and these legal issues became less problematic over time.

Table 11. Change over time for life domain functioning scale and subscales.

	First ANSA N=94	**Last ANSA N=90**	**P for change over time**
Life Domain Functioning Scale	15.96(5.44)	14.44(5.97)	.732
Sub-scale items	N(%) with any evidence of problems		
Physical / Medical	55(58.5%)	55(61.1%)	.411
Family Functioning	69(73.4%)	74(82.2%)	.154
Employment	63(91.3%)	44(81.5%)	.012*
Social Functioning	68(72.3%)	73(81.1%)	.011*
Recreational	54(57.4%)	61(67.8%)	.181
Intellectual / Development	6(6.4%)	8(8.9%)	.403
Sexuality	4(4.3%)	6(6.7%)	.454
Living Skills	43(45.7%)	56(62.2%)	.038*
Residential Stability	72(76.6%)	66(73.3%)	.388
Legal	80(85.1%)	77(85.6%)	<.001***
Sleep	71(75.5%)	62(68.9%)	.142
Self-Care	40(42.5%)	48(52.2%)	.197
Decision-making	79(84.0%)	76(84.5%)	.550
Involvement in Recovery	56(59.6%)	57(63.3%)	.315
Transportation	77(81.9%)	74(82.2%)	.151

*p<.05
**p<.01
***p<.001

Because the decline in several life domain functioning items were statistically significant in unadjusted models, multivariate regression models were fit to examine whether these effects remained after controlling for age, sex and participant race/ethnicity. Results from these regression models are displayed in Table 12. After accounting for participant demographics, the effect of time on social functioning, living skills and legal problems did not persist. Further, a regression model could not be fit for employment, as there was too little variation at baseline. Meaning, most individuals experienced problems with employment at baseline.

Table 12. Adjusted change over time for life domain functioning subscale items, N=94 participants.

	Beta	95% Confidence Interval	p
	Social Functioning		
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.15	-.10-.41	.237
Last ANSA	-.11	-.33-.11	.330
	Living Skills		
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	.20	-.16-.56	.274
Last ANSA	.18	-.14-.50	.281
	Legal		
Change over time			
Baseline ANSA	Ref	Ref	Ref
Intermediate ANSA	-.06	-.31-.19	.629
Last ANSA	-.21	-.46-.03	.084

*p<.05
***p<.001
Note. All models adjusted for race/ethnicity, sex and age.

QUALITATIVE METHODS

Data Sources

Peers. Dr. Gonzalez conducted semi-structured interviews with peers to assess implementation and outcome measures of offender recidivism, housing attainment, decreased symptomology of mental health and substance use problems, and increased life domain functioning, including residential stability, employment, life skills and self-care. Peers were recruited with the assistance of the employing agency at each site.

In-depth, one-on-one interviews were conducted with all peers at each site at two time points (October/November 2016 and March/April 2017). Interviews were repeated because the program was newly implemented in August-October 2016; therefore, client loads were low, and peers were becoming newly acclimated with their roles. In March/April 2017, the program was established, and all peers had at least seven months of experience working with clients. In October/November 2016, all interviews were conducted in-person; in March/April 2017, all interviews were conducted by phone. Participants were informed that their participation was voluntary, and any excerpts would be identified only by a unique identification number. Interviews lasted slightly less than one hour and began with a general discussion of the program implementation. All interviews were audio recorded and professionally transcribed within one week.

One hundred percent of peers were interviewed during the first round of interviews (October/November 2016). One peer was no longer employed by the program and elected not to

participate in the second round of interviews (March/April 2017). Interviews lasted between 15 and 80 minutes, and a $20 incentive payment in the form of a gift card was provided in exchange for participants' time.

Clients. Three program clients were opportunistically recruited in collaboration with peers in October / November 2016. Specifically, peers were asked to identify one or more active clients to provide feedback on the program. Similarly to peers, in-depth, one-on-one interviews were conducted with each of the three clients to understand if (and how) the program was working from their perspective, and to identify areas for improvement. Clients were provided with a $20 gift card in exchange for their time.

Analytic Procedures

Systematic procedures of qualitative data analysis included: intensive reading of the text and group discussion of the transcripts by both members of the research team, coding by two investigators (the principal investigator and a trained doctoral student), inductive thematic identification, data reduction, and interpretation. These processes were iterative, and coding occurred during the same time period for both coders (December 2016 – June 2017). Inconsistencies in the coding process and results were resolved by the research team. Dedoose software was used for all coding, organization and data reduction.

QUALITATIVE RESULTS

Demographics

Seven peers and three clients participated in one-on-one interviews at baseline. Six (86%) peers were female, three peers were Hispanic (43%), and three peers identified as White (43%). The median annual household income for peers ranged from $25,000 and $34,999. For clients, two-thirds were male and two-thirds were Hispanic. All clients reported their salary as falling between zero dollars and $14,999 annually.

Caseloads

Peer specialists reported caseloads between 3 and 16 clients. Peers suggested that clients recently re-entering the community required more hours each week than clients who were in the community receiving services for several weeks. One peer suggested that she could handle 35-40 clients in the community at one point in time; others suggested that caseloads of 12 to 15 would be more manageable.

Peers reported that clients were typically discharged 8-9 months after they began working with their peer, as "within the first two months, it is definitely a lot of handholding." At one site, only two clients were discharged from the peer support program in August 2016 and April / May 2017. Another peer reported that eight or nine of her clients were discharged during the same time frame; therefore, there was a high degree of variability in program progression according to site and peer. Overall, peers suggested that it would take far longer than 90 days for clients to become independent; in fact, most peers identified that they would like to work with clients for a year or more (estimated range of time reported from intake to independence was 4 months to one year).

Peers reported having the ability to sense when the time was right for a client to be discharged. For example, independent clients often took the initiative to proactively care for themselves:

"…she had felt she had gotten everything she needed … she wanted to be on her own",
"he started keeping all his appointments on his own … [the client used] my services less and less, but he's still keeping me in the loop …after a time, just slowly let them go",
and,
"[the client is] at a place where he's living on his own and doing well, basically has reentered. When he has a hiccup, he knows how to address them."

Peers suggested that the amount of time needed in the program varied across clients, and there was no universal timeline or deadline by which clients were ready for discharge.

Value of Lived Experiences

Peers believed that clients should be assigned to peers based upon their strengths and lived experiences, rather than just their sex and language:

"… [one of our peers] is experienced with the alcohol recovery and drug recovery world. For a lot of her [clients], she's been amazing in getting them into recovery centers and working with them and I think that's because she knows so much, and she's been able to help them maybe a better way than I could. So, yeah I think that lived experience might be a factor; which is good I think because then we're matched up with people that were better able to help."

Similarly, "*a lot of times when you have people that have lived certain lives, and you have [peers] that don't have the experience [the client] has…they're like, you just read a book that's how you learned that -- you don't even know what I'm talking about."* Therefore, a peer's lived experience can help build rapport, credibility, and practical experience in helping address client needs.

Lived experience was perceived as a valuable skill that enabled peers' ability to do their job. For example, one peer valued her lived experience as more valuable than her master's degree,

"*even with me, having a [master's] degree I still feel without my lived experience my degree would not give me the knowledge I have. Like, my lived experience just is way [more important than] my degree... I feel like you just benefit over anyone that doesn't have lived experience. Because you know me…I can read, I can study, I can take tests. And none of that has been anything to do with what I do. I've got to be able to work with people, [recognize] the manipulation or the mind games they play, or the self-determination– that all came from lived experience. That does not come from reading a textbook and taking tests. And I think that's overlooked*".

Peers suggested that lived experience "… *makes someone an amazing person because they have lived it overcame it and now they're giving back with it…it's just from seeing myself and my past life, being able to prioritize my needs and wants today and share it with them*." Therefore, peers identified lived experiences as a necessary factor for success in the peer role.

Value of peers

Several peers perceived the peer role to be largely undervalued in their work environment. For instance, one peer stated:

"*I do think that peer title holds us back in some areas. And I think someone needs to look how beneficial we are. And even as a peer, I still feel like I'm a caseworker or like a clinician… because we're doing progress notes, we're doing tons of paperwork. Plus,*

we're [compiling] resources, plus we're meeting with the client… we do so much more than so many. And it's overlooked. I don't think people really look at…what [peers do].".

Despite this limited recognition, peers felt that their position was highly rewarding:

"[being a peer] is rewarding. It helps me. They help me as much as I help [clients], I think. Working in this kind of field is rewarding for me, because it helps me. I love what I do and … because I'm getting into some of the things that some of my clients have been through. [Helping clients] touches me and it helps me…and I've told them that... I love this job. I love peer support."

Peers were largely happy in their position and enjoyed their work: "*I feel I'm just as a human as someone who wakes up at the morning I wake up excited to come and help [clients] and I don't ever feel like my job is work."*

Program Outcomes

Documentation. One of the greatest difficulties that peers identified when working with clients to address these outcomes was identification documentation:

"*The biggest barrier [is that] they need documents. They have to have documents to get the documents... But, because they don't have the documents to get the documents that is a big barrier [to receiving other services]", and "it is not easy to just go and get an ID or social security card or birth certificate when you have nothing to prove who you are. [A client] wasn't able to even file for disability benefits because [she didn't have any documentation], so she's been struggling."*

Although documentation attainment was not a goal of this project, lack of identification was an important barrier that consumed peer effort across all three sites. Clients required identification cards before treatment, housing, or employment barriers could be addressed.

Recidivism. Peers worked indirectly to address recidivism, which they believed to be an outcome of unaddressed mental health symptoms, substance use, housing, or unemployment. A client at one site stated that her peer helped her stay out of jail by:

"*I have wanted to relapse … and I will call [my peer] and I'll tell her, like, 'This is happening. I need help.' She'll just talk me down, like, think about all the things that you've accomplished now, think about your daughter and because a lot of people – when I tried doing it with my mom, she just got mad at me and started yelling at me… [My peer] was a little bit more understanding, and more helping, and knew how to handle the situation."*

A peer suggested that one of her clients had intentionally sought out arrest: "[*The clients] don't have any place to go, [lack of housing is] a major problem. They get rearrested on purpose so they have a place to stay…. And that happens more often than we even know.*" Other peers suggested that their role became more challenging the longer that clients were in the community, as clients were drawn to friends who use drugs out of comfort.

Housing. In addition to documentation, housing was also identified as one of the most challenging services for peers to link with clients. One peer stated,

"The one major barrier [to client success] that I'm having is that I can't find [clients] a place to live. [Clients] are not chronically homeless enough because if they were incarcerated and they come out even though they were homeless before they don't count being incarcerated as being homeless. [Clients must have] no mattress, no nothing for a year before they will even be considered for any type of [chronically homeless] housing."

Therefore, many clients coming out of jail were not eligible to receive housing earmarked for chronically homeless adults. Peers also suggested that it is more difficult for them to obtain housing for adults with specific types of charges, most notably, sex offenses: *"…for the ones who are sex offenders, it's very difficult [to find housing]."*

In many cases, peers reported that housing resources were available, but the quality of these facilities made them less desirable for clients. One peer stated that resources were available, but they were low quality:

"We have a supported housing unit, their funds are maxed out as well. There are shelters in the area, but you know they need certain things, some of them are not a place where you would want to stay, some of them are trying, they're okay. But you open up to other people, you have family, you have men, you have all kinds of people in these shelters. And for some maybe it's okay, for others that's not somewhere they want to go you know, and so it's difficult so they not – that leads them to try to fend for themselves on the streets."

Although group homes were often available, some clients "*don't want to go in group homes… They just don't want to live with other people. Most of them want to be by themselves but … the main other reason they don't want to go is because they don't want to live with other people."*

Peers' lived experience helped them relate to client's housing needs. According to one peer who was formerly homeless herself,

"I have one [client] that was prostituting and doing everything she could, you know she refused to go to the shelter because she was like it's gross, have you ever been there? You don't know what it's like. She said, 'I would rather just do what I have to do to get a hotel and finally we were able to use some funds to get her into an apartment and it's amazing transformation. Being homeless is not easy and I was homeless for two years and doing everything you can think of just to have a place."

The same peer articulated the impact that housing had on one of her clients: "*It wasn't until after she got her housing… being independent, which is something she wanted to experience. She was super happy – let me tell you something, it was beautiful and she was just so happy."*

Decreased symptomology of mental health and substance abuse problems. Peers consistently identified the importance of mental health and substance use treatment in client success. When clients were "*able to admit [they had relapsed] and come back and got treatment*", they were successful. In some sites, "*I can get them connected to mental health clinic easily. But their appointment might not be for … five months later, because they would need to see a psychiatrist*". Other peers suggested that certain clinics were problematic: "*some [clinics] are very welcoming and want to work with you, others … they're just not that good they don't build a good rapport with you they're -- if you come with a feeling of -- like they consider you to be left dead*." Long wait times and poor quality clinical services were identified as a barrier at only one site.

Peers regularly used their lived experiences to prevent client relapse. As stated by one peer,

> *"One client was contemplating suicide because of his audio hallucinations and I shared my experience of having those same symptoms and being incarcerated and what I did to cope with them. And he cried because sometimes you feel like, man, am I alone in this, am I the only one that hears it, am I the only suffering from this?"*

Another peer stated,

> *"[Clients] don't want to stop using the drug. But they do want to get their life together, all I can do is tell them about my story … if they continue on this path and it's only going to lead you back to jail or even death."*

Employment. Peers were often working to address income, and relatedly, employment, needs among their clients.

> *"[Clients] are still needing to live, they are still needing to support for themselves and trying to get a job or trying to manage not having the job or any finances going on the bare minimum of welfare. So yeah, finance is number one…"*

One peer suggested that employment was an important factor for two of her clients. One client got a job, which her peer connected to the client's relapse:

> *"we started talking about…relapse, but then when she started going over, what can we do in these moments when we're thinking about using and you know she was working at a place that was not good. It was some place that was going to expose her to drugs. So I was like come on we got -- your environment where you're working, is it a good choice if you are exposed to it?"*

Another client had attained gainful employment, and this helped him get back on his feet and become independent. A peer at another site suggested that motivating clients to work was a challenge, because "*some [clients] want a check though they don't want a job*." Peers were commonly working to address the employment and income needs of their clients; however, peers struggled to ensure that clients' employment was gainful and would not expose them to risk factors for relapse. For example, one peer reported that she would provide constant encouragement, provide clients with job postings that she identified. Another peer reported that she connected clients with a program that provided professional employment-seeking assistance. Other peers reported in-home internet searching sessions with clients to teach them to identify employment opportunities that were appropriate for the client's skill level.

Transportation. Few clients had access to their own transportation, and many clients used peers for transportation especially during the first three months after release. One peer was particularly creative in addressing a client's transportation needs: *"[The client] didn't have transportation, and so he got a bike. I took him right after Christmas; he gets his check, his [social security]. He got him a bike. It's a bike, but he's doing really well.*" Most peers taught clients how to use buses for transportation, but in some urban locations, bicycles may be less expensive and more efficient over time.

SUMMARY & DISCUSSION

Results from this independent evaluation suggested that peer re-entry specialists leveraged and applied lived experiences to support client re-entry, although quantifiable effects were detected

only for criminal behavior outcomes. Specifically, peers reported applying their personal experiences to assist clients in seeking treatment for substance use and mental health symptomology, locating housing, and employment. A number of structural barriers, such as limited access to housing and long wait lists for clinical care, prevented peers from addressing client needs. Despite these barriers, notable and statistically significant declines in criminal behavior were identified among participants.

Peer time was routinely consumed with obtaining documentation for clients, as identification was needed before any treatment or healthcare services may be used, or housing or employment can be sought. Few peers reported assisting clients with improving their social support, although peers provided measurable social support to clients enrolled in the program. Improving clients' social support was challenging for peers because friends and family can serve as triggers for substance use and offending. Overall, peers most often found themselves working to address clients' housing and treatment needs, rather than criminal behavior directly.

Notably, very few peers mentioned recidivism prevention when asked about their activities with clients. This indicates that peers were less concerned with the ultimate outcome of re-arrest; instead, they were focused on connecting with clients and ensuring treatment and housing needs were met. The literature suggests that housing and criminal offending are intrinsically connected (Gonzalez et al., 2017), and homeless adults are more likely to return to jail after release from incarceration when compared to domiciled adults (Metraux & Culhane, 2004; Somers, Rezansoff, Moniruzzaman, Palepu, & Patterson, 2013). Therefore, it is not surprising that peers immediately worked to address client housing needs, although no detectable differences in stable housing attainment were identified using ANSA data.

Findings also suggested that peers operate like caseworkers, except that they use and apply their lived experience to aide others (Prendergast, 2009). The value and application of peers lived experiences were qualitatively identified in each domain targeted by this project (e.g., housing, mental health and substance use treatment, employment / income assistance). Peer lived experience was particularly instrumental in building rapport with clients, who may otherwise be resistant to seek assistance.

Findings published in this report are partially consistent with those identified in the evaluation of Rider 74 (Texas Department of State Health Services, 2018). Specifically, the previous evaluation report identified significant reductions in arrests, criminal history, peer influences, seriousness of criminal behavior and employment. In the present analysis, declines were observed in arrests, criminal planning, and recent history of criminal acts. No significant declines in employment, hospitalizations, behavioral health symptomology, life domain functioning, housing or employment were detected. Therefore, based on this replicated evidence, we may conclude that criminal behavior consistently declines across evaluations of peer support programs.

Strengths and Limitations

At least three limitations should be considered when interpreting results. First, qualitative data were gathered from peers and clients across three Texas sites. It is conceivable that peer activities observed in this study were atypical of peers working in other United States cities and towns. For instance, peers at all three sites reported spending a great deal of time and effort assisting clients obtaining legal documents (e.g., social security cards and driver's licenses). One peer working in a predominantly Hispanic, largely immigrant, border community reported that clients sell their

documents for money. This behavior may be atypical in non-border communities. However, given the high prevalence of homelessness in U.S. jails and prisons (Greenberg & Rosenheck, 2008), it is not surprising that many adults re-entering communities from the criminal justice system lack identification. Second, all process and outcome measures were self-reported by peers and clients, many of whom were missing longitudinal data. Therefore, we are unable to speculate about program effects from the perspective of clients in general, and the utility of resources and referrals made by peers.

For quantitative data analyses, the cohort sample (i.e., those clients with more than ANSA to examine change over time) was relatively small (N=94); therefore, it is possible that some effects remained undetected using the regression models. It is also challenging to speculate as to how clients with more than one ANSA assessment are different from those who enrolled in the program but did not continue to engage with their peer past the first 90 days. Univariate analyses suggest that those who were included in the cohort (i.e., completed more than one ANSA) were not statistically different from those who completed only one on age, race/ethnicity, sex, criminal behavior, or risk behavior. Therefore, it is possible that the cohort included in this evaluation report were representative of those 211 adults in the program. However, it is also possible that those who completed an intake ANSA but no further ANSA were disengaged in the program and/or not ready to change their behavior. As a consequence, results in this report may report the most optimistic outcomes of Rider 73. Conversely, it is also possible that clients who completed more than one ANSA were in need of the most intensive services for a longer time period than those who only completed a single ANSA. Therefore, it is also conceivable that this report includes a highly conservative estimate of the true effectiveness of peers on their clients. Future studies with additional metrics to examine differential loss-to-follow-up are needed to understand how attrition impacted our findings.

Considering these limitations, three strengths should also be considered. First, qualitative data were collected longitudinally from peers at two time points -- 3 months into the program and 6 months later. This design uniquely permitted assessment of change in peer's activities and perceptions over time. Further, other stakeholders were included in focus groups and interviews (including, at some sites, clients). This broad input enabled us to examine program processes and outcomes from a variety of perspectives. Similarly, quantitative data were collected at multiple time periods, thus allowing for an assessment of behavioral change over time. Finally, the multi-site nature of this study is a notable strength, and consistent themes emerged across the three sites. Consistent findings across sites lends support to the internal validity of findings reported in this report.

Information Disseminated to Others About the Project

Dr. Gonzalez generated a blog post that is available on the Hogg Foundation for Mental Health website: http://hogg.utexas.edu/reentry-peer-support. A manuscript reporting the qualitative results are currently undergoing peer review and are expected to be published in early 2019.

Conclusions

In conclusion, results from this study suggest that Peer Re-Entry Specialists have the capacity to affect widespread recidivism reduction by easing the re-entry process, although the mechanism through which this reduction in criminal behavior occurs is unclear from the data at this time. Peers leveraged their lived experiences with the criminal justice system to engage and motivate clients to seek treatment and locate housing and employment to address the problems that lead to crime

and re-arrest among clients. Future research should measure service utilization among program participants to assess differential success rates according to dose and type of service utilization.

REFERENCES

Bagnall, A. M., South, J., Hulme, C., Woodall, J., Vinall-Collier, K., Raine, G., … Wright, N. M. (2015). A systematic review of the effectiveness and cost-effectiveness of peer education and peer support in prisons. *BMC Public Health, 15,* 290.

Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former inmates. *N Engl J Med,* (356), 157-165.

Brugman, D., & Bink, M. (2010). Effects of the EQUIP peer intervention program on self-serving cognitive distortions and recidivism among delinquent male adolescents. *Psychology, Crime & Law, 17*(4), 345-358.

Bureau of Justice Statistics, T. (2014). Annual surveys of probation and parole, annual surveys of jails, census of jail inmates, and national prisoner statistics program, 2000, 2005, and 2010-2013. Washington: BJS.

Cook, M. S., Koutsenok, I., & Lord, S. (2009). An innovative approach to prison-based substance use treatment: the implementation of inmate peer mentor programs. In A. Browne-Miller (Ed.), The Praeger International Collection On Addictions: Characteristics and Treatment Perspectives (Vol. 3, pp. 349–358). Santa Barbara, CA: Praeger/ABC-CLIO.

Cullen, F. T., Jonson, C. L., & Nagin, D. S. (2011). Prisons Do Not Reduce Recidivism. The Prison *Journal, 91*(3_suppl), 48S-65S.

Davidson, L., Chinman, M., Kloos, B., Weingarten, R., Stayner, D., & Tebes, J. K. (1999). Peer support among individuals with severe mental illness: A review of the evidence. *Clinical psychology: Science and practice, 6*(2), 165-187.

Davidson, L., & Rowe, M. (2008). Peer support within criminal justice settings: The role of forensic peer specialists. Delmar, NY: CMHS National GAINS Center.

Farley, C., & McClanahan, W.S. (n.d.) Ready4Work in Brief: Update on Outcomes. Public/Private Ventures, 6.

Gonzalez, J. R., Jetelina, K. K., Roberts, M., Reitzel, L. R., Kendzor, D., Walters, S., & Businelle, M. S. (2017). Criminal justice system involvement among homeless adults. *American journal of criminal justice*, 1-9.

Greenberg, G. A., & Rosenheck, R. A. (2008). Jail incarceration, homelessness, and mental health: a national study. *Psychiatr Serv, 59*(2), 170-177.

Grinstead, O. A., Zack, B., Faigeles, B., Grossman, N., & Blea, L. (1999). Reducing postrelease HIV risk among male prison inmates: A peer-led intervention. *Criminal Justice and Behavior, 26*(4), 453-465.

Harding, D. J., Wyse, J. J., Dobson, C., & Morenoff, J. D. (2014). Making Ends Meet After Prison. *J Policy Anal Manage, 33*(2), 440-470. doi:10.1002/pam.21741

LeBel, T. P. (2007). An examination of the impact of formerly incarcerated persons helping others. *Journal of Offender Rehabilitation, 46*(1-2), 1-24.

Luther, J. B., Reichert, E. S., Holloway, E. D., Roth, A. M., & Aalsma, M. C. (2011). An exploration of community reentry needs and services for prisoners: a focus on care to limit return to high-risk behavior. *AIDS patient care and STDs, 25*(8), 475-481.

Marlow, E., Grajeda, W., Lee, Y., Young, E., Williams, M., & Hill, K. (2015). Peer mentoring for male parolees: a CBPR pilot study. *Progress in community health partnerships: research, education, and action, 9*(1), 91-100.

Metraux, S., & Culhane, D. P. (2004). Homeless shelter use and reincarceration following prison release. *Criminology & Public Policy, 3*(2), 139-160. doi:10.1111/j.1745-9133.2004.tb00031.x

Nyamathi, A., Salem, B.E., Zhang, S., Farabee, D., Hall, B., Khalilifard, F., & Leake, B. (2015). Nursing case management, peer coaching, and hepatitis a and B vaccine completion among homeless men recently released on parole: randomized clinical trial. *Nursing Research, 64*(3), 177–89.

Prendergast, M. L. (2009). Interventions to promote successful re-entry among drug-abusing parolees. *Addict Sci Clin Pract, 5*(1), 4-13.

Ross, M. W., Harzke, A. J., Scott, D. P., McCann, K., & Kelley, M. (2006). Outcomes of Project Wall Talk: an HIC/AIDS Peer Education Program Implemented within Texas State Prison System. *AIDS Education & Prevention, 18*(6), 504-17.

Rowe, M., Bellamy, C ., Baranoski, M., Wieland, M., O'Connell, M. J., Benedict, P., Davidson, ... Sells, D. (2007). A peer-support, group intervention to reduce substance use and criminality among persons with severe mental illness. *Psychiatric Services, 58*(7), 955-961.

Sacks, S., Sacks, J. Y., McKendrick, K., Banks, S., & Stommel, J. (2004) Modified TC for MICA offenders: crime outcomes. *Behavioral Science & Law, 22*(4), 477-501.

Schinkel, M., & Whyte, B. (2012). Routes out of prison using life coaches to assist resettlement. *The Howard Journal of Crime and Justice, 51*(4), 359-371.

Smelson, D. A., Zaykowski, H., Guevermont, N., Siegfriedt, J., Sawh, L., Modzelewski, D., … Kane, V. (2016). Integrating permanent supportive housing and co-occurring disorders treatment for individuals who are homeless. *Journal of dual diagnosis, 12*(2), 193-201.

Somers, J. M., Rezansoff, S. N., Moniruzzaman, A., Palepu, A., & Patterson, M. (2013). Housing first reduces re-offending among formerly homeless adults with mental disorders: results of a randomized controlled trial. *PLoS One, 8*(9), e72946. doi:10.1371/journal.pone.0072946

Substance Abuse and Mental Health Services Administration, T. (2017). Guidelines for Successful Transition of People with Mental or Substance Use Disorders from Jail and Prison: Implementation Guide (SMA)-16-4998. Retrieved from Rockville, MD: https://store.samhsa.gov/shin/content/SMA16-4998/SMA16-4998.pdf

Texas Department of State Health Services (December 2018). Report on the Mental Health Peer Support Re-Entry Pilot Program. Accessed on January 10, 2019 from https://hhs.texas.gov/reports/2018/12/report-mental-health-peer-support-re-entry-pilot-program

ViaHope. Certified Peer Specialist Program. Retrieved on May 11, 2018 from https://www.viahope.org/programs/peer-specialist-training-and-certification/

Vigilante, K., & Flynn, M. (1998). Reduction in recidivism of incarcerated women through primary care, peer counseling, and discharge planning. *Journal of Womens Health, 8*, 409–415.

Warner-Robbins, C., & Parsons, M.L. Developing Peer Leaders and Reducing Recidivism Through Long-Term Participation in a Faith-Based Program: The Story of Welcome Home Ministries. *Alcoholism Treatment Quarterly, 28*(3), 293-305.

Whyte, B. Evaluation of the Routes Out of Prison: Final Report. The Wise Group.