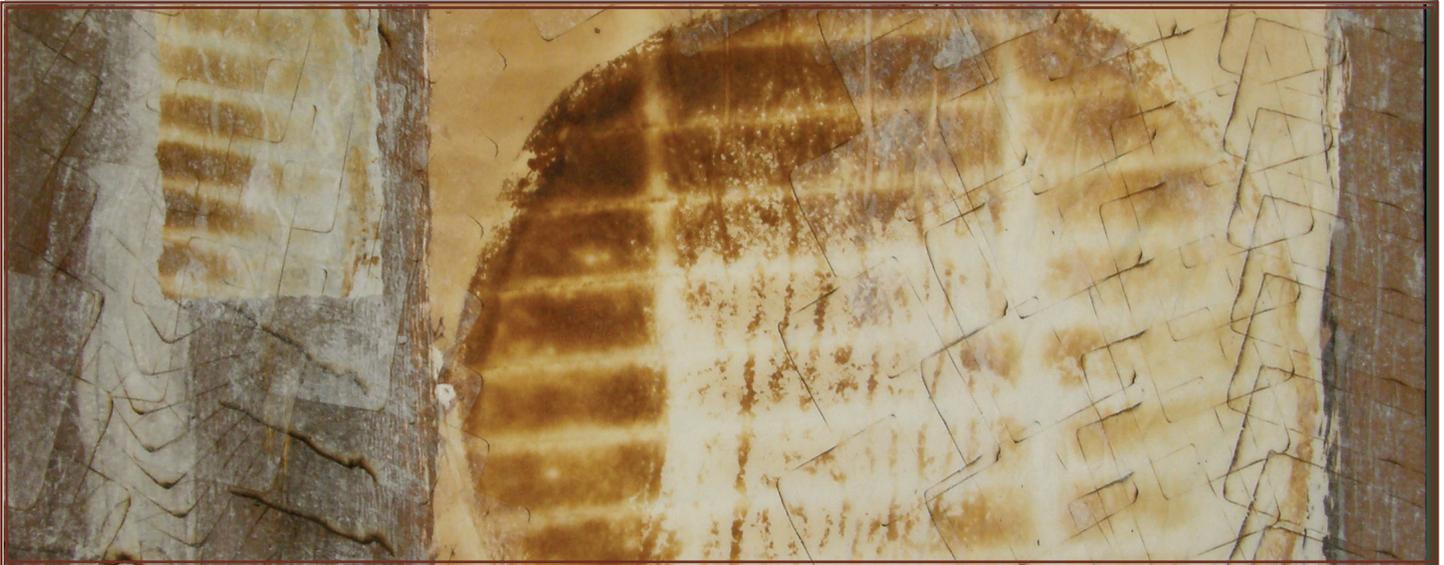


BEHAVIORAL HEALTH IN OHIO

CURRENT

RESEARCH TRENDS

Volume 1 No. 2 ● May 2013



*Assessing & Predicting Risk of Violence
Youth Offenders with Co-Occurring Disorders
Crisis Intervention in Rural Areas
Supportive Housing to Reduce Recidivism*

Ohio | Department of
Mental Health

Establishing mental health as a cornerstone of overall health

BEHAVIORAL HEALTH IN OHIO ~ CURRENT RESEARCH TRENDS

Behavioral Health in Ohio: Current Research Trends is an eJournal published by the Ohio Department of Mental Health (ODMH). Copies of the eJournal are available on our website at <http://mentalhealth.ohio.gov>. Click on the “What We Do” tab and click “Research and Evaluation.”

Better known as *Current Research Trends* or *CRT*, the eJournal is produced by the Office of Research and Evaluation to circulate knowledge about recently completed behavioral health research conducted in Ohio’s public mental health system.

The *CRT* eJournals are organized thematically, focusing on a single critical topic. Most of the *CRT* eJournal articles highlight research funded in whole or in part by ODMH. Manuscripts about behavioral health studies conducted in Ohio but not funded by ODMH are also welcome for possible inclusion.

Guidelines for submitting manuscripts to *CRT* can be found at <http://mentalhealth.ohio.gov>. Click on the “What We Do” tab and click “Research and Evaluation Publications.”

The editors of the *CRT* eJournal also will accept notices about forthcoming research grants, relevant events and staff development training. Please send notices about workshops, conferences or events to: ORE-ODMH@mh.ohio.gov.



The **Office of Research and Evaluation (ORE)** conducts studies about Ohio’s public mental health system. Typically, these studies address questions raised by the Ohio Department of Mental Health’s (ODMH) leadership and focus on services and outcomes for adults with serious mental illness, and for children, adolescents and transition-age youth with serious emotional disturbances. Other areas of interest include implementation and management of evidenced-based, best and promising practices, integrated physical and behavioral healthcare, and system finance. ORE also evaluates ODMH program and policy initiatives and manages the new Treatment Episode Outcomes System.

ORE regularly disseminates study findings on the ODMH website and in relevant journals. To access ORE’s online publications, visit the ORE website at <http://mentalhealth.ohio.gov>. Click on the “What We Do” tab and click “Research and Evaluation.”

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BEHAVIORAL HEALTH IN OHIO

CURRENT

RESEARCH TRENDS

Volume 1 No. 2 • May 2013

Table of Contents

Moving Research into Practice	4
<i>Tracy Plouck, Director, Ohio Department of Mental Health.</i>	
Current Behavioral Health Research in Ohio	5
<i>Kraig Knudsen, Chief, ODMH Office of Research and Evaluation</i>	
A Comparative Study of Treatment Programs for Youth Offenders with Co-Occurring Disorders	7
<i>Richard Shepler • David Newman • Helen Cleminshaw • Thomas Webb • Eric Baltrinic</i>	
An Evaluation of the Behavioral Health/Juvenile Justice (BHJJ) Initiative	18
<i>Jeff M. Kretschmar • Fredrick Butcher • Daniel J. Flannery, PhD</i>	
Validation of the Psychometric Properties of the Rapid Risk of Violence Screen (RROVS)	31
<i>Paula Smith, PhD, A. J. Myer, MS, Kevan D. Galyean, MS</i>	
Crisis Intervention Team (CIT) Programs in Rural Communities: A Focus Group Study	40
<i>David Skubby • Natalie Bonfine • Meghan Novisky Mark R. Munetz • Christian Ritter</i>	
Supportive Housing for Returning Prisoners in Ohio	50
<i>Jocelyn Fontaine</i>	
FYI: Conferences, Workshops, & Events	59



Moving research into practice

In the past two years, our Research and Evaluation team has put a greater focus on funding studies that can be applied to help us address current policy challenges.

With that said, we all recognize that there are significant shared challenges between Ohio's public mental health and addiction services system and the criminal justice system. This eJournal explores some of those challenges in detail and highlights areas of opportunity wherein the two systems, together, can make progress to improve outcomes and manage taxpayer-funded expenses.

Professionals in both the mental health and criminal justice systems have explored a variety of ways to reduce criminal justice expenses. As discussed in this eJournal, Ohio-based initiatives provide efficient and effective services to consumers who are (or may be potentially) involved with the criminal justice system. Research and evaluation activities assist decision makers in determining the best treatment options for the individual and the community.

Our Office of Research and Evaluation provides research grant funds to investigators to conduct studies about promising tools, services and supports for people diagnosed with mental illness who are involved in the criminal justice system. Recently-funded studies have examined the impact of criminal justice involvement upon diverse populations of mental health

consumers, including youth and young adults-in-transition and returning veterans. This issue of *Behavioral Health in Ohio: Current Research Trends* features some of these studies.

Each study included in this eJournal represents a number of important policy and program implications. For instance, one study identifies strategies that will improve the effectiveness and efficiency of behavioral health services provided to justice-involved youth. Another study suggests that providing supportive housing to ex-offenders can reduce recidivism and increase successful integration into the community. One additional study demonstrates that by receiving co-occurring treatment for both mental health and substance abuse, youth yield better outcomes than from having treatment as usual.

It is our hope that these promising evidence-based programs, tools and supports can be disseminated into various community and institutional settings that serve people with mental illness. As part of the dissemination process, we encourage service providers to offer feedback to the researchers and our Department about how these results can be useful in everyday settings. Send comments to ORE-ODMH@mh.ohio.gov. By working together, professionals and researchers can continually improve our public mental health system and enhance the lives of individuals with behavioral health disorders living in the community.

Tracy J. Plouck
Director
Ohio Department of Mental Health



Adobe Sun
by Sheree

The artwork featured on the cover of this *CRT* eJournal comes to us from the Fresh A.I.R. Gallery at Southeast, Inc. Titled *Adobe Sun* (24"x 24"), the painting was created by Sheree, a seasoned artist who lives with a dissociative disorder. Today, Sheree has reached a point in her life where she is comfortable with her recovery.

Art has been important to Sheree and her works have been enjoyed by many. She first exhibited her visual art works at Southeast's Fresh A.I.R. Gallery in 2005. Through her collaborations and long-time association with the gallery, Sheree was able to win a commission for four pieces of art from Netcare Access, which have been exhibited in their administrative offices.

For more information about the Fresh A.I.R. Gallery and the artists they work with, contact Myken Pullins, Executive Assistant & Public Affairs Coordinator at Southeast, Inc., at 614.225.0980.



Sheree



Dear Colleagues:

In this and the next edition of *Current Research Trends* we focus on questions concerning the involvement of individuals with serious mental health issues in the criminal justice system. The interface

between the mental health and criminal justice systems is significant. Mental health policy makers, law enforcement, courts, jails and prisons, along with consumers and family members continue work to address these issues. According to the U.S. Department of Justice, it is estimated that 17% of persons involved in the criminal justice system have a mental illness. When considering the entire criminal justice population of the United States, the number reaches more than two million individuals with mental illness in U.S. jails and prisons at any given time. While criminal justice (CJ) involvement is a persistent issue for persons with serious mental illness, there is a lack of research on the effectiveness of interventions used to reduce CJ involvement, enhance recovery, and increase community tenure. This is unfortunate because persons with mental illness involved in the CJ systems present with complex issues and are more likely to have comorbid conditions such as substance abuse, anti-social personality disorder, criminogenic behaviors, and poor social networks, all of which are amenable to mental health treatments that can be adapted to address the unique needs of this population.

To address these longstanding concerns, the Ohio Department of Mental Health funds a number of initiatives designed to support the specialized needs of persons with mental illness involved in the criminal justice system. In this eJournal, we highlight the research and evaluation of some of these programs. This *Current Research Trends* opens with a study on the effectiveness of Integrated Co-Occurring Treatment (ICT). According to the authors, ICT is an integrated contextual treatment approach embedded in an intensive home-based method of service delivery. It incorporates a comprehensive set of mental health and substance use interventions into a unified treatment plan for each youth and family member. Conducted by Rick Shepler, PhD et al., this study examines the effectiveness of ICT when compared to Treatment at Usual (TAU) when used with youth offenders in the juvenile justice system. The results suggest that ICT was superior to TAU in reducing problem severity, reducing substance abuse and enhancing family and peer relations among participating youth.

The second study was administered by Kretschmar, Butcher, and Flannery and examines the effectiveness of the Behavioral Health/Juvenile Justice (BHJJ) Initiative. The BHJJ initiative had four main objectives: 1) to meet the treatment needs and support needs of youth and their families; 2) improve intersystem communication; 3) coordinate and expand funding for shared outcomes through reinvestment of current resources and draw-

down of federal matching funds; and 4) acquire research and evaluation based information on treatment and system outcomes. The evaluation in this edition of *Current Research Trends* discusses the BHJJ treatment and system outcomes. Findings from this study suggest that overall BHJJ youth exhibited significant improvements during the course of treatment in problem severity, functioning, delinquent adjudication, criminal justice involvement, and detention in a juvenile justice institution. This study offers further evidence that providing an array of evidence-based treatments in the community works to improve the mental health and quality of life of youth experiencing the effects of mental illness, while also reducing criminal justice involvement.

The third article, written by Smith, Myer, and Galyean examines the psychometric properties of the Rapid Risk of Violence Screen (RROVS). The RROVS is a screening tool that can quickly identify clients to determine whether or not a more in-depth violence assessment instrument should be administered. The purpose of the study was to determine if the instrument was successful at identifying individuals who are at higher risk to be violent and, therefore, need a more extensive assessment in outpatient settings. Results from this study indicate that the RROVS is a psychometrically reliable tool for measuring risk of violence. When examining validity against two other established tools, the HCR-20 and the MacArthur Behavioral Checklist, results suggest that the RROVS is psychometrically valid as well. In addition, the scores across both race and age groups did not differ significantly, indicating that the tool is also generalizable across different racial and age categories. This study is an important step in further legitimizing this tool's use in community settings to identify those at risk of violence receiving mental health treatment. This tool will be a valuable addition to clinical assessments in mental health settings and will offer clinicians a way to identify those in need of further assessment and alternative treatment options.

Skubby, Bonfine, Movisky, Munetz, and Ritter follow with their study on evaluating the development of Crisis Intervention Teams (CIT) in rural, urban and suburban communities. The study included focus groups conducted annually on an ongoing basis to evaluate the development of these jail diversion program efforts. CIT is a jail diversion program that trains police officers in understanding mental illness and the needs of persons with mental illness. It also alerts them to the mental health services offered in the community. CIT works to reduce the unnecessary incarceration of persons with mental illness and divert them back to treatment when appropriate. In this study, the authors found that barriers to implementing CIT in communities included professional understandings between law enforcement and mental health professionals, lack of funding for training costs, lack of replacement officers to patrol the communities while other officers were being trained and a significant lack of psychiatric facilities to

refer and transport offenders. Finally, the lack of systematic data collection to evaluate the effectiveness of CIT programs was also considered a barrier to CIT implementation and expansion. The findings suggest that communities looking to introduce CIT at a minimum should conduct meetings between the mental health and law enforcement communities, provide adequate funding for training slots, and provide back-up for officers who would like to take advantage of this unique training opportunity.

This volume concludes with a study by Jocelyn Fontaine, PhD. Her study examined the implementation of a supportive housing program in the community for offenders leaving prisons. The evaluation specifically looked at whether or not the enhanced housing 1) reduced recidivism, 2) increased residential stability, 3) increased service utilization, and 4) decreased costs. When examining the individuals assigned to the supportive housing program (treatment group) compared to those not in the housing program (comparison group), she found that the treatment group had less re-arrests and re-incarcerations and more services delivered than the comparison group. In addition, the treatment group received services earlier and for a longer period of time compared to those in the comparison group. This study is a critical step in determining whether supportive housing increases community tenure of individuals with mental illness, who have a history of involvement with the criminal justice system.

At the Department of Mental Health, we believe that research and evaluation are essential to advancing the quality and effectiveness of the mental health system. Through the use of properly designed research and evaluation, we can develop new programmatic approaches, advance best practices and better

appreciate the needs of those we serve. I hope that you will find the topics addressed in this issue of *Behavioral Health in Ohio: Current Research Trends* interesting and informative. It is our goal that you will be able to use some of the results of the research in the ongoing operation of mental health programs throughout Ohio.

One of the functions of the Office of Research and Evaluation is to develop linkages between problems and questions within the mental health system that need research, and universities and other resources capable of developing research and evaluation projects that will provide answers. To this end, we are actively engaged in an ongoing process to encourage researchers in settings throughout Ohio to apply their talents and expertise to the many priority questions which remain unsolved in all of the areas of public mental health. As in the past, we invite continued dialogue with those in the research and evaluation community who wish to explore these challenges with us. For information about recent research and evaluation activities and possible grant opportunities, visit our website at <http://mentalhealth.ohio.gov>.

On a final note, we are indebted to the authors and contributors who made this edition possible. We would also like to thank Director Tracy Plouck for her steadfast devotion to advancing the field of mental health through continued support of behavioral health services research and evaluation. Without their support the research presented in this volume would not have been possible.

Kraig Krudsen, PhD

Chief, Office of Research and Evaluation
Ohio Department of Mental Health

A COMPARATIVE STUDY OF TREATMENT PROGRAMS FOR YOUTH OFFENDERS WITH CO-OCCURRING DISORDERS

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There is increasing evidence that youth involved in the juvenile justice system present with a high prevalence of co-occurring mental health and substance use disorders (COD), ranging from 37% to 65%, depending on the study.¹⁻³ Youth with COD typically have multiple problems and risk factors that negatively affect functioning in key areas of their lives.⁴⁻⁷ The complexity and severity of this population makes the effective treatment additionally challenging, as evidenced by higher rates of treatment dropout and poor long-term treatment outcomes.⁸ Initial treatment studies have found that comorbidity negatively affects youths' substance use treatment outcomes, regardless of length of stay,⁹ amount of treatment,¹⁰ and whether the youth received an empirically supported substance use treatment.^{6, 11} It is common, in fact, for youth with COD to need multiple treatment attempts, over time, and supportive environments to sustain recovery.^{6, 10, 12}

Another challenge is the treatment delivery modality normally available to these youth. Typically, two different treatment systems (mental health and drug and alcohol)

deliver treatment to adolescents with COD, in either sequential (one type of treatment following the other), or in a parallel fashion (both services delivered in the same time frame but by different providers). However, research indicates that treating one disorder in isolation is not sufficient.¹³

Encouragingly, increasing attention is being given to designing effective treatment approaches for adolescents with COD. Of special interest are integrated approaches, which have been shown to be effective in improving treatment engagement, retention, and outcomes with adults with COD.¹⁴ However, few studies, to date, have evaluated the effectiveness of integrated treatments for youth with COD.

This study will evaluate the effectiveness of the Integrated Co-Occurring Treatment (ICT) model,¹⁵ a practice developed to meet the complex treatment needs of youth with COD. ICT is an integrated contextual treatment approach embedded in an intensive home-based method of service delivery, which incorporates a comprehensive set of mental health and substance use interventions into a

unified treatment plan for each youth and his/her family. ICT clinicians utilize an integrated contextual assessment to determine the youth's co-occurring diagnoses, contextual functioning, developmental skill deficits, trauma and safety concerns, and risk and recovery environments. Based on this assessment, integrated mental health and substance use interventions are then matched to the youth's and family's most salient treatment needs. These interventions include individual mental health and substance use therapy interventions, psycho-education and skill-building interventions, family therapy, crisis intervention, safety planning, service coordination, and resource and support building activities. All services are provided in the home, school, and community where the youth lives and functions. ICT clinicians are on-call 24 hours a day, five days a week, to the youth and families they serve with rotating weekend on-call coverage among ICT team members. Caseloads are small, four to six families, which allows for intensive provision of services of three to six hours per week over three to six months.

This study's main research goal was to test the effectiveness of the ICT model as compared to treatment as usual (TAU) for youth with COD among the following variables: criminal behaviors, mental health functioning, substance use, educational functioning, family functioning, and pro-social peers and activities. The study utilized naturally occurring comparison groups made available through a specialized co-occurring treatment docket at a local juvenile court. Youth participating in the study received the co-occurring court's Intensive Co-Occurring Court Supervision (ICCS) program as a condition of their probation. The following hypotheses were tested:

Hypothesis 1

Youth who received ICCS and ICT as a condition of their probation have better outcomes than youth who received ICCS and TAU as a condition of their probation.

Hypothesis 2

There were no differences in outcomes for youth who received ICCS and ICT as a condition of their probation and youth who received ICCS and TAU as a condition of their probation.

METHOD

Research Design.

This study utilized an ex post facto type III research design with hypotheses and tests of alternative hypotheses, which is the most powerful of the ex post facto designs.¹⁶⁻¹⁸ The validity of this design is increased by stating relevant alternative research

hypotheses.^{16,17} Due to ethical concerns from the local court, the study was conducted under real-world conditions, and youth were not randomized into treatment groups.

Measures.

This study uses multiple data sources, as well as different rating perspectives (youth, parent, and worker). This triangulation of data increases the overall validity of the findings. The instruments employed in this study included the Ohio Scales (Youth, Parent, and Worker Forms)^{19,20} and the Global Risk Assessment Device (GRAD).²¹ The Ohio Scales is a multiple source (parent, youth, and worker) and multiple content (Problem Severity, Functioning, Hopefulness, and Satisfaction with Services) instrument developed for the purpose of tracking outcomes for youth involved in the mental health system. The Ohio Scales Technical Manual²⁰ provides extensive support for the instrument's reliability and validity across scales and raters. For the purpose of this study, the Problem Severity and Functioning scales were utilized to operationalize mental health outcomes along with the GRAD Personality/Behavior domain. The juvenile court's psychologist collected Ohio Scale score for all youth enrolled in ICCS at admission and at six month intervals until discharge.

The GRAD is an internet-based, global risk-assessment instrument that is structured to allow the collection of information on the following 11 domains: Prior Offenses, Family/Parenting, Education/Vocation, Peers/Significant Relationships, Substance Use/Abuse, Leisure, Personality/Behavior, Sociability, Trauma, Accountability, and Health Services from multiple perspectives

(youth, parent, and professional). The GRAD demonstrates strong psychometric properties as described in Gavazzi, et al. (2003). Probation officers assigned to the youth collected GRAD scores every six months for the length of the youth's enrollment in ICCS. The GRAD domains utilized in this study were: Prior Offenses, Family/Parenting, Education/Vocation, Peers/Significant Relationships, Substance Use/Abuse, Leisure (Pro-Social Activities), and Personality/Behavior.

In addition, ICCS staff collected the following information on each youth: criminal behavior, school data, drug screens, demographics, diagnoses, family status, and compliance data. Court staff collected all measures at admission and at time of advancement to each phase of the ICCS program. Drug screens were completed randomly, with the type of drug screen determined by the assigned ICCS probation officer based on current substance use patterns of the youth. ICSS staff collected all data on youth as part of their regular outcome tracking.

Participants.

Participants in this study were 163 youth enrolled in a county-level Co-Occurring Court program located in a Midwestern state between February 2005 and 2008; 52 of the youth received ICT through a community mental health agency. All youth received the Co-Occurring Courts ICCS program as a condition of their probation, as well as treatment services in the community. Youth eligible for ICT were between the ages of 12–17.5 years of age and had to have both substance use and mental health diagnoses.

The University of Akron Institutional Review Board granted permission to conduct the study. Also, the Co-Occurring Court and the community mental health agency granted permission to the research team to access de-identified data collected from youth served in their respective programs for the purpose of this study. Both court personnel and ICT staff obtained informed consent from participants and their guardians as part of each program's regular consent procedures. Only participants who agreed to allow their de-identified data to be used for research purposes were included in the study.

Demographics.

The mean age for all youth enrolled in the study was 15.7 years ($SD = 1.29$); 61% of the study participants were male. Due to missing data, race is reported as a valid percent. The racial composition of the total sample included 17.6% African American, 75.7% Caucasian, 4.7% bi-racial youth, and 2% "other." The sample's racial composition is similar to that of the county where the youth reside. There were no statistical differences between the treatment groups for age, race, and gender.

Across the majority of the participant's mental health diagnoses, there were no statistical differences between groups, except that ICT youth were more likely to be diagnosed with Cyclothymia than TAU participants ($t = -2.130, p = .036$). Also, there were no significant differences between groups' scores on the Ohio Scale's Problem Severity or Functioning scales at time of admission. However, the ICT group was rated as being more chemically dependent ($t = -2.619, p = .01$), higher in cannabis use ($t = -2.078, p = .04$), and significantly higher Substance

Use/Abuse domain scores on the GRAD at time of admission than the TAU comparison group ($t = -4.452, p < .001$). In terms of juvenile justice variables, there were no differences between groups on admitting offenses (felony versus misdemeanor) or prior number of felonies or misdemeanors. However, the age of first adjudication was significantly younger for ICT youth than for TAU youth ($t = -3.321, p = .001$), and the admitting offense degree (felony levels 1-3) was higher for ICT participants ($t = 2.159, p = .033$). The presence of learning disabilities was also tracked at time of admission. ICT youth were significantly more likely to have identified learning disabilities than TAU youth ($t = -2.083, p = .04$).

PROCEDURES

The study had two comparison groups:

Condition 1: Co-Occurring court's ICCS and ICT. Youth in Condition 1 received ICCS and ICT. Condition 1 youth may have also received traditional treatment services, pre- and/or post-ICT, if deemed necessary by the assigned probation officer.

Condition 2: Co-Occurring court's ICCS program and TAU. Youth in Condition 2 received ICCS and TAU. These treatment options included: outpatient substance abuse treatment, outpatient mental health treatment, intensive outpatient substance abuse group treatment, short-term inpatient substance abuse treatment, and residential treatment.

Youth in both ICT and TAU were enrolled in the Co-Occurring

Court's ICCS, which is an intensive supervision probation program designed to monitor and coordinate community services for youth with co-occurring substance abuse and/or mental health disorders. Youth were enrolled in ICCS for a minimum of one year. During this time, the youth met with their assigned probation officer two to three times per week, submitted random urine drug screens, and attended all required programming and services, including weekly court reviews. The average length of stay for youth enrolled in ICCS for this study was 1.2 years ($SD = 0.459$; range: 0.1 to 2.3 years).

At time of admission into ICCS, the Co-Occurring Court's Suitability Team recommended treatment options based on the youth's presenting needs. Youth were referred to either ICT services or TAU based on the youth's level of severity of mental health and substance use symptoms and the family's level of functioning. Youth assessed to have higher severity on these variables were referred to ICT, while youth with lesser levels of severity were referred to TAU. In addition, reflective of real world conditions, probation officers directly referred participants periodically to ICT and other treatments while the youth was enrolled in ICCS. Consequently, youth in both conditions may have received more than one type of treatment while enrolled in ICCS. Therefore, the findings of this study should be conservatively interpreted.

The supervisor screened youth who were referred to ICT to determine if participants were between the ages of 12 to 17.5, had a substance abuse or dependency diagnosis, had a mental health diagnosis, and were at-risk of placement or being reunified

from a current placement. Youth meeting these criteria were accepted into the ICT program. The length of stay for youth enrolled in the ICT program for this study averaged 161.8 days (*SD* = 47.59; range = 55 to 253 days). Master’s level clinicians delivered ICT and were supervised by a Master’s level, independently licensed supervisor with dual credentials in mental health

counseling and substance use treatment. ICT staff were either dually credentialed or working toward their dual licensure. There was staff turnover during the study data collection time frame.

All ICT staff received an initial training on the ICT model, as well as additional booster trainings throughout the study time period

based on the therapist’s skill set needs. To monitor and enhance fidelity to the ICT model, an ICT developer provided two hours of weekly, on-site group consultation to the therapists. A fidelity review was completed annually to assess adherence to the main components of the model and was used to inform the focus for trainings and consultation.

Table 1. Alpha Adjustments for Multiple Comparisons Utilizing Newman-Frye Correction

Research Family	Variable	Adjusted Family-Wise Alpha
Criminal Behaviors (3)	Days in Detention Commitments GRAD Prior Offenses	0.025
Mental Health Problems (4)	OS Problem Severity - Parent OS Problem Severity - Youth OS Problem Severity - Worker GRAD 7 Personality/Behavior	0.01667
Mental Health Functioning (3)	OS Functioning – Parent OS Functioning - Youth OS Functioning - Worker	0.025
Hopefulness (2)	OS Hopefulness - Parent OS Hopefulness - Youth	0.05
Substance Use (3)	GRAD Substance Use/Abuse - Parent GRAD Substance Use/Abuse - Youth Total Drug Use Drug Screens	0.025
Education/Work (2)	GRAD Education/Work -Youth GRAD Education/Work - Parent	0.025
Family/ Parenting (2)	GRAD Family/Parenting - Youth Rating GRAD Family/Parenting - Parent Rating	0.05
Pro-Social Peers (2)	GRAD Peers/Significant Relationships - Parent GRAD Peers/Significant Relationships - Parent	0.05
Pro-Social Activities (2)	GRAD Leisure - Youth Rating GRAD Leisure - Parent Rating	0.05

Data Analysis. This study used Linear Mixed Models (LMM) MIXED procedure in SPSS v 20. This technique was the most appropriate method given that the data were repeated measures with unequal treatment groups and periodic missing data. LMM is a “mix” of a random effect and a fixed effect model and allows for unequal groups and missing data. In our model, the fixed effect was the treatment, and the random effect was time. This modeling technique allowed us to assess the impact of the treatment over time.

The statistical significance level was adjusted to account for multiple comparisons. Family-wise corrections were calculated to compensate for multiple comparisons within similar constructs. A Newman-Frye correction for multiple comparisons²² (alpha/number of tests per question-1) was used to help ensure that there was not an overcorrection. (See Table 3). The Newman-Frye correction takes into consideration correcting for Type I Error without increasing the Type II Error rates.^{18, 22, 23}

RESULTS

Criminal Behaviors

Three categories of court collected data -- criminal behaviors, days in detention, and long-term commitments -- were analyzed. Criminal behavior was operationalized by ratings on the GRAD Prior Offense domain. Commitments were operationalized by long-term incarceration in the state juvenile facility. For each variable, change over time was analyzed for the total sample and for comparisons between treatment groups.

GRAD Prior Offenses. For the total sample, there were no significant differences in criminal behavior over time, as measured by the GRAD Prior Offenses domain, $F = 2.302, p < 0.133$. However, ICT had a significantly greater increase in criminal behaviors over time than TAU as measured by the GRAD Prior Offenses domain across perspectives, $F = 17.898, p < 0.001$.

Days in Detention. The number of days in detention increased significantly over time for the total sample, $F = 22.463, p < 0.001$. Also, the number of days in detention increased significantly over time for ICT compared to TAU, $F = 32.694, p < 0.001$.

Commitments. While ICT had more youth committed to the state juvenile facility than those in TAU, this finding was not significant after correcting for multiple comparisons (adjusted $\alpha = 0.0125$), $F = 4.332, p = 0.041$.

Mental Health

Problem Severity (Ohio Scales Problem Severity – Youth Rating; GRAD Personality/Behavior). For the total sample, mental health problem severity decreased significantly over time on both the Ohio Scales Problem Severity scale and the GRAD Personality/Behavior domain. (See Tables 2 and 3.) While there was no significant difference between the TAU and ICT groups over time for the youth, parent, or worker ratings on the Ohio Scale's Problem Severity Scale, ICT had a significantly greater reduction in problem severity over time compared to TAU on the GRAD Personality/Behavior domain. (See Tables 2 and 3.)

Positive mental health functioning. For the total sample, mental health

functioning increased significantly over time, for youth, parent, and worker ratings on the Ohio Scales Functioning Scale. (See Tables 2 and 3.) However, there was no significant difference between ICT and TAU on this variable.

Substance Use

The variables utilized to evaluate this question were random drug screens and ratings on the GRAD Substance Use/Abuse domain.

Random drug screens. The total proportion of substances used over time decreased significantly for the total sample as measured by random drug screens, $F = 9.766, p = 0.002$. ICT had a significantly greater reduction in substance use over time compared to TAU, $F = 7.932, p = 0.006$.

Substance Use (GRAD Substance Use/Abuse Domain). For the total sample, there was a significant decrease in substance use over time, as rated by both youth and parents on the GRAD Substance Use/Abuse domain. (See Tables 2 and 3.) ICT showed a significantly greater decrease in substance use over time compared to TAU as rated by both youth and parents on the GRAD Substance Use/Abuse domain. (See Tables 2 and 3.)

Educational, Family, and Pro-Social Functioning

Educational and vocational functioning. For the total sample, educational and vocational functioning improved significantly over time for the youth and parent ratings of the GRAD Educational/Work domain. (See Tables 2 and 3.) However, there was no significant difference between TAU and ICT on the same variable.

Family relationships and parenting. For the total sample, family relationships and parenting improved significantly over time for youth and parent ratings of the GRAD Family/Parenting domain. (See Tables 2 and 3.) In the comparison between groups, ICT showed significantly greater improvement across time on family relationships and parenting than TAU

as rated by the youth. However, there was no significant difference between TAU and ICT on the parent rating of this domain. (See Tables 2 and 3.)

Peer relationships. For the total sample, peer relationships improved significantly over time as measured by the youth rating of the GRAD Peers/Relationships domain but were not

significant for the parent ratings. The ICT group had significantly greater improvement in Peer/Significant Relationships as rated by the parent when compared to TAU but was not significant for the youth ratings.

Pro-social activities. For the total sample, pro-social activities increased significantly over time for both youth

Table 2 . Linear Mixed Models Analyses of Change Over Time for All Youth Enrolled in the Study Adjusted for Multiple Comparisons Utilizing Newman-Frye Correction

Variable	F	Coeff.	p
Criminal Behaviors			
Days in Detention	22.463	4.133	< .001†
Commitments	3.655	0.067	.056
GRAD Prior Offenses	2.302	-0.216	.133
MH Problems			
Ohio Scales Problem Severity - Youth Rating	40.555	-4.869	< .001***
Ohio Scales Problem Severity - Parent Rating	41.550	-6.017	< .001***
Ohio Scales Problem Severity - Worker Rating	60.920	-6.263	< .001***
GRAD 7- Personality/Behavior	41.705	-2.959	< .001***
MH Functioning			
Ohio Scales Functioning - Youth Rating	20.505	3.816	< .001***
Ohio Scales Functioning - Parent Rating	67.860	7.449	< .001***
Ohio Scales Functioning - Worker Rating	20.994	4.352	< .001***
Hopefulness			
Ohio Scales Hopefulness - Youth Rating	36.562	-1.431	< .001***
Ohio Scales Hopefulness - Parent Rating	37.897	-1.485	< .001***
Substance Use			
Total Drug Use (Drug Screens)	9.766	-0.014	.002**
GRAD 5 Substance Use/Abuse - Youth Rating	10.739	-1.711	< .001***
GRAD 5 Substance Use/Abuse - Parent Rating	11.532	-1.83	< .001***
Education/Work			
GRAD 3 Education/Work - Youth Rating	19.006	-1.134	< .001***
GRAD 3 Education/Work - Parent Rating	13.626	-1.566	< .001***
Family/Parenting			
GRAD 2 Family/Parenting - Youth Rating	38.482	-1.864	< .001***
GRAD 2 Family/Parenting- Parent Rating	9.353	-1.572	.003**
Pro-Social Peers			
GRAD 4 Peers/Significant Relationships - Youth Rating	6.313	-0.693	.014*
GRAD 4 Peers/Significant Relationships - Parent Rating	2.133	-0.601	.145
Pro-Social Activities			
GRAD 6 Leisure - Youth Rating	5.419	-0.281	.020*
GRAD 6 Leisure - Parent Rating	6.821	-0.441	.010**

Note. See Table 3 for adjusted alphas following Newman-Frye corrections.

† Statistically significant increase in misdemeanors, felonies and days in detention, p<.001.

*p < .05; **p ≤ .01; ***p < .001

Table 3. Linear Mixed Models Analyses of Comparisons between TAU and ICT over Time Adjusted for Multiple Comparisons Utilizing Newman-Frye Correction

Variable	F	Coeff.	p
Criminal Behaviors			
Days in Detention	32.694	-16.476	< .001†
Commitments	4.332	0.140	.041
GRAD Prior Offenses	17.898	-1.093	< .001†
MH Problems			
Ohio Scales Problem Severity - Youth Rating	0.502	-1.403	.480
Ohio Scales Problem Severity - Parent Rating	0.017	-0.317	.897
Ohio Scales Problem Severity - Worker Rating	3.127	-3.510	.080
GRAD 7- Personality/Behavior	6.134	-2.813	.014*
MH Functioning			
Ohio Scales Functioning - Youth Rating	2.849	3.698	.094
Ohio Scales Functioning - Parent Rating	2.129	3.414	.146
Ohio Scales Functioning - Worker Rating	1.415	2.466	.236
Hopefulness			
Ohio Scales Hopefulness - Youth Rating	2.111	-0.840	.149
Ohio Scales Hopefulness - Parent Rating	1.742	0.917	.189
Substance Use			
Total Drug Use (Drug Screens)	7.932	-0.052	.006**
GRAD 5 Substance Use/Abuse - Youth Rating	21.294	-3.553	< .001***
GRAD 5 Substance Use/Abuse - Parent Rating	41.237	-5.379	< .001***
Education/Work			
GRAD 3 Education/Work - Youth Rating	1.831	-0.832	.178
GRAD 3 Education/Work - Parent Rating	3.168	-1.556	.087
Family/Parenting			
GRAD 2 Family/Parenting - Youth Rating	3.890	-1.430	.049*
GRAD 2 Family/Parenting - Parent Rating	2.296	-1.475	.137
Pro-Social Peers			
GRAD 4 Peers/Significant Relationships - Youth Rating	0.622	-0.467	.432
GRAD 4 Peers/Significant Relationships - Parent Rating	8.063	-2.302	.005**
Pro-Social Activities			
GRAD 6 Leisure - Youth Rating	5.752	-0.603	.017*
GRAD 6 Leisure - Parent Rating	6.060	-0.749	.015*

Note. See Table 3 for adjusted alphas following Newman-Frye corrections. † TAU did significantly better than the ICT, $p < .001$
 *ICT > TAU, $p < .05$; ** ICT > TAU, $p < .01$; *** ICT > TAU, $p < .001$

and parent ratings of the GRAD Leisure domain. (See Tables 2 and 3.) In addition, for both youth and parent ratings, ICT had a significantly greater increase in pro-social activities across time compared to TAU. (See Tables 2 and 3.)

DISCUSSION

The present study examined the effectiveness of the ICT model¹⁵ compared to TAU for youth with co-occurring mental health and substance use disorders. This study's findings provide partial support for the ICT model. Even though the

youth who received ICT had greater severity in multiple domains at time of admission (e.g., substance abuse, age of first adjudication, learning disabilities, level of felony offense), this group experienced significant growth across time on multiple variables, such as mental health problem severity, substance use, pro-social activities, family functioning

- youth rating, and pro-social peers-parent rating when compared to TAU.

The Co-Occurring Court's ICCS program, while not directly evaluated in this study, may have contributed to the positive findings in both groups, particularly in the reduction of mental health severity and substance use. This finding lends support to the positive relationship between ICCS and improved substance use and mental health outcomes and is consistent with the research on the positive effects of juvenile drug courts,^{24,25} especially when they are coupled with promising and evidenced-based practices.²⁶

Treatment effects on mental health functioning. At admission, both groups had parent and worker ratings near 30 or higher for problem severity, which places the youth studied in the clinical range or top 2% for all youth.¹⁹ Both groups demonstrated clinically significant change^{27,28} over time with scores ending in the normal range of mental health functioning scores of 20 or below.¹⁹ Also, positive mental health functioning increased significantly over time across all youth studied. Henggeler et al. (2006) found a similar result in their study of Multisystemic Therapy (MST) and juvenile drug court. The authors found no differences between treatment conditions; but overall, youth across conditions ended up within the normal range of mental health symptomatology. One explanation for these positive results is that the intensive monitoring and increased supervision provided by ICCS may have played a mediating role by helping to increase treatment engagement, retention, and completion for both groups.²⁹

Of additional interest is the fact that the ICT group reported significantly greater reduction in problem behaviors over time as measured by the GRAD Personality/Behavior Problems domain when compared to TAU. These findings are promising given the difficulty in finding mental health differences between groups in other studies with similar populations.^{26, 29}

Treatment effects on substance use. For the total sample, substance use decreased significantly across time as measured by the GRAD Substance Use/Abuse domain and by random drug screens. Additionally, the ICT group reported a significantly greater reduction in substance use over time compared to the TAU group as measured by both the GRAD Substance use/Abuse domain parent and youth ratings and by random drug screens.

The relative decrease in substance use for the ICT participants, over and above the decrease by the TAU, lends support for the effectiveness of ICT in reducing substance use in youth with co-occurring disorders. This finding is similar to the results achieved by MST in their juvenile drug court study and supports the premise that the combination of well-implemented, evidenced-based or promising practices, and a juvenile drug court/intensive supervision program produces strong results in terms of substance use reduction.²⁶

Criminal Behaviors

One unexpected finding was that youth in both groups had increasing days in detention over time; ICT youth had more days in detention over time than did TAU youth. Also, ICT

youth rated themselves higher on the GRAD Prior Offenses over time than did TAU participants. The following sections will discuss possible reasons for these findings.

Intensive supervision. One explanation for these findings is that ICCS provided high levels of external monitoring and supervision, which has been shown to increase days in detention and incarceration.³⁰ Henggeler et al. (2006) found a similar result in studying MST and juvenile drug courts and suggested that the more frequent surveillance by drug court staff increased the likelihood of identifying criminal activity and rule violations. Thus, the intensive supervision component of ICCS might have had the paradoxical effect of increasing court involvement and court sanctions for study participants.

In summary, it is hypothesized that the intensive supervision and monitoring component of ICCS had a twofold effect on the youth studied: 1) enhanced compliance to treatment and rules, which may have contributed to positive treatment outcomes and 2) increased chances of youth incurring additional probation violations, especially due to greater accumulation of positive drug screens. The violations, in turn, may have led to increased court involvement and court sanctions (e.g., time in detention, further charges, and incarceration).

Initial differences between groups. Another possible explanation for the ICT group's higher ratings on criminal behaviors and days in detention is the initial differences between the two groups. ICT youth were significantly more severe than the TAU youth on two variables that

strongly predict recidivism in the juvenile justice literature: criminal history and severity of substance abuse. Both of these variables will be discussed in the sections that follow.

Substance use as a predictor of recidivism. There is increasing research support for the effects of substance use on future recidivism in juveniles.³¹⁻³⁴ The North Carolina Department of Juvenile Justice and Delinquency Prevention conducted a recidivism study about youth adjudicated with felony charges and cited a 72% increase in risk for recidivism for youth with higher mean risk scores for substance abuse.³³ In a separate study of longitudinal data from the Colorado Longitudinal Youth Study (CLYS), Stoolmiller and Blechman (2005) found that both youth and parent reports of substance use were strong predictors of recidivism (future arrest). Also, the authors found a greater risk of recidivism (parent raters: 114% increase in recidivism; youth raters: 70% increase in recidivism) for youth rated as having more frequent substance use compared to youth who were not reported using substances.³⁴ It is reasonable to hypothesize that ICT participants might have higher rates of recidivism (days in detention) based on their greater substance use severity at time of admission.

Criminal history and recidivism.

There is strong research support that criminal history predicts future recidivism. One variable that has been demonstrated to predict recidivism is the age of first adjudication.^{31,32,35} Another variable that predicts recidivism is the severity of the offense.^{35,36} ICT youth were significantly younger at their first adjudication and had

higher level felony charges than TAU youth. Based on this evidence, one can probably assume that ICT youth would have an increased chance of recidivism due to their earlier and more severe criminal history.

To summarize, the effect of intensive supervision on the increased identification and consequent enforcement of technical violations in combination with the relative severity of the ICT participants' criminal history and substance use may have contributed to ICT youth having more days in detention and higher ratings on criminal behaviors over time than TAU.

Family, educational functioning, pro-social activities, and positive peers. Generally, youth and parents rated overall improvement on family relationships, educational functioning, and pro-social activities. Additionally, ICT improved more than TAU on pro-social activities (youth and parent ratings, parent ratings of pro-social peers, and youth ratings of family). These findings are important given the protective effects that positive family relationships and pro-social peers and activities have on decreasing substance use^{37,38} and delinquent behaviors.³⁹⁻⁴¹ Since protective effects are key areas of focus for the ICT intervention, these findings offer additional support for the model.

LIMITATIONS

There were many limitations that posed issues regarding the internal and external validity of the study. First, because there was no randomization of subjects, causality cannot be inferred, and

the generalizability of the results is limited. Missing data was also a problem in this study and may have caused a selection bias in that youth and families more willing to complete the outcome measures may have been more engaged in services overall.

In addition, investigators had no control over what services or treatments each youth received over the course of enrollment in the ICCS program nor when they received them. Referrals from the court were made at various times during a youth's enrollment in ICSS based on the unique needs of the youth and family. Also, youth may have received multiple treatments over the course of enrollment in ICSS if deemed necessary by ICSS staff; multiple treatments were a source of error spread across both TAU and ICT. Because measurements were taken based on a time frame determined by ICSS and not directly pre- or post-ICT intervention, the results might reflect effects other than the ICT intervention. Therefore, it is possible that what was measured was a combination of treatment effects over the time period that the youth were involved in ICSS. These factors added complexity to all of the group comparisons.

Because of these limitations, a more global analysis measuring treatment groups over time was utilized to test for group differences. The best-matched methodology to account for these issues is a trend analysis using LMM, comparing those youth who received ICT at any time during the co-occurring court program to those youth who did not receive ICT. In summary, even though youth in both groups may have received multiple treatments and

the initial starting point of ICT was variable, the global outcome trends for youth who received ICT when compared to youth who received TAU were mostly positive.

CONCLUSIONS AND AREAS FOR FUTURE RESEARCH

Overall, while the findings of the studied were mixed, the results offer additional support for the ICT model as a promising practice for youth with COD. These findings build on previous data that offered preliminary support for the ICT model.^{15,42} This study is important because of the paucity of research on treatments for youth with COD.^{1,5,7,9,15} While these results are promising, a randomized controlled trial with a sufficient follow-up period is necessary to further evaluate the efficacy of this model.

Given the apparent positive results for both groups in this study, another area for future research is the effect of juvenile drug courts and intensive supervision on youth with co-occurring disorders. Henggeler et al, (2006) conducted a similar study with MST and juvenile drug courts and found that youth receiving MST within a juvenile drug court setting had improved substance use outcomes compared to youth who just received juvenile drug court alone. It is anticipated that these effects would also hold for youth diagnosed with co-occurring disorders.

In closing, the need for research and programming for this at-risk population is evident. The overarching policy challenge for the field of co-occurring disorders and adolescents

is: “Why, compared to adult services, has there been very little attention in research or in practice to youth with co-occurring disorders; yet we know that it is not an unusual condition?”⁴³

REFERENCES

- Hussey, D. L., Drinkard, A.M., & Flannery, D. J. (2007). Comorbid substance use and mental disorders among offending youth. *Journal of Social Work Practice in the Addictions*, 7 (1/2), 117-138.
- Skowyra, K., & Cocozza, J. (2006). *Blueprint for Change: A comprehensive model for the identification and treatment of youth with mental health needs in contact with the juvenile justice system: executive summary*. The National Center for Mental Health and Juvenile Justice Policy Research Associates, Inc. and Office of Juvenile Justice & Delinquency Prevention.
- Teplin, L., Abram, K. M., McClelland, G.M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry*, 59 (12), 1133-1143.
- Abrantes, A.M., Hoffmann, N. G., & Anton, R. (2005). Prevalence of Co-Occurring Disorders Among Juveniles committed to detention centers. *International Journal of Offender Therapy and Comparative Criminology*, 49 (2), 179-193.
- Hussey, D.L., Drinkard, A.M., Falletta, L., & Flannery, D.J. (2008). Understanding clinical complexity in delinquent youth: Comorbidities, service utilization, cost, and outcomes. *Journal of Psychoactive Drugs*, 40 (1), 85-95.
- Rowe, C., Liddle, H., Greenbaum, P., & Henderson, C. (2004). Impact of psychiatric comorbidity on treatment of adolescent substance abusers. *Journal of Substance Abuse Treatment*, 26, 129-140.
- Turner, W. C., Muck, R. D., Muck, R. J., Stephens, R. L., & Sukumar, B. (2004). Co-Occurring disorders in the adolescent mental health and substance abuse treatment systems. *Journal of Psychoactive Drugs*, 36(4), 455-462.
- Hills, H. (2007). *Treating Adolescents with Co-Occurring Disorders*. Florida Certification Board/Southern Coast ATTC Monograph Series # 2.
- Shane, P. A., Jasiukaitis, P., & Green, R.S. (2003). Treatment outcomes among adolescents with substance abuse problems: The relationship between comorbidities and post-treatment substance involvement. *Evaluation and Program Planning*, 26, 393-402.
- Tomlinson, K. L., Brown, S. A., & Abrantes, A. (2004). Psychiatric comorbidity and substance use treatment outcomes of adolescents. *Psychology of Addictive Behaviors*, 18 (2), 160 -169.
- Randell, J., Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999). Psychiatric comorbidity and the 16-month trajectory of substance-abusing and substance-dependent juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38 (9), 1118-1124.
- Godley, M.D., Kahn, J. H., Dennis, M. L., Godley, S. H., & Funk, R. R. (2005). The stability and impact of environmental factors on substance use and problems after adolescent outpatient treatment for cannabis abuse or dependence. *Psychology of Addictive Behaviors*. 19 (1), 62-70.
- Geller, B., Cooper, T. B., Sun, K., Simmermann, B., Frazier, J., Williams, M., & Heath, J. (1998). Double-blind and placebo controlled study of lithium for adolescent bipolar disorders with secondary substance dependency. *Journal of American Academy of Child and Adolescent Psychiatry*, 37, 171-178.
- Drake, R., McFadden, C., Mueser, K., McHugo, G., & Bond, G. (1998) Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin*, 24 (4), 589-608.

15. Cleminshaw, H., Shepler, R., & Newman, I. (2005). The integrated co-occurring treatment (ICT) model: A promising practice for youth with mental health and substance abuse disorders. *Journal of Dual Diagnosis, 1*(3), 85-94.
16. Newman, I., Newman, C., Brown, R., & McNeeley, S. (2006). *Conceptual statistics for beginners (3rd Ed.)*. Lanham, MD: University Press of America, Inc.
17. Pedhazur E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, N.J. Lawrence Erlbaum Associates.
18. Newman, C., & Newman, I. (2006). *Conceptual statistics for beginners (2nd Ed.)*. Lanham, MD: University Press of America, Inc.
19. Ogles, B., Melendez, G., & Lunnen, K. (1999). *The Ohio Youth Problems, Functioning, and Satisfaction Scales (Short Form): User's Manual*. Athens, OH; Ohio University.
20. Ogles, B., Melendez, G., Davis, D., & Lunnen, K. (2000). *The Ohio Youth Problems, Functioning, and Satisfaction Scales: Technical Manual*. Athens, OH; Ohio University.
21. Gavazzi, S., Slade, D., Buettner, C. K., Partridge, C., Yarcheck, C. M., & Andrews, D. (2003). Toward the conceptual development and empirical measurement of global risk indicators in the lives of court-involved youth. *Psychological Reports, 92*, 599-615.
22. Newman, I., & Fry, J. (1972). A response to 'A note on multiple comparisons' and comment on shrinkage. *Multiple Linear regression Viewpoints, 2*(1), 36-39.
23. Newman, I., Fraas, J., & Laux. (2000). A three step adjustment procedure for Type I error rates. *Journal of Research in Education, 10*(1), 84-90.
24. Marlowe, D. B. (2010). *The facts on adult drug courts*. Washington, DC: National Association of Drug Court Professionals.
25. Wilson, D. B., Mitchell, O., & MacKenzie, D. L. (2006). A systematic review of drug court effects on recidivism. *Journal of Experimental Criminology, 2*, 459-487.
26. Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. *Journal of Consulting and Clinical Psychology, 74* (1), 42-54.
27. Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*, 12-19.
28. Ogles, B. M., Lambert, M. J., & Masters, K. S. (1996). *Assessing outcome in clinical practice*. Boston: Allyn and Bacon.
29. Lipsey, M. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims & Offenders, 4*(2), 124-147
30. Land, K.D., McCall, P. L., & Williams, J. R. (1990). Something that works in juvenile justice: An evaluation of the North Carolina court counselors' intensive protective supervision randomized experiment project, 1987-1989. *Evaluation Review, 14*, 574-606.
31. Benda, B., Corwyn, R.F., Toombs, N.J., (2001). Recidivism among adolescent serious offenders: Prediction of entry into the correctional system for adults. *Criminal Justice and Behavior, 28*(5), 599-613.
32. Myner, J., Santman, J., Cappelletty, G. G., & Perlmutter, B. F. (1998). Variables related to recidivism among juvenile offenders. *International Journal of Offender Therapy and Comparative Criminology, 42*, 65-80.
33. North Carolina Office of Juvenile Justice (Feb., 2004) *Recidivism Of juveniles adjudicated delinquent for offenses in the class a-e adult felony offense categories: a two-year follow-up*. Raleigh, NC: State of North Carolina.
34. Stoolmiller, M. & Blechman, E. A. (2005). Substance use is a robust predictor of adolescent recidivism. *Criminal Justice and Behavior, 32*, 302-328.
35. Katsiyannis, A. & Archwamety, T. (1997). Factors related to recidivism among delinquent youths in a state correctional facility. *Journal of Child and Family Studies, 6*, 43-55.
36. Katsiyannis, A., Zhang, D., Barrett, D. E., & Flaska, T. (2004). Background and psychosocial variables associated with recidivism among adolescent males: A 3-year investigation. *Journal of Emotional and Behavioral Disorders, 12*, 23-29.
37. Benson, P. L., Roehlkepartain, E. C., & Sesma, A., Jr. (2004, March). Tapping the power of community: The potential of asset building to strengthen substance abuse prevention efforts. *Search Institute Insights & Evidence 2* (1).
38. Catalano, R. F., Kosterman, R., Hawkins, J.D., Newcomb, M.D., & Abbott, R.D. (1996). Modeling the etiology of adolescent substance use: A test of the social development model. *Journal of Drug Issues, 26*(2), 429-455.
39. Dishion, T. J., Capaldi, D., Spracklen, K.M., & Li, F. (1995). Peer ecology of male adolescent drug use. *Development and Psychopathology, 7*, 803-824.
40. Dishion, T. J., McCord, J., & Poulin, F. (1999). When interventions harm: Peer groups and problem behavior. *American Psychologist, 54*(9), 755-764.
41. Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse intervention. *Psychological Bulletin, 112*(1), 64-105.
42. Webb, T., Cleminshaw, H. & Shepler, R.. (2007). [Comparative recidivism and commitment rates for youth enrolled in drug court who received traditional services, compared to youth on parole who received Integrated Co-Occurring Treatment]. Unpublished raw data.
43. P. J. Canary, personal communication, April 13, 2010).

AN EVALUATION OF THE BEHAVIORAL HEALTH/JUVENILE JUSTICE (BHJJ) INITIATIVE

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JUVENILE JUSTICE AND MENTAL HEALTH

Youth involved in the juvenile justice system report significantly more mental health disorders than do youth in the general population.^{1,2} Teplin, Abram, McClelland, Dulcan, & Mericle (2002) found that nearly two thirds of the males and three quarters of the females in juvenile detention facilities in Illinois met the diagnostic criteria for at least one psychiatric disorder. Even when ignoring Conduct Disorder diagnoses, which is common in juvenile delinquents, over 60% of males and over 70% of females continued to meet criteria for one or more psychiatric disorders. More than 50% of the males and nearly half of the females met criteria for a substance abuse disorder. Affective Disorders were especially prevalent for females, with over 20% meeting criteria for a Major Depressive Episode (13% of males).

The National Center for Mental Health and Juvenile Justice and the Council of Juvenile Correctional Administrators recently concluded one of the most comprehensive

examinations of mental health disorders among juvenile justice-involved youth to date.³ Data were collected in community-based programs, detention centers, and secure residential facilities from over 1400 youth in Louisiana, Texas, and Washington. Results indicated that 70.4% of the youth met criteria for at least one mental health disorder. Even when Conduct Disorder was removed from the analyses, over 66% of the youth continued to meet the criteria for a mental health disorder. More females (81%) were diagnosed with mental health disorders than males (67%). In addition, approximately 27% of the sample had at least one severe mental disorder that required immediate treatment. Nearly 80% of those with at least one mental health disorder met the criteria for at least two disorders, and over 60% of those youth were diagnosed with at least three mental health disorders. Just over 60% of the sample had co-occurring mental health and substance abuse diagnoses.³

While many juvenile justice-involved youth demonstrate significant behavioral health issues, it is often the case that these problems have

gone untreated by mental health professionals. For many juvenile justice-involved youth, the juvenile justice system is the first place that they have received any type of behavioral health treatment. Novins, Duclos, Martin, Jewett, & Manson (1999) found that only a third of juvenile detainees with Anxiety, Mood, or Disruptive Behavior Disorders had ever received prior mental health treatment. Another study found that only 17% of juvenile detainees reported prior mental health treatment by a qualified behavioral health professional.⁴

Funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), the study reported that while nearly all juvenile justice facilities have some type of behavioral health services available to youth, services vary significantly based on the facility.⁵ The authors reported that 71% of juvenile detention centers offer mental health screening, but only 56% conduct comprehensive assessments.

**JUVENILE JUSTICE/
MENTAL HEALTH
DIVERSION PROGRAMS**

It is clear that many juvenile justice-involved youth suffer from significant behavioral health concerns. In order to combat the increasing number of youth entering the juvenile justice system with behavioral health issues and the lack of comprehensive behavioral healthcare in these facilities, communities have created diversion programs as alternatives to incarceration. While programs differ, many share common traits such as: in-depth assessment and evaluation, treatment, and enhanced community supervision services.

The Illinois Juvenile Justice Mental Health Initiative received SAMHSA funding to treat juvenile justice-involved youth between 11 and 17 years of age who had mental health illnesses.⁶ Youth were given a criminogenic risk assessment, and those who were rated as a moderate or high risk of re-offending were included in the study. Youth received thorough assessment, counseling, and evaluation as part of the program. Nearly 90% of the youth did not reoffend while in the program.

The New York State Mental Health Juvenile Justice (MHJJ) Project was a diversion program for youth who had been arrested but were in the early stages of formal processing.⁷ The goal of the program was to divert youth from the juvenile justice system and into more appropriate community-based options. Youth were eligible for inclusion if they were identified as having a mental health or substance abuse problem and were appropriate

candidates for community-based treatment. Over 10 counties have taken part in the program since its inception, and while all counties share common goals, each county is able to tailor its program to its residents and their needs as well as the existing resources in the county.

Nearly 70% of the youth who participated received some form of community treatment. Almost 50% of the youth were referred for a mental health reason, and over 20% were referred for a substance abuse issue. Results indicated that only 14.5% of the sample had a new arrest 120 days after admission to the program, and only 12.3% were assigned to an out-of-home placement.⁷

In 2000, the State of Texas funded the Enhanced Mental Health Services Initiative designed to increase mental health services for both adult and juvenile offenders. As part of the initiative, the Special Needs Diversionary Program (SNDP) was created to provide specialized, community-based mental health services and supervision to juvenile offenders with mental disorders. In order to be eligible for inclusion, youth had to meet clinical mental health diagnostic criteria, be under the jurisdiction of the juvenile court, and have at least one adult family member willing to participate. Additional inclusion criteria included low scores on the Global Assessment of Functioning and being at-risk for out-of-home placement.²

Consistent with other juvenile justice diversion programs, the majority of the sample was male (67.2%). Common behavioral health diagnoses included Substance Abuse (38.8%), Disruptive Behavior Disorder

(38.1%), and Anxiety Disorder (32.1%). Although more than half of the sample was re-arrested, analyses indicated that youth who received services through SNDP were less likely than controls to be re-arrested for any offense after one year. The authors also reported that over a one year period, 63 fewer arrests occurred per 100 youth served by SNDP.

**HISTORY OF OHIO'S
BEHAVIORAL HEALTH/
JUVENILE JUSTICE PROGRAM**

In 1998, Ohio's juvenile court judges met with representatives from the Ohio Department of Mental Health (ODMH) and the Ohio Department of Youth Services (DYS) to advocate for additional options for juvenile justice-involved youth with behavioral health concerns. These judges recognized that many of the youth who appeared in their courtrooms demonstrated significant behavioral health issues, but most lacked the resources and expertise to properly identify, evaluate, and provide services to these youth. In addition, there were very few behavioral health diversion programs available into which these youth could be placed.

The ODMH and the DYS formed the Task Force on Mental Health Services to Juvenile Offenders with cross-system and family representation. The recommendations from the Task Force included: developing a local continuum of care in the community, promoting intersystem collaboration, and identifying legislative and funding issues around serving youth

in the juvenile justice system who are in need of mental or behavioral health services. The final recommendation was to fund local pilot projects in an attempt to divert youth who demonstrated a need for mental or behavioral health service from a DYS facility into a community-based treatment setting.

Three pilot sites were selected for inclusion into the first Behavioral Health/Juvenile Justice (BHJJ) project. The target population for these pilot sites consisted of males and females who were under 18 years of age at the time of the offense and who were charged or adjudicated delinquent. In addition, the youth had to demonstrate a significant impairment in cognitive, affective, or behavioral domains. One of the main goals of the project was to reduce the referrals to the DYS for youth involved in the juvenile justice system who showed signs of significant mental impairment. This goal was to be accomplished by using community resources, evidence-based best practice models, and intersystem communication, cooperation, and collaboration to offer the youth appropriate treatment in the community and when possible, in the home.

As a result of a favorable evaluation, ODMH and DYS provided additional funding to expand the BHJJ program. While similar in scope, some of the target population characteristics were slightly different from the pilot project. Target criteria included youth between the ages of 10-18 who had been charged and or adjudicated as delinquent. In addition, these youth must have demonstrated substantial mental status impairments in behavioral, cognitive, or affective domains and

have at least one DSM-IV diagnosis. Youth with patterns of criminal or violent behavior who demonstrated co-occurring substance abuse or youth who are threats to public safety or themselves were also considered for inclusion.

The intent of BHJJ was to transform the systems' ability to identify, assess, evaluate, and treat multi-need, multi-system youth and their families and to identify effective program and policy practices. The main goals included: 1) meet the treatment and support needs of youth and their families; 2) improve intersystem communication, collaboration, and shared outcomes and to pursue funding, policy and program practices that support shared outcomes; 3) coordinate and expand funding for shared outcomes through reinvestment of current resources and through draw-down of federal matching funds; and 4) acquire research and evaluation based information on treatment and systems outcomes.

In an attempt to address a gap in our understanding of young females involved in both the juvenile justice and behavioral health systems, the state encouraged proposals dedicated to the treatment of the female juvenile offender. Three of the six funded proposals focused exclusively on females. Both urban and rural counties were represented in the project and included: Cuyahoga, Fairfield, Franklin, Logan/Champaign, Montgomery, and Union counties. Cuyahoga, Fairfield, and Montgomery counties chose to focus only on female juvenile offenders. Each prospective project site was required to use an evidence-based or informed best practice model for

treatment delivery, although each county was free to choose the models that best suited its youth and their needs.

In 2007, ODMH and DYS secured funding for two additional years of the BHJJ program. The six existing projects were refunded and two additional counties, Butler and Hamilton, were added. The target criteria remained the same during this biennium. Cuyahoga and Montgomery counties expanded their programs to serve both female and male offenders. In 2009, BHJJ was again refunded, and an additional emphasis was placed on decreasing the population of DYS facilities while providing alternatives to incarceration for these youth. To assist with this aim, four of the existing counties (Cuyahoga, Franklin, Montgomery, and Hamilton), as well as two new counties (Lucas and Summit), were funded through the BHJJ program. Historically, over 60% of the population in DYS facilities came from these six counties, known as the 'Big Six'.

The entrance to the project was and is almost exclusively through the juvenile court; however, the exact processes by which children were identified, assessed, and enrolled varies by county. The youth is brought to the attention of the juvenile court by either being charged with a new offense or for a probation violation. Youth are typically screened and assessed for BHJJ eligibility by either court staff or contracted treatment providers. If the youth meets criteria for BHJJ participation and the court believes the program to be a good fit, a recommendation is made to the judge or magistrate. The judge or magistrate has the discretion to accept or reject the BHJJ recommendation. If

all parties agree that the youth should be a BHJJ participant, the child is enrolled in the program and begins meeting with the identified treatment provider to receive evidence-based behavioral health care.

While each BHJJ project operates differently, a common theme across all sites is the reliance on and importance of community-based treatment teams. Community-based team membership includes, at a minimum, representatives from the local mental health board, community mental health organizations, and the juvenile court. Many local teams also have representatives from other community groups, such as the local National Alliance on Mental Illness (NAMI) chapter, educational system, children's services, family members, faith-based organizations, and the county Family and Children First Council. Behavioral health services are the primary focus of the programs, but locally driven needs have resulted in additional services and supports to promote optimum success for the participating youth and their family/caregivers.

EVIDENCE-BASED PRACTICE (EBP) MODELS

BHJJ counties are required to use evidence-based or informed treatment models. The participating counties have employed several EBPs in their BHJJ projects. The following section identifies and briefly describes several of the EBP treatment models utilized in BHJJ.

Functional Family Therapy (FFT). FFT is an empirically-based and highly successful family intervention for at-risk youth between the ages of

11-18 who experience problems that range from acting out to conduct disorders to substance abuse.⁸ FFT is often delivered to clients in their homes and focuses on enhancing protective factors and reducing risk factors. This approach seeks to strengthen the family relationships by opening up communication, reframing negative behaviors, and placing the family members within a positive relational context. Outcome data supports the generalizability of this model across racial and cultural groups.⁹

Multisystemic Therapy (MST). MST is a family and community-based treatment designed to address the multiple and complex needs of juvenile offenders aged 12-17 who demonstrate antisocial behavior.¹⁰ Individuals are perceived as part of a complex network of related systems that are composed of individual, family, and related (peer, school, etc.) factors. MST treatment can target any or all of these systems to bring about positive change for youth and families. Also, MST is effective for youth and families from many different cultural backgrounds and has been effective in reducing antisocial behaviors, improving functioning levels, and reducing out-of-home placements such as incarceration, residential treatment, and hospitalization.

Integrated Co-Occurring Treatment (ICT). ICT is an integrated treatment approach embedded in an intensive home-based method of service delivery, which provides a comprehensive and integrated set of mental health and substance use treatments to youth with co-occurring disorders of substance use and serious emotional disturbance (SED) and their families in home, school, and community settings.¹¹ ICT was developed for

adolescents between the ages of 12-18 who have: 1) at least one mental health disorder and at least one substance use disorder as defined by the DSM-IV; 2) have multiple system involvement such as juvenile justice, school, and child welfare; and 3) have either significant safety or risk concerns that place the youth at risk for out-of-home placement or who are returning home from a more restrictive placement. The service array includes integrated contextual assessment, individual and family counseling, skill building, crisis intervention and stabilization, service coordination, and resource- and support-building activities. ICT utilizes an eco-contextual framework, which maintains that symptoms and behaviors manifest in and are influenced by multiple contexts including home, school, peers, and community factors.

Trauma--Focused Cognitive Behavioral Therapy (TF-CBT). TF-CBT is designed to meet the biopsychosocial needs of children diagnosed with Post-traumatic Stress Disorder or who show other problems related to traumatic events.¹² TF-CBT combines trauma-sensitive interventions with cognitive behavioral therapy in order to address sexual abuse, violence exposure, traumatic grief, and other types of traumatic events. TF-CBT is appropriate for children aged 3-18. The child and family learn how to process the traumatic events, manage negative or stressful thoughts or behaviors related to the events, and become a more cohesive and effective family unit. TF-CBT is well-supported by research and has been found to be effective with children of diverse cultures.

SITE DESCRIPTIONS

The following section provides brief detail on the counties currently participating in BHJJ and how their program operates. (Refer to Kretschmar, Flannery, & Butcher, 2012¹³ for fuller descriptions).

Cuyahoga County. The Cuyahoga County BHJJ project targets youth aged 12–18 who are adjudicated delinquent for misdemeanor or felony charges and have a serious emotional disorder (SED) and/or substance abuse issues. Many have been involved in multiple systems (e.g., social services, juvenile justice) and have been exposed to violence, abuse, or neglect. Participants tend to have suffered rejection or abandonment and trauma in their lives, have one or more family members who have been incarcerated, exhibit high levels of criminality, and have untreated psychosocial or emotional issues. Two EBPs, TF-CBT and ICT, are used as the primary treatment interventions.¹⁴

Franklin County. The Franklin County BHJJ program serves youth who are between ages 12-17 and are diagnosed with SED and with substantial impairment in behavioral, cognitive or affective areas. Many have learning disabilities and a history and/or a pattern of criminal behavior. They often are determined to be unruly, are status offenders, have intensive behavioral health needs, and are involved in both juvenile justice and the child welfare system. For these reasons, Franklin County chose a care-coordination approach. Several EBP treatment models, including both MST and FFT, are used because of the multidimensional nature of the youths' presenting problems.¹⁵

Hamilton County. The Hamilton County BHJJ project is offered as pre-adjudication to first-time offenders, as well as to youth who have five or less contacts with the county juvenile court. The program serves youth between ages 12-17 and offers an assessment and referral process that complements an existing juvenile mental health court. Treatment providers receive training in trauma-informed treatment to ensure that the youth's trauma issues are being addressed. Each youth has an identified family member or caregiver who also agrees to participate in the program. Hamilton County utilizes a comprehensive treatment process that includes FFT at a certified community-based provider and additional services, such as alcohol and drug addiction treatment. Case management services connect the participants and their families to traditional and non-traditional community supports to promote optimum success upon program completion.¹⁶

Lucas County. The Lucas County BHJJ project serves youth who have serious behavioral health issues and have been identified as being at-risk of becoming serious juvenile offenders. The target population is between ages 10-18, is at-risk of incarceration, and has a pattern of violent or criminal behavior. Some participants may be in the early stages of their court involvement, but the court staff have acknowledged all participants to be a threat to public safety, community, self, and others. They exhibit a pattern of criminal behavior, and many have been exposed to or survived significant trauma. The program provides service coordination based on intersystem collaboration, via implementation of high fidelity wraparound programming and MST to participants. These services

support attainment of the juvenile court's goal, which is to restore healthy families to healthy living environments while minimizing institutionalization of their youth.¹⁷

Montgomery County. The Montgomery County BHJJ project serves youth who are between ages 12-17 and are generally on probation and have a history of non-compliance with treatment. Also, the youth may be either in out-of-home placement or have families or caregivers who experience numerous barriers. These barriers include transportation issues, stigma of treatment, and resistance to treatment. The Montgomery team opted to use FFT to address the unique needs of these youth and their families. The project offers a continuum of care and a support network for juveniles and their caregivers. Through an interagency care planning and service provision approach, youth and families are offered options that include, but are not limited to, intensive home-based treatment, juvenile justice programming, alcohol and/or drug addiction treatment, and family mentors. The FFT therapists use trauma-focused interventions to address the unique needs of the BHJJ youth and family members.¹⁸

Summit County. The Summit County BHJJ project provides specialized services to youth adjudicated delinquent on felony charges. These youth frequently present with substance abuse and/or mental health issues which also appear within the family. The county partners with multiple organizations, such as the Summit County Mental America Parent Advocates, True Ministries North, and the East Akron YMCA, to offer culturally competent, gender-specific, community/home-

based care to support the participants and their families. The program uses two EBPs, TF-CBT and ICT, and the HOMEBUILDERS curriculum. This curriculum provides in-home crisis intervention, counseling, and life-skills education for the families with children at imminent risk of out-of-home placement.¹⁹

**BEHAVIORAL HEALTH/
JUVENILE JUSTICE
EVALUATION**

ODMH and DYS have always viewed comprehensive program evaluation as an integral component of the BHJJ project. Since its inception, researchers from the Begun Center for Violence Prevention Research and Education at Case Western Reserve University (CWRU) have provided evaluation services to the BHJJ project. While the evaluation protocol has changed since the first iteration of BHJJ, several consistent measures remain in place. Each BHJJ county designates a part-time data collections specialist to the project to serve as a liaison between the county and the evaluation team at CWRU. All project data are collected by the BHJJ county and most often by the worker assigned to the case.

Data Collection

Slightly prior to or at admission into BHJJ, the local treatment agency often conducts a full diagnostic assessment on the youth. As part of the BHJJ evaluation protocol, the youth, caregiver, and worker assigned to the case also complete questionnaires designed to gather information related to youth and family history, problems leading to BHJJ services, behavioral health diagnoses, trauma

symptoms, substance use, and overall functioning. Most questionnaires are collected at enrollment into and termination from BHJJ services, while a few measures are collected more often. In addition to behavioral outcomes, the local juvenile court provides the evaluation team with information related to the youth's juvenile court involvement, such as charges and adjudications prior to, during and after termination from BHJJ until the youth turns 18 years old. These data are de-identified and sent to CWRU for evaluation purposes. All BHJJ evaluation protocols were approved by a university Institutional Review Board.

Instrumentation

The questionnaires collected as part of the BHJJ evaluation represent a comprehensive selection of behavioral health and juvenile justice outcome measures. The purpose of this article is a more focused investigation regarding a select group of those measures, and only the instruments discussed in the analysis section described below were used. Refer to Kretschmar, Flannery, and Butcher, (2012) for more detailed information about all BHJJ evaluation measures and for the most recent report.

Enrollment/Termination Form

From intake through termination from BHJJ, program workers recorded several key pieces of information including: the date of enrollment and termination, demographic information, problems that led to BHJJ enrollment, DSM-IV diagnoses, educational information, and risk of out-of-home placement. At termination, program workers

identified whether or not the youth completed BHJJ treatment successfully.

Caregiver Information Questionnaire (CIQ)

The CIQ is completed at enrollment through termination from the program by the caregiver with the assistance of the worker. The CIQ allows workers to record information including demographics of the child and family, custody status of the child, child's abuse history, child's suicide ideation and attempts, and family history of mental health issues and substance use.

Ohio Youth Problem, Functioning, and Satisfaction Scales (Ohio Scales)

The Ohio Scales are designed as an outcomes measure of problem severity and functioning for youth involved in mental health treatment and are appropriate for children between the ages of 5-18 years.¹³ The Problem Severity scale includes 20 items that measure problems typically found in populations of youth receiving behavioral health treatment used.¹³ Items are scored on a six-point scale from "0" (not at all) to "5" (all the time) and include problem behaviors, such as arguing, fighting, and using drugs or alcohol. The Functioning scale measures the youth's ability to perform daily activities including recreational activities and household chores. Responses range between "0" (extreme troubles) and "4" (doing very well). Scores on the items are summed to create a total Problem Severity and Functioning score. Caregivers, program workers, and youth were asked to respond to identical questions on the two scales. The Problem Severity and Functioning scales have demonstrated

good psychometric properties for all three raters.¹³

Global Assessment of Functioning Scale (GAF)

The GAF is a measure of psychological, social and school functioning.¹⁴ The scale ranges between “0” (inadequate information) and “100” (superior functioning). The worker traditionally completed the scale at the time of the diagnostic assessment.

Juvenile Court Involvement

Local juvenile courts in each BHJJ county provided juvenile court involvement data for each BHJJ youth. These data included all offenses known to the juvenile courts for each of the youth prior to, during and after termination from BHJJ services. Each court also identified any youth committed to a DYS facility at any time subsequent to their BHJJ enrollment. For the purposes of this analysis, we present data related to a child’s juvenile justice involvement both a year prior to and after BHJJ enrollment.

RESEARCH OBJECTIVES

This paper is intended to provide a general description of Ohio’s BHJJ model, explore specific examples of how participating BHJJ counties operate their program and offer behavioral- and juvenile justice-related outcomes obtained from BHJJ youth. Specific to the outcome data, we identified three specific research objectives:

1. Provide a description of the characteristics of youth entering the BHJJ program;

2. Examine mental health and juvenile justice outcomes of youth who terminate BHJJ; and
3. Investigate gender differences associated with BHJJ outcomes.

DATA AND METHODS

Sample

The results presented in the following sections utilize data from the counties currently participating in BHJJ. Data were available for 1,303 youth enrolled from January 2006 to June 2011. Of the total sample, 84.9% (*n* = 1,107) were from Montgomery, Franklin, and Cuyahoga counties with almost half of the sample consisting of youth enrolled in Montgomery County (48.7%; *n* = 635). At enrollment, there were 683 males (52.7%) and 612 females (47.3%) in the sample. The majority of youth were either white (41.0%; *n* = 530), black (48.4%; *n* = 626), or multi-racial (8.1%; *n* = 105) with other races making up 2.6% (*n* = 33) of the sample. At enrollment, the mean age of the sample was 15.68 years (*SD* = 1.48). No statistically significant gender differences were found for the age and racial makeup of the sample.

RESULTS

Problems Leading to Service

Program workers identified problems that led to a youth’s enrollment into BHJJ services. (See Table 1.) The majority of program workers identified conduct/delinquency-related problems, which included aggressive and delinquent behaviors as a reason for

enrollment into BHJJ (92.3% of females and 94.1% of males). In comparison with males, a significantly larger percentage of females were identified by program workers as having suicide-related problems ($X^2 = 3.579, p < .001$), depression-related problems ($X^2 = 66.35, p < .001$), anxiety-related problems ($X^2 = 16.78, p < .001$), and adjustment-related problems ($X^2 = 3.494, p < .001$). Program workers identified a significantly larger percentage of males as having hyperactive and attention-related problems ($X^2 = 6.81, p < .01$) and learning disabilities ($X^2 = 8.66, p < .01$).

Youth and Caregiver History

Caregivers were asked to provide information regarding the youth’s history of victimization, substance use, and suicidality (see Table 2). Caregivers reported that a significantly higher percentage of females were lifetime victims of sexual abuse than males ($X^2 = 111.46, p < .001$). Almost five times as many females (29.7%) as males (5.9%) had a lifetime history of sexual abuse as reported by caregivers. Of the females who had a lifetime history of sexual abuse, 17% had been sexually abused in the six months prior to BHJJ enrollment. In addition, caregivers indicated that a significantly larger percentage of females than males had a lifetime history of physical abuse ($X^2 = 7.35, p < .01$), had run away ($X^2 = 38.16, p < .001$), had talked about committing suicide in their lifetime ($X^2 = 3.977, p < .001$), and had attempted suicide in their lifetime ($X^2 = 33.50, p < .001$).

Several statistically significant gender differences emerged related to family history (see Table 2). A significantly larger percentage of females than males had family members who were diagnosed with

Table 1. Problems Leading to BHJJ Services by Gender

	Female	Male
Conduct/Delinquency-related Problems	92.3% (n=541)	94.1% (n=602)
Suicide-related Problems	15.7% (n=92) ^{***}	5.3% (n=34)
Depression-related Problems	53.1% (n=311) ^{***}	30.2% (n=193)
Anxiety-related Problems	19.3% (n=113) ^{***}	10.9% (n=70)
Hyperactive and Attention-related Problems	24.4% (n=143)	31.1% (n=199) [*]
Substance Use-related Problems	45.7% (n=268)	44.4% (n=284)
Adjustment-related Problems	17.9% (n=105) ^{***}	6.9% (n=44)
Learning Disabilities	5.1% (n=30)	9.5% (n=61) ^{**}
School Performance Problems not Related to Learning Disabilities	43.5% (n=255)	35.3% (n=226)

^{***} $p < .001$, ^{**} $p < .01$, ^{*} $p < .05$

or showed signs of depression ($X^2 = 8.92, p < .01$), lived in a household in which someone had shown signs of being depressed ($X^2 = 6.74, p < .05$), had a family member with a history of mental illness other than depression ($X^2 = 9.37, p < .01$), had a family member with a substance use problem ($X^2 = 4.06, p < .05$), and had lived in a household in which someone had an alcohol or substance use problem ($X^2 = 4.30, p < .05$). Although there were no significant gender differences in caregiver reports of lifetime exposure to domestic violence, a significantly larger percentage of females were exposed to domestic violence in the last six months ($X^2 = 5.79, p < .05$).

DSM-IV Diagnoses

DSM-IV Axis I diagnostic information at enrollment was available for 1,226 youth. Individual diagnoses were first grouped into major diagnostic classes outlined in the DSM-IV.²⁰ Table 3 presents the

most common (reported for at least 5% of the sample) major diagnostic classes and specific disorders reported for BHJJ youth. Youth may have multiple DSM-IV Axis I diagnoses under each of the major diagnostic categories.

Chi-square analyses revealed several significant gender differences. In comparison with males, a significantly larger percentage of females were diagnosed with Anxiety Disorders ($X^2 = 18.78, p < .001$), Post-traumatic Stress Disorder ($X^2 = 19.10, p < .001$), Oppositional Defiant Disorder ($X^2 = 47.34, p < .001$), Mood Disorders ($X^2 = 27.89, p < .001$), Bipolar Disorders ($X^2 = 3.97, p < .05$), Depressive Disorders ($X^2 = 25.03, p < .001$), and Alcohol-Related Disorders ($X^2 = 11.15, p < .01$). Conversely, a significantly larger percentage of males were diagnosed with Attention-Deficit and Disruptive Disorders ($X^2 = 35.71, p < .001$), Attention-Deficit Hyperactivity Disorder ($X^2 = 47.34, p < .001$), and Conduct Disorder ($X^2 = 58.93, p < .001$).

Overall, 40.2% ($n = 493$) of BHJJ youth had co-occurring mental health and substance use disorder diagnoses. Slightly more males (40.6%, $n = 260$) than females (39.8%, $n = 233$) were diagnosed with co-occurring disorders, although this was not a statistically significant difference.

GAF

At enrollment, females scored just inside the range of the serious symptoms category ($M = 49.78; SD = 7.01; n = 553$), while males scored in the high end of the moderate symptoms category ($M = 51.35; SD = 7.41; n = 593$). Males scored significantly higher than females ($t(1144) = 3.67, p < .001$) indicating higher overall functioning. From enrollment to termination, GAF scores showed statistically significant improvement for both females ($t(387) = 7.64, p < .001$) and males ($t(300) = 4.17, p < .001$).

Table 2. Youth and Family History by Gender

	Female	Male
Youth History		
Has the child ever been physically abused?	19.8% (<i>n</i> = 106)**	13.8% (<i>n</i> = 83)
In the last six months, has the child been physically abused?	15.8% (<i>n</i> = 16)	8.4% (<i>n</i> = 7)
Has the child ever been sexually abused?	29.7% (<i>n</i> = 156)***	5.9% (<i>n</i> = 35)
In the last six months, has the child been sexually abused?	16.6% (<i>n</i> = 25)**	0.0% (<i>n</i> = 0)
Has the child ever run away?	65.7% (<i>n</i> = 349)***	47.4% (<i>n</i> = 277)
Has the child ever had a problem with substance abuse, including alcohol and/ or drugs?	51.0% (<i>n</i> = 270)	52.8% (<i>n</i> = 313)
Has the child ever talked about committing suicide?	49.0% (<i>n</i> = 260)***	30.6% (<i>n</i> = 183)
Has the child ever attempted suicide?	23.4% (<i>n</i> = 122)***	10.4% (<i>n</i> = 61)
In the last six months, has the child attempted suicide?	29.4% (<i>n</i> = 35)	42.4% (<i>n</i> = 25)
Family History		
Has the child ever been exposed to domestic violence or spousal abuse, of which the child was not the direct target?	45.1% (<i>n</i> = 240)	39.6% (<i>n</i> = 239)
In the last six months, has child been exposed to domestic violence or spousal abuse, of which the child was not the direct target?	15.3% (<i>n</i> = 36)*	8.2% (<i>n</i> = 19)
Has anyone in the child’s biological family ever been diagnosed with depression or shown signs of depression?	66.5% (<i>n</i> = 344)**	57.8% (<i>n</i> = 341)
Has the child ever lived in a household in which someone has shown signs of being depressed?	57.6% (<i>n</i> = 302)*	49.8% (<i>n</i> = 289)
Has anyone in the child’s biological family had a mental illness other than depression?	48.7% (<i>n</i> = 254)**	39.5% (<i>n</i> = 227)
Has the child ever lived in a household in which someone was convicted of a crime?	39.7% (<i>n</i> = 205)	36.6% (<i>n</i> = 212)
Has anyone in the child’s biological family had a drinking or drug problem?	63.9% (<i>n</i> = 333)*	58.0% (<i>n</i> = 341)
Has the child ever lived in a household in which someone had a drinking or drug problem?	47.7% (<i>n</i> = 241)*	41.4% (<i>n</i> = 234)

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

Table 3. DSM-IV Diagnoses by Gender

	Female	Male
Anxiety Disorders	13.8% (<i>n</i> = 81) ^{***}	6.4% (<i>n</i> = 41)
Post-traumatic Stress Disorder	8.5% (<i>n</i> = 50) ^{***}	2.8% (<i>n</i> = 18)
Attention-Deficit and Disruptive Disorders	71.5% (<i>n</i> = 419)	85.5% (<i>n</i> = 547) ^{***}
Attention-Deficit Hyperactivity Disorder	25.4% (<i>n</i> = 149)	44.2% (<i>n</i> = 283) ^{***}
Conduct Disorder	11.1% (<i>n</i> = 65)	28.8% (<i>n</i> = 184) ^{***}
Oppositional Defiant Disorder	43.9% (<i>n</i> = 257) [*]	37.7% (<i>n</i> = 241)
Mood Disorders	54.4% (<i>n</i> = 319) ^{***}	39.4% (<i>n</i> = 252)
Bipolar Disorders	13.3% (<i>n</i> = 78) [*]	9.7% (<i>n</i> = 62)
Depressive Disorders	33.3% (<i>n</i> = 195) ^{***}	20.6% (<i>n</i> = 132)
Substance-Related Disorders	43.2% (<i>n</i> = 253)	42.5% (<i>n</i> = 272)
Alcohol-Related Disorders	19.3% (<i>n</i> = 113) ^{**}	12.3% (<i>n</i> = 79)
Cannabis-Related Disorders	37.0% (<i>n</i> = 217)	39.5% (<i>n</i> = 253)

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

Ohio Scales

We examined the Problem Severity and Functioning scales from the Ohio Scales in several ways. First, we conducted paired samples t-tests to examine changes in overall means on the Ohio Scales from enrollment to termination. Overall, BHJJ youth exhibited significant improvements in problem severity from enrollment to termination as reported by youth (*t*(453) = 13.12, *p* < .001), program workers (*t*(603) = 14.80, *p* < .001), and caregivers (*t*(455) = 13.54, *p* < .001). In addition, BHJJ youth exhibited significantly higher levels of functioning

from enrollment to termination as reported by youth (*t*(445) = -7.00, *p* < .001), program workers (*t*(601) = -12.73, *p* < .001), and caregivers (*t*(458) = -12.06, *p* < .001).

Next, we conducted paired samples t-tests to examine differences in problem severity and functioning from enrollment to termination for females and males. Problem severity significantly improved for females from enrollment to termination as rated by youth (*t*(239) = 9.75, *p* < .001), program workers (*t*(321) = 11.78, *p* < .001), and caregivers (*t*(242) = 10.20, *p* < .001). Females also

demonstrated significant improvements in functioning from enrollment to termination as reported by youth (*t*(234) = -6.30, *p* < .001), program workers (*t*(321) = -10.45, *p* < .001), and caregivers (*t*(245) = -8.79, *p* < .001). For males, significant improvements in problem severity were observed from enrollment to termination as rated by youth (*t*(213) = 9.15, *p* < .001), program as at risk for out-of-home placement (7.3%, *n* = 39) than unsuccessful treatment completers (60.4%, *n* = 203); (*X*² = 289.19, *X*² < .001).

Juvenile Court Involvement

Juvenile court involvement information is included for youth who have data for both 12 months prior to and 12 months after BHJJ enrollment. Juvenile court data include the percentage of youth adjudicated delinquent, the percentage of youth charged with a felony, and the total number of felonies with which the youth was charged. We first examined the presence of gender differences on the relevant variables 12 months prior to BHJJ enrollment. Significant gender differences emerged for all variables examined. In the 12 months prior to BHJJ enrollment, males were significantly more likely to be adjudicated delinquent ($X^2 = 14.99, p < .001$), be charged with a felony ($X^2 = 83.33, p < .001$), and be charged with more felonies ($t(442.26) = 8.57, p < .001$) than females. A similar pattern appeared for the data 12 months after BHJJ enrollment. In the year following BHJJ enrollment, a significantly higher percentage of males were adjudicated delinquent ($X^2 = 15.31, p < .001$), charged with a felony ($X^2 = 23.35, p < .001$), and charged with more felonies ($t(463.11) = 4.23, p < .001$) than females.

Data revealed a significant reduction in delinquent adjudication for both males and females from 12 months prior to BHJJ enrollment to 12 months after BHJJ enrollment. Over 83% of males (83.6%, $n = 255$) were adjudicated delinquent in the 12 months prior to BHJJ enrollment. A McNemar's Test for Correlated Proportions revealed a significantly lower percentage of males (53.1%, $n = 162$) were adjudicated delinquent in the year following BHJJ enrollment. A similar pattern emerged with females. In the year prior to their BHJJ enrollment, 70.9% ($n = 261$) of females

were adjudicated delinquent while in the 12 months after BHJJ enrollment, a significantly lower percentage of females, 38.0% ($n = 140$), were adjudicated delinquent. Males were charged with significantly less felonies in the 12 months after enrollment ($t(304) = 4.42, p < .001$) than in the 12 months prior to enrollment. Due to the low baseline felony data, no significant reduction in the number of felonies was found for females.

There were also significant reductions in the percentage of both males and females charged with felonies from 12 months prior to enrollment to 12 months after enrollment. Over half of the males (50.8%, $n = 155$) were charged with at least one felony in the 12 months prior to BHJJ enrollment. In the year after BHJJ enrollment, 24.3% ($n = 74$) of males were charged with a new felony. For females, 17.7% ($n = 65$) were charged with a felony in the year prior to BHJJ enrollment, while 10.3% ($n = 38$) were charged with a felony in the year following BHJJ enrollment. McNemar's Tests revealed these to be significant reductions in felony charges for both males and females.

Last, we examined the number of BHJJ youth who were committed to a DYS facility after their BHJJ enrollment and until they turned 18 years old. Data from the six juvenile courts currently participating in BHJJ indicated that of the 1,303 youth enrolled from the six counties, 2.1% ($n = 27$) were committed to a DYS institution at any time following their BHJJ enrollment.

DISCUSSION

The Behavioral Health/Juvenile Justice (BHJJ) Initiative is a diversion program that seeks to divert juvenile justice-involved youth with behavioral health issues from incarceration into community-based behavioral health treatment. The program, sponsored by ODMH and DYS, currently operates in the largest six counties around Ohio. The data presented here have outlined several major findings from the initiative.

Youth enrolled in the BHJJ program demonstrated significant behavioral health concerns and a history of juvenile justice involvement prior to program participation. Generally, female BHJJ participants experienced more abuse, suicidal behaviors and trauma than male BHJJ participants. As a likely result of this trauma and consistent with previous research,^{3,15} more females were diagnosed with Post-traumatic Stress Disorder and Mood Disorders than males. At enrollment into BHJJ, males demonstrated greater juvenile justice involvement than females, as measured by percentage of youth with delinquent adjudications and felony charges. Males were also charged with significantly more misdemeanors and felonies than females.

Both males and females reported statistically significant improvements in both problem severity and functioning from enrollment to termination. Preliminary outcomes indicated that youth experienced improvements in educational outcomes as a result of BHJJ participation. BHJJ youth also demonstrated improvements in juvenile justice involvement. A

year prior to BHJJ enrollment, 51% of males and 18% of females were charged with at least one felony. A year after enrollment, 24% of males and 10% of females were charged with a new felony. Additionally, only 2% of youth enrolled in BHJJ from the “Big Six” counties were ever committed to a DYS facility at any time after their enrollment in the program.

A Focus on Trauma.

While traumatic events occur in the lives of many juvenile justice-involved youth, it is clear from previous research, as well as the data presented here, that this is especially true of female offenders. BHJJ data indicated that nearly 30% of females and 6% of males were victims of sexual abuse, 45% of females and 40% of males were witnesses to domestic violence, and nearly 25% of females and 10% of males have attempted suicide. Diversion programs that hope to be effective with this population should strongly consider utilizing trauma-informed treatment models that address the often serious and multiple traumatic events that have occurred in lives of these youth. EBP models like TF-CBT are effective at addressing mental health issues related to abuse and trauma in children and adolescents.

Expansion of Diversion Options

The success of juvenile justice diversion programs like BHJJ has led to recommendations not only for the continuation of such programs but also their expansion. Since 2005, ODMH and DYS have continually invested in the BHJJ program and continue to support the work of the initiative and its evaluation. Recently, the Ohio Interagency Task Force on Mental Health and Juvenile Justice recom-

mended for a significant investment in and expansion of the BHJJ Initiative and another state-sponsored diversion program called Targeted RECLAIM (Reasonable and Equitable Community and Local Alternatives to Incarceration of Minors). Montgomery County, one of the current BHJJ counties, was recently awarded a federal grant to expand its BHJJ program under the Department of Justice’s Mental Health and Justice Collaboration Program. Nationally, the MacArthur Foundation’s Models for Change program was created to help communities better address the complex needs of juvenile justice-involved youth with behavioral health needs. Models for Change emphasizes early identification of behavioral health needs and diversion from the juvenile justice system, when possible, in favor of appropriate behavioral health treatment. These are just some of the examples of local and national efforts to expand the options for juvenile justice-involved youth with behavioral health concerns.

Funding Considerations

While community-based diversion can be an effective alternative to detention for some youth, these programs do require funding to implement and sustain. From July 2005 through June 2011, the direct state contribution to BHJJ was \$8.4 million. This figure does not take into consideration additional local funds spent by each BHJJ county. Using enrollment numbers, the average cost per participant in BHJJ was slightly less than \$5,000. In FY 2011, the per diem to house a youth at a DYS facility was \$442 and the average length of stay was 12.6 months. Based on these numbers, the estimated cost of housing the average youth at a DYS facility was \$167,960. BHJJ is not only effective

at improving behavioral and juvenile justice-related outcomes for many of the youth enrolled, but it is also a cost-effective alternative to detention.

For several reasons, including the availability of diversion programs like BHJJ, there has been over a 50% reduction in the average daily population at DYS facilities since FY 2006. This reduction in commitments has allowed the state to shutter several DYS institutions and has resulted in a significant cost savings for the state. However, if BHJJ and similar programs are to be sustained, it is important that the money that was formerly provided to local and state juvenile detention facilities to care for youth with behavioral health issues be re-directed back to the communities that are now responsible for treating these children. This philosophy is consistent with the recent juvenile justice reform legislation, HB 86 and 153, signed by Governor John R. Kasich in 2011. That legislation promoted research-supported and outcome-based practices for RECLAIM funding and included specific budget language that permitted the reallocation of 45% of the correctional institutional cost savings into evidence-based community programs.

REFERENCES

1. Otto, R. K., Greenstein, J. J., Johnson, M. K., & Friedman, R. M. (1992). Prevalence of mental disorders among youth in the juvenile justice system. In J. J. Coccozza (Ed.), *Responding to the mental health needs of youth in the juvenile justice system*. Seattle, WA: The National Coalition for the Mentally Ill in the Criminal Justice System.
2. Cuellar, A.E., McReynolds, L., & Wasserman, G. (2006). A cure for crime:

- Can mental health treatment diversion reduce crime among youth? *Journal of Policy Analysis and Management*, 25 (1), 197-214.
3. Shufelt, J. L. & Cocozza, J. J. (2006). *Youth with mental health disorders in the juvenile justice system: Results from a multi-state prevalence study*. Delmar, NY: National Center for Mental Health and Juvenile Justice.
 4. Feinstein, R. A., Lampkin, A., Lorish, C. D., Klerman, L. V., Maisiak, R., & Oh, M. K. (1998). Medical status of adolescents at time of admission to a juvenile detention center. *Journal of Adolescent Health*, 22 (3), 190-196.
 5. Goldstrom, I., Jaiquan, F., Henderson, M., Male, A., & Manderscheid, R.W. (2000). *The availability of mental health services to young people in juvenile justice facilities: A national survey*. In R.W. Manderscheid and M.J. Henderson (Eds.) *Mental Health, United States, 2000* (DHHS Publication No. SMA-01-3537, pp. 248-268). Washington, DC: U.S. Government Printing Office.
 6. Beringer, G. B. (2007). *Juvenile Justice/ Mental Health Initiative (JJMHI)*. Retrieved from Youth Network Council website: <http://youthnetworkcouncil.org/pdf/JJMHI%20Full%20Evaluation.pdf>
 7. Hamilton, Z. K., Sullivan, C. J., Veysey, B. M., & Grillo, M. (2007). Diverting multi-problem youth from juvenile justice: Investigating the importance of community influence on placement and recidivism. *Behavioral Sciences and the Law*, 25, 137-158.
 8. Alexander, J., Barton, C., Gordon, D., Grotper, J., Hansson, K., Harrison, R., Mears, S., Mihalic, S., Parsons, B., Pugh, C., Schulman, S., Waldron, H., & Sexton, T. (1998). *Functional Family Therapy: Blueprints for Violence Prevention, Book Three*. In D.S. Elliott (Series Ed.) *Blueprints for Violence Prevention Series*. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.
 9. Barton, C., Alexander, J.F., Waldron, H., Turner, C.W., & Warburton, J. (1985). Generalizing treatment effects of Functional Family Therapy: Three replications. *American Journal of Family Therapy*, 13 (3), 16-26.
 10. Henggeler, S. W., Mihalic, S. F., Rone, L., Thomas, C., & Timmons-Mitchell, J. (1998). *Multisystemic Therapy: Blueprints for Violence Prevention, Book Six*. In D. S. Elliott (Series Ed.), *Blueprints for Violence Prevention Series*. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.
 11. Shepler, R., Cleminshaw, H., Canary, P.J. (Summer 2006). The Integrated Co-Occurring Treatment model (ICT): A new treatment model for youth with co-occurring disorders involved in the juvenile justice system. *Focal Point*, 20(2), 24-27.
 12. Cohen, J.A., Mannarino, A.P., & Deblinger, E. (2006). *Treating Trauma and Traumatic Grief in Children and Adolescents*. New York: The Guilford Press.
 13. Alcohol, Drug Addiction and Mental Health Services Board of Cuyahoga County and the Cuyahoga County Juvenile Court *Project Proposal*. June, 2011.
 14. Alcohol, Drug Addiction and Mental Health Service Board of Franklin County and the Franklin County Juvenile Court *Project Proposal*. June, 2011.
 15. Hamilton County Mental Health and Recovery Services Board and the Hamilton County Juvenile Court *Project Proposal*. June 2011.
 16. Mental Health and Recovery Services Board of Lucas County and the Lucas County Juvenile Court *Project Proposal*. June 2011.
 17. Alcohol, Drug Addiction and Mental Health Services Board for Montgomery County and the Montgomery County Juvenile Court *Project Proposal*. June, 2011.
 18. The Summit County Juvenile Court and the County of Summit Alcohol, Drug Addiction and Mental Health Services Board *Project Proposal*. June 2011.
 19. Cohen, J.A., Mannarino, A.P., & Deblinger, E. (2006). *Treating Trauma and Traumatic Grief in Children and Adolescents*. New York: The Guilford Press.
 20. American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
 21. Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives General Psychiatry*, 59 (12), 1133-1143.
- Kretschmar, J.M., Flannery, D.J., & Butcher, F. (2012). An evaluation of the Behavioral Health/Juvenile Justice Initiative: 2006-2011. Retrieved from Ohio Department of Mental Health website: <http://mentalhealth.ohio.gov/assets/children-youth-families/system-of-care/bhjj-2011-evaluation-final-6-9-12.pdf>
- Novins, D. K., Duclos, C. W., Martin, C., Jewett, C. S., & Manson, S. M. (1999). Utilization of alcohol, drug, and mental health treatment services among American Indian adolescent detainees. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 1102-1108.

VALIDATION OF THE PSYCHOMETRIC PROPERTIES OF THE RAPID RISK OF VIOLENCE SCREEN (RROVS)

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Assessment and prediction of the risk of violence in mental health clients has become a staple in both clinical and non-clinical settings in the last two decades.¹⁻⁴ One main reason for the expanded use of contemporary risk-assessment instruments is their ability to assign levels of risk based on objective criteria, which has been demonstrated to be more effective than clinical judgment alone.^{5,6} While the expanded use of assessment tools is widely regarded as a step forward, and by some a necessity, the use of these tools is not without drawbacks.^{1-3,7,4} These drawbacks concern the amount of training and/or expertise required for the administration of tools, cost, and length of time required to administer an assessment.^{2,3,7,4} To combat these concerns, the development of brief risk-assessment instruments has been suggested.⁷ These brief assessments can address the aforementioned concerns. However, to be successful, these tools must also be subjected to validity and reliability analyses.

The Ohio Department of Mental Health (ODMH) developed a risk of violence screening tool that could quickly identify clients to determine whether or not a more in-depth

violence assessment instrument should be administered. Initial evaluation of the tool⁸ led to several revisions. The purpose of this study was to examine the revised Rapid Risk of Violence Screen (RROVS) to determine if the instrument was successful at identifying individuals who are at higher risk to be violent and therefore need a more extensive assessment in outpatient settings. A preliminary analysis was conducted as a part of the evaluation of the RROVS⁹ between June 2009 and December 2009.

In the preliminary analysis of the RROVS, Smith et al. (2010) found that the average score on the RROVS was just under five (out of a possible 18 points), and the RROVS had a Cronbach's alpha statistic of .676. The Pearson correlation coefficient between the RROVS and the HCR-20 was strong, positive, and statistically significant ($r = .818$). This finding suggested that higher scores on the RROVS were associated with higher scores on the HCR-20. Scores on the RROVS differed significantly based on type of setting, age, and gender. Scores from inpatient sites were higher than those from outpatient sites, and younger participants had higher

scores than older participants. Also, males had higher scores than females. Additional analyses were performed on participants from only outpatient settings to determine how well the RROVS performed in the specific context for which it was developed. Smith et al. (2010) reported that both the Cronbach's alpha and correlation coefficient increased to .713 and .889, respectively. In short, preliminary analyses suggested that the RROVS was a valid and reliable assessment tool.

This study presents findings regarding the validity and reliability of the RROVS through additional data. Moreover, this study includes an evaluation of outcome data and information from staff satisfaction surveys.

METHODS

Data Collection

Participants. The sample for this evaluation is comprised of mental health consumers accessing services in Ohio from June 2009 through May 2010. Data collection

for outcome measures on arrests and the MacArthur Behavioral Checklist ended on April 31, 2010. Participants from regional psychiatric hospitals (RPH) comprised the inpatient sample ($n = 25$), and participants from Community Mental Health Centers (CMHC) comprised the outpatient sample ($n = 133$). In addition, HCR-20 data are provided for 52 participants who were chosen for that subsample, and MacArthur Behavioral Checklist data are provided for 99 participants.

Sampling Technique. A stratified sampling technique was employed to account for potential differences in characteristics of clients served by ODMH that may result from the geographic region in which they are served. Accordingly, the sample was stratified by region. Five RPHs and five CMHCs were included for a total of 10 sites.

Instruments

Rapid Risk of Violence Screen. The RROVS is an eight-question, nine-item instrument. It is intended to be a relatively short screening tool that can be used at intake (or at any other time when deemed appropriate) to screen people for the potential risk of violence (see Appendix A, page 42). Licensed clinicians or anyone who has basic training in conducting intake assessments can administer the tool. It does not require that the assessor be an independently licensed mental health professional; that is, the RROVS should be administered by a trained clinician or mental health technician and should not be given to the consumer to complete.

All of the items, except for the last one (question 8), are to be read verbatim to the consumer. To score

the RROVS, assessors circle the appropriate response for each item on the instrument: either 0 = the item is absent; 1 = the item is possibly or partially present; or 2 = the item is definitely present. After reading the item verbatim, the assessor is free to make follow-up inquiries as needed to answer the time frame/date needed for items 1, 2, and 3. The assessor needs to fill in at least one source of information for each item. Most often this would be the “individual.” If other sources of information are used to arrive at the score, then the source(s) should be checked. The scoring criteria are as follows:

0	= if the answer is “no”
1	= if the answer is possibly or partially present
2	= if the answer is “yes” or mostly “yes”

The individual item scores are then summed to calculate the total score. For the purposes of research, the assessor also completes the other items at the bottom of the instrument, such as the estimate of the consumer’s reliability, as a source of information, the time in minutes that was required to administer the instrument, the name, degree/credential, job title and phone number of the assessor, the name of their facility or agency, and the city in which it is located.

Staff Satisfaction Survey of the RROVS. Data collectors were recruited to provide feedback regarding their use of the RROVS. A satisfaction survey was developed through collaboration between ODMH and the University of Cincinnati CCJR (see Appendix B). It asked respondents to rate their experience with RROVS regarding the training they received, the time required for administration,

ease of use, utility, and whether they would recommend it for future use. The satisfaction survey also contained the credentials of the respondent and the number of RROVS he/she administered. Finally, space was provided for comments and suggestions. If a data collector agreed to participate, he/she received an informed consent and was provided a copy of the survey to be completed and mailed to the CCJR. Surveys were completely anonymous, and the data was held in strict confidence.

Procedures

The ODMH Office of Forensic Services and the CCJR trained RPH and CMHC staff who were responsible for recruiting participants administering the RROVS. The training included the rationale behind the study, how to administer the RROVS, and how to use a sampling interval and interpret the results (see Appendix B).

Inpatient. If a civil inpatient agreed to participate, RPH staff provided an informed consent that described the study and the information to be obtained. Participants were informed of their rights, and confidentiality was ensured. Upon receiving consent from the participant, RPH staff administered a RROVS. On the same day or before the participant was discharged from the RPH, another staff member re-administered a RROVS and assessed the participant with an HCR-20. A RPH staff member informed the CCJR researcher of individuals who had participated. The CCJR researcher then notified the local CMHC that would be continuing their treatment so that a CMHC staff could administer a

follow-up RROVS to examine inter-rater reliability.

Outpatient. At intake, CMHC staff identified potential participants for the study. If an individual agreed to participate, CMHC staff provided an informed consent that described the study and the information to be obtained. Participants were informed of their rights, and confidentiality was ensured. Upon receiving consent from the participant, CMHC staff administered a RROVS. The CMHC staff also administered the HCR-20 to a subsample of the outpatient participants. The subsample was comprised of 35 participants from a rural setting and 70 from an urban setting. Outpatient participants were followed for six months using the MacArthur Behavioral Checklist. The MacArthur Violence Risk Assessment Study³ research team developed this checklist, which provides additional information about violent acts that might not be recorded in criminal databases.

Participants were tracked through criminal justice databases (county court records) to determine if they had been arrested at any time six months after the initial administration of the RROVS. Online court records were used to obtain arrest data. Participants' demographic information (e.g., birth date) was used for search criteria. The first step was to search in the county (primary county) in which the RROVS had been administered. The next step was to search all surrounding counties (secondary counties). County arrest databases were selected because arrest data is available more quickly when compared to alternative data sources (e.g., state-wide databases). No analyses were conducted on

arrests because data collection efforts revealed that no participants were arrested for a violent offense during the six month follow-up period.

Statistical Analyses

Descriptive statistics, such as means and standard deviations, are presented for a variety of variables. Reliability analyses using Cronbach's alpha determined the internal consistency of the RROVS and correlation analyses were used to determine the concurrent validity of the RROVS with the HCR-20 and MacArthur Behavioral Checklist. Cohen's Kappa, a measure of inter-rater reliability, was used to measure the level of agreement between independent raters on the same item. Multivariate regression techniques were used to determine whether the RROVS had the ability to predict forms of violence on the MacArthur Behavioral Checklist. Finally, independent *t*-tests and one-way ANOVA statistics were generated to determine whether there were significant differences in RROVS scores across the demographic characteristics of age, race, gender, location, and type of setting.

RESULTS

The final sample was comprised of 158 participants. Table 1 displays information on the demographic characteristics of the sample. The majority of the sample was female (58.2%), and whites comprised 77% of the sample. The highest percentage of clients from the sample were of 41 to 50 years old. With regard to diagnoses, roughly 63% of the participants had a mood disorder as their primary

diagnosis, followed by approximately 29% having a primary diagnosis of schizophrenia or a psychotic disorder.

A total of 10 sites (five inpatient and five outpatient) returned 158 assessments. The majority of the assessments returned were from outpatient sites: 25 or 15.8% of the assessments were from inpatient settings. In regards to the RPH setting, RPHs did not return a larger number of assessments because they had disproportionately higher numbers of forensic patients on their caseloads during data collection.

The findings from the reliability analysis of the RROVS are presented in Table 2. The average score for the RROVS for the total sample and the average score for each of the nine items are contained in this table. The sample yielded an average RROVS score of just less than five. Concurrent validity of the RROVS was estimated through the correlation between the RROVS and both the HCR-20 and the MacArthur Behavioral Checklist. As Table 2 shows, the RROVS was significantly and positively related to both the HCR-20 and the MacArthur checklist. Thus, higher scores on the RROVS were associated with higher scores on both concurrent measures, suggesting high concurrent validity.

Cronbach's alpha statistic was used as a measure of internal consistency of the RROVS. This technique was chosen over other techniques because the strength of Cronbach's alpha is its ability to measure one particular construct or dimension,¹⁰ in this case risk of violence. While other techniques of assessing internal consistency are available, their strengths lie in their

Table 1: Sample Demographics

Variable	<i>n</i>	%
Gender (<i>n</i> = 158)		
Male	66	41.8
Female	92	58.2
Age (<i>n</i> = 153)		
18–30	39	25.5
31–40	37	24.2
41–50	43	28.1
51 or older	34	22.2
	$\bar{\chi}$ = 40.03	
Race (<i>n</i> = 157)		
White	121	76.6
Non-white/Other	36	22.8
Primary Diagnosis (<i>n</i> = 140)		
Mood Disorder	88	62.9
Schizophrenia/Psychotic Disorders	41	29.3
Anxiety Disorder	7	5.0
Personality Disorder	2	1.4
Adjustment Disorder	1	0.7
Dementia/Delirium/Cognitive Disorders	1	0.7

ability to distinguish between multiple constructs (e.g., principal components analysis). In short, Cronbach’s alpha was the most appropriate technique given the aim of the current research. The finding of $\alpha = .674$ for the full sample suggests that the RROVS has good internal consistency.

Table 3 displays the reliability analysis for the RROVS for the outpatient sample only. This analysis was conducted because the RROVS is primarily used in outpatient settings and there is a smaller amount of data from RPHs. Results for the outpatient-only subsample reveal that the RROVS continues to have high concurrent validity. The correlation between the RROVS and the HCR-20 was strong ($r = .840$). The correlation between the RROVS and MacArthur remained the same as the MacArthur was administered in only outpatient

settings. This correlation shows that higher scores on the RROVS were associated with higher scores on the HCR-20. Cronbach’s alpha also was .716; indicating strong internal reliability with an outpatient population.

This study also inspected difference in the RROVS, HCR-20, and MacArthur scores across demographic and site characteristics. This information is presented in Tables 4, 5, and 6. Results in Table 4 indicate that there were some differences in RROVS scores by type of setting and gender. The results suggest that participants from inpatient facilities were more likely than participants from outpatient facilities to have higher scores on the RROVS. Also, male participants had significantly higher RROVS scores than female participants. This finding is consistent with a wide body of research that

suggests men are more violent than women.^{1,13} It is important to note that the RROVS scores did not differ significantly by age.

Findings in Table 5 are similar to those in Table 4. Participants from inpatient settings and male participants were also more likely to score higher on the HCR-20. There was no significant difference in HCR-20 scores based on race. Finally, Table 6 findings indicate that there were no significant differences in MacArthur scores across demographic characteristics. The findings suggest that the RROVS performed as consistently as the HCR-20 across various demographic and site groups. Kappa statistics were not estimated as only 12 participants had more than one administration of the RROVS, and this sample size was too small for reliable analysis.¹¹

Table 7 provides the results of the multivariate regression analysis of age, gender, and total RROVS score on total MacArthur Behavioral Checklist scores. This analysis was conducted to determine if the RROVS could predict violence based on scores of the MacArthur Behavioral Checklist. Because age and gender are known correlates of violence, these variables were included in the analysis to provide the most appropriate statistical model. The results demonstrate that the RROVS predicts violent behaviors on the MacArthur Behavioral Checklist, regardless of a participant’s age and gender. The overall model was statistically significant and suggests that participants with higher RROVS scores were more likely to have higher scores on the MacArthur.

Table 8 presents the results of the staff satisfaction survey of the RROVS. A total

Table 2: Reliability Analysis of the RROVS for the Full Sample

Variable	$\bar{\chi}$	SD	Statistic
Total RROVS Score	4.903	3.694	$r = .787^{*\dagger}$ $r = .339^{*\ddagger}$
RROVS Items			$A = .674$
Intentionally Injured Someone	.406	.769	
Arrested for Assault	.406	.759	
Recent Substance Use	.586	.845	
Recent Interpersonal Conflict	.797	.868	
Lose Temper Easily	.759	.871	
Act without Thinking	.985	.861	
Have Thoughts of Hurting Someone	.496	.803	
Noncompliance with Meds	.270	.652	
Current Mental/Behavioral Status	.195	.514	

* $p < .01$; † Pearson Correlation with HCR-20; ‡ Pearson Correlation with MacArthur.

Table 3: Reliability Analysis of the RROVS for the Outpatient Sample

Variable	$\bar{\chi}$	SD	Statistic
Total RROVS Score	4.655	3.774	$r = .840^{*\dagger}$
RROVS Items			$A = .716$
Intentionally Injured Someone	.387	.754	
Arrested for Assault	.387	.754	
Recent Substance Use	.517	.807	
Recent Interpersonal Conflict	.758	.860	
Lose Temper Easily	.810	.893	
Act without Thinking	.948	.853	
Have Thoughts of Hurting Someone	.534	.817	
Noncompliance with Meds	.181	.537	
Current Mental/Behavioral Status	.129	.407	

* $p < .01$; † Pearson Correlation with HCR-20.

Table 4: Inspection of Differences in RROVS Scores by Demographic and Site Characteristics for the Full Sample

Variable	$\bar{\chi}$	SD	df	t/F
Type of Setting				
Inpatient	6.72	3.43	156	2.53*
Outpatient	4.66	3.75		
Age				
18–30	5.10	3.59	152	2.55
31–40	5.86	4.09		
41–50	5.44	3.51		
51 or older	3.55	3.75		
Race				
White	4.88	3.67	155	-0.86
Non-white	5.50	4.06		
Gender				
Male	6.12	3.94	156	3.28*
Female	4.18	3.43		

* $p < .05$.

Table 5: Inspection of Differences in HCR-20 Scores by Demographic and Site Characteristics for the Full Sample

Variable	$\bar{\chi}$	SD	df	t/F
Type of Setting				
Inpatient	20.80	5.83	51	2.63*
Outpatient	15.45	8.90		
Age				
18–30	17.72	8.60	47	2.19
31–40	19.80	8.36		
41–50	20.03	6.63		
51 or older	12.30	8.24		
Race				
White	18.38	7.85	50	1.31
Non-white	14.60	9.45		
Gender				
Male	21.17	6.54	51	3.08*
Female	14.63	8.39		

* $p < .05$.

of 18 surveys were returned out of the 26 possible staff participants. About 16% of the sample was comprised of doctoral level psychologists, approximately 66% were master’s level licensed mental health professionals, and the remaining 16% were unlicensed master’s level mental health professionals. There were no statistically significant differences in staff satisfaction items based on credentials.

All respondents were trained on the RROVS, and over 83% rated their training as thorough or very thorough. The average amount of time needed to administer the RROVS according to staff was 13 minutes, with two minutes being the shortest time reported and 60 minutes reported as the longest.

The majority of respondents felt that administration instructions of the RROVS were very clear, were easy to administer, and did not contain confusing language. With regards to the RROVS delivery to the client, a majority of respondents said that the items were understood by the client and that any needed explanations were easy to produce. Importantly, most of

Table 6: Inspection of Differences in MacArthur Checklist Scores by Demographic and Site Characteristics for the Full Sample

Variable	\bar{X}	SD	df	t/F
Age				
18-30	1.50	3.23	94	.634
31-40	1.12	2.81		
41-50	2.14	5.58		
51 or older	0.70	1.75		
Race				
White	1.29	3.30	96	-0.42
Non-white	1.66	4.85		
Gender				
Male	2.50	5.41	97	1.72
Female	0.78	2.19		

Table 7: Regression Analysis Summary for RROVS Predicting Total MacArthur Scores

Variable	B	SEB	β
RROVS Score	.360	.117	.309*
Age	.002	.033	.007
Gender	-1.199	.788	-.152

Note. $R^2 = .14$ ($N = 94, p < .01$). * $p < .01$.

the respondents said that the RROVS did not make the clients uncomfortable. Finally, most respondents indicated that the instrument should be used in their agency.

One of the goals of this research was to determine the ability of the RROVS to predict future violence. To this end, arrest data were collected a minimum of six months after a RROVS was administered on participants. As noted in the methods section, these data were collected from all Ohio county databases. The search revealed only two arrests for RROVS participants. These two arrests were not for a violent offense. Therefore, no statistical analyses could be conducted with arrest for violence as an outcome. The implications of this finding, along with all other findings from this report, are discussed in the following section.

DISCUSSION

Specifically, this study examined the RROVS to determine if it was successful at identifying individuals who are at higher risk to be violent, and therefore need a more extensive assessment in outpatient settings. To this end, this study presented findings on the validity, reliability, and ability of the RROVS to predict violence based on analyses conducted on the complete sample.

Several conclusions can be drawn based on the findings. First, the RROVS is psychometrically reliable. In both the full sample and outpatient only sample, the Cronbach's alpha for the RROVS was .674 and .716, respectively. These alpha levels suggest that the RROVS reliably

measures for what it was intended to measure. Second, the Pearson correlation between the RROVS and both the HCR-20 and MacArthur Behavioral Checklist suggest that the RROVS is psychometrically valid. These correlations were strong, positive, and statistically significant in both the full and outpatient-only samples meaning that higher scores on the RROVS significantly correlated with higher scores on both the HCR-20 and MacArthur Behavioral Checklist. In short, the RROVS is both a valid and reliable tool.

In addition to reliability and validity, it is important to know if the tool is generalizable to the population on which it will be administered. Analyses indicated that the RROVS is generalizable because scores did not differ significantly across race or age groups. It should be noted that results indicated differences in RROVS scores across gender and treatment setting. However, this finding is consistent with previous research that has suggested these are expected differences.^{1,13} Finally, the unfortunate absence of variation in arrest data prohibited analyses that would examine the ability of the RROVS to predict violent arrests. However, the RROVS significantly predicted the various forms of violent behavior on the MacArthur Behavioral Checklist.

There are several possible explanations for why no participants were arrested during the six month follow-up time period. First, the population from which the sample was drawn was not a criminal population. Thus, anyone included in the sample had a lower likelihood of arrest in general. Second, participants received mental health services before and after the administration of the RROVS. The receipt of services is significant because

Table 8: Staff Ratings of the RROVS

Variable	n	%
Training on the RROVS		
Neither thorough or lacking	3	16.7
Thorough	6	33.3
Very thorough	9	50.00
Instructions on the RROVS		
Confusing	1	5.6
Neither	2	11.1
Clear	5	27.8
Very clear	10	55.6
Confusing language on the RROVS		
Yes	1	5.6
No	17	94.4
Ease of administration		
Difficult	1	5.6
Neither	3	16.7
Easy	2	11.1
Very easy	12	66.7
Ease of understanding scoring of RROVS		
Difficult	1	5.6
Neither	1	5.6
Easy	9	50.0
Very easy	7	38.9
Items easily understood by participant		
Agree	11	61.1
Strongly agree	7	38.9

Table 8: Staff Ratings of the RROVS (Contd.)

Variable	n	%
Easy to explain unclear questions		
Agree	13	72.2
Strongly agree	5	27.8
Rate time it took to administer RROVS		
Much more than expected	1	5.6
More than expected	1	5.6
Expected	13	72.2
Less than expected	3	16.7
Client didn't seem uneasy during RROVS		
Strongly disagree	1	5.6
Disagree	1	5.6
Agree	12	66.7
Strongly agree	4	22.2
Accuracy of the RROVS		
Somewhat accurate	9	50.0
Accurate	8	44.4
Very accurate	1	5.6
I would like the RROVS in my agency		
Disagree	8	47.1
Agree	9	52.9
How easy would it be to add RROVS to your agency's assessment process		
Difficult	2	11.8
Neither	8	47.1
Easy	4	23.5
Very easy	3	17.6

individuals who were possibly violent as a result of mental illness received treatment that necessarily lowered their chances of the violent arrest. Third, the criminal justice system does not encounter or have awareness of violent acts that do not rise to the level of legal intervention. This is not evidenced by the absence of arrests in the sample, but the presence of violent behavior measured on the MacArthur Behavioral Checklist. It is possible that participants committed acts of violence that would have warranted arrest, but the acts were simply never reported. Finally, the absence of arrest may simply be a product a relatively small sample size and a

short follow-up. The possibility exists that a larger sample of clients who remain in the general population longer would have more variation in arrests.

It is important to note that the findings presented here suggest that the RROVS is reliable and valid in outpatient settings based on the Cronbach's alpha values and correlation with the HCR-20. Also, the correlation between the RROVS and the MacArthur Behavioral Checklist was moderate and statistically significant. This finding is important because the RROVS was

designed for use in the outpatient setting specifically. As mentioned, violence risk assessments can be costly and time consuming. A brief instrument that can quickly identify individuals who need more extensive assessments could ease the strain of limited budgets and heavy caseloads in outpatient mental health settings.

The findings suggest that the RROVS has the ability to screen quickly individuals who need a more in-depth risk assessment. According to staff feedback, the average amount of time needed to administer the

RROVS was 13 minutes. That is a substantial difference from the amount of time it takes to administer other lengthier assessments.

The findings also provide evidence for the use of the RROVS as a screen for more extensive violence risk assessment. Particularly, the strong, significant correlation with the HCR-20 suggests that RROVS scores are associated with established violence risk scores. Additionally, the ability of the RROVS to predict measures of violence from the MacArthur Behavioral Checklist provides further support that it can be used to screen out violent individuals.

Recommendations for future research are conceivable. Subsequent studies of the RROVS should consider its ability to identify quickly individuals who need more in-depth assessments at intake in inpatient settings. Since it is an acute measure of violence, the RROVS may predict institutional violence for individuals who have not yet received psychological or pharmacological interventions. Estimation of this relationship could prove to be fruitful for intake procedures in mental health hospitals. Future studies should also employ multivariate regression techniques to estimate the relationship between the RROVS and violent arrest in a forensic mental health population. The consideration of only civil-status participants was the primary intention of this study as that is the population for which the screening instrument was designed. The RROVS could possibly perform as well with forensic-status clients as it already does with civil-status clients. Future research should examine that research question. Finally, the RROVS should be evaluated in a

larger sample with other forms of self-reported violent behavior like those contained in the MacArthur Behavioral Checklist.

CONCLUSION

The RROVS seems to be a valid and reliable screening instrument for individuals who need more extensive violence risk assessment. The study findings have shown the RROVS to be internally consistent and generalizable. Results from the staff satisfaction survey suggest that it is easy to use, understandable, and the majority of data collectors reported that they would like their agency to adopt its use in the future.

REFERENCES

- Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology*, 34, 575-607.
- Maden, T. (2007). *Treating Violence: A Guide to Risk Management in Mental Health*. New York: Oxford University Press.
- Monahan, J., & Steadman, H.J. (1996). *Violence and Mental Disorder: Developments in Risk Assessment*. Chicago, IL: University of Chicago Press.
- Smith, P., Gendreau, P., & Goggin, C. (2007). "What works" in predicting psychiatric rehospitalization and relapse: The specific responsiveness dimension of effective correctional treatment. In R. Ax & T. Fagan (Eds.), *Corrections, Mental Health and Social Policy: An International Perspective* (pp. 209-233). Springfield, IL: Charles C. Thomas Publisher.
- Andrews, D., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior*, 17, 19-52.
- Andrews, D., & Bonta, J. (2006). *The Psychology of Criminal Conduct*. Cincinnati, OH: Anderson.
- Andrews, D., & Bonta, J. (1995). *LSI-R: The Level of Service Inventory-Revised*. Toronto, ONT: Multi-Health Systems, Inc.
- Petrila, J. (2006). Introduction to this issue: Brief risk assessment. *Behavioral Sciences and the Law*, 24, 719.
- Flannery, D. J., Davis, M.S., Holzheimer, M., & Baker, R.N. (2007). Assessing risk of violence using the new violence risk screen (VRS). *New Research in Mental Health*, 17, 110-115.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Sim, J. and Wright, C.C. (2005). The Kappa Statistic in Reliability Studies: Use, Interpretation, and Sample Size Requirements. *Physical Therapy*, 85, 257-268.
- Smith, P., Myer, Gaylean, K. (2010). Validation of the Psychometric Properties of the Rapid Risk of Violence Screen (RROVS): A preliminary report. Unpublished.
- Sirotich, F. (2008). *Correlates of crime and violence among persons with mental disorder: An evidence based review*. Available from: <http://brief-treatment.oxfordjournals.org.uk/cgi/reprint/mhn006v1.pdf>

APPENDIX A

Rapid Risk Of Violence Screen—Research Version

Age _____ Gender _____ Date _____ Race/Ethnicity _____ Research ID Number _____
 Diagnosis(es) _____

This form is to be completed by a mental health technician or clinician. It is not to be completed by the client. Circle the appropriate response: 0 = item is absent (no), 1 = item is possibly or partially present (maybe), 2 = item is definitely present (yes). Check the source(s) of information used to answer the item. If there are discrepancies between sources of information, describe the discrepancy in the "Comments" section.

History of Violence **Score:** 0 1 2
 1. Have you ever intentionally injured a person so that medical **Sources:** Individual _____ Family _____
 treatment was necessary? Records _____ Other _____
 Approximate year of last occurrence: _____

Comments:

2. Have you ever been arrested for assaulting someone? **Score:** 0 1 2
 Approximate year of last occurrence: _____ **Source:** Individual _____ Family _____
Records _____ Other _____

Comments:

Substance Abuse **Score:** 0 1 2
 3. Have you recently been "drunk" or "high?" **Source:** Individual _____ Family _____
 Approximate year/date of last occurrence: _____ Records _____ Other _____

Comments:

Recent Interpersonal Conflict **Score:** 0 1 2
 4. Have you recently experienced severe conflicts **Source:** Individual _____ Family _____
 in your close personal relationships and/or at work? Records _____ Other _____

Comments:

Anger/Impulsivity/Threats **(a) Score:** 0 1 2
 5. Do you (a) lose your temper easily, or **(b) Score:** 0 1 2
 (b) do you often act without thinking? **Source:** Individual _____ Family _____
Records _____ Other _____

Comments:

6. Is there somebody you have thoughts about hurting **Score:** 0 1 2
 or would like to see hurt? **Source:** Individual _____ Family _____
 If yes, describe: Records _____ Other _____

Comments:

Noncompliance **Score:** 0 1 2
 7. In the last 6 months, have you been unwilling **Source:** Individual _____ Family _____
 to take psychiatric medication as prescribed? Records _____ Other _____

Comments:

Current Mental/Behavioral Status **Score:** 0 1 2
 8. From your observation does the person appear to currently **Source:** Individual _____ Family _____
 have active symptoms of psychosis/mania/dementia? Records _____ Other _____
 If yes, describe:

Comments:

Total Score: _____ Estimate of Client Reliability: High__ Med__ Low__ Time Required to Complete: _____

Completed by: _____ (name, credentials, job title)

Facility/Agency Location: _____ Phone # _____ **Rev 10/18/07**

CRISIS INTERVENTION TEAM (CIT) PROGRAMS IN RURAL COMMUNITIES: A FOCUS GROUP STUDY

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Editor's Note: Springer Science and Business Media control the copyright for this article entitled "Crisis Intervention Team (CIT) Programs in Rural Communities: A Focus Group Study." First published in the journal *Community Mental Health Journal*, (Skubby et al.) Online 1st DOI 10.1007/s10597-012-9517-y, Springer has granted the Ohio Department of Mental Health permission to include this article about an Ohio-based study about the importance of peer-led wellness management interventions in this inaugural issue of *Behavioral Health in Ohio: Current Research Trends*. We are indebted to Springer for granting ODMH permission to reprint this article written by D. Skubby, N. Bonfine, M. R. Munetz, C. Ritter. Department of Psychiatry of the Northeast Ohio Medical University, Rootstown, OH, USA. Email: dskubby@neomed.edu.

Abstract: The Crisis Intervention Teams model (CIT) was originally developed as an urban model for police officers responding to calls about persons experiencing a mental illness crisis. Literature suggests that there is reason to believe that there may be unique challenges to adapting this model in rural settings. This study attempts to better understand these unique challenges. Thematic analysis of focus group interviews revealed that there were both external and internal barriers to developing CIT in their respective communities. Some of these barriers were a consequence of working in small communities and working within small police departments. Participants actively overcame these barriers through the realization that CIT was needed in their community, through collaborative efforts across disciplines, and through the involvement of mental health advocacy groups. These results indicate that CIT can be successfully implemented in rural communities.

Keywords: Crisis intervention • Criminal justice • Law enforcement • Police officers • Rural communities.

INTRODUCTION

Individuals with mental illness in crisis pose unique challenges to community law enforcement officers. Much attention has shifted to approaches that officers and other community stakeholders use to address this issue. It is estimated that

10 % of contacts between the public and law enforcement involve a person with a mental health problem (Watson et al. 2010). As law enforcement officers are the "primary gatekeepers" to the criminal justice system (Lamb et al. 2002, p. 1266), they are often faced with difficult decisions about how to best respond to individuals experiencing a psychiatric crisis. This is particularly important because officers typically spend more time on these calls and because these calls may be unpredictable or result in a violent outcome for the officer or for the individual with mental illness (Hanafi et al. 2008; Watson et al. 2008).

The Crisis Intervention Team (CIT) program fosters collaborative ties between law enforcement, the mental health treatment system, consumers and consumer advocates. The goal of this collaboration is to improve the understanding of, and safety and service to, individuals with mental illness and their families (Cochran et al. 2000; Compton et al. 2008; Dupont et al. 2006; Hanafi et al. 2008). CIT officers have undergone specialized training to improve their response to calls involving a person experiencing a mental health crisis through recognition of mental illness

and de-escalation training (Watson et al. 2010). CIT implementation requires and represents a community partnership in which law enforcement and the mental health system work together to respond to individuals in crisis (Cochran et al. 2000; Ralph, 2010; Watson et al. 2008).

Research on how and why CIT has been successfully implemented in communities varies widely. Some studies have examined challenges to CIT implementation more broadly, analyzing CIT in a variety of communities, counties, and states (Dupont & Cochran 2000; Reuland 2004). Others have looked at challenges to CIT implementation statewide (Munetz et al. 2006; Oliva and Compton 2008), while still others have studied CIT in specific urban areas (Canada et al. 2010; Ritter et al. 2010; Teller et al. 2006). Recent research has even looked at benefits and challenges to implementing CIT in special settings, such as airports (McGriff et al. 2010). What is lacking in the literature is research into the challenges to CIT implementation in rural areas (Compton et al. 2010). The present study attempts to explore this topic, thus addressing a critical gap in the literature.

There is reason to believe that the successful implementation of CIT programs in rural communities is different than in urban settings. In rural areas, there are specific system and environmental challenges that community partners face (Compton et al. 2010). For example, as Kempf (2008) reports, there is a general lack of psychiatric treatment facilities in rural areas. Because state mental health treatment facilities are often the only alternative for individuals in crisis in these areas, police transport

of individuals can be time consuming (Compton et al. 2010; Kempf 2008; Sullivan and Spritzer 1997). Therefore, for CIT to be effectively implemented in rural areas, CIT must be adapted to meet local needs, and it must include close collaboration between local law enforcement and mental health personnel (Chamberlain 2006). Since the CIT model has been developed, disseminated, and researched within urban settings (see Teller et al. 2006, Ritter et al. 2011, 2010; Watson et al. 2010), rural communities may need to adapt the urban model to better fit their specific local needs (Chamberlain 2006). Research is needed that can evaluate the success or failure of these adapted urban models in rural communities (Compton et al. 2010).

The present study is one part of a larger, ongoing research endeavor surrounding the development of community jail diversion initiatives for individuals with mental illness. The Ohio Criminal Justice Coordinating Center of Excellence provides technical assistance to communities to develop jail diversion programs that are developed along the Sequential Intercept Model (e.g. CIT, Mental Health Courts, etc.) (Munetz and Griffin 2006). This broad, qualitative project seeks to better understand the collaborative process of program development in rural, urban and suburban communities that are working towards jail diversion programs. This study included focus groups conducted annually on an ongoing basis as a means to evaluate program development of jail diversion efforts, as well as to evaluate the technical assistance provided by the Criminal Justice Coordinating Center of Excellence. From this ongoing study, we have developed a large, descriptive

qualitative data set of narratives around a variety of programs at various stages of development. This current study focuses our qualitative research on the exploration of the barriers and challenges that community stakeholders in rural areas might face in implementing CIT programs. This is important because rural communities are urged to utilize urban models of CIT (Chamberlain 2006). Knowledge of stakeholders' experiences utilizing the urban model will aid in the understanding of whether modifications need to be made to the urban model of CIT when used in rural communities.

METHODS

Qualitative research methods are designed to gain an understanding of a particular topic through narratives and in-depth descriptions (Lehoux et al. 2006). The purpose of this present study is to gain an in-depth understanding of how community stakeholders implement CIT in their rural communities by analyzing narratives. This, coupled with the fact that CIT implementation in rural areas is an under-researched topic that needs descriptive data, makes qualitative research an appropriate methodological design to meet the goals of this project.

This study utilized the focus group interview. Focus groups are a methodological technique used when gathering data from a homogeneous group that has never been or rarely studied (Huberman and Miles 2002; Lehoux et al. 2006). Focus group methodology was used in our broad study in an attempt to understand the implementation of jail diversion

programs in communities in Ohio. This current study focuses on CIT through the narratives of professionals implementing CIT. One of the goals of this study was to explore collaboration among professionals regarding CIT implementation.¹ Focus groups were appropriate because such methods are able to “capture the natural interplay of perspectives on research questions, which would be limited in individual interviews, surveys, or observations” (McGriff et al. 2010: 155).

Stakeholders were asked about their perspectives on CIT and the personal experiences they had in developing collaborative efforts to sustain a CIT program. Law enforcement officers, community mental health professionals, system administrators, and consumer advocates from six rural communities² in Ohio were solicited by research staff to participate in the focus group discussions in their communities. The six communities were in varying stages of CIT program development, with some regularly offered CIT trainings, while others were in the process of collaborating to develop and implement CIT. These individuals were invited to participate in the discussions based on their involvement in local efforts to develop a CIT program, or as a result of their involvement in community collaborative efforts for other jail

diversion programs. Nine focus group discussions were conducted in these six rural communities between 2006 and 2009. Each discussion consisted of 6 to 10 participants. Individuals recruited to participate included mental health professionals, criminal justice personnel, court personnel, consumers of mental health services, and advocates for families and consumers of mental health services. Mental health professionals ($n = 37$) consisted primarily of counselors, social workers, and service administrators. Criminal justice personnel ($n = 29$) included patrol officers, law enforcement administrators (e.g. Police Chief, Sheriff), jail administrators, and correctional officers. Court personnel (e.g. judges, probation officers, prosecutors) were included in some discussions as the community collaborative group had implemented court-based diversion programs in addition to CIT. Consumers and advocates ($n = 4$) were the third group involved in the focus group discussions (total $N = 70$).

Each focus group lasted approximately 90 min. The focus groups were audio-recorded and later transcribed verbatim. Participants were also given the opportunity to write thoughts and comments and to privately share this input with the research team if they did not feel

comfortable sharing within the group discussion. This study was approved by the Institutional Review Boards at Northeastern Ohio Universities College of Medicine (NEOU-COM, now called Northeast Ohio Medical University), and Kent State University, and all participants provided written informed consent prior to the start of each focus group. The authors have no conflicts of interest, and all authors certify responsibility for this manuscript.

For this paper, the research question is: What are the challenges to implementing CIT in your community? Topics discussed during the focus groups that relate to this question include: (1) perspectives of the criminal justice and mental health treatment systems; (2) perceptions of CIT and other jail diversion efforts, and (3) strategies the collaborative group is utilizing to overcome identified obstacles. After transcriptions were reviewed for accuracy by members of the research team, data were organized based on the topics of barriers to CIT implementation, overcoming barriers to CIT implementation, and the effects of CIT implementation. These topics were largely driven by the both the questions asked and how participants responded. The data were independently coded and sorted by 3

¹As the focus group project was an effort to better understand jail diversion program development, including CIT, and cross-system collaboration in general, the research team met with individuals who were involved in broad community planning activities. Consumer advocates who were involved in planning CIT were invited to attend the discussion. However, other consumers who may have been involved with CIT or otherwise may have been affected from the CIT program were not included.

²We classified rural communities based on the categorization suggested by the Ohio Department of Mental Health and Ohio Department of Development (2008). This conceptualization was derived from the U.S. Census data and the Appalachian federal designations. The six communities are defined as the board area monitored by the alcohol, drug addiction and mental health services boards. These mental health boards oversee the mental services for the county or counties within the board area. We included communities (board areas) classified as rural and Appalachian within our analyses (Ohio Department of Mental Health 2008). Two communities were categorized as suburban per this classification, so we confirmed based on the U.S. Census classification system by examining the population per square mile (U.S. Census Bureau 2011). As neither of these communities met the U.S. Census criteria for urbanized areas or urban clusters, and as the U.S. Census classifies all territory outside of urban areas and urban clusters as rural (U.S. Census Bureau 2011), we categorized these communities as rural.

members of the research team (per Weiss, 1994). This analysis resulted in the emergence of several themes for each of the three topics. Below is support for these themes based on participants' narratives.

RESULTS

Barriers to CIT Implementation

Concerning the topic of barriers to CIT implementation, focus group participants discussed their perspectives regarding the obstacles they faced in starting up the CIT program. In addition, they spoke of their concerns for the future in sustaining implementation of CIT in their particular communities.

Obstacles to Implementing CIT

Focus group participants cited two major obstacles in putting CIT into operation in their communities. First, they stated that both mental health professionals and law enforcement officials had different ways of thinking about the population of individuals with mental illnesses. They stated that these different perspectives had the potential to derail the implementation of CIT. Second, participants stated that issues related to the internal resources needed to start CIT training within small police departments were also a potential problem in getting CIT off the ground in their communities.

Law enforcement and mental health professionals understood that each had a different orientation toward mental illness. Some found this a possible barrier to future cooperation between the two profes-

sions. One mental health professional stated, "You have a mind-set (among law enforcement) that needs to be adjusted in my opinion. 'Somebody has committed a crime and somebody needs to pay.' And that is the focus, as opposed to the reason behind the behavior." Another mental health professional stated, "I think at the law enforcement level...it's all about punishment, it's not about rehabilitation. And so there's this big disconnect."

There were also stated differences in professional values. For example, one criminal justice professional said, "There was a lot of antagonism from the two cultures, because there's a major language difference, a misunderstanding of problems." Another mental health worker highlighted the problem of language by saying, "It's really hard to get everyone to have the same beliefs as everyone else. Still, to this day, I'll get a call from the jail and they'll just say, 'we've got one of your wackos over here you need to see.' You know, you're saying this to a mental health professional." Thus, participants admitted that there were differences in how each perceived the other's professional orientation toward people with a mental illness.

There was also concern that these differing orientations affected relationships between law enforcement and mental health professionals. One criminal justice professional summed up the situation before CIT was implemented: "There was a lot of over the years, for a lack of a better word, *animosity*, between the law enforcement side and the mental health side. CIT was one of the things identified that needed to come into the county to try to address that issue...but the underlying part and

goals of CIT is to build bridges and mend fences between the two sides" (original emphasis). Many focus group participants believed that a secondary consequence to implementing CIT would be to build better relationships between law enforcement and mental health personnel. Participants thus conveyed that there was some division between professionals that hindered any type of collaboration between criminal justice and mental health workers before the beginnings of CIT.

Misunderstandings and differences in values were characteristic of the relationship between police officers and mental health professionals. Study participants were also troubled with the lack of additional resources for CIT training. They stated that there were two potential problems concerning resources for CIT training programs in their communities; one was costs for putting on and filling the training, and the other was about staffing the department while officers were being trained.

Participants were concerned about funding to send rural police officers to a 40-hour CIT training session. Specifically, they were concerned about paying overtime. One officer said, "At first, it wasn't super easy to get the trainees to come to CIT. That involved paying overtime in some cases." Another criminal justice official stated, "Especially because we're a small county department, if somebody goes to class, they've got to cover for that person on the road. Where are the dollars available to try to reimburse the communities for that overtime to cover that cost?" A mental health professional also stated, "The bigger communities have a little more flexibility to try to absorb costs and that type of thing."

Another difficulty in organizing CIT training in these communities was staffing departments while some officers went through CIT training sessions. One mental health professional stated, “It is a challenge in a rural community to get all the departments to be able to free up officers for a whole week.” Another mental health professional said, “The departments are primarily part-time departments with only a couple of full-time people. So for them to commit to the program...Some of the people who came to our last class actually took a vacation from their other jobs so that they could come to the class...It’s a real challenge to have that commitment from the county chiefs knowing that a lot of their departments are part-time.”

Obstacles to Sustaining CIT

Focus group participants gave their perspectives on what they thought might be future obstacles to the sustainability of CIT. They stated that the two major obstacles that could derail CIT in their communities were the lack of resources for persons with a mental illness, and the lack of data on offenders with a mental illness.

First, law enforcement and mental health personnel agreed that the lack of economic resources to treat individuals with a mental illness has become an issue in their communities. The closing of state hospitals has placed a burden on police and counselors, and has left them little choice but to put some offenders with mental illness in jail. One mental health professional said that “state hospitals close and clients that were diverted from the state hospitals were sent to the community. The funding never followed the way it was supposed to. So now you have an over-burdened county mental

health system and an overburdened jail system. . . . Unfortunately as mental health dollars continue to be contracted, we get fewer and fewer mental health dollars, more and more of our clients are ending up in your (the criminal justice) system.”

Focus group participants were also firm in their belief that money for treating individuals with a mental illness in their particular communities was a scarce resource because of the *size* of their community. One mental health provider suggested that because they do not work in an urban area, they don’t always get the funding they need. “I think that one of the things that I get frustrated about is, I think the state and federal government say, ‘Where can we have the biggest impact for our buck?’ And it’s always, always the urban areas. It’s just a frustration because we have the same problems they have in urban areas. It’s just at a smaller scale.”

There was also expressed concern over gathering data that could evaluate how well the CIT program was meeting its objectives. As one mental health professional stated, “In order to know what our goals should be, I’d like to see what other people are doing and how they structure their outcome measures. I mean, how do we know it works or whether or not it did what was best?” Another mental health professional put it this way: “From a continuous improvement perspective, it’s really important for us to measure ourselves with others. To make this really work, I think we really have to be clear on outcomes.” While such sentiments indicate a need to collect outcomes data to determine the impact of CIT, participants were unaware about how to make such data collection a reality.

Overcoming Barriers to CIT Implementation

The second topic discussed was one of overcoming barriers to implementing CIT. Three themes emerged from the discussion of this topic. First, both law enforcement and mental health professionals realized that there was a need to handle the mentally ill population more appropriately in their communities. Second, they reported that advocacy groups such as the National Alliance on Mental Illness (NAMI) were able to support community stakeholders in their quest to overcome barriers to implementing CIT. Third, they adapted the urban model of CIT to fit the needs of their smaller sized police departments.

Realization of Need for CIT

Criminal justice and mental health professionals alluded to the seriousness of the problem of mental illness in their communities. They agreed that the placement of offenders with mental illnesses in jails was an inadequate response to the problem. They believed that offenders with mental illnesses were in need of treatment, and they believed that jails were becoming increasingly dangerous, especially for individuals with mental illness. One law enforcement officer said, “Incarceration is not the place for these people.” Another declared, “There are folks out there that have issues that commit criminal acts but they’re really not criminals, they have other things going on, and throwing them in jail really doesn’t do any good. It really isn’t appropriate for them.” Still another law enforcement official admitted that it was treatment, not punishment, which most of these offenders needed.

“These people, if you really sat down and looked at them, they don’t belong in jail. Some do, but most of them don’t belong in a jail. They have an illness, they need treatment, they need care, you know?”

Some focus group participants’ experiences influenced their realization that CIT was needed in their community. For example, the closing of local state hospitals convinced many in rural areas that CIT was needed. One criminal justice professional said, “At one time, we had a very large state psychiatric hospital, so mental health services have been part of the community for a long time. But when the shifting of mental health services went from in-patient to out-patient to criminal justice system essentially, people took notice and then went, ‘OK, what do we do about it?’ When we offered some solutions to that, they jumped on the bandwagon very quickly.”

During the course of the focus group interviews, participants spoke about how CIT started in their communities. In fact, officers’ and mental health service providers’ own shared experiences paved the way for CIT training in these areas. Many saw a need for more collaboration between criminal justice and mental health personnel, and therefore saw a real need for CIT. For example, many participants saw a need for CIT to bridge the gap between professional cultures and training of mental health and criminal justice personnel in their communities. A mental health professional, having already seen CIT training in another county, drew on the experiences of law enforcement personnel to start the process of CIT, “Officers at the jails were telling me, ‘these people don’t need to be here. I

don’t know what to do with them.’ And they kept telling the road officers they shouldn’t be bringing these people here. And so that kind of generated my interest into well, how do other people deal with that. So I started talking about it [CIT].”

Advocacy

CIT in some of these communities began because of the support of advocacy groups and local NAMI chapters. Most of the focus groups mentioned how strong, supportive and involved local NAMI affiliates were in the communities. These advocate groups are viewed as partners within collaborative efforts and instrumental to the development of collaborative efforts. A law enforcement officer in one community who is working to develop CIT stated, “NAMI has been the sole collaborator on the CIT project so far.” Others viewed NAMI affiliates as serving an important function by educating the community. One mental health professional said, “They [NAMI] offer all kinds of activities and educational things. NAMI has given us grants to help with our CIT trainings.”

Adapting to Urban Model

Because of the different make-up of the police departments in the communities that we sampled, focus group participants noted that CIT may need to be adapted to meet their needs. For instance, many believed that the training targets for CIT that are generally accepted for urban areas may not be appropriate for rural communities. As one focus group participant summarized, “I know it’s usually 25 % of your department. Being in a rural setting, we’ve decided to train everyone. Both in the city and in the county. Because we don’t have

that luxury of having that many officers that are trained on any one shift. Or the ability to have somebody there waiting, especially in the county, to wait on the individual who is trained. So it’s worked out well with everybody being trained.”

Effects of CIT Implementation

A final topic that was discussed was the description of the effects of employing CIT in participants’ respective communities. This topic has two emergent themes. The first is one of increased collaboration between mental health and criminal justice personnel. The second involves the appreciation of the benefits of CIT in the community.

Increased Collaboration

Focus group participants saw the CIT program as a way of breaking down barriers between mental health and law enforcement personnel. Specifically, they saw the CIT program as enhancing cooperation, communication, and understanding between these professionals.

First, the data show that focus group participants perceived that *cooperation* among each other had improved since their CIT programs began. This meant that more collegial relationships had developed between mental health and criminal justice personnel since CIT implementation. As an illustration, one mental health professional stated, “We’ve been happy with the improvements that have occurred over the last year and a half, 2 years. It’s made a difference that we are beginning to provide CIT training to the officers. And I think relationships between law enforcement and the behavioral health care system have improved as a result of that.” One law

enforcement officer suggested that CIT has resulted in increased partnerships, saying, “It’s the best I’ve seen in an effort to do that in all my time in this county. We need more of it, and with other departments, because we’re all in it together and that’s the key here. And you can’t be in it together if you don’t know one another.” Finally, one mental health professional stated, “I think the single most important element of the success here has been close collaboration by people who are dedicated to the project and who work well together.” Cooperation through collaboration was not only seen as a vital outcome of CIT, but also necessary for implementation.

Second, much of this increased cooperation was due to increased communication. Communication between mental health and criminal justice personnel became more open after implementing CIT, according to focus group participants. This was illustrated by one police officer who said, “There’s a lot of communication between them (mental health agencies) that we haven’t had in the past. It has to do with police departments and how they work and go about asking for things. We’ve had follow-up discussions about pink-slipping³ and about how to communicate what you need to the departments, and how, if you call up this department and say you need this, this, and this, they’re probably going to say ‘go pound salt.’ Or, how you can present it in a different light and how they’d be more receptive to doing what you want them to do.” In addition, one mental health professional suggested that this new open communication was a good sign of mutual support. “The

police do one thing, mental health does another thing. The courts do a third thing. We’ve demonstrated that that can happen by thinking outside the box, or being open to that communication, and what could we do to help each other.”

Third, focus group participants noted an increase in understanding of both mental health and criminal justice systems since the CIT program was launched in their communities. Law enforcement personnel in the study felt that CIT contributed to an understanding of how the mental health system worked. Said one officer, “If you talked to officers, they really didn’t understand how the mental health system worked. So part of the CIT program is explaining to them how the mental health system works. So we’ve had to really build on that and explain those things to people. That’s part of what CIT programming is bringing.” But criminal justice professionals also believed that CIT helped in educating mental health workers as well. For example, one officer noted, “We found out that there was a misunderstanding on the mental health side of what law enforcement’s role was in pink-slipping. They didn’t understand that law enforcement officers can pink slip someone for a number of reasons. So we went to (a mental health treatment agency) and provided that training to the emergency psychiatric service folks. Now there’s a clearer understanding on the mental health side of what law enforcement can do.” Another criminal justice professional stated that after CIT, mental health professionals were more understanding of what police officers do during their work day. “I think the mental health professionals are much more appreciative of the kinds of situations

law enforcement finds themselves in. Like ‘you do what? You go where? You deal with that kind of thing?’”

Benefits to Community

There were two ways in which CIT aided these rural communities in the eyes of the participants. First, participants perceived that police were better able to respond to the needs and problems of people with mental illnesses in the community. Second, participants believed that the community’s relationship with the police had improved.

Mental health personnel reported seeing changes in how police responded to people in crisis after CIT. One counselor stated, “I have seen the sheriff’s deputies in action here sometimes at night when there is limited staff around. They’ve needed to support us in dealing with persons who had the potential to get out of control. I have felt very supported and that they clearly are about trying to de-escalate the situation. Not show any force and just be kind, be very understanding, be very appropriate with the people they’ve had to deal with. So I feel like all the training they have had has certainly helped them to accommodate our needs for them to respond.” Another mental health professional related a story of an officer who was at first reluctant to participate in CIT, but later found the training useful when faced with a potential suicide. “He (the officer) no sooner came out of the class and had five attempted suicide calls that he went on within a week, and had received a call from a family member who thanked him for actually saving

³“Pink slipping” is the commonly-used phrase for the process of initiating the emergency detention of an individual for a psychiatric evaluation to determine whether the person requires involuntary hospitalization, per the Ohio Revised Code (2011) §5122.10.

their family member's life. And left me this voicemail and he said, 'I just had to send you this voicemail because I wanted you to know that this was the best training I ever went through. I wasn't sure if I wanted to go through it but I'm glad I did.'"

Many officers who were interviewed felt that CIT prepared them with a plan of action when encountering a person experiencing a mental health crisis. One officer said, "It's easier now that there's a method. It's not just hit and miss. Here's a plan of action, instead of just, basically we were trial and error with a lot of these folks. It just seems smoother, more professional." Another officer related a story of how he was able to calm a potentially harmful situation involving someone with schizophrenia. "He was escalating all the other residents. And probably if I had not arrived the person would have been tasered and rendered unhappy. It would have been an unpleasant thing. But I actually got in and talked him down, talked him through it, got him into the cruiser, got him transported, and got him turned over."

Focus group participants also reported that they believed the community's relationship with the local police had improved after CIT training. Many felt that increased credibility due to their newly acquired skill in dealing with people experiencing a mental health crisis was important. The skill of being able to defuse potentially dangerous situations involving a person in a mental health crisis has eased community fears. One police officer suggested that the community is well aware of situations where many armed officers are called out, but appreciate it when officers can resolve a situation

without much fanfare. He stated, "On a one-on-one or two-on-one police officer talking to somebody and defusing the situation—that's invisible, people don't even see it. And I think that's one of the keys to this is the success on the street is totally invisible because no one knows it's happening."

But much of what CIT officers do in their communities, according to many of the focus group participants, is visible and appreciated by those with mental illness and by family members. Some mental health professionals noted that since CIT, families have been appreciative of the work CIT officers do and have developed better relationships as well. One mental health professional stated, "CIT has just made all the difference in the world...of being able to handle the patients quietly. Family members used to fear calling the law, fear for the family member. And so many actual reports have been that the person has really been in crisis, and law enforcement officers come and just talk quietly. They [the family] could not actually believe that they just went away and went to the hospital willingly, with no problem at all. So that's made a huge difference in families being willing to call."

DISCUSSION

The central research question of this focus group study of community stakeholders in the area of mental health in rural areas was: What are the challenges to implementing and sustaining CIT in these communities? Participants raised the issues of barriers to successful CIT implementation, how they overcame potential barriers, and the benefits of CIT implementation in their communities.

Analysis of the data revealed that professional orientation towards mental illness inhibited understanding between law enforcement and mental health personnel. This was one potential barrier to CIT implementation. Other barriers to CIT, according to the focus groups, were the lack of funding for training costs and lack of replacement officers to patrol the communities while regular officers were being trained. Participants suggested that it was difficult for departments to absorb the costs of CIT training in their small communities because of the overtime pay that was required for the training itself and the extra police work in the community. While this may be a concern for all police training, CIT may present a unique challenge to community police departments. Few police trainings are a week long. Also, CIT is one of a few training programs that is not exclusively provided by or through a police training bureau. Because it is a partnership with the mental health system, as well as family and consumer groups, the police do not have the same level of control over the training and may therefore not feel the same level of ownership at the level of police executive leadership. This may contribute to resistance to support the program, although future research would need to examine this claim. In addition, the problem of the closing of state hospitals in rural areas was seen as a potential barrier to the sustainability of CIT in these communities and counties. While having only one psychiatric facility to transport mentally ill offenders to is a potential barrier in some urban areas (Canada et al. 2010), having no options in transporting individuals to psychiatric facilities has the potential to be a severe blow to CIT sustainability in rural areas. Finally, the lack of

systematic data collection to evaluate the CIT program was also cited as a potential barrier to CIT growth.

However, these community stakeholders, including law enforcement, mental health professionals and consumers, families and advocates overcame barriers to CIT implementation by first coming together to recognize that the excessive incarceration of mentally ill individuals was inappropriate. Thus they recognized a need for and the importance of CIT. These stakeholders also partnered with advocacy groups such as NAMI to overcome barriers. There is evidence that stakeholders have modified the urban CIT model in some rural communities by training the entire police department rather than one-fourth as recommended. This study shows preliminary evidence that urban models can be adapted for use in rural areas.

There are several methodological limitations to this exploratory study. First, the qualitative nature of this study limits our ability to generalize our findings across settings. We attempted to overcome this limitation by gathering information across multiple communities, and have gathered a rich, descriptive data set. However, the applicability of these results to other communities may be limited. Further, while the protracted length of time of the study period is not ideal, we are not aware of any events at the community level over the 3 years that may have affected our interpretation of the data. Second, we did not assess demographic characteristics (e.g. race, gender) of our sample. Differences in perspective by demographic characteristic were not a focus of this study, as we were interested in the different perceptions

by occupational field (e.g. criminal justice, mental health). However, future research will need to assess demographic differences of individuals in their perception of CIT. Third, this study involved some input from consumer advocates, but future studies would benefit from increased input from consumers, family members and other advocates about their involvement in developing CIT, as well as their perceptions of the impact of CIT. A fourth limitation relates to the status of CIT in the communities that comprise our sample. For this study, all community stakeholders are from programs that are either working towards CIT program development or have implemented CIT. An important comparison would be to examine these issues among community stakeholders from areas that have not implemented CIT, or have tried unsuccessfully to start a CIT program. In Ohio, while many rural communities have established CIT programs, others have yet to overcome the barriers. Future research should assess the perceptions of stakeholders in such communities for a more complete understanding of the barriers that exist around CIT program development.

Based on early data on CIT in rural communities, some suggestions can be made for those developing CIT in rural communities. First, collaborative groups might engage in cross-systems training to better understand the role and perspectives of other collaborative partners in order to facilitate CIT implementation. Second, due to lack of funding in rural communities, stakeholders will need to be creative in the use of local resources and talent in sustaining CIT. For instance, college or university students may be helpful in creat-

ing research studies or evaluations of CIT programs. Third, advocacy groups such as NAMI can serve as important champions in the development and sustainability of CIT in rural communities. Fourth, the needs of the local community should be determined to better understand how CIT can be most effective. Processes such as system mapping, a group activity that traces the interface between the criminal justice and mental health treatment systems, draw upon the strength and knowledge of the collaborative group that oversees the CIT program. Such activities can highlight unforeseen barriers and areas of resources and may be a helpful tool for communities (GAINS Center, 1996).

REFERENCES

- Canada, K. E., Angell, B., & Watson, A. C. (2010). Crisis Intervention Teams in Chicago: Successes on the ground. *Journal of Police Crisis Negotiations*, 10(1-2), 86-100.
- Chamberlain, C. (2006). *Making jail diversion work in rural communities* [powerpoint slides]. Rockville, Maryland: Substance Abuse and Mental Health Services Administration; 2006. Retrieved January 4th, 2010 from http://gainscenter.samhsa.gov/html/resources/presentation_materials/pdfs/3_06_Net-tele_Slides.pdf.
- Cochran, S., Deane, M., & Borum, R. (2000). Improving police response to mentally ill people. *Psychiatric Services*, 51(10), 1315-1316.
- Compton, M. T., Bahora, M., Watson, A. C., & Oliva, J. R. (2008). A comprehensive review of extant research on crisis intervention team (CIT) programs. *Journal of the American Academy of Psychiatry and the Law*, 36(1), 47-55.

- Compton, M. T., Broussard, B., Hankerson-Dyson, D., Krishan, S., Stewart, T., Oliva, J. R., et al. (2010). System- and policy-level challenges to full implementation of the Crisis Intervention Team (CIT) model. *Journal of Police Crisis Negotiations*, 10(1-2), 72-85.
- Dupont, R., & Cochran, S. (2000). Police response to mental health emergencies—barriers to change. *The Journal of the American Academy of Psychiatry and the Law*, 28, 338-344.
- Dupont, R., Cochran, S., & Pillsbury, S. (2006). *Crisis Intervention Team Core Elements* (pp 1-20). The University of Memphis School of Urban Affairs and Public Policy, Department of Criminology and Criminal Justice CIT Center, September.
- GAINS Center (1996). *The National GAINS center for people with co-occurring disorders in the justice system: brochures*. Retrieved February 2, 2012 from (<http://static.nicic.gov/Library/013913.pdf>).
- Hanafi, S., Bahora, M., Demir, B. N., & Compton, M. T. (2008). Incorporating crisis intervention team (CIT) knowledge and skills into the daily work of police officers: A focus group study. *Community Mental Health Journal*, 44, 427-432.
- Huberman, A. M., & Miles, M. B. (2002). *The qualitative researcher's companion*. Thousand Oaks: Sage Publications.
- Kempf, M. (2008). *Mental illness and the criminal justice system in Indiana. The National Alliance on Mental Illness (NAMI) Indiana*. Retrieved May 19, 2011, from (http://www.nami.org/Content/Microsites169NAMI_Indiana/Home156/Resources87/Kempf_Report_6_13_2008.pdf).
- Lamb, H. R., Weinberger, L. E., & DeCuir, W. J. (2002). The police and mental health. *Psychiatric Services*, 53(10), 1266-1271.
- Lehoux, P., Poland, B., & Daudelin, G. (2006). Focus group research and "the patient's view". *Social Science and Medicine*, 63, 2091-2104.
- McGriff, J. A., Broussard, B., Neubert, B. N. D., Thompson, N. J., & Compton, M. T. (2010). Implementing a crisis intervention team (CIT) police presence in a large international airport setting. *Journal of Police Crisis Negotiations*, 10, 153-165.
- Munetz, M. R., & Griffin, P. A. (2006). Use of the sequential intercept model as an approach to decriminalization of people with serious mental illness. *Psychiatric Services*, 57, 544-549.
- Munetz, M. R., Morrison, A., Krake, J., Young, B., & Woody, M. S. (2006). Statewide implementation of the crisis intervention team program: The Ohio model. *Psychiatric Services*, 57(11), 1569-1571.
- Ohio Department of Mental Health (2008). *Mental health boards of Ohio by geographic classification. Office of Program Evaluation and Research*. Retrieved May 19, 2011, from (<http://www.mh.state.oh.us/assets/research-evaluation/data-bulletins/1-boardarea-map.pdf>).
- Ohio Revised Code (2011). *Section 5122.01*. Retrieved September 23, 2011, from (<http://codes.ohio.gov>).
- Oliva, J. R., & Compton, M. T. (2008). A statewide crisis intervention team (CIT) initiative: Evolution of the Georgia CIT program. *The Journal of the American Academy of Psychiatry and the Law*, 36, 38-46.
- Ralph, M. (2010). The impact of crisis intervention team programs: Fostering collaborative relationships. *Journal of Emergency Nursing*, 36(1), 60-62.
- Reuland, M. (2004). *A guide to implementing police-based diversion programs for people with mental illness*. Delmar: Technical Assistance and Policy Analysis Center for Jail Diversion.
- Ritter, C., Teller, J. L. S., Marcussen, K., Munetz, M. R., & Teasdale, B. (2011). Crisis intervention team officer dispatch, assessment, and disposition: Interactions with individuals with severe mental illness. *International Journal of Law and Psychiatry*, 34(1), 30-38.
- Ritter, C., Teller, J. L. S., Munetz, M. R., & Bonfine, N. (2010). Crisis Intervention Team (CIT) Training: Selection effects and long-term changes in perceptions of mental illness and community preparedness. *Journal of Police Crisis Negotiations*, 10, 133-152.
- Sullivan, G., & Spritzer, K. (1997). The criminalization of persons with serious mental illness living in rural areas. *Journal of Rural Health*, 13, 7-13.
- Teller, J. L. S., Munetz, M. R., Gil, K. M., & Ritter, C. (2006). Crisis intervention team training for police officers responding to mental disturbance calls. *Psychiatric Services*, 57(2), 232-237.
- United States Census Bureau (2011). *Census 2000 urban and rural classification*. Retrieved May 19, 2011, from (http://www.census.gov/geo/www/ua/ua_2k.html).
- Watson, A. C., Morabito, M. S., Draine, J., & Ottati, V. (2008). Improving police response to persons with mental illness: A multi-level conceptualization of CIT. *International Journal of Law and Psychiatry*, 31, 359-368.
- Watson, A. C., Ottati, V. C., Morabito, M., Draine, J., Kerr, A. N., & Angell, B. (2010). Outcomes of police contacts with persons with mental illness: The impact of CIT. *Administration Policy and Mental Health*, 37, 302-317.
- Weiss, R. S. (1994). *Learning from strangers: The art and method of qualitative interview studies*. New York: Free Press.

SUPPORTIVE HOUSING FOR RETURNING PRISONERS IN OHIO

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INTRODUCTION

As evidenced in the extant literature, individuals with histories of residential instability and disabilities may have also cycled through the criminal justice system and frequently used crisis health and mental health services.¹⁻³ Other individuals cycle through multiple systems multiple times, including the criminal justice, homelessness, and emergency services systems. Since the evidence base showing that supportive housing models can increase the residential stability and decrease the system use of individuals with histories of homelessness and mental illnesses,^{4,5} an expansion of these programs to target the incarcerated population as they are released to the community has been offered as an opportunity to break the costly cycle of incarceration, homelessness, and emergency service utilization systems.⁶ In light of the extensive public safety, fiscal, and social costs associated with the returning prison population, housing targeted to the appropriate population could have dramatic implications for both the criminal justice and behavioral health systems.⁷

With this in mind, a partnership between the Corporation for Supportive Housing (CSH) and the Ohio Department of Rehabilitation and Correction (DRC) led to the development of the Returning Home - Ohio (RHO) program. RHO was developed to break costly system cycling among returning Ohio prisoners. The program aimed to link prisoners with disabilities who had a history or risk of housing instability to supportive housing as they were released to the community. The logic of the program was that stabilizing disabled individuals in supportive housing as soon as they were released from prison will lead to significant increases in public safety and public health and reductions in costs to prison, emergency services, and shelter systems associated with frequent use of these systems. While there is a robust literature base on the effectiveness of supportive housing programs for individuals with chronic homelessness histories and disabilities, there has been scant empirical evidence on the effectiveness of supportive housing targeted directly to the reentry population as they leave correctional facilities.

In order to add to the evidence on effective reentry practices, the Urban Institute completed a process, impact, and cost evaluation of RHO in summer 2012. The evaluation focused on whether RHO met its short- and long-term goals, such as increasing housing to the disabled reentry population (short-term goal) and reducing returns to state prison (long-term goal) (see Fontaine et al. 2012 for the full report). This article highlights the main findings from the process and impact evaluation, beginning with a brief discussion of the program goals, model, and implementation. While the impact of the program on outcomes is likely to be of the most interest to policymakers and practitioners, this article discusses program implementation in some detail because RHO's implementation is illustrative for practitioners and policymakers looking to design and implement programs like RHO.

PROGRAM DETAILS

In consultation with various Ohio agencies in an extensive planning process, RHO was jointly designed and implemented in late 2006 by the state prison system (DRC) and CSH—an agency with extensive experience advancing solutions that use housing as a platform for services for vulnerable populations (see Delgado 2010 for more information). The goals of RHO were to reduce recidivism, homelessness, and the costs associated with multiple system and service use among the disabled reentry population. The program

targeted incarcerated persons who were soon to be released from prison, who had a disability, and who were either homeless at their time of arrest or at risk of housing instability upon release. For the program, disability was broadly defined to include developmental disorders, severe addiction, and behavioral problems. RHO was implemented in 13 correctional facilities across the state of Ohio, including the Allen, Chillicothe, Grafton, Hocking, London, Lorain, Madison, Marion, Pickaway, and Trumbull Correctional Institutions, as well as the Ohio Reformatory for Woman and the Franklin and Northeastern Prerelease Centers. Individuals who met the eligibility criteria were able to receive supportive housing in the Cincinnati, Cleveland, Columbus, Dayton, and Toledo communities where nine supportive housing providers associated with RHO were based. The RHO providers included a mix of agencies with experience in housing and serving the chronically homeless, disabled and/or indigent population in Ohio through scatter-site and single-site housing units.¹ At the time of initial implementation, RHO had committed to fill 84 housing units, divided among the provider agencies according to capacity and interest.

EVALUATION METHODOLOGY

The Urban Institute evaluation, designed in consultation with DRC, CSH, and other RHO partners, relied on multiple methods and available data sources to determine whether RHO met its short- and long-term goals. The study

sample was drawn using a prospective sample of prisoners released from the 13 target prisons during the period of RHO implementation. Individuals who received supportive housing through RHO (treatment group) were compared to a contemporaneous cohort of released prisoners who were eligible for RHO but did not receive services (comparison group). Consent to participate in the research was requested from every individual referred to RHO; yet, participation in the research was not a condition of participation in the program. Therefore, the evaluation findings are limited to the sample of individuals that consented to participate in the study.

To support the process evaluation, multiple semi-structured interviews with various RHO stakeholders were conducted, including program staff at CSH, DRC, and the housing provider staff who managed and facilitated the recruitment and housing process. Program data on participants' self-reported characteristics and experiences with RHO services were collected from CSH and the providers. To support the impact and cost evaluation, administrative data on outcomes were collected from government agencies associated with RHO, including DRC, the Ohio Department of Mental Health (ODMH), the Ohio Department of Alcohol and Drug Addiction Services (ODADAS), and five government and nonprofit agencies that managed the homeless management information systems (HMIS) data in the five communities where RHO participants were housed. Identifiable program data from providers and CSH, as well as administrative data from DRC, ODADAS, and ODMH, were collected

¹The nine housing providers associated with RHO since its initial implementation in 2007 were: Community Housing Network (Columbus); EDEN, Inc. (Cleveland); Mental Health Services, Inc. (Cleveland); Miami Valley Housing Opportunities (Dayton); Neighborhood Properties, Inc. (Toledo); Volunteers of America—Northwest Ohio (Toledo); Volunteers of America—Ohio River Valley (Cincinnati); and YMCA of Central Ohio (Columbus).

for individuals who consented to participate in the research study only. Enrollment into the study proceeded over two years, yielding a research sample of 244 individuals, 121 of whom were provided housing. For various reasons, such as slow enrollment into program and the research, all outcomes and impacts observed by the research team were censored at one year.

IMPLEMENTATION AND PROCESS

The evaluation assessed RHO's progress and performance and the extent to which the program met its short-term goals or outputs, chiefly increased access to supportive housing. Data were collected through semi-structured interviews with RHO stakeholders; observations of program operations, services, and facilities in the community; reviews of program materials; and frequent communication with stakeholders. Through these discussions, it became clear that RHO's programmatic efforts were focused primarily on systematizing the prerelease referral, enrollment, and linkage process and less on systematizing the postrelease housing and services. While the goal of RHO was providing supportive housing to participants, each provider independently managed its own implementation of supportive housing for its participants. Therefore, the RHO logic and process identified by the research team is focused primarily on what has been learned through the referral, enrollment, and linkage process, not on the logic underlying each provider's implementation of the RHO program in the community. Each provider had its own logic to postrelease supportive housing, based largely on their agency's mission, experience, and goals.

Prisoners were recruited into RHO through a four-step process; correctional staff, CSH, and the providers each played a critical role in the RHO enrollment process. For RHO, each of these actors made an independent decision within his/her own sources of knowledge, experience and agency mission on whether an individual was suitable for the program concurrent with inmates' decisions on whether they wanted to participate in the program. The following four-step process was identified:

1. **Identification:** Corrections staff first identified appropriate individuals in the prisons using administrative data systems, their own knowledge of and discussions with potential participants, ideally within 30 to 60 days of an inmates release date. Corrections staff involved in the identification process included facility staff within each of the 13 participating institutions and staff in one DRC centralized agency called the Bureau of Community Sanctions (BCS), which manages community-based correctional facilities and postrelease programs (prerelease)
2. **Referral:** Corrections staff then referred inmates to one of the nine community-based housing providers associated with RHO (prerelease).
3. **Provider Contact and Program Enrollment:** Providers then contacted inmates, deciding whether to accept or reject them into their program consistent with their agency's mission, goals, and expertise. The housing providers made the final determination of program enrollment (prerelease).

4. **Supportive Housing Delivery:** Finally, upon program enrollment by a provider, RHO participants received supportive housing following release from prison, ideally as close to release as possible (postrelease).

IMPLEMENTATION LESSONS LEARNED

During the evaluation period, the RHO program achieved its goal of filling 84 supportive housing units in the community with former prisoners with histories of disabilities and homelessness and/or at risk of housing instability. Yet, the process took time, careful attention, and troubleshooting by CSH and its partners throughout the implementation of the program. The main evaluation finding was the extent to which there was variation in the pre-release identification and referral process as well as the timing of supportive housing delivery in the community (steps 1-4 discussed in the previous section). Based on data from DRC and the housing providers, there were three primary pathways into the RHO program with significant variation within each of these pathways. In particular, only 45 percent of the 118 RHO participants for whom the research team had data were referred and enrolled prerelease (ideal pathway), while another 18 percent were identified and referred prerelease but released before being contacted and enrolled into RHO by a provider. Another 17 percent were released before any contact with the program through DRC or a provider. The considerable variation in participants' pathways can be attributed to three primary factors: the breadth and depth of the RHO partnership, as well as inherent challenges facilitating the reentry housing process, as discussed below.

First, due to the depth of the RHO partnership, which included BCS, 13 correctional institutions and the associated facility staff, and nine providers with distinct experiences and missions, the prerelease identification and referral of program participants varied. Prerelease enrollment was established for RHO to create a seamless transition from prison to housing and to minimize the opportunity for participants to experience residential instability and engage in risky behavior, based on evidence regarding reentry best practices. While using BCS to streamline the referral process was critical for RHO success, BCS was required to coordinate with institutional staff at each of the 13 correctional institutions and match eligible inmates to nine different supportive housing providers in five different cities. RHO also experienced staff turnover at BCS, the correctional facilities, and the provider agencies, which slowed down the prerelease recruitment process even further. RHO, by design, required extensive collaboration between partners to identify, recruit, and enroll participants, which lead enrollment to lag behind projections.

Second, the variation across the RHO providers also challenged the prerelease enrollment and post-release provision of housing and supportive services. Each RHO provider agency varied in its exclusionary criteria (e.g., sexual offenders, arsonists), population targeted (e.g., chronically homeless, severe mental illness), housing model (e.g., scatter-site, single-site), and geographic location (Cincinnati, Cleveland, Columbus, Dayton, Toledo). Further, some of the providers had greater control over the provision of supportive housing

in their respective program, either because they managed a single-site facility or had long-standing positive relationships with private landlords, whereas other providers needed time to establish landlord relationships or to find housing deemed suitable by an RHO participant following his/her release from prison. As a result, some RHO participants were released before being contacted by a provider and/or in the community for a considerable number of days (even months) before being placed into supportive housing. Since each provider's program was unique, this required ongoing, frequent communication between DRC/BCS and the providers to ensure that the potential participants were being matched to the appropriate provider. For example, some providers only wanted severely mentally ill participants while other providers preferred participants that were more self-sufficient. While the breadth of the partnership meant that inmates with various histories could be served by RHO, it also challenged the enrollment process.

Finally, as discussed in the existing literature on reentry programming, there are inherent challenges implementing prerelease programs for various reasons. Specific to RHO, the program experienced challenges: gathering accurate data on inmates' actual release dates; gathering the requisite data on inmates' homelessness history and disabilities (which was critical to providers' assessments of an inmates suitability to their particular program); and facilitating providers' access to the correctional facilities to meet with potential participants by phone or in person (which was also critical to providers' assessments of an inmates suitability to their particular program). Prerelease identification

required coordination across the individual participant being released, the various correctional staff, and the providers delivering the housing and supportive services. For example, some inmates were not referred until one or two weeks before their release date, challenging the possibility of prerelease referral or enrollment by a provider. Other providers expressed dissatisfaction with the type of information provided by DRC and therefore waited to determine a potential participant's suitability only after he/she were released from prison. The various steps involved in RHO's identification and referral process may suggest that 30 to 60 days is insufficient time in which to complete all of the identification and enrollment steps for a program of this size and/or that different data systems should be in place to facilitate the identification and enrollment process.

Indeed, enrollment into RHO took longer than expected by DRC and CSH staff projections. At the end of two years, while there was significant and perhaps unavoidable variation in the pathways to housing and housing placement, RHO successfully housed and served more than 84 individuals who, for the most part, had some type of disability and history of homelessness (see Table 1). Further, a range of services was recommended and delivered to RHO participants, depending on participant need, particularly mental health services (see Table 2 and Table 3).

OUTCOMES AND IMPACTS

The evaluation used a quasi-experimental design to test whether the program met its long-term outcomes and impacts: to reduce recidivism and reduce residential instability among disabled returning Ohio prisoners. A third focus of the impact evaluation was RHO's effect

on the use of services, since the third goal of RHO was a reduction in costs associated with multiple service use among disabled returning prisoners. Three different data sources were used to test whether the program met its goals: administrative data on rearrest and reincarceration outcomes from DRC; administrative data on returns to emergency shelter from HMIS providers; and administrative data on

service claims reported to ODMH and ODADAS by county and state mental health providers. Demographic data on the sample were obtained from DRC. In total, 244 individuals consented to participate in the research, of which 239 were located in the DRC data system. Of those 239 individuals, 121 participated in RHO (treatment group) and 118 did not (comparison group).

Table 1. Select Self-Reported Demographic Characteristics of RHO Participants, by Provider*

Age	The average age of RHO participants was 44 years.
Race	Nearly 60 percent of RHO participants self-identified as Black or African-American. Roughly one-third self-identified as White or Caucasian.
Gender	More than three-quarters of RHO participants self-identified as male.
Mental Health	More than three-quarters of the RHO participants reported having an Axis I mental health diagnosis. A little more than three-quarters of those with an Axis I diagnoses reported to have a primary mental health diagnosis from a mental health assessment. More than 40 percent of RHO participants reported a primary diagnosis of a mood disorder; 20 percent reported a psychotic disorder as their primary mental health diagnosis.
Housing and Homelessness	The average number of times the RHO participants reported to have been homeless over their lifetime was 2.4. Immediately before their most recent incarceration, approximately one-third of the RHO participants reported to have lived with their family, one-quarter had lived alone, 15 percent had lived in a shelter, and the remainder reported to have lived in supportive housing, to have been homeless, or living with friends.
Criminal History and Drug Use	RHO participants reported an average of 14 lifetime arrests at the time of program entry and nine lifetime convictions. The average reported age at first arrest and conviction was 21 and 23, respectively. The primary charges reported by RHO participants for their most recent incarceration varied considerably, more than 90 percent of RHO participants reported drug use in the year prior to their most recent incarceration.

Source: Urban Institute analysis of baseline data from providers, captured at the time of program entry in the community. The data collection form, designed by the Urban Institute, captured individuals' self-reported housing and homelessness, criminal justice, mental health, and disabilities histories and other demographic data.

*Self-reported data from the RHO participants, through the providers, were collected by the research team for 118 of the 121 individuals in the evaluation. Note that valid Ns vary across the questions asked.

Table 2. Average Number of Service Recommendations/Delivery to RHO Participants, by Service Type

At Follow Up*	Recommended	Delivered
Total services	5.1	4.1
Mental health services	2.4	2.2
Substance abuse services	1.4	0.8
Education services	0.2	0.1
Other services recommended	0.3	0.2

Source: Urban Institute analysis of follow up data from providers captured after an RHO participant was in supportive housing for at least six months (N = 71, or 59% of the RHO participant sample).

*The precise timing of the follow up data collection varied across participants, ranging from six months from program entry (defined as housing in the community) to one year from program entry. The timing varied because the evaluation was funded after RHO implementation began and providers were asked to collect baseline and follow up data on everyone in their program from whom the research team had collected consents (as long as they were within one year of program entry and still in housing). In addition, providers varied in the timing of the collection of data from the RHO participants.

Table 3. Percent of RHO Participants Receiving Service Recommendations/Delivery, by Service Type

At Follow Up*	Recommended	Delivered
Medication or drug therapy for mental health (percent)	70.4	60.4
Supportive therapy for mental health (percent)	62.0	56.3
Outpatient counseling for substance use (percent)	49.3	31.0
Alcoholics Anonymous/Narcotics Anonymous or other substance abuse support group (percent)	62.0	42.3

Source: Urban Institute analysis of follow up data from providers captured after an RHO participant was in supportive housing for at least six months (N=71, or 59 percent of the RHO participant sample).

*The precise timing of the follow up data collection varied across participants, ranging from six months from program entry (defined as housing in the community) to one year from program entry. The timing varied because the evaluation was funded after RHO implementation began and providers were asked to collect baseline and follow up data on everyone in their program from whom the research team had collected consents (as long as they were within one year of program entry and still in housing). In addition, providers varied in the timing of the collection of data from the RHO participants.

Demographic data from DRC were captured on the sample’s gender, age, race/ethnicity, time served in prison, number of previous incarcerations, security level in prison, risk level at release, and postrelease supervision status. Three variables related to program eligibility—homelessness at arrest, presence of a primary or secondary disability that included any mental illness and presence of a primary or secondary disability that included alcohol or drug abuse (AoD) — were also captured in DRC data. On average, the sample was 42 years old, two-thirds male, with nearly two previous incarcerations. Fifty percent of the sample was classified as being white. More than 15 percent of the sample was homeless at the time of their arrest, approximately two-thirds had a primary or secondary mental health disability and approximately one-third had a primary or secondary AoD disability. Approximately half were released under postrelease DRC supervision.

Among these key demographic and program eligibility variables, there were significant differences between the treatment and comparison group members with

respect to race/ethnicity, security level, and AoD disability. Differences in these variables suggested that the treatment group may have been at a higher risk of recidivism, residential instability, and behavioral health service use than the comparison group. Furthermore, analyses showed that several variables predicted assignment into the treatment group. Therefore, the multivariate models employed by the research team use propensity score weighting to balance the samples and to minimize the effect of selection bias on the findings. Multiple multivariate models were estimated according to the outcome of interest.

**DESCRIPTIVE ANALYSES:
RECIDIVISM, RESIDENTIAL
INSTABILITY, AND STATE-
BILLABLE SERVICE USE**

As shown in Table 4, 27 and 37 percent of treatment and comparison subjects, respectively, were rearrested within one year of release. The rearrest rates for both the treatment and comparison groups were driven largely by rearrests for misdemeanors, not felonies. Reincarceration rates for the treatment and comparison groups

were slightly greater than six and 10 percent, respectively, with the majority of those reincarceration rates driven by reincarceration for new crimes among the treatment and comparison groups. The number of days to the first rearrest was approximately 5.5 months for the treatment and comparison group members, of those who were rearrested. More than two-thirds of the treatment group were delivered services within one year of their release, compared to less than one quarter of the comparison group. The treatment group also had a significantly greater number of days of services delivered within one year of release than the comparison group. The number of days to the first delivery of services was shorter for the treatment group than the comparison group — approximately 2.9 months and 3.4 months, respectively. Only 25 individuals in the research sample were observed to return to emergency shelter within one year of release. Yet, those in the treatment group that did return to emergency shelter returned significantly quicker following release from prison than those that returned to emergency shelter in the comparison group.

Table 4. Bivariate Recidivism, Service, and Residential Instability Outcome Measures, by Sample Group

	Treatment [N = 121]	Comparison [N = 118]
Any Rearrest (percent)*	27.3	37.3
Felony Rearrest (percent)	18.2	17.8
Misdemeanor Rearrest (percent)*	18.2	27.1
Any Reincarceration (percent)	6.6	11.0
Reincarceration - New Crime (percent)	5.8	8.5
Reincarceration - Technical Violation (percent)^	0.8	2.5
Number of Rearrests (average)	0.63	0.72
Time to First Rearrest (days)	162.4	174.0
Time to First Reincarceration (days) ^	277.4	240.4
Any Service Delivery (percent)**	37.2	22.9
Number of Days Services Delivered (average)***	12.6	3.71
Time to First Service Delivery (days)	91.2	104.2
Any Return to Shelter (percent)^	10.7	10.2
Time to First Return to Shelter (days)***^	2.1	125.3

Source: Urban Institute analysis of data from DRC, ODMH, ODADAS, and emergency shelter providers.

Note: Significance testing: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

^ These outcomes were not estimated using multivariate models because there were so few valid data points.

Table 5. Summary of the Impact of RHO on Recidivism and Service Use Outcomes

Model	Coefficient Estimate—Treatment	Coefficient Interpretation--Treatment
Any Rearrest	-0.851***	Decreases probability
Felony Rearrest	0.034	NS
Misdemeanor Rearrest	-0.918**	Decreases probability
Any Reincarceration	-1.404*	Decreases probability
Reincarceration - New Crime	-7.738	NS
Number of Rearrests	0.924***	Increases number
Time to First Rearrest (days)	-0.615**	Increases time
Any Service Delivery	0.915***	Increases probability
Number of Days Service Delivered	1.366**	Increases number
Time to First Service Delivery (days)	0.731***	Decreases time

Source: Urban Institute analysis of data from DRC, ODMH, and ODADAS. Models use inverse propensity score weights and covariates.

Note: Significance testing: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; NS: not significant at or below $p < 0.10$ using logistic regression, zero-inflated negative binomial regression, and Cox proportional-hazard regression models (according to the outcome).

**MULTIVARIATE ANALYSES—
RECIDIVISM AND SERVICE USE**

For each recidivism and service outcome measure, multiple models were estimated depending on the

outcome of interest using unweighted and weighted models that included covariates.² The results reported here focus on the impact of the treatment on outcomes shown by the propensity score weighted and covariate models,

given the significant differences between the treatment and comparison group found in the data and the potentially biased selection process by which RHO participants were selected. Table 5 summarizes the main effect

²Available by request from the author.

of RHO participation on outcomes. Logistic regression models on rearrest and reincarceration outcomes indicated that, holding everything else constant, RHO participation reduced the probability of rearrest and reincarceration one year following prison release. The difference in the probability of rearrest is driven largely by the differences in the probability of misdemeanor offense rearrest rates (as opposed to differences in the probability of felony offense rearrest rates). Zero-inflated negative binomial regression models showed that RHO participation was associated with significantly more rearrests within one year of release. Cox proportional-hazard models showed that RHO participation was associated with significantly greater (longer) time between release and first arrest. With respect to service delivery outcomes, every model estimated shows a statistically significant relationship between RHO participation and service use in one year. RHO participation significantly increased the incidence (any service delivery), prevalence (number of service delivery days), and timing of state-billable services delivered (time to first service delivery).

Aside from the challenges making firm conclusions on RHO's impact on residential instability, RHO was associated with significant changes in participant outcomes, many of which are in the expected direction. First, RHO was associated with some recidivism reductions. Consistent with RHO's goals, those in RHO were less likely to be rearrested and reincarcerated; yet, RHO participants were rearrested more often than those in the comparison group. While the findings on the probability of rearrest and reincarceration are promising,

the finding on the number of rearrest events is perhaps troubling for the program (and others fashioned after it). It could be that RHO participants were rearrested more often due to their supervision in the program. While RHO participants were not significantly more likely to be on community supervision (parole), by program design, they were in frequent communication with RHO staff. It is logical to assume that the RHO participants were observed more often than those in the comparison group and therefore, that the RHO participants (bad) behavior may have been more likely to come to the frequent attention of someone likely to report it to the legal authorities.

Second, RHO participation was significantly associated with all of the service outcomes estimates—RHO participants were more likely to receive services, to receive more days of those services, and to receive those services quicker than the comparison group. Whether this shows that RHO met its goals on this outcome is not entirely clear. While a goal of RHO was to reduce costly service and system use, RHO's goal was not to decrease overall system use per se. By the very nature of the RHO program and its focus on increasing supportive housing, RHO participants received a host of services from the providers directly or through referrals as shown in Table 3 and Table 4. Many of the RHO providers used Medicaid or state-billable services or referred participants to these types of services. An increase in services following release could be viewed as an unequivocal benefit of RHO participation if the population receiving them was previously unserved or underserved.

CONCLUSIONS AND IMPLICATIONS

Notwithstanding the limitations of the quasi-experimental research design, which could not account for latent participant characteristics that could be related to RHO participation and better outcomes, there are several lessons for policy and practice stemming from the evaluation. As mentioned, a significant finding from this evaluation and others in reentry housing is the challenge of quickly housing people following prison release. What RHO was able to demonstrate — particularly through the impact evaluation — is that the strongest benefits from the program were likely due to the mere contact with the program. Recall, the impact evaluation used one year following release as the outcome period. Given that levels of actual housing provided to program participants within the one year postrelease period varied, the consistent program “benefit” that was evaluated was provider contact with RHO participants (and the provider services associated with that contact). While provider contact is a part of the supportive housing benefit, it certainly is not all of it. Therefore, it could be argued convincingly that the evaluation underestimates the benefits of RHO participation, given the focus on one year postrelease outcomes. RHO benefits could be greater over a longer period (i.e., more than one year) when more RHO participants could receive more housing. Further, the evaluation findings might be different if it were focused on one year post housing placement; that is, when RHO participants received all of the housing benefit.

As reentry issues and reentry programming continue to receive

increased attention at the national and local levels, increased collaborative partnerships between correctional agencies and community-based providers should be developed to facilitate a smoother reentry process. However, no matter how streamlined the discharge or reentry process, facilitating permanent housing immediately postrelease is likely to be an elusive goal. Given some desire to provide individuals with actual choices in their housing placement and the need to find landlords willing to rent to a particular tenant (for example), it's likely that immediate housing placement can happen only when using a single-site facility managed by an agency that is able to conduct some form of reaching into prisons. Nonetheless, correctional agencies that can develop systems to more accurately track inmate release dates and facilitate meetings between inmates in need of housing and agencies that can provide housing would make the transition from prison to housing smoother.

Finally, it is worth highlighting the success of RHO despite the variation in housing and service delivery. CSH believed strongly that recruiting agencies with a mix of housing and services approaches was the key to success for the program and participants. RHO providers played to their strengths, largely recruiting prisoners they believed could be successful in their particular program, and provided services accordingly. RHO showed that recruiting a mix of providers, with their own program goals, likely led to short- and long-term successes (e.g., housing placements, retention, and services). The programs executed their own business-as-usual supportive housing programs, yet simply extended their

models to a population that was released directly from prison. RHO providers extended what they had already learned through working with indigent, homeless, mentally ill, and/or disabled populations in their cities to those who exhibited these characteristics and were released from prison. In the end, the variation makes it difficult to articulate precisely what about the housing program led to benefits. And for this reason, while the RHO program led to clear benefits for disabled prisoners, additional work on refining the program's processes would be helpful to disseminating clear lessons for the reentry and behavioral health field looking to implement a similar program.

REFERENCES

1. Burt, M., & Anderson, J. (2005). *AB.2034 Program Experiences in Housing Homeless People with Serious Mental Illness*. Oakland, CA: Corporation for Supportive Housing. http://documents.csh.org/documents/ca/csh_ab2034.pdf. (Accessed January 25, 2006.)
 2. Hall, Burt, M. R., Roman, C. G., & Fontaine, J. (2009). *Reducing the Revolving Door of Incarceration and Homelessness in the District of Columbia: Population Overlaps*. Washington, DC: The Urban Institute.
 3. Metraux, S., & Culhane, D. P. (2004). Homeless Shelter Use and Reincarceration Following Prison Release: Assessing the Risk. *Criminology and Public Policy* 3 (2), 201-222.
 4. Culhane, D. P., Metraux, S., & Hadley, T. P. (2002). Public service reductions associated with placement of homeless persons with severe mental illness in supportive housing. *Housing Policy Debate* 13: 107-162.
 5. Culhane, D. P., Parker, W., Poppe, B., Gross, K., & Sykes, E. (2007). Accountability, cost-effectiveness, and program performance: Progress since 1998. In *Toward Understanding Homelessness: The 2007 National Symposium of Homelessness Research*, by Eds., D. Dennis, G. Locke, and J. Khadduri. Washington, DC: U.S. Department of Health & Human Services and U.S. Housing & Urban Development.
 6. Fontaine, J., Roman, C. G., & Burt, M. (2010). *System Change Accomplishments of the Corporation for Supportive Housing's Returning Home Initiative*. Washington, DC: The Urban Institute.
 7. Fontaine, J., Gilchrist-Scott, D., Roman, J., Taxy, S., & Roman, C. (2012). *Supportive Housing for Returning Prisoners: Outcomes and Impacts of the Returning Home-Ohio Pilot Project*. Washington, DC: The Urban Institute.
- Delgado, N. (2010). *Lessons Learned: An Evaluation of the Returning Home—Ohio Implementation Process*. New York, NY: Corporation for Supportive Housing. Available at <http://documents.csh.org/documents/oh/lessons.pdf>
- Fontaine, J., & Biess, J. (2012). *Housing as a Platform for Formerly Incarcerated Persons*. Washington, DC: The Urban Institute.

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July	• National Minority Mental Health Awareness Month
September	• National Alcohol and Drug Addiction Recovery Month (Sponsored by SAMHSA)
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