An Evaluation of the Behavioral Health/Juvenile Justice (BHJJ) Initiative: 2013-2015

Mahoning County Results

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EXECUTIVE SUMMARY: AN EVALUATION OF THE BEHAVIORAL HEALTH/JUVENILE JUSTICE (BHJJ) INITIATIVE: 2013–2015 MAHONING COUNTY RESULTS

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Juvenile justice-involved youth with serious behavioral health issues often have inadequate and limited access to care to address their complex and multiple needs. Ohio's Behavioral Health/Juvenile Justice (BHJJ) initiative was intended to transform and expand the local systems' options to better serve these youth. Recent emphasis was placed on decreasing the population of ODYS facilities while providing alternatives to incarceration. Twelve counties participated in BHJJ in the newest biennium: Cuyahoga, Franklin, Cuyahoga, Hamilton, Lucas, Summit, Wayne, Holmes, Trumbull, Mahoning, Lorain, and Wood. BHJJ was funded by a partnership between the Ohio Departments of Youth Services (ODYS) and Mental Health and Addiction Services (OhioMHAS). The Begun Center for Violence Prevention Research and Education at Case Western Reserve University provided research and evaluation services for the program.

The BHJJ program diverts youth from local and state detention centers into more comprehensive, community-based mental and behavioral health treatment. The BHJJ program enrolled juvenile justice-involved youth between 10-18 years of age who met several of the following criteria: a DSM IV Axis I diagnosis, substantial mental status impairment, a co-occurring substance use/abuse problem, a pattern of violent or criminal behavior, and a history of multi-system involvement.

Demographics and Youth Characteristics

- In Mahoning County, 23 youth have been enrolled in BHJJ (60.9% males, 54.5% Caucasian). The average age at intake was about 16 years.
- Youth averaged 1.6 Axis I diagnoses. Thirty-three percent of females and 15.4% of males were diagnosed with Conduct Disorder, and 30.8% of males and 11.1% of females were diagnosed with Attention Deficit Hyperactivity Disorder (ADHD).
- Caregivers reported that 22% of the females had a history of sexual abuse, over 33% talked about suicide, and over 12% had attempted suicide. Over 54% of males and 55% of females had family members who were diagnosed with or showed signs of depression.
- According to the OYAS, 81% of the youth served in Mahoning County were either moderate or high risk.
- Of the youth enrolled in Mahoning County, about 23% had a felony charge in the 12 months prior to enrollment.

Educational Information

- Nearly 62% of the youth were suspended or expelled from school in the year prior to their enrollment. At termination, 80% of youth were attending school.

- At termination, workers reported that 90.9% of youth were attending school more or about the same amount as they were before starting treatment.

Mental/Behavioral Health Outcomes

- Results from the Ohio Scales indicated the caregiver, worker, and youth all reported increased youth functioning and decreased problem severity while in BHJJ treatment.

- Youth reported decreased six month substance use with respect to most of the commonly used substances, including alcohol and marijuana.

- There was a 69 percent reduction in the risk for out of home placement from intake to termination for all youth. Twelve percent of successful completers and 50% of unsuccessful completers were at risk for out of home placement at termination.

Termination and Recidivism Information

- Eighty percent of the youth terminated from the BHJJ program were identified locally as successful treatment completers. The average length of stay in the program was approximately 5 months.

- Youth demonstrated decreased juvenile court involvement after termination from BHJJ compared to before enrollment.

- One year after termination, no one had a new felony charge. Of the youth entering BHJJ with at least one felony charge, none were charged with a new felony in the 12 months following BHJJ termination.

- None of the 22 youth enrolled in BHJJ for whom we had recidivism data were sent to an ODYS facility at any time following their enrollment in BHJJ.

JUVENILE JUSTICE AND MENTAL HEALTH

Youth involved in the juvenile justice system report significant behavioral health impairment. While estimates vary, most studies report that between 65-75% of juvenile justice-involved (JJI) youth have at least one mental health or substance abuse disorder and 20% to 30% report suffering from a serious mental disorder (Cocozza & Skowyra, 2000; Shufelt & Cocozza, 2006; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Wasserman, McReynolds, Lucas, Fisher, & Santos, 2002). Rates of similar mental health/substance use disorders among the general adolescent population are far lower (Cuellar, McReynolds, & Wasserman, 2006; Friedman, Katz-Levy, Manderscheid, & Sondheimer, 1996; Merikangas, et al., 2010; Otto, Greenstein, Johnson, & Friedman, 1992; U.S. Department of Health and Human Services, 1999).

Studies have found that JJI females are often more likely to suffer from mental health disorders than JJI males (Teplin et al., 2002; Nordess et al., 2002; Shufelt & Cocozza, 2006; Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005). Driving this difference is the fact that Anxiety and Mood Disorders are far more common in JJI girls than JJI boys (Shufelt & Cocozza, 2006; Teplin et al., 2002; Wasserman et al., 2005). Not only are JJI girls more likely to report mental health disorders, they are also more likely to report co-occurring mental health and substance use disorders than JJI males (Abram, Teplin, McClelland, & Dulcan, 2003; Wasserman et al., 2005; Wasserman, McReynolds, Schwalbe, Keating, & Jones, 2010).

While it is clear that a significant percentage of JJI youth have mental health problems, many have not received help or treatment for these issues prior to entering the system. One study found that only 34% of juvenile detainees with Anxiety, Mood, or Disruptive Behavior Disorders had ever received prior mental health treatment (Novins, Duclos, Martin, Jewett, & Manson, 1999). In another study, only 17% of juvenile detainees reported previous mental health treatment by a psychiatrist or therapist (Feinstein et al., 1998). A SAMHSA-funded study reported that while 94% of juvenile justice facilities had some type of mental health services available to youth, the quality and comprehensiveness of these services varied greatly based on the facility (Goldstrom, Jaiquan, Henderson, Male, & Manderscheid, 1998). Goldstrom et al. (1998) reported that 71% of juvenile detention centers offer mental health screening while only 56% conduct full evaluations. In facilities where full evaluations are offered, screenings and assessments are often not standardized (Hoge, 2002; Soler, 2002).

JUVENILE JUSTICE/MENTAL HEALTH DIVERSION PROGRAMS

The prevalence of juvenile justice youth with mental health issues is cause for alarm. While the juvenile justice system is often the first time a youth is screened for mental health problems, the system is often ill-prepared to properly treat these youth (Cocozza & Skowyra, 2000; Skowyra & Powell, 2006; Teplin et al., 2002; U.S. Department of Justice, 2005). In response to the growing number of youth entering the juvenile justice system with mental health issues and the lack of proper care in these facilities, many communities have developed diversion programs or mental health courts as an alternative to detention or incarceration. These programs allow for more in-depth assessment and

evaluation and more comprehensive and evidence-based treatment and supervision services than are available in typical juvenile justice facilities.

OHIO'S BEHAVIORAL HEALTH/JUVENILE JUSTICE (BHJJ) INITIATIVE

Over 15 years ago, Ohio's juvenile court judges met with representatives from the Ohio Department of Mental Health (ODMH) and the Ohio Department of Youth Services (ODYS) to address a growing and serious concern. Many of the youth who appeared in court demonstrated serious mental health and/or substance use problems. Not only did these judges lack the resources and expertise to identify, assess, and serve these youth, but there were few alternative programs into which these youth could be placed in lieu of a detention facility.

The state recommended funding local pilot projects in an attempt to divert youth who demonstrated a need for behavioral health service from incarceration and into community-based treatment settings. The pilot program operated in three counties in Ohio. While small in scope, the pilot project was successful in reducing the number of youth with behavioral health issues committed to the ODYS.

In 2005, the state allocated new resources to the Behavioral Health/Juvenile Justice (BHJJ) project and funded several counties throughout Ohio to expand upon the work accomplished in the pilot phase. The intent of the BHJJ project was to transform the local systems' ability to identify, assess, evaluate, and treat multi-need, multi-system youth and their families and to identify effective programs, practices, and policies. As in the pilot, the initiative was designed to divert JJI youth with mental health or substance use issues from detention and into community and evidence-based treatment. The state identified criteria to be used by participating counties to determine if a youth was appropriate for inclusion in the BHJJ project, including: a DSM-IV diagnosis, aged 10 to 18, substantial mental status impairment, co-occurring substance abuse, a pattern of criminal behavior, charged and/or adjudicated delinquent, a threat to public safety, exposed to trauma or domestic violence, and a history of multi-system involvement. Each county was able to determine which and how many criteria the youth had to meet to be eligible for participation.

Since 2006, 17 counties have been selected to participate in the BHJJ program. Urban, suburban, and rural counties have been included in the project. These counties were required to use evidence-based or evidence-informed treatment models; however, the state allowed each county to select the model that best fit the needs of their youth and families. Examples of the types of treatment models provided through BHJJ include Multi-systemic Therapy (MST), Functional Family Therapy (FFT), Integrated Co-Occurring Treatment (ICT), Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), and Multidimensional Family Therapy (MDFT).

While each county employs slightly different protocols and procedures in the implementation of BHJJ, the juvenile court is the typical entry point into the program. Youth who have been charged with a crime are given a psychological assessment to determine if they meet criteria for inclusion in BHJJ. If the youth meets criteria and the youth and family agrees to participate, the youth is recommended for BHJJ participation. If the judge or magistrate accepts the recommendation, the youth is enrolled in the BHJJ program and referred or linked to the treatment agency responsible for providing the treatment services. In most cases the youth remains on probation supervision during their time in the BHJJ program. While residential placement is an option in some of the participating counties, a mission of

BHJJ is to provide treatment in the least restrictive setting possible and therefore the majority of the treatment is provided in-home or in outpatient settings.

A key component to the BHJJ program is the ongoing outcome evaluation provided by the Begun Center for Violence Prevention Research and Education at the Mandel School for Applied Social Sciences at Case Western Reserve University (Kretschmar, Butcher, & Flannery, 2016; Kretschmar, Butcher, Kanary, & Devens, 2015). The current evaluation report includes data from 2006 through June 30, 2015. For information or copies of previous evaluation reports, please contact Dr. Jeff Kretschmar at jeff.kretschmar@case.edu or visit (http://mha.ohio.gov/Default.aspx?tabid=136).

MEASURES AND INSTRUMENTATION

All of the instruments collected as part of the BHJJ evaluation were in TeleForm© format. TeleForm© is a software program that allows for data transmission via fax machine, scanner, or .pdf file. Instruments are created using this software and once completed, can be faxed or scanned directly into a database.

OHIO YOUTH PROBLEM, FUNCTIONING, AND SATISFACTION SCALES (OHIO SCALES)

The Ohio Scales (Ogles, Melendez, Davis, & Lunnen, 2001) were designed to assess clinical outcomes for children with severe emotional and behavioral disorders, and were developed primarily to track service effectiveness. The measure assesses four primary domains of outcomes with four subscales: Problem Severity, Functioning, Hopefulness, and Satisfaction with services. In the Ohio Scales–Caregiver version, the caregiver rates his/her child's problem severity and functioning, and the caregiver's satisfaction with services and hopefulness about caring for his or her child. In the Ohio Scales–Youth version, the youth rates his/her own problem severity and functioning, and his/her satisfaction with services and hopefulness about life or overall well-being. The Worker version does not include the Satisfaction or Hopefulness scales. A score is generated for each of the four subscales, with a total score for the scale generated by summing the items.

TRAUMA SYMPTOM CHECKLIST FOR CHILDREN (TSCC)

The Trauma Symptom Checklist for Children (TSCC) is a 54-item Likert-type questionnaire containing six subscales designed to measure anxiety, anger, depression, posttraumatic stress, dissociation, and sexual concerns (Briere, 1996). Youth respond to a series of questions regarding the frequency of certain thoughts, events, or behaviors. Responses are made on a 4-point, 0-3 scale with "0" indicating "never" and "3" indicating "almost all the time".

SUBSTANCE USE SURVEY – REVISED

This measure, adapted from the SAMHSA-funded Tapestry Project (a demonstration and research project that identifies, serves and follows youth and families from Cuyahoga County, Ohio, with significant behavioral and mental health needs), collects information reported by the youth about the frequency of his or her substance use, including tobacco, alcohol, marijuana, cocaine, painkillers, and several additional substances.

ENROLLMENT AND DEMOGRAPHICS FORM (ENROLLMENT FORM)

This form permits program staff to record several important pieces of information including date of enrollment, reasons for BHJJ services, DSM-IV diagnoses, Global Assessment of Functioning (GAF) scores, and agencies with which the youth is involved. In addition, out-of-home placement status, risk for placement, and educational and vocational data are collected.

CHILD INFORMATION UPDATE FORM (TERMINATION FORM)

This form is completed by the treatment staff at termination from the BHJJ program, and is used to record DSM-IV diagnoses, GAF score, date and reasons for termination from the program, and out-of-home placement risk. Educational and vocational data, as well as information related to contacts with the police are also captured.

RECENT EXPOSURE TO VIOLENCE

This 26-item optional scale measures several youth-reported violent acts: threats, beatings, hitting, knife attacks, sexual abuse, and shootings (adapted from Singer, Anglin, Song, & Lunghofer, 1995). Youths respond to a 4-point scale ranging from "0" (never) to "3" (almost every day). Subjects report separately on violence they have experienced directly and violence they have witnessed. For threats, slapping/hitting, and beatings, questions are specific to the setting in which the violence has occurred: at home, at school, or in the neighborhood. The remaining items do not specify the setting in which the violence occurred. This scale, which has an acceptable internal consistency (Cronbach's alpha = .86), served as our measure of victimization.

CAREGIVER INFORMATION QUESTIONNAIRE (INTAKE AND TERMINATION)

The Caregiver Information Questionnaire, adapted from SAMHSA/Center for Mental Health Services (2005), permits staff to record information including demographics, risk factors, family composition, physical custody of the child, abuse history, family history of mental health issues, the child's mental and physical health service use history, caregiver employment status, and child's presenting problems.

YOUTH SERVICES SURVEY FOR FAMILIES

The Youth Services Survey for Families (YSSF) (SAMHSA) was designed to assess caregiver satisfaction with services the youth received, and if, as a result of those services, the youth is showing improved functioning. This measure was optional.

RECIDIVISM

Recidivism can be defined in many ways: a new offense, a violation of probation, new adjudication, or commitment to ODYS. Recidivism is a standard measure of program success, especially as an indicator of treatment outcomes over time. For this evaluation, recidivism was defined in three ways; a new misdemeanor or felony charge, a new adjudication, and a placement in an ODYS facility any time after enrollment in the BHJJ program. These data are provided to the evaluators by the juvenile court in each participating county. Recidivism data are presented for youth prior to and after enrollment and termination from BHJJ.

OHIO YOUTH ASSESSMENT SYSTEM (OYAS)

The OYAS is a criminogenic risk assessment tool designed to assist juvenile court staff with placement and treatment decisions based on a youth's risk score. The OYAS contains five distinct

versions of the tool administered at different points in the juvenile justice process: Diversion, Detention, Disposition, Residential, and Reentry. Youth receive a total score and fall into three risk levels; low, moderate, or high. Each county's juvenile court supplied OYAS data to the evaluators.

DATA COLLECTION SCHEDULE

The evaluation contains both mandatory and optional questionnaires (see Table 1 and Table 2).

Table 1. Required BHJJ Questionnaires

Measure	Who Completes	When Administered
Ohio Scales	Youth & Worker	Intake, every 3 months, Term
Trauma Symptom Checklist for Children (TSCC)	Youth	Intake, Term
Substance Use Survey – Revised (SUS)	Youth with Program Staff	Intake, every 6 months, Term
Enrollment and Demographics Information Form (EDIF)	Program Staff	Intake
Child Information Update Form (CIUF)	Program Staff	Term
Caregiver Information Questionnaire – Intake (CIQ-I)	Caregiver with Program Staff	Intake

Table 2. Optional BHJJ Questionnaires

Measure	Who Completes	When Administered
Ohio Scales	Caregiver	Intake, every 3 months, Term
Recent Exposure to Violence Scale (REVS)	Youth	Intake, Term
Caregiver Information Questionnaire – Term (CIQ-F)	Caregiver with Program Staff	Term
Youth Service Survey for Families (YSSF)	Caregiver	Term

PROJECT DESCRIPTION

The BHJJ program serving Mahoning County is called the Mahoning Valley (MV) BHJJ Collaborative Project. Homes for Kids (HFK) provides the services, (MST and TIP Informed High Fidelity Wraparound) for the project and the program serves male and female youth ages 12 to 17. The defined target population is multi-system involved youth who are at risk for out of home placement or incarceration or returning from an out of home placement. All youth entering the program will be designated SED and many will have a co-occurring substance abuse diagnosis. Our program implemented two evidence-based practices, Multisystemic Therapy (MST) and the Transition to Independence Process (TIP), as well as the evidenced-informed High Fidelity Wraparound. Our primary goals are to: reduce out of home placements, divert youth from Mahoning and Trumbull County Juvenile Court Programs or ODYS institutions to evidence-based, family-focused programming in the community, maintain or reduce Mahoning and Trumbull Counties commitments to ODYS, improve intersystem communication and collaboration, and share outcomes (successes and failures) across two contiguous counties that have many similarities.

Due to the focus on Multi System Involved Youth (Cross Over), youth can and do enter the program from various channels that include juvenile court, children services boards, or county family and children first councils. Prior to referral, each juvenile court ideally administers the OYAS to determine the risk of recidivism. Homes for Kids provides MST services to each youth identified as appropriate for the program. Upon completion of the MST Program, youth and families who are inclined and willing will be transferred to Wraparound Facilitation within each System of Care. Wraparound Facilitators will incorporate the TIP treatment model in engaging youth and empowering families to lead healthier lives.

Trauma Informed Care is heavily embedded in the MST Collaborative through the use of trauma informed protocols. Cultural Competence is also embedded through the entire project as it is a core component of the MST, TIP, and High-Fidelity Wraparound models. Youth entering the MV BHJJ Collaborative Program are screened and assessed (at intake and discharge) for trauma using the Trauma Symptom Checklist for Children (TSCC) and for substance abuse utilizing the Substance Use Survey (SUS) at intake, bi-annually, and discharge.

The MV BHJJ Collaborative project provides the region with 4 MST Therapists, capable of serving approximately 60 youth annually. MST is an effective evidence based tool that has been proven to work with the toughest offenders ages 12-17 who have a long history of arrests. All four MST Therapists are employed by Homes for Kids of Ohio.

Youth referred to the program are assessed by an MST Therapist and if appropriate and a good fit for the program, the case is opened and an initial session is scheduled with the family within 48 hours. The therapist meets with the family in their home to conduct family therapy sessions utilizing the MST model of treatment. MST therapists meet with families at minimum three times a week in their home working on getting the parent back in the driver seat of their family. MST clinicians go to where the child is and are on call 24 hours a day, seven days a week. They work intensively with parents and caregivers to put them in control. The therapist works with the caregivers to keep the adolescent focused on school, creating positive peer relationships, and gaining job skills. The therapist and caregivers introduce the youth to sports and recreational activities as an alternative to hanging out. The therapist and caregiver work intensively to improve family functioning and cohesiveness.

As with all evidence based programs, model adherence is a central theme. All client families complete TAM's (Therapist Adherence Measure) two weeks into treatment and every 30 days after on their assigned therapist to ensure the therapist is adhering to the MST model. These TAM's are entered by the MST supervisor onto the MST services secure website. To date adherence to the model falls within the expected targets.

The four therapists on the MST team and the MST supervisor attend weekly MST group supervision for two hours followed by one hour of case consultation with an MST consultant employed at the Center for Innovative Practices at Case Western Reserve University. In addition to weekly 3 hour supervision and consultation, MST therapists attend treatment staffings at juvenile court and children services as scheduled. At the Mahoning County Juvenile Justice Center (MCJJC), they have several specialty dockets- Drug Treatment Court, Mental Health Court and Family Dependency court. These three dockets have weekly team staff meetings and court. The MST team sit on each of these teams and attend court to support their families and also for outreach and referrals for the program at HFK. The MST team also has quarterly Booster trainings with the MST consultant on topics picked by the MST team, supervisor and consultant aimed at increasing adherence to the model and increasing successful case outcomes.

As the MST treatment episode ends, the therapist, probation officer, and child welfare staff continue to collaborate and link the youth and family with community resources as needed, to help sustain the changes made during treatment. The families are offered the option of a step down into High-Fidelity Wraparound services and this is coordinated with the family by the MST therapist for a smooth transition from MST to wraparound. The MST therapist schedules with the wraparound facilitator to accompany them to the family's home to meet them and step the family down into wraparound services. A client and family is deemed to be successfully terminated from MST if they have: completed the 3-5 months of the program, learned new skills for sustainability in regards to utilizing informal supports as respite, improved their cohesion level as a family, decreased all referral behaviors, the youth is living in the home or community at time of discharge, attending work or school and has no new charges since entering the program.

DESCRIPTION OF THE ANALYSES USED IN THE REPORT

Several types of inferential statistics are used throughout the report. Three types of bivariate analyses are discussed throughout both the overall report and the county specific reports. The chi-square analysis refers to a bivariate technique where a relationship between two variables is tested to determine if there are any significant differences. For example, if we are interested in whether males and females differ on whether they have ever used alcohol, a chi-square test is used. If there is a statistically significant result, this indicates that the difference between females and males is unlikely to have occurred by chance. Thus, we would describe the difference for the gender groups as a *real difference* rather than one that could have occurred by chance.

In instances where the bivariate relationship of interest is a measure that is both a yes/no measure and one that is repeated, a McNemar's test is used. For example, if we are interested in whether there is a statistically significant decrease in the proportion of youth using alcohol in the past six months from intake to termination, we would use a McNemar's test. A statistically significant result would indicate that the observed difference in six month use from intake to termination is a real difference and one that likely did not occur by chance.

The third type of bivariate analysis used throughout the report is the t-test. T-tests are similar to chi-square tests in that they test two variables to determine whether there are significant differences. For example, if we are interested in whether females and males differ on their levels of posttraumatic stress symptoms, a t-test is used. Since the variable posttraumatic stress lies on a continuous scale, we examine whether the corresponding means for the two gender groups significantly differ. Independent samples t-tests are used when there are two distinct groups (e.g. female and male) while paired samples t-tests are used when we are interested in whether means for the same group from different time points differ significantly (e.g. pre/post differences).

While statistical significance is an indication of how likely differences between groups or time points could occur by chance, effect sizes measure the magnitude of these observed differences. In other words, while statistical significance tells us whether a difference exists, effect sizes tell us how much of a difference exists. Effect sizes as represented by Cohen's *d* are also presented using the recommended criteria for its interpretation in Cohen's (1988) seminal work. Interpretation of Cohen's *d* is based on the criteria where 0.2 indicates a small effect size, 0.5 indicates a medium effect, and 0.8 indicates a large effect[1].

[1] For a more thorough review see Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

MAHONING COUNTY

DEMOGRAPHICS

Mahoning County has enrolled 23 youth in the BHJJ program since 2013. Of the 23 youth enrolled, 39.1% (n = 9) were female and 60.9% (n = 14) were male (see Table 3).

The majority of the overall sample of youth were either Caucasian (54.5%, n = 12) or African American (40.9%, n = 9). The average age of the youth at intake into BHJJ was 16.1 years old (SD = 1.13) with a range between 13.9 and 17.7 years.

Table 3. Demographic Information for BHJJ Youth in Mahoning County

	All Youth Enrolled (2013 - 2015)
Gender	Female = 39.1% (n = 9)
	Male = 60.9% (n = 14)
Race	African American = 40.9% (n = 9)
	Caucasian = 54.5% (n = 12)
	Other = 4.5% (n = 1)
Age at Intake	16.07 years (SD = 1.13)

CUSTODY ARRANGEMENT AND HOUSEHOLD INFORMATION

At intake, the majority of youth lived with the biological mother (66.7%, n = 14) (see Table 4). At time of enrollment, 76.2% (n = 16) of the BHJJ youth lived with at least one biological parent.

Nearly all of the BHJJ caregivers (95.0%, n = 19) had at least a high school diploma or GED, and 10.0% (n = 2) had a bachelor's degree or higher (see Table 5). One caregiver (5.0%, n = 1) reported that they did not graduate from high school.

Caregivers reported their annual household income. The median household income for BHJJ families was between $15,000 - $19,999 (see Table 6). Half of all caregivers (n = 10) reported an annual household income below $20,000 and 20% of BHJJ families (n = 4) reported an annual household income below $10,000.

Table 4. Custody Arrangement for BHJJ Youth in Mahoning County

Custody	BHJJ Youth
Two Biological Parents or One Biological and One Step or Adoptive Parent	9.5% (n=2)
Biological Mother Only	66.7% (n=14)
Biological Father Only	0.0% (n=0)
Adoptive Parent(s)	0.0% (n=0)
Sibling	0.0% (n=0)
Aunt/Uncle	14.3% (n=3)
Grandparents	9.5% (n=2)
Friend	0.0% (n=0)
Ward of the State	0.0% (n=0)
Other	0.0% (n=0)

Table 5. Educational Outcomes for Caregivers of BHJJ Youth in Mahoning County

Number of School Years Completed	Number of Caregivers
Less than High School	5.0% (n=1)
High School Graduate or G.E.D.	25.0% (n=5)
Some College or Associate Degree	60.0% (n=12)
Bachelor's Degree	5.0% (n=1)
More than a Bachelor's Degree	5.0% (n=1)

Table 6. Annual Household Income for BHJJ Families in Mahoning County

Annual Household Income	BHJJ Families
Less than $5,000	20.0% (n=4)
$5,000 - $9,999	0.0% (n=0)
$10,000 - $14,999	25.0% (n=5)
$15,000 - $19,999	5.0% (n=1)
$20,000 - $24,999	20.0% (n=4)
$25,000 - $34,999	20.0% (n=4)
$35,000 - $49,999	5.0% (n=1)
$50,000 - $74,999	5.0% (n=1)
$75,000 - $99,999	0.0% (n=0)
$100,000 and over	0.0% (n=0)

YOUTH AND FAMILY HISTORY

Caregivers were asked to respond to a series of questions designed to obtain data related to the youth's family history (see Table 7). Due to sample size restrictions, we did not conduct chi-square analyses. Caregivers reported that 11.1% (n = 1) of females and 33.3% (n = 4) of males had a history of being physically abused while 22.2% (n = 2) of females and 18.2% (n = 2) of males had a history of being sexually abused. Caregivers of 33.3% (n = 3) of females and 33.3% (n = 4) of males reported hearing the child talking about committing suicide and 12.5% (n = 1) of females and 9.1% (n = 1) of males had attempted suicide at least once. A majority of the caregivers of females (55.6%, n = 5) and males (81.8%, n = 9) reported a family history of depression.

Table 7. Youth and Family History in Mahoning County

Question	Females	Males
Has the child ever been physically abused?	11.1% (n=1)	33.3% (n=4)
Has the child ever been sexually abused?	22.2% (n=2)	18.2% (n=2)
Has the child ever run away?	77.8% (n=7)	54.5% (n=6)
Has the child ever had a problem with substance abuse, including alcohol and/or drugs?	77.8% (n=7)	83.3% (n=10)
Has the child ever talked about committing suicide?	33.3% (n=3)	33.3% (n=4)
Has the child ever attempted suicide?	12.5% (n=1)	9.1% (n=1)
Has the child ever been exposed to domestic violence or spousal abuse, of which the child was not the direct target?	44.4% (n=4)	75.0% (n=9)
Has anyone in the child's biological family ever been diagnosed with depression or shown signs of depression?	55.6% (n=5)	81.8% (n=9)
Has anyone in the child's biological family had a mental illness, other than depression?	55.6% (n=5)	54.5% (n=6)
Has the child ever lived in a household in which someone was convicted of a crime?	37.5% (n=3)	50.0% (n=6)
Has anyone in the child's biological family had a drinking or drug problem?	33.3% (n=3)	81.8% (n=9)
Is the child currently taking any medication related to his/her emotional or behavioral symptoms	22.2% (n=2)	63.6% (n=7)

At intake, caregivers were asked if the youth had ever been pregnant (or if male, had ever impregnated a female) and if they were currently expecting a child. Caregivers reported that none of the females had ever been pregnant. Caregivers reported that 12.5% (n = 1) of males had impregnated a female and 11.1% (n = 1) were currently expecting a child.

OHIO YOUTH ASSESSMENT SYSTEM

The OYAS is a criminogenic risk assessment tool designed to assist juvenile court staff with placement and treatment decisions based on a youth's risk score. Distribution of Mahoning County youth based on the OYAS risk categories by gender and race are presented in Table 8. While results are preliminary, as there are low numbers in each of the categories, six males (46.2%) were identified as high risk to reoffend while none of the Mahoning County BHJJ females were identified as high risk.

Table 8. OYAS Categories by Race and Gender for Mahoning County

	OYAS Low	OYAS Moderate	OYAS High
Female	37.5% (n = 3)	62.5% (n = 5)	0.0% (n = 0)
Male	7.7% (n = 1)	46.2% (n = 6)	46.2% (n = 6)
White	33.3% (n = 4)	41.7% (n = 5)	25.0% (n = 3)
Nonwhite	0.0% (n = 0)	66.7% (n = 6)	33.3% (n = 3)

DSM-IV DIAGNOSES

Workers were asked to report any DSM-IV Axis I diagnoses at intake into the BHJJ program. These diagnoses were either identified through a psychological assessment given as part of the enrollment process or in some cases, from psychological assessments given in close proximity to a youth's enrollment in BHJJ. The most common Axis I diagnosis for both females (55.6%, n = 5) and males (76.9%, n = 10) was Oppositional Defiant Disorder (see Table 9).

A total of 35 Axis I diagnoses were identified for 22 youth with diagnostic information (1.59 diagnoses per youth). Females reported 12 Axis I diagnoses (1.33 diagnoses per female) and males reported 23 Axis I diagnoses (1.77 diagnoses per male). Of the youth who had available diagnostic information, 25.0% (n = 2) of females and 38.5% (n = 5) of males had a co-occurring substance use and mental health diagnosis.

Table 9. Most Common DSM-IV Axis I Diagnoses in Mahoning County

DSM-IV Axis I Diagnosis	Females	Males
Alcohol-related Disorders	0.0% (n = 0)	15.4% (n = 2)
Attention Deficit Hyperactivity Disorder	11.1% (n = 1)	30.8% (n = 4)
Bipolar Disorder	0.0% (n = 0)	0.0% (n = 0)
Cannabis-related Disorders	22.2% (n = 2)	38.5% (n = 5)
Conduct Disorder	33.3% (n = 3)	15.4% (n = 2)
Depressive Disorders	0.0% (n = 0)	0.0% (n = 0)
Mood Disorder	0.0% (n = 0)	0.0% (n = 0)
Oppositional Defiant Disorder	55.6% (n = 5)	76.9% (n = 10)
Post-traumatic Stress Disorder	11.1% (n = 1)	0.0% (n = 0)

EDUCATIONAL AND VOCATIONAL INFORMATION

EDUCATIONAL DATA

Several items that focused on educational and vocational information were included in the evaluation packet at both intake and termination from the BHJJ program. The items were completed by the worker with help from the youth and caregiver. In the 12 months prior to intake, 61.9% (n = 13) were either suspended or expelled from school. While in treatment with BHJJ, 45.5% (n = 5) of BHJJ youth were either suspended or expelled from school.

Educational data were analyzed for youth who were eligible for inclusion (youth on summer break or who had graduated at the time of the survey were not included in the analyses). At intake, 80.0% (n = 16) of youth were currently attending school excluding those on summer break. At termination, 80.0% (n = 8) of youth were attending school. Again, this does not include youth out of school due to summer break. If the youth was attending school, the worker was asked to identify the types of grades the youth typically received (see Table 10). Table 11 presents the academic performance of BHJJ youth in Mahoning County from intake to termination based on completion status.

At termination, workers reported that 36.4% (n = 4) of youth were attending school more than before starting treatment and 54.5% (n = 6) of youth were attending school 'about the same' amount compared to before starting treatment. Workers reported 9.1% (n = 1) of youth were attending school less often than before treatment in BHJJ.

Table 10. Academic Performance in Mahoning County

Typical Grades	Frequency at Intake	Frequency at Termination
Mostly A's and B's	5.0% (n = 1)	0.0% (n = 0)
Mostly B's and C's	25.0% (n = 5)	20.0% (n = 2)
Mostly C's and D's	35.0% (n = 7)	70.0% (n = 7)
Mostly D's and F's	35.0% (n = 7)	10.0% (n = 1)

Table 11. Academic Performance in Mahoning County by Completion Status

	Unsuccessful Completers		Successful Completers	
Typical Grades	Frequency at Intake	Frequency at Termination	Frequency at Intake	Frequency at Termination
Mostly A's and B's	0.0% (n = 0)	0.0% (n = 0)	0.0% (n = 0)	0.0% (n = 0)
Mostly B's and C's	0.0% (n = 0)	50.0% (n = 1)	25.0% (n = 2)	12.5% (n = 1)
Mostly C's and D's	50.0% (n = 1)	0.0% (n = 0)	12.5% (n = 1)	75.0% (n = 6)
Mostly D's and F's	50.0% (n = 1)	0.0% (n = 0)	62.5% (n = 5)	12.5% (n = 1)

OHIO SCALES

One of the main measures in the data collection packet was the Ohio Scales. The Ohio Scales were completed by the youth, caregiver, and worker at intake and then every three months following intake until termination from services. Because termination can occur at any point in time along the continuum of service, separate charts are included that display the means from intake to termination. Decreases in Problem Severity and increases in Functioning correspond to positive change.

All Problem Severity and Functioning analyses were conducted on assessment periods with enough valid cases to produce meaningful results. Paired samples t-tests were used to compare Problem Severity scores at intake to Problem Severity scores at the other assessment periods. A paired samples t-test compares the means of two variables by computing the difference between the two variables for each case and testing to see if the average difference is significantly different from zero. In order for a case to be included in the analyses, the rater must have scores for both assessment periods. For example, a caregiver must supply scores for both the intake and three month assessment period to be included in the paired samples t-test for that time point. If the caregiver only has an intake score, his or her data is not included in the analysis.

PROBLEM SEVERITY

Overall means for the Problem Severity scale by rater and assessment period for Mahoning County youth are represented graphically in Figure 1. Means from intake to termination are presented in Figure 2. Although paired samples t-tests did not reveal statistically significant improvements in Problem Severity, Problem Severity scores decreased from intake to termination and intake to three months for every rater.

Figure 1. Problem Severity Scores across Time - Mahoning County

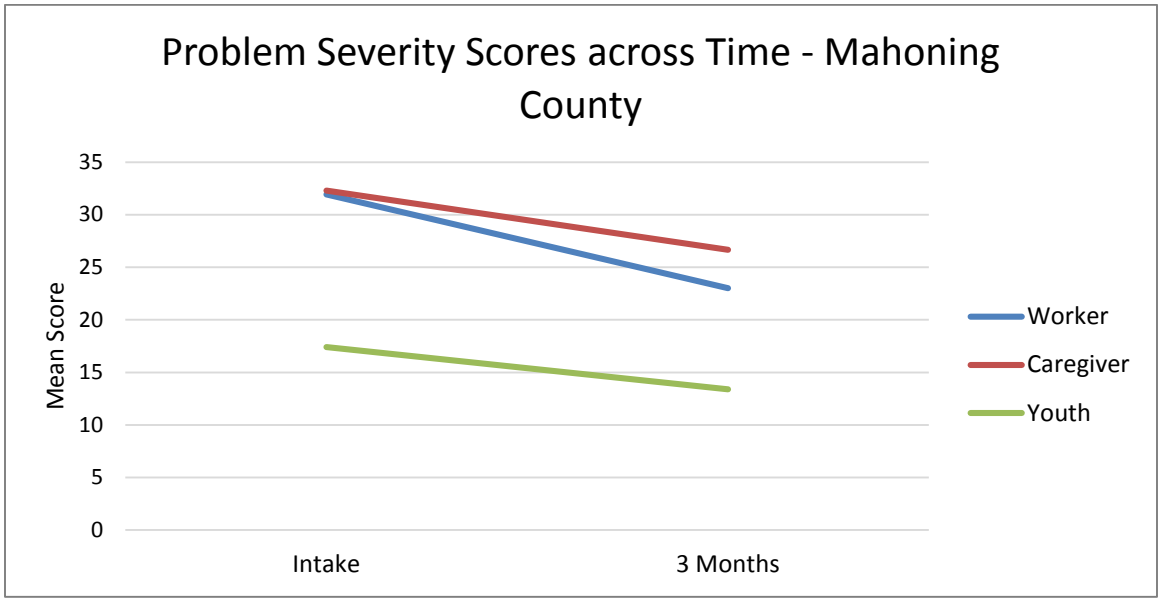
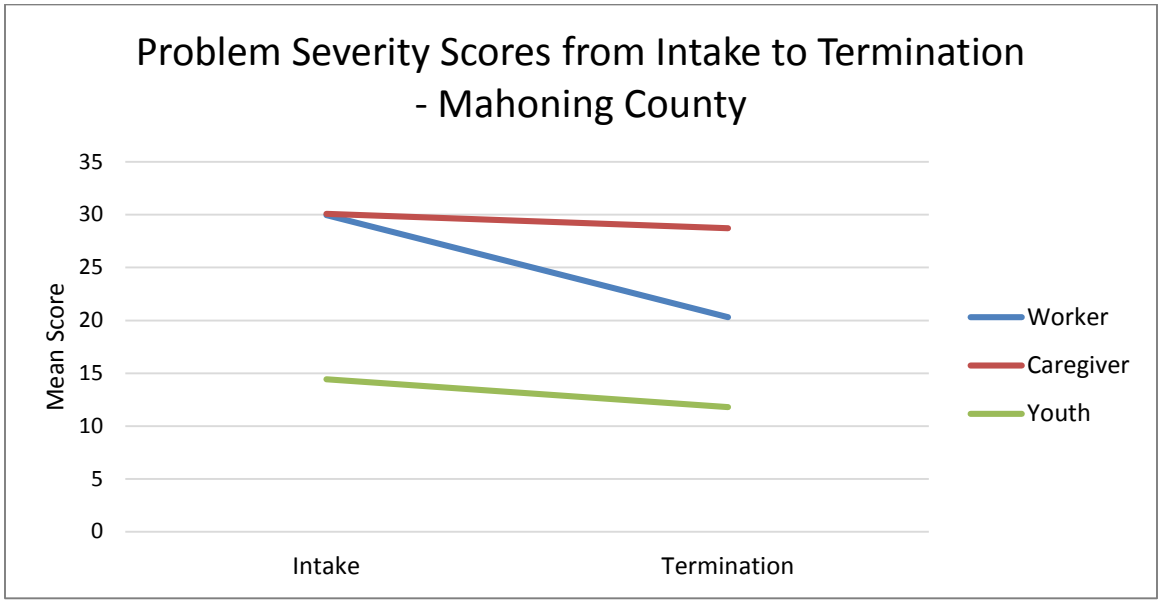


Figure 2. Problem Severity Scores from Intake to Termination - Mahoning County



CAREGIVER RATING

Problem Severity decreased at both measurement intervals (see Table 12) compared to intake, although the decreases are not statistically significant. Small effect sizes were observed for both measurement intervals.

Table 12. Paired Samples T-Tests for Caregiver Report Problem Severity Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	21.17 (SD=16.08; n=6)	26.68 (SD=8.63; n=6)	0.65	.43
Intake to Termination	30.08 (SD=25.77; n=11)	28.74 (SD=22.75; n=11)	0.15	.05

WORKER RATING

Although worker-rated Problem Severity decreased at both collection points (see Table 13), these changes are not statistically significant. Moderate effect sizes were observed for both measurement intervals.

Table 13. Paired Samples T-Tests for Worker Report Problem Severity Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	32.00 (SD=18.32; n=7)	23.00 (SD=12.96; n=7)	0.81	.57
Intake to Termination	29.96 (SD=16.47; n=12)	20.30 (SD=10.86; n=12)	1.92	.69

YOUTH RATING

Scores on the Problem Severity scale as reported by youth decreased at both measurement intervals (see Table 14); however these changes are not statistically significant. A moderate effect size was observed for intake to three months. A small effect size was noted for intake to termination.

Table 14. Paired Samples T-Tests for Youth Report Problem Severity Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	19.80 (SD=13.16; n=5)	13.40 (SD=7.70; n=5)	1.36	.59
Intake to Termination	14.43 (SD=13.64; n=9)	11.78 (SD=12.62; n=9)	0.65	.20

FUNCTIONING

Overall means for the Functioning scale by rater and assessment period for Mahoning County youth are represented graphically in Figure 3. Means from intake to termination are presented in Figure 4.

Figure 3. Functioning Scores across Time - Mahoning County

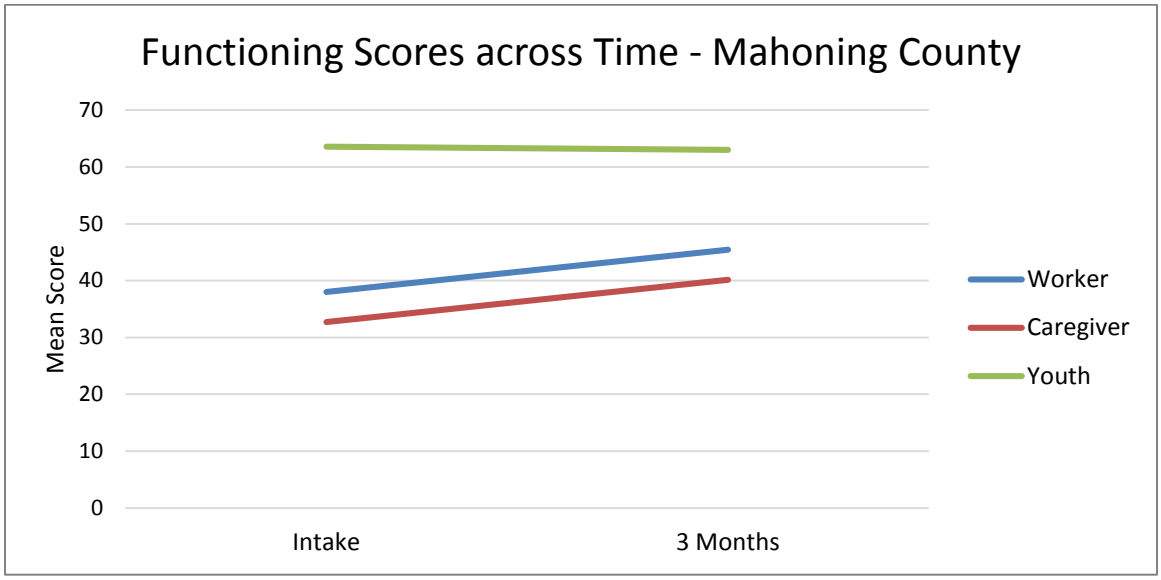
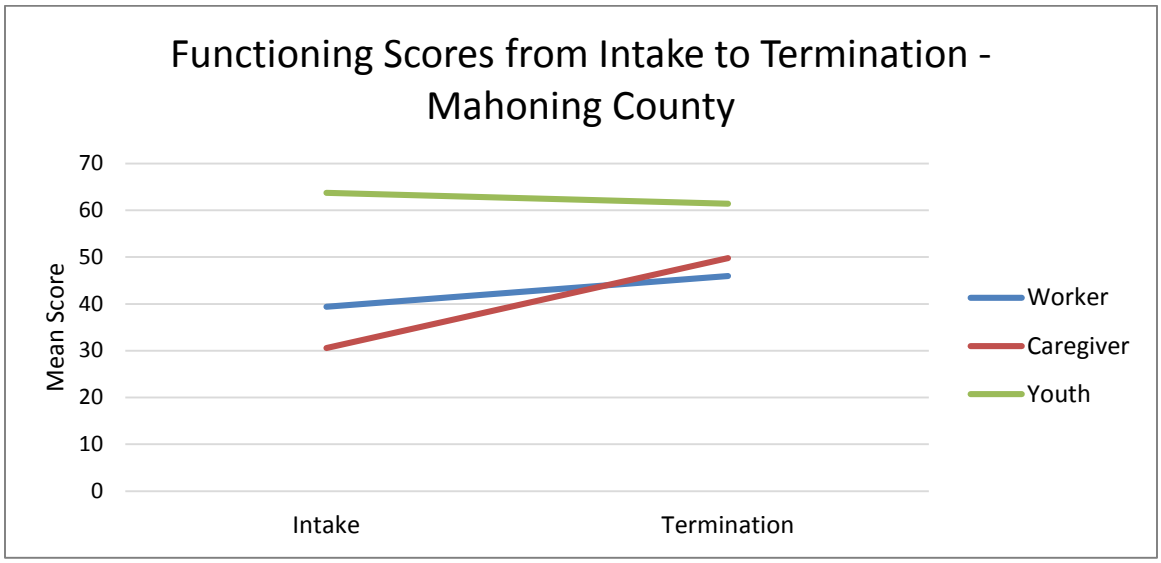


Figure 4. Functioning Scores from Intake to Termination - Mahoning County



CAREGIVER RATING

Paired samples t-tests revealed significant improvements in Functioning from intake to termination (see Table 15) compared to intake. Significant improvements were noted at termination: $t(4) = -0.79$, $p < .05$. A small effect size was noted for intake to three months, while a large effect size was observed for intake to termination.

Table 15. Paired Samples T-Tests for Caregiver Report Functioning Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	41.40 (SD=10.09; n=5)	43.40 (SD=9.71; n=5)	-0.79	.20
Intake to Termination	30.56 (SD=14.99; n=9)	49.78 (SD=16.12; n=9)	-3.19*	1.24

*p < .05

WORKER RATING

For workers, Functioning increased at both measurement intervals compared to intake (see Table 16). However, these increases are not statistically significant. A large effect size was noted between intake and three months and a moderate effect size was observed between intake and termination.

Table 16. Paired Samples T-Tests for Worker Report Functioning Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	34.43 (SD=10.41; n=7)	45.43 (SD=9.24; n=7)	-2.26	1.11
Intake to Termination	39.42 (SD=8.50; n=12)	45.92 (SD=7.81; n=12)	-1.92	.79

YOUTH RATING

Youth-rated Functioning showed no statistically significant change (see Table 17). Small effect sizes were noted for each of the measurement intervals.

Table 17. Paired Samples T-Tests for Youth Report Functioning Scores for Mahoning County

	Mean Time 1	Mean Time 2	*t*	*d*
Intake to Three Months	66.40 (SD=6.99; n=5)	63.00 (SD=12.45; n=5)	0.59	.34
Intake to Termination	63.70 (SD=7.80; n=10)	61.40 (SD=11.75; n=10)	0.98	.23

TSCC

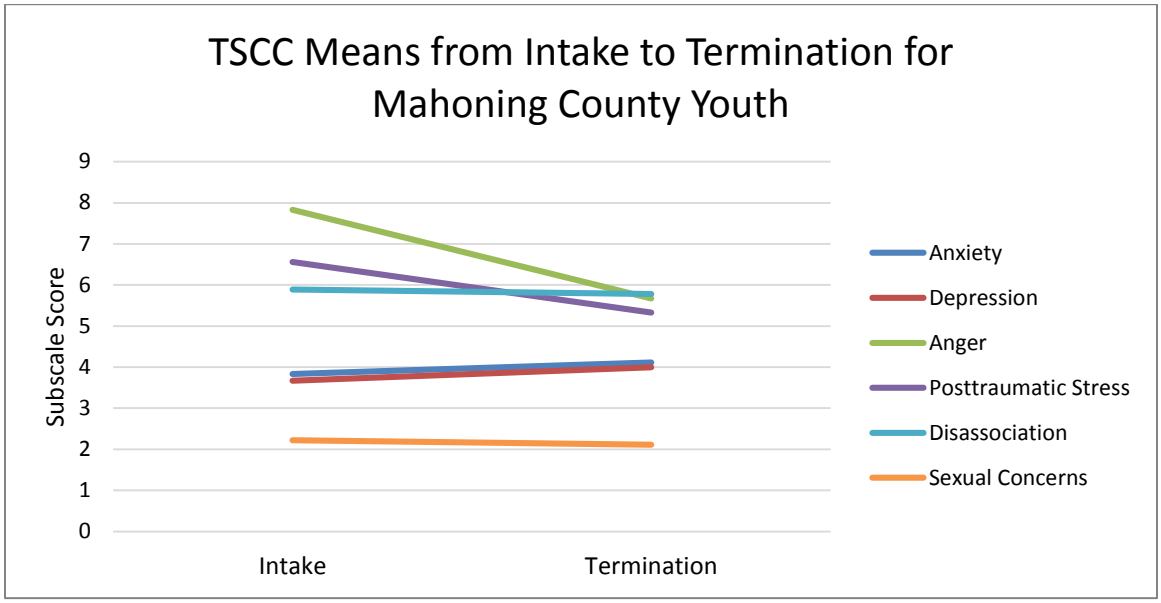
The Trauma Symptom Checklist for Children (TSCC) was administered to youth in the BHJJ program in Mahoning County at both intake and termination. The TSCC is made up of six subscales: Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation, and Sexual Concerns. Higher scores on each of the subscales indicate higher levels of trauma symptoms. Table 18 shows the mean TSCC scores at intake and at termination.

Means and standard deviations were calculated on the six subscales for Mahoning County BHJJ youth who have subscale scores both at intake and at termination (see Table 18). Means reported in Table 18 are represented graphically in Figure 5. Means decreased from intake to termination in the Anger, PTS, Dissociation, and Sexual Concerns domains.

Table 18. Means at Intake and Termination for TSCC Subscales – Mahoning County

	Intake	Termination
Anxiety	3.83 (SD=5.79; n=18)	4.11 (SD=4.72; n=9)
Depression	3.67 (SD=3.41; n=18)	4.00 (SD=5.92; n=9)
Anger	7.83 (SD=6.80; n=18)	5.67 (SD=7.22; n=9)
PTS	6.56 (SD=7.40; n=18)	5.33 (SD=6.30; n=9)
Dissociation	5.89 (SD=5.83; n=18)	5.78 (SD=7.61; n=9)
Sexual Concerns	2.22 (SD=3.23; n=18)	2.11 (SD=4.01; n=9)

Figure 5. TSCC Means from Intake to Termination for Mahoning County Youth



SUBSTANCE USE

Every six months the youth completed a self-report measure of substance use. The survey was designed to measure any lifetime use of each drug as well as patterns of current use. Table 19 presents the percentages of BHJJ youth who reported ever using alcohol or drugs and the average age of first use. Alcohol, cigarettes, and marijuana were the three most commonly used substances for both males and females. Due to small sample sizes, chi-square analyses detecting gender differences for substance use were not possible.

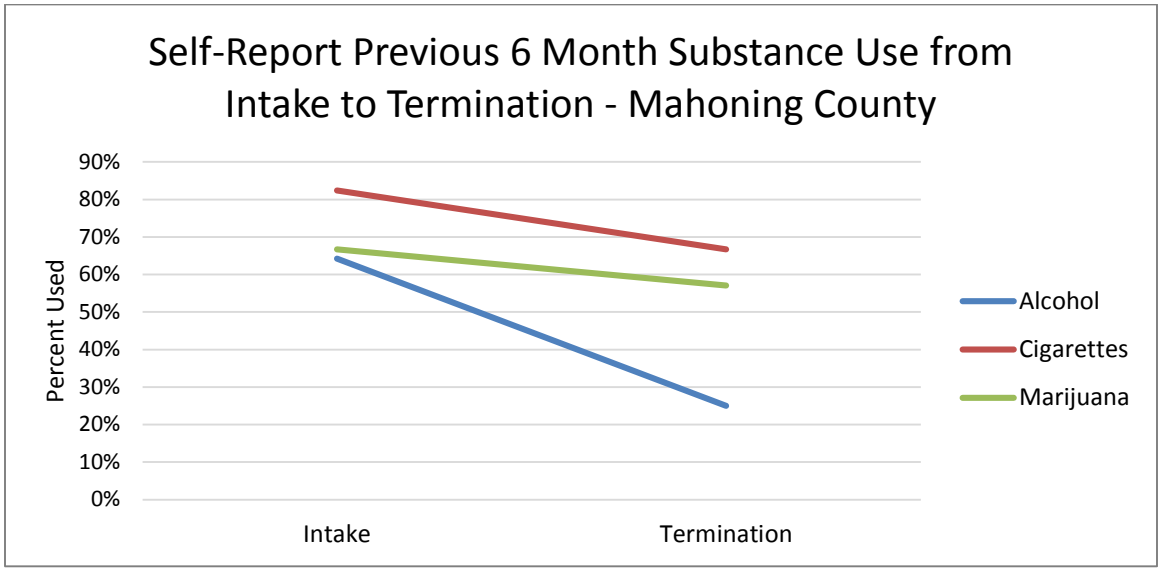
Youth were also asked to report whether they had used each substance in the past six months. Figure 6 presents past six month use for the most commonly reported substances among those who reported lifetime use. All three of the most commonly used substances decreased from intake to termination. Six month alcohol use decreased from 64.2% (n = 9) at intake to 25% (n = 1) at termination. Six month cigarette use decreased from 82.4% (n = 14) at intake to 66.7% (n = 4) at termination. Six month marijuana use decreased from 66.7% (n = 12) at intake to 57.1% (n = 4) at termination.

Table 19. Self-Report Substance Use at Intake for Mahoning County BHJJ Youth

	Males		Females	
	% Ever Used	Age of First Use	% Ever Used	Age of First Use
Alcohol	76.9% (n = 10)	13.50 (SD = 1.18)	71.4% (n = 5)	13.20 (SD = 1.79)
Cigarettes	84.6% (n = 11)	13.09 (SD = 2.21)	100% (n = 8)	14.00 (SD = 2.14)
Chewing Tobacco	23.1% (n = 3)	14.33 (SD = 0.58)	0.0% (n =0)	N/A
Marijuana	92.3% (n = 12)	14.17 (SD = 1.53)	87.5% (n = 7)	13.29 (SD = 2.98)
Cocaine	15.4% (n = 2)	14.50 (SD = 0.71)	0.0% (n =0)	N/A
Pain Killers (use inconsistent with prescription)	30.8% (n = 4)	14.50 (SD = 1.29)	25.0% (n = 2)	15.00 (SD = 2.83)
GHB	0.0% (n =0)	N/A	0.0% (n =0)	N/A
Inhalants	15.4% (n = 2)	16.00 (SD = 0.0)	0.0% (n =0)	N/A
Heroin	8.3% (n = 1)	16.00[a]	0.0% (n =0)	N/A
Amphetamines	7.7% (n = 1)	13.00	12.5% (n = 1)	13.00
Ritalin (use inconsistent with prescription)	15.4% (n = 2)	15.00 (SD = 1.41)	12.5% (n = 1)	13.00
Barbiturates	0.0% (n =0)	N/A	0.0% (n =0)	N/A
Non-prescription Drugs	15.4% (n = 2)	15.50 (SD = 0.71)	25.0% (n = 2)	14.00 (SD = 0.0)
Hallucinogens	15.4% (n = 2)	15.50 (SD = 0.71)	0.0% (n =0)	N/A
PCP	0.0% (n =0)	N/A	0.0% (n =0)	N/A
Ketamine	0.0% (n =0)	N/A	0.0% (n =0)	N/A
Ecstasy	15.4% (n = 2)	15.00 (SD = 1.41)	0.0% (n =0)	N/A
Tranquilizers	15.4% (n = 2)	15.00 (SD = 1.41)	0.0% (n =0)	N/A

[a] Standard Deviations are not calculated when only one respondent reported using a substance.

Figure 6. Self-Report Previous 6 Month Substance Use from Intake to Termination - Mahoning County



OHIO SCALES AND SUBSTANCE USE

The Ohio Scales contain one Likert-scale item about the youth's problems with alcohol and drugs during the past 30 days. This question appears on all three versions of the Ohio Scales (Caregiver, Worker, and Youth). The responses range from zero to five, with zero indicating no problems at all with drugs or alcohol in the past 30 days and five indicating problems with drugs or alcohol all of the time. Scores on this item were examined at intake and termination for the three raters. Worker and Youth raters reported fewer problems with drugs or alcohol at termination from BHJJ (see Figure 7, Figure 8, and Figure 9). At intake 40.9% (n = 9) of caregivers and 22.7% (n = 5) of workers reported no problems with drugs or alcohol in the past 30 days while 40% (n = 4) of caregivers and 41.7% (n = 5) of workers reported no problems at termination. Similarly, 45.5% (n = 10) of youth reported no problems in the past 30 days with drugs or alcohol at intake while 60% (n = 6) of youth reported no problems at termination.

Figure 7. Problems with Drugs or Alcohol in the Past 30 Days for Mahoning County Youth - Caregiver Ratings

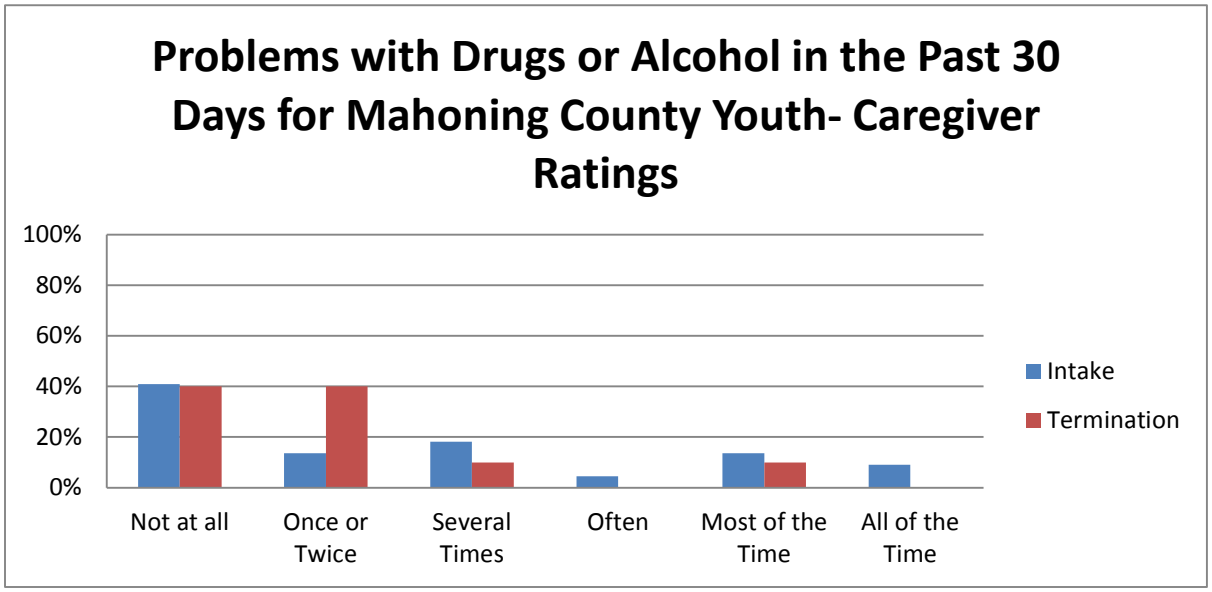


Figure 8. Problems with Drugs or Alcohol in the Past 30 Days for Mahoning County Youth - Worker Ratings

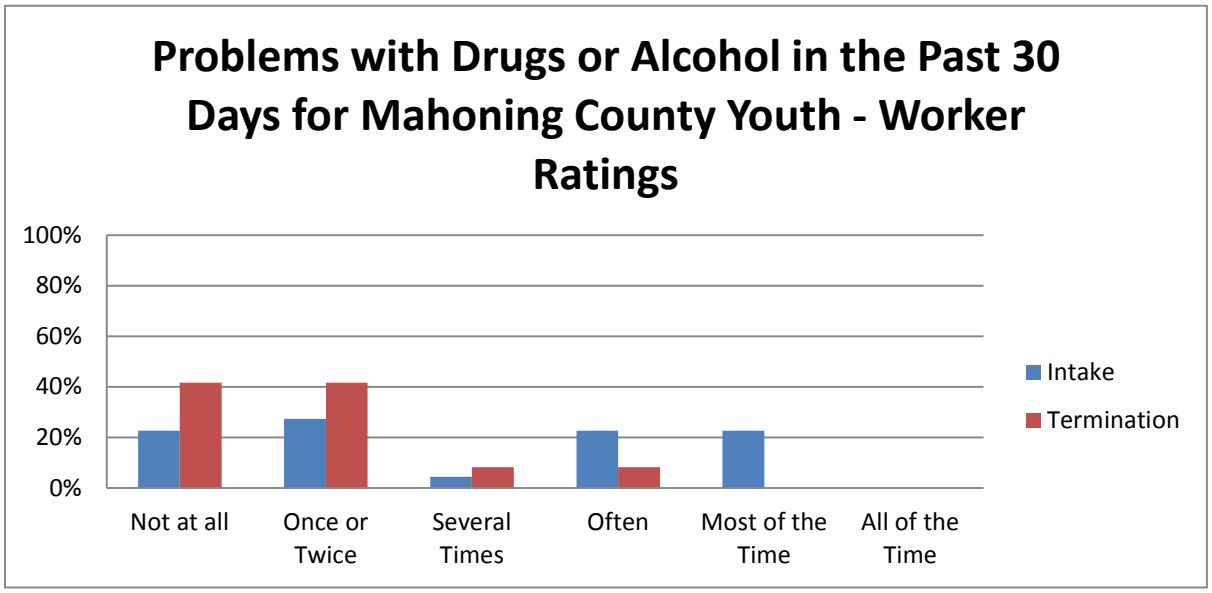
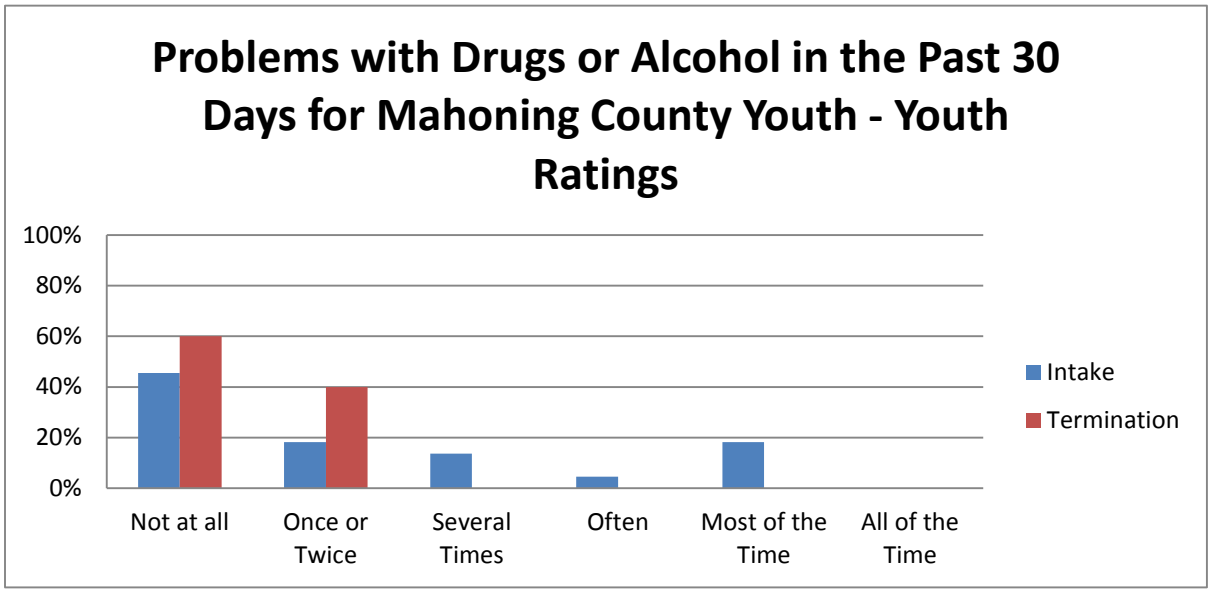


Figure 9. Problems with Drugs or Alcohol in the Past 30 Days for Mahoning County Youth - Youth Ratings



TERMINATION INFORMATION

REASONS FOR TERMINATION

Upon termination of treatment from BHJJ, the case worker is asked to identify the reason for the youth's termination from the program. This information is typically focused on treatment outcomes and driven by local definitions of success, not necessarily whether the youth received new court charges or adjudications (recidivism), although youth may be terminated from the BHJJ program due to new involvement with the court. Typically, successful treatment completion is tied to attendance at meetings, progress in therapy, compliance with terms of the treatment plan, etc. County-specific definitions of successful termination are described in detail in the Project Descriptions section.

To date, there have been 10 youth terminated from the BHJJ program in Mahoning County. **Eighty percent (n = 8) of the youth terminated from the BHJJ program were identified as successful treatment completers.** In Mahoning County, 10% (n = 1) were terminated from the program due to an out of home placement and 10% (n = 1) due to incarceration. Table 20 presents all of the reasons for termination from BHJJ.

Table 20. Reasons for Termination from BHJJ – Mahoning County

Termination Reason	All Youth
Successfully Completed Services	80.0% (n = 8)
Client Did Not Return/Rejected Services	0.0% (n = 0)
Out of Home Placement	10.0% (n = 1)
Client/Family Moved	0.0% (n = 0)
Client Withdrawn	0.0% (n = 0)
Client AWOL	0.0% (n = 0)
Client Incarcerated	10.0% (n = 1)
Other	0.0% (n = 0)

AVERAGE LENGTH OF STAY

The average length of stay for youth in the Mahoning County BHJJ program was 140 days. For youth identified as completing treatment successfully, the average length of stay was 144 days and for youth identified as unsuccessful treatment completers, the average length of stay was 124 days.

RISK FOR OUT OF HOME PLACEMENT

At intake into and termination from the BHJJ program, workers were asked whether the youth was at risk for out of home placement. Upon entering the program, 58.8% of the youth (n = 7) in Mahoning County were at risk for out of home placement. At termination, 18.2% (n = 2) of youth were at risk for out of home placement. Of those youth who successfully completed BHJJ treatment, 12.5% (n = 1) were at risk for out of home placement at termination while 50.0% (n = 1) of youth who terminated unsuccessfully from the program were at risk for out of home placement.

POLICE CONTACTS

With help from the caregiver and youth, the worker was asked to estimate the frequency of police contacts since the youth has been receiving mental health services through BHJJ. Workers reported that police contacts had been reduced for 63.6% (n = 7) of the youth and had stayed the same for 36.4% (n = 4) of the youth.

SATISFACTION WITH SERVICES

An optional satisfaction survey was designed to measure overall satisfaction with the BHJJ program. Mahoning County did not include this survey as part of their data collection packet, thus no data is available.

RECIDIVISM

METHODOLOGY

Court data were provided by the Mahoning County Juvenile Court, and consisted of charges, adjudications, and commitments to ODYS (at any time after their BHJJ enrollment, including after termination from BHJJ). Data were divided into charges prior to enrollment, charges after enrollment, and charges after termination from BHJJ. We also present the data by treatment completion status (successful vs. unsuccessful). Technical or probation violations were not considered to be new charges and thus were not included in the analyses. Data specific to charges for misdemeanor and felony charges are presented in the following sections. Juvenile court history and recidivism information are presented at 3, 6, and 12 month intervals.

Several criteria for inclusion in the analysis were considered based on the time period of interest. While all youth 18 years of age and under are included in the analyses prior to enrollment, not all youth are included in each assessment period after enrollment and after termination. Any charges for youth over 18 years of age would likely be filed in adult court, and therefore would not appear in juvenile court records. A youth over 18 at the time of termination may show no future juvenile court involvement; however the individual may have charges in the adult system. Because we did not have access to adult records, youth 18 years of age or older at termination were eliminated from all analyses that examined charges after termination. Also, youth who turned 18 years old during the measurement interval in question (3, 6, or 12 months after enrollment or termination) were eliminated from the analysis because we lacked a complete picture of their possible court involvement.

Enrollment and termination dates were also used to identify youth for the analyses. For example, when examining recidivism data three months after termination from BHJJ we chose to include only those youth who had been terminated from BHJJ for at least three months prior to the end of the data collection period, June 30, 2015. If the youth was terminated one month prior to the end of the data collection, that youth only had one month to recidivate. Therefore, the full extent of their recidivism is not known. For example, in order to be included in the three month after termination analyses, a youth had to have been 17.75 years old or younger at the time of termination and must have been terminated at least three months prior to the end of the data collection period. To be included in the 6 month analysis, youth had to have been 17.50 years old or younger at termination and have been terminated 6 months prior to June 30, 2015. The same criteria were applied to the intervals following enrollment in BHJJ. When examining new charges occurring within three months after intake, youth must be 17.75 years old or younger at the time of enrollment and the enrollment date must be at least three months prior to the end of the data collection period for inclusion in the analysis.

RESULTS

JUVENILE COURT INVOLVEMENT PRIOR TO INTAKE

In the 12 months prior to their BHJJ enrollment, 59.1% (n = 13) of the BHJJ youth had a misdemeanor charge, 22.7% (n = 5) had a felony charge, and 50.0% (n = 11) were adjudicated delinquent (see Table 21).

Table 21. Charges Prior to BHJJ Enrollment – Mahoning County

	Misdemeanors	Felonies	Adjudicated Delinquent
3 months	31.8% (n = 7)	4.5% (n = 1)	18.2% (n = 4)
6 months	50.0% (n = 11)	9.1% (n = 2)	31.8% (n = 7)
12 months	59.1% (n = 13)	22.7% (n = 5)	50.0% (n = 11)

RECIDIVISM AFTER ENROLLMENT

We defined recidivism after enrollment as receiving a new charge or adjudication at 3, 6, and 12 months after a youth's BHJJ enrollment date. Once again even if a charge was eventually dismissed, it was included in the 'Misdemeanors' and 'Felonies' columns of the associated tables but would not be included in the calculations of delinquent adjudications. Eighteen month recidivism data are not yet available for this county.

In the 12 months after enrollment in BHJJ, 16.7% (n = 1) of youth were charged with at least one new misdemeanor and 16.7% (n = 1) were charged with at least one new felony. Thirty three percent (33.3%, n = 2) of the youth were adjudicated delinquent in the 12 months after their enrollment in BHJJ (see Table 22).

Table 22. Charges after BHJJ Enrollment – Mahoning County

	Misdemeanors	Felonies	Adjudicated Delinquent
3 months	10.0% (n = 2)	20.0% (n = 4)	25.0% (n = 5)
6 months	7.7% (n = 1)	15.4% (n = 2)	23.1% (n = 3)
12 months	16.7% (n = 1)	16.7% (n = 1)	33.3% (n = 2)

For youth in Mahoning County, no youth had a misdemeanor or felony charge or a delinquent adjudication at 3, 6, and 12 months after termination.

FELONY OFFENDERS AND ODYS COMMITMENTS

We examined data for those youth who committed felony offenses in the 12 months prior to their BHJJ enrollment to determine if they had new felony charges after their BHJJ termination. A total of 3 felony offenders remained in the analysis after the data were restricted to youth 17 years old or younger, who had one full year to recidivate and for whom we had both recidivism and termination data. Of the 3 youth, zero (0.0%) were charged with a new felony in the 12 months after their termination from BHJJ.

None of the 22 BHJJ youth from Mahoning County for whom we had recidivism data were committed to an ODYS facility at any time following their enrollment.

SUCCESS STORY

J is a 15 year old male who lives at home with his mother, two sisters and his brother. J had been in and out of detention and court for two months before he was referred to MST. A month before starting MST treatment J had run from a group home that he was placed in due to his aggressive and unruly behaviors. J's referral behaviors were AWOL/ leaving without permission, THC use, verbal aggression, physical aggression and oppositional behaviors at school.

Prior to starting MST, J would run for many days at a time, get into fights with peers, destroy property in the home and was asked to permanently leave his mainstream school. At this time, J's mom was trying to manage J as well as his younger brother and older sister who also had mental health and behavior health concerns, along with her own mental health symptoms. J's mom was feeling hopeless and like she had lost control of her household.

Within the first month of MST, Mom and the therapist worked to get J enrolled into an alternative school, and to establish clear expectations and consequences for "big"/charge-worthy behaviors. J provided a lot of intense kick-back when his mom started to implement plans that were developed in MST and was in and out of the juvenile justice center for AWOL and aggressive behaviors.

During month two of MST, J's behaviors were starting to decrease and there was finally stability in the home. J and mom were communicating better and he was able to earn privileges. J's mom was very engaged throughout treatment we were able to develop plans to increase her skills to manage his behavior inside and outside of the home. Mom was able to increase her contact with peer's parents to help increase supervision of youth when he was outside of the house. During treatment, mom also improved her communication skills and parenting skills pertaining to setting consistent and effective consequences with the youth and his siblings. The family was able to maintain a level of stability for 4-5 weeks, which was the longest period of time for the family in a year.

At the end of the 5 months, J had passed 9th grade at a local high school with no suspensions. He also remained clean from substances throughout treatment and got involved with boxing as a prosocial activity. J's leaving without permission episodes were reduced from leaving for many days at a time to leaving for 30 minutes to cool down. J had maintained his behaviors enough to not return to the juvenile justice center in over 8 weeks, which was the longest stability for him in over 6 months. J and mom showed improvement in communication and ability to diffuse arguments during treatment. When there are intense arguments, mom is more comfortable using natural family and friend supports to help with respite and managing J's behaviors. Although there are still arguments and bursts of aggression at times, J's mom demonstrates that she has gotten better at managing J and his siblings behaviors and has the confidence to be an effective parent.

REFERENCES

Abram, K. M., Teplin, L. A., McClelland, G. M., & Dulcan, M. K. (2003). Comorbid psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry, 60*(11), 1097-1108.

Briere, J. (1996). *Trauma Symptom Checklist for Children (TSCC) Professional Manual*. Odessa, FL: Psychological Assessment Resources.

Cocozza, J. & Skowyra, K. (2000). Youth with mental health disorders: Issues and emerging responses. *Office of Juvenile Justice and Delinquency Prevention Journal, 7*(1), 3-13.

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.

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.

Friedman, R., Katz-Levy, J., Manderscheid, R., & Sondheimer, D. (1996). Prevalence of serious emotional disturbance in children and adolescents. In R. Manderscheid & M. A. Sonnenschein (Eds.), *Mental health in the United States* (pp. 71-89). Rockville, MD: U.S. Department of Health and Human Services.

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.

Hoge, R. D. (2002). Standardized instruments for assessing risk and need in youthful offenders. *Criminal Justice and Behavior, 29*, 380-396.

Kretschmar, J.M., Butcher, F., Flannery, D.J., & Singer, M.I. (2016). Diverting juvenile justice-involved youth with behavioral health issues from detention: Preliminary findings from Ohio's Behavioral Health Juvenile Justice (BHJJ) Initiative. *Criminal Justice Policy Review*, *27*(3), 302-325.

Kretschmar, J.M., Butcher, F., Kanary, P.K., & Devens, R. (2015). Responding to the mental health and substance abuse needs of youth in the juvenile justice system: Ohio's Behavioral Health/Juvenile Justice Initiative. *American Journal of Orthopsychiatry, 85,* 515-521.

Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry, 49*(10), 980-989.

Nordess, P., Grummert, M., Banks, D., Schindler, M., Moss, M., Gallagher, K., & Epstein, M. (2002).

Screening the mental health needs of youths in juvenile detention. *Juvenile & Family Court Journal, 53*(2), 43-50.

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.

Ogles, B. M., Melendez, G., Davis, D. C., & Lunnen, K. M. (2001). The Ohio Scales: Practical outcome assessment. *Journal of Child and Family Studies, 10*(2), 199-212.

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. Cocozza (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.

Schwalbe, C. S., Gearing, R. E., McKenzie, M. J., Brewer, K. B., Ibrahim, R. (2012). A meta-analysis of experimental studies of diversion programs for juvenile offenders. *Clinical Psychology Review, 32*, 26-33.

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.

Singer, M. I., Anglin, T. M., Song, L. y. & Lunghofer, L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *Journal of the American Medical Association,* 273(6), 477-482.

Skowrya, K. & Powell, S. (2006). Juvenile diversion: Programs for justice-involved youth with mental health disorders. Delmar, NY: National Center for Mental Health and Juvenile Justice.

Soler, M. (2002). Health issues for adolescents in the justice system. *Journal of Adolescent Health, 31,* 321-333.

Teplin, L. A., 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.

U.S. Department of Health and Human Services. (2005). National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program. Rockville, MD: Author.

U.S. Department of Justice. (2005). Department of Justice activities under Civil Rights of Institutionalized Persons Act: Fiscal year 2004. Washington, DC: Author.

Wasserman, G. A., McReynolds, L. S., Ko, S. J., Katz, L. M., & Carpenter, J. R. (2005). Gender differences in psychiatric disorders at juvenile probation intake. *American Journal of Public Health, 95*(1), 131-137.

Wasserman, G. A., McReynolds, L., Lucas, C., Fisher, P., & Santos, L. (2002). The Voice DISC-IV with

incarcerated male youths: Prevalence of disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(3), 314-321.

Wasserman, G. A., McReynolds, L. S., Schwalbe, C. S., Keating, J. M., & Jones, S. A. (2010). Psychiatric disorder, comorbidity, and suicidal behavior in juvenile justice youth. *Criminal Justice and Behavior*, 37(12), 1361-1376.