ADVANCING USE OF RISK ASSESSMENT

IN JUVENILE PROBATION

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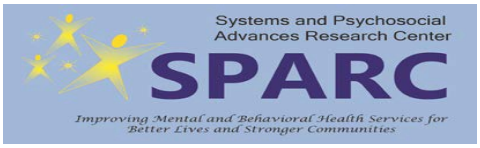

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Contents

Abstract

This demonstration project used a quasi experimental vs. comparison design to study the impact of implementing validated tools for assessing risk for violence and screening for behavioral health problems. Juvenile probation officers at three sites in two states were trained to use the *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum, Bartel, & Forth, 2006) and the *Massachusetts Youth Screening Instrument-Second Version* (MAYSI-2; Grisso & Barnum, 2000, 2006), together with a decision-making model for case planning that integrated information about behavioral health variables and risk for reoffending. A standardized implementation process was used to assist sites in the selection of tools, development of policies, categorization of available services and interventions, and development or modification of existing case plans. In one state, where probation officers were not using structured assessment or screening tools, implementation of the tools was met with mixed reactions, with probation officers reporting some benefits but also some barriers to their use in the system. Lack of judge buy-in was a key obstacle to successful implementation. In the other state, where assessments of risk using a locally developed actuarial tool and screening of behavioral health problems using the MAYSI-2 were completed routinely, implementation of the SAVRY was welcomed by some because of its emphasis on professional judgment, but regarded as not necessarily offering incremental benefit beyond their locally developed tool already in place. Case management decisions tended to be made in line with Risk-Need-Responsivity principles, wherein youth at higher risk for reoffending received more intensive case management. The implementation of these new tools and processes occurred without increases in recidivism during the time of the study and thus did not jeopardize public safety.

Introduction

On any given day in the U.S., approximately 57,000 youth are incarcerated in residential placement facilities (OJJDP Statistical Briefing Book, 2014). In 2007, 327,400 adjudicated delinquents were ordered to probation (Livsey, 2010). Within the juvenile justice (JJ) field, there is growing consensus regarding five key themes associated with programming demonstrated to be effective in reducing future offending.

First, *there is general agreement that incarceration has been over-used in the history of U.S. juvenile justice policy*. The U.S. incarcerates five times more of its children per capita than any other country in the world (Annie E. Casey, 2011; Population Reference Bureau, 2014). Federal policy now recognizes that the number of youth incarcerated in our country must and can be reduced (Juvenile Justice and Delinquency Prevention Act, 2002).

Second, there is general agreement that *policy and practice must move toward placing the right youth in the right programs to maximize the effectiveness of our juvenile justice system* (Bonta & Andrews, 2010). Some youth do need secure placement both for public safety and to meet their own needs for rehabilitation. Yet many youth do not, for reasons that are identified in the third and fourth themes below.

Third*, contact with the JJ system can have iatrogenic effects*. For example, a 20-year longitudinal study of low-income youth in Montréal (Gatti, Tremblay, & Vitaro, 2009) found that youth who entered the JJ system even briefly (e.g., community service), with limited exposure to other troubled youth, were twice as likely to be arrested as adults than youth with the same behavior problems who remained outside the system. The deeper youth penetrated the system (e.g., probation), the higher the odds of adult arrest.

Fourth*, among youth seen in the JJ system, there is a high prevalence –about two-thirds—who meet criteria for behavioral health problems* (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Grisso, 2004).

Among these problems are suicide risks, substance abuse, serious depression, trauma related to abuse or exposure to violence, and impulse control disorders. Youths' behavioral health problems, if neither identified nor treated, interfere with normal development, and can lead to lower educational achievements, poorer physical health, challenged family systems, and future delinquency. Identification is important to increase the opportunity for treatment in the community (which generally is more effective) or in secure facilities when necessary.

The final theme is that *decisions based on essential characteristics of the youth in the processing and case management of young offenders will have more success at preventing reoffending.* To best achieve the JJ system's goals of public protection and young offender rehabilitation, sanctions and services must be individualized based on youths' characteristics at least to some extent. The most important characteristics that JJ agencies should consider are (a) the youth's level of risk for re-offending, (b) criminogenic needs—risk factors that are malleable and susceptible to intervention that tend to motivate delinquent behavior for a particular youth, such as a deviant peer group or antisocial attitudes, (c) and responsivity factors—factors that may affect how a youth responds to an intervention, such as cognitive ability. This model is known as the Risk-Needs-Responsivity (RNR) approach to case management, and is described more below (Dowden & Andrews, 2000; Andrews & Bonta, 2010).

These five themes together all point to the need for evidence-based assessment of youths' criminogenic needs and behavioral health needs at many points in the processing of youth in juvenile justice settings. Doing so will help divert youth from deeper processing into the juvenile system when their needs could be better met in the community with low risk to the community, and make better rehabilitation and treatment plans when youth are placed either in the community or in juvenile justice programs.

The present project drew its purposes and objectives from these themes. It sought to demonstrate the value and efficacy of the use of structured tools to identify delinquent youths' needs and risks in the process of making decisions about their placement. The study focused on the value of "risk assessment" and "behavioral health screening" toward those ends, especially the importance of attending to proper implementation of assessment and screening methods in juvenile probation to achieve the benefits of risk and behavioral health evaluation in juvenile probation. The remainder of this Introduction provides background for the purpose of the study, including the meaning of "implementation" and the value of attending to it.

Juvenile Probation

Probation departments in juvenile justice systems nationwide play many roles to assist the courts and meet the needs of youth about whom the courts must make legal and rehabilitation decisions. Juvenile probation officers (JPOs) are the caseworkers of the juvenile justice system. They assemble initial information about the youth soon after their arrest, often provide that information to the court to determine the need for pretrial detention, and have input into decisions about adjudicating the charges or employing an informal adjustment of the case. If a youth is adjudicated delinquent, JPOs typically provide the court information for the "disposition" phase of the case, based on their interviews and investigation of the youth's background, regarding the youth's needs related to rehabilitation. Finally, JPOs often monitor youth while they are on probation as part of their disposition, including community aftercare if the youth is returning from a period of secure juvenile correctional placement.

The JPO's evaluation of the youth for "post-adjudication" or "disposition" decisions of the court is a central focus of the present study. Many courts rely on JPOs at this point to offer recommendations regarding the placement and programming for the youth that will meet the objectives of the court. Those objectives include provision of treatment and rehabilitation services in

the youth's best interest and to reduce the likelihood of future recidivism, and to provide those services in a manner that protects public safety during rehabilitation.

Providing information to the courts to meet these objectives necessarily requires the JPO's inquiry into several key questions. They can be summed up as questions about "risk" and "risk factors" or "needs." What is the risk that this youth will engage in behaviors that may endanger others during the period of rehabilitation? For this specific youth, what is contributing to those risks? And what risk factors, or criminogenic needs, of the youth must be met to reduce that risk?

As we explain in more detail later, in recent years juvenile probation departments have begun to rely on structured tools to assist JPOs in their collection of information about youths to address these placement and rehabilitation questions. The present study focused on the proper implementation of these tools and their effect on JPOs' disposition decisions. The tools they employ typically are screening tools for behavioral health needs, and risk/needs assessment tools.

Behavioral Health Screening

As noted earlier, research about the high prevalence of behavioral health problems among juvenile justice-involved youth (e.g., Teplin et al., 2002) began to appear about two decades ago. This resulted in widespread recognition of the need to identify youths' behavioral health problems at every decision point in juvenile justice processing. Subsequently, the term "behavioral health problems" has become more common in this field, referring both to behavioral health problems (such as depression, anxiety, suicide risk, problems involving impulse control) and to substance use problems.

Need for behavioral health identification. As the high prevalence of behavioral health problems became apparent, increasingly juvenile justice programs recognized the importance of identifying them when processing youth for purposes of determining proper dispositions. Treatment was considered important for two broad reasons: to meet the system's "parental" obligation to care

for youth in its custody, and to reduce the likelihood of recidivism to the extent that behavioral health disorders (especially substance use) may contribute to further offending (Grisso, 2004).

Arising from that concern was recognition of the need to be able to identify youths' behavioral health problems at various points in juvenile justice processing, such as probation intake, intake to pretrial detention, and admission to juvenile corrections. In most cases it was unrealistic to expect the juvenile justice system to have trained mental health professionals (psychiatrists or psychologists) available to evaluate every youth. This recognition led to the development of a growing number of structured tools that JPOs, detention centers, and juvenile corrections programs could use to signal probation and detention personnel to youths' behavioral health needs (Grisso, Vincent & Seagrave, 2005).

Tools for behavioral health screening. Among the most widely used methods for identifying youths' behavioral health needs in juvenile justice are "screening" tools. Screening for behavioral health problems is a brief, objective method that sorts youth into two categories: those who are *highly unlikely* to have serious behavioral health problems, and those who *might have* such problems. Therefore, screening tools for behavioral health problems are not diagnostic; they do not determine a youth's specific behavioral health needs. They identify whether a youth shows enough evidence of symptoms or distress (e.g., suicidal thoughts) to suggest that the youth is in need of further evaluation by a mental health professional to assess the type and seriousness of a youth's behavioral health needs. The purpose of screening, therefore, is much like "triage." The majority of youth involved in juvenile justice have some type of behavioral health needs, yet not all of them are serious enough to require intervention at the time they are being seen in juvenile justice. Screening identifies those youth who are more likely to have serious behavioral health needs that require immediate attention (Skowyra & Cocozza, 2007).

In recent years a number of screening tools have been developed to assess mental health, substance use, and suicide risk in juvenile justice settings (Grisso et al., 2005). Behavioral health screening methods typically are sufficiently brief and structured to require no mental health training and to be completed in 10-15 minutes, so that they can be used with every youth at any particular decision point in juvenile justice. The most widely used behavioral health screening tool in juvenile justice currently is the Massachusetts Youth Screening Instrument-Second Version (MAYSI-2; Grisso & Barnum, 2000, 2006), now used statewide in juvenile probation, detention and/or corrections programs in over forty states. Described in more detail later, the MAYSI-2 is a self-report instrument on which youth respond to 52 items inquiring about various thoughts and feelings that contribute to six clinical scales (e.g., Depressed-Anxious, Suicidal Ideation, Alcohol/Drug Use). Cut-off scores on the scales, based on national norms for 70,000 juvenile justice youth, are used to signal the need for further assessment. Over 60 studies have examined its reliability, validity and utility (reviewed in Grisso et al., 2011).

The authors have developed and published procedures for implementing MAYSI-2 in JJ programs, including training of staff, putting in place standardized administration procedures, including training, monitoring fidelity of administration, monitoring compliance with protocol, creating data bases, and measuring outcomes (Skowyra & Cocozza, 2007). Regarding use specifically in juvenile probation, our efforts over the past several years have resulted in routine MAYSI-2 screening in all juvenile probation offices in four states. We have accumulated a national database for MAYSI-2 data in probation comprising over 25,000 cases from 141 probation offices in 7 states. Thus we have national normative data to which to compare future probation cases. Our recent research with detention centers as well, as its implementation and outcomes (Williams & Grisso, 2011), has provided evidence that juvenile detention centers' responses to youths' mental health

problems are increased when MAYSI-2 is implemented. We anticipate that this will be the case with probation officers as well.

Assessing and Managing Risk for Offending

As noted in our discussion of juvenile probation, JPOs are required to assess the risk that a youth will engage in behaviors that may endanger others during the period of rehabilitation, and to provide the court a picture of what is contributing to that risk so that the system can plan appropriate interventions. For most of the 100 years of the juvenile justice system, this assessment relied simply on the judgment of the JPO. In recent years, however, the practice of using structured and validated tools to assist in that judgment has become more common, for at least two reasons. First, scientific studies clearly show that unstructured judgments of these sorts are no better than chance, whereas use of validated structured methods significantly increase the accuracy and quality of such judgments (e.g., Bonta, Law, and Hanson, 1998; Guy, 2008; Hanson & Morton-Bourgon, 2009). Second, legislative advances have prompted the more routine use of structured and validated tools. For example, in 2002, the Juvenile Justice Delinquency and Prevention Act (JJDPA) urged juvenile justice experts to assist states in "…the design and utilization of risk assessment mechanisms to aid juvenile justice personnel in determining appropriate sanctions for delinquent behavior" (JJDPA, 2002, p. 18). The act also stated that delinquency should be addressed by quality prevention programs "designed to reduce risks and develop competencies in at-risk juveniles that will prevent, and reduce the rate of, violent delinquent behavior" (JJDPA, 2002, p. 1). In 2014, this Act came into consideration for reauthorization.

This goal has become more attainable in the past ten years, given the advent of several valid risk assessment tools designed specifically for use with youth in juvenile justice. Thus most state and county juvenile justice agencies have adopted risk assessment tools in the past decade, while a few are currently contemplating adoption (Wachter, 2014). They are being encouraged by a trend in

juvenile justice to use data and research to drive decisions for justice- involved youth in a manner that promotes both public safety and youth potential, doing so in a manner that increases fairness through standardized and structured procedures.

New approaches to risk assessment with structured and validated tools are highly compatible with this most recent culture shift in juvenile justice because risk assessment tools, although not infallible, can contribute to public safety and promote youth potential in two ways. First, they offer validated input to inform the decision about whether youth are in need of secure custody or can be better served in the community. Second, modern risk assessment tools improve the ability of systems to help youth become productive members of the community when they leave the juvenile justice system, because many tools evaluate not only the degree of risk, but also the factors that are likely contributing to that risk. Those factors are called "criminogenic needs"— a youth's needs that are catalysts for that youth's delinquency. There is scientific evidence that indicates case planning focused on the key factors leading to offending can improve outcomes, thereby increasing longer-range public safety (e.g., Loung & Wormith, 2011; Vieira, Skilling & Peterson-Badali, 2009). Therefore, risk assessment enhances public safety by informing both placement and programming decisions before the court. Risk assessment also enhances case management practices outside of the court.

Risk assessment tools for juvenile justice. As noted earlier, the field of risk assessment in juvenile justice contexts has been heavily influenced by recent development of structured tools that have the potential to identify juveniles' criminogenic needs that appear to be related to their offending and develop an estimate of risk of re-offending. Analysis of the information obtained through use of the tools is then used to guide intervention to reduce re-offending.

Several risk assessment instruments for youth exist that have good data from multiple studies to support their use. Two of the most widely researched instruments (based on the number

of peer-reviewed publications) for assessing future offending among juveniles are the *Youth Level of Service/Case Management Inventory* (YLS/CMI; Hoge & Andrews, 2002) and the *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum, Bartel, & Forth, 2006). Both instruments in essence are checklists of risk factors that have been shown by research and consultation with professionals to be related to reoffending among youth (the SAVRY also contains protective factors). The main difference between the instruments is the way in which the evaluator uses information about the risk factors. With the YLS/CMI, the evaluator sums the number of items that were rated as "yes, present" to compute a total score that corresponds with an estimated level of risk (Low, Medium, High, or Very High). Risk assessment instruments that involve pre-determined rules about how to combine such information and leave no room for discretion are referred to as *actuarial* instruments. Although many people use the YLS/CMI in this way as an actuarial instrument, the manual encourages evaluators to subsequently consider whether any of several additional items related to the youth or his or her family are relevant for the case. After engaging in that step, evaluators then should decide whether the initial risk level associated with the total score should be adjusted upwards or downwards. This is known as an "over-ride" option.

In contrast, evaluators using the SAVRY consider not only whether any of the risk items are present, but also how relevant each item is for the given case. Considering all of this information, as well as any relevant case-specific information, evaluators are encouraged to engage in "case formulation" techniques that involve developing theories about how the particular risk and protective factors work together to drive the youth's risk for delinquency. Typically, evaluators using the SAVRY make a judgment about whether the youth is at relatively low, moderate, or high risk for engaging in violence or general delinquency. The model of decision-making that the SAVRY follows is termed *Structured Professional Judgment* (see Guy, Douglas, & Hart, in press).

Benefits of using risk assessment tools. There are a number of benefits of using validated risk assessment tools compared to unstructured practices in which caseworkers collect whatever data they routinely choose to obtain and make judgments based solely on their individual beliefs about those data. Use of these tools encourages *consistency* and *rational data collection.* Risk assessment tools assure that caseworkers collect a particular set of data on a range of factors and do so for every case. Moreover, use of such a tool assures that data are collected on factors that have known relationships to future re-offending, based on research with those factors. Tools also should increase transparency, in that caseworkers are better able to demonstrate the basis for their placement decisions when explaining their decisions.

Risk assessment tools *lead to more valid placement decisions*. They allow for placement and treatment decisions that are commensurate with a youth's risk level and needs, which in turn have been shown to be related to decreased risk for reoffending.

The use of risk assessment tools has been found to lead to *results that are more appropriate for youth and also reduce the costs of juvenile justice intervention.* For example, in one study, out-of home placement rates dropped by 50%, use of maximum levels of supervision dropped by almost 30%, and use of community services decreased except for high-risk youths (Vincent, Guy, Gershenson, & McCabe, 2012). These results suggest that unstructured assessment by caseworkers typically over-estimates the need for more restrictive placements. Reductions in out-of-home placements (Justice Policy Institute, 2014), and conceivably use of maximum levels of supervision, translate into *cost reductions* for the juvenile justice system and taxpayers. Further, they do this with *appropriate attention to public safety*, to the extent that higher-risk youth are identified for more restrictive interventions.

The risk-needs-responsivity framework. Following risk assessment, decisions about risk management may be employed within a conceptual framework known as "risk-needs-responsivity" (RNR). The RNR framework includes three primary principles.

First, the *risk principle* suggests that the highest risk offenders should receive the most intensive interventions to reduce their risk of continued offending. Conversely, low risk cases have a much lower chance of reoffending even in the absence of services and therefore should be given minimal attention. There is some evidence that when low risk offenders are placed in intensive interventions with higher risk, more antisocial offenders, this exposure can contribute to low-risk offenders' later delinquency. Theoretically this is due to "deviancy training" or "deviant peer contagion" (Gatti et. al, 2009).

Second, the *need* principle suggests that interventions to reduce risk should focus on criminogenic needs of youth: basically, needs that contribute to delinquency and offer a potential explanation for a youth's re-offending. Targeting a youth's specific criminogenic needs for intervention reduces risk for reoffending.

The *specific responsivity* principle suggests that the selection of interventions should consider offenders' specific characteristics that may affect their response to an intervention. For example, some youth may have greater intelligence than others, or may have different behavioral health problems, that influence the likelihood of their positive responsivity.

Most RNR research has been conducted with adult offenders, including large meta-analytic studies (e.g., Andrews & Dowden, 2006); however, research with the youth population is growing. Research supports the notion that matching services with the needs and responsivity factors of individual youth can lead to reductions in recidivism, and that failure to match (providing "one size fits all" plans) may result in higher recidivism (Vieira et al., 2009). Luong and Wormith (2011), for example, reported that recidivism significantly increased as the number of untreated needs increased (r = .28). For high-risk offenders, the match between an assessed need and an identified intervention was associated with a 38% reduction in reconviction. Taken as a whole, the evidence for RNR

supports the notion that supervision and human service interventions must consider individual differences.

Bridging the Research-to-Practice Gap: The Study of Implementation Processes

Despite positive advances in policy, in our work with states involved in the MacArthur Foundation's *Models for Change* initiative, we have discovered that many juvenile probation offices fit one of the following categories regarding their use of behavioral health screening and/or risk assessment:

- They do not have such tools in place, or
- They have tools in place but not tools that have been validated, or
- They have valid tools in place but they have not developed, or are not maintaining, policies and practices regarding the use of the tools.

The first two of these are failures to use validated tools that are available. The third is the failure to *implement* validated tools in a manner that assures their benefits. If validated risk assessment and behavioral health tools are not applied according to the procedures with which they were validated, the value of their validity as tools is lost.

Implementation has been defined as "active and planned efforts to mainstream an innovation within an organization" (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004, p. 582). It has been described more specifically as the process of putting a procedure into operation, or "the use of strategies to introduce or change ….interventions within specific settings" (Proctor et al., 2009, p. 26). Implementation of assessment methods and interventions can go astray in many ways and for many reasons. Examples provided in Vincent, Guy and Grisso's (2012) guidelines for implementation of risk assessment procedures include such things as caseworkers' failure to actually use tools even when required by local policy, or improper administration or scoring of tools. Administration of tools may occur in unstandardized ways, such as poor conditions under which

data were obtained or improper instructions to youth and parents. Scores may be interpreted in ways that are not consistent with the manualized instructions.

Explanations for successes and failures of implementation typically point to factors operating at multiple systemic levels (Ferlie & Shortell, 2001), including characteristics of the intervention, characteristics of the organization adopting the intervention, and contextual factors (Rabin et al., 2008). Implementation is important to study because the potential impact of an intervention is linked directly to the quality of procedures followed when putting it in place. Adoption of a behavioral health screening tool or a risk assessment tool will not lead to any changes in the way youth are processed if the tool is not implemented with fidelity.

In the absence of sound implementation procedures, use of the tool or intervention is compromised by lack of appropriate training, lack of service options, unclear decision-making procedures, and disappointment that implementation of the tool did not achieve targeted goals (e.g., decreasing numbers of youth in secure placement, ensuring appropriate placement).

Significant strides have been made to identify and evaluate the efficacy and effectiveness of empirically based services. Yet strikingly fewer evaluations of the implementation of those interventions exist. This knowledge translation gap is especially apparent in correctional settings, including juvenile justice. Proctor et al. (2009) proposed a model for carrying out implementation research, identifying eight key outcomes to measure*: Acceptability, Adoption* (level of change; frontline staff's "readiness to change" in terms of moving toward acceptance of using a new practice), *Appropriateness, Feasibility, Fidelity* (degree to which an intervention was implemented as it was prescribed in the original protocol or as it was intended by the program developer), *Penetration, Sustainability, and Cost.*

Different stakeholders likely will place more or less importance or value on particular implementation-level outcomes. For example, cost may be most important to policy makers and

administrators, whereas feasibility may be most important to direct service providers. Little is known about timing in the implementation process in terms of when each construct is relatively more important; this type of knowledge may be important insofar as indicators of implementation success can be identified and addressed early during an implementation if observed to be compromised. Longitudinal studies that measure multiple implementation outcomes before, during, and after implementation therefore would be beneficial.

Research on implementation of behavioral health screening. Some studies have examined whether behavioral health screening changes outcomes. For example, Williams and Grisso (2011) implemented the MAYSI-2 in nine detention centers and found significant increases in mental health referrals during four months following implementation compared to four months prior to implementation. Neither this study, however, nor any others of which we are aware, have systematically varied implementation factors to determine their relative effect on practices or quality of behavioral health screening. Williams and Grisso did find, however, staff who were provided brief training of detention staff on the behavioral health needs of youth prior to implementation showed only minimal signs of increased knowledge about the matter, none of which survived after four months. Gains in referral to mental health services as a result of MAYSI-2 implementation were unrelated to differences between detention centers in the degree to which they retained the above training.

Research on implementation of risk assessment in juvenile justice settings. Several risk assessment studies have demonstrated the importance of proper implementation practices. Some of them have found that risk assessment tools often are not implemented well or systematically. For example, in a study of 12 courts that implemented risk assessment procedures in four states (Shook & Sarri, 2007), researchers found that only half of the court professionals (including probation officers) were using the tools regularly in their decision-making. Researchers in

Maryland examined the potential impact of implementing a standardized risk assessment tool on service referrals and out-of-home placement decisions (Young, Moline, Farrell, & Bierie, 2006). They used an extensive implementation process that involved stakeholders at multiple levels, peer training for staff, and data monitoring. They found some shifts in service referrals and placement decisions in line with the assessment, but average adherence to administering the risk assessment tool as the policy required was still only 55%.

Research examining implementation factors with risk assessment tools in juvenile probation (Vincent, Guy, Gershenson, et al., 2012) found that merely teaching probation officers how to reliably complete an evidence-based risk assessment tool did not ensure that they would use the tool in their decisions. The study examined the relation between risk level and out-of-home placement decisions (mainly detention, group homes, and secure correctional facilities) for two time periods: (a) Pre-Implementation - after staff received training on a risk assessment tool but prior to implementation of a clear office policy or training about how to use the tool in decision-making, and (b) Post-Implementation - after office policies and training on use of the tool in decision-making occurred and were applied in practice.

The study discovered that certain aspects of case management, such as the number of service referrals made and out-of-home placement decisions, were not in line with youths' risk level until after a number of the risk assessment implementation steps were complete (e.g., adopting policies, training staff on RNR principles). In fact, prior to completing all implementation steps, probation officers had a tendency to assign more services to lower risk youth and fewer services to higher risk youth. Moreover, consistent with findings from Young et al. (2006) and the research of others (Bonta, Bogue, Crowley, & Mottuk, 2001; Bonta et al., 2011), it was essential for stakeholders (particularly judges) to buy into the process and for sound implementation methods to be used.

Otherwise, risk assessment was not incorporated into decision-making or reflected in youths' case outcomes (Vincent, Guy, Gershenson, et al., 2012).

In order to counteract these barriers and achieve good outcomes, it is essential to develop an appropriate assessment system for the justice agency that involves sound training, consideration of staffs' concerns and resistance to change, and appropriate data gathering and monitoring of the system's improvements over time (Bonta et al., 2001; Ferguson, 2002).

What works: Risk assessment implementation guide. In the interest of developing a comprehensive implementation protocol for a risk assessment system, our team created the *Risk Assessment in Juvenile Justice: A Guidebook for Effective Implementation* (Vincent, Guy, & Grisso 2012), which outlines eight steps of implementation. These steps were derived from research and the experiences of many practitioners in the field who assisted with the development of the Guide. The steps range from Step 1: Getting the System Ready for risk tool adoption to Step 8: Promoting Sustainability.

Using most of the steps that are now outlined in the implementation Guide, with funding from the MacArthur foundation, our research team assisted two states (Louisiana and Pennsylvania) in implementing either the SAVRY or the YLS/CMI in their juvenile probation offices. We followed standardized methods for risk assessment tool implementation and training at each office. This was a multi-site, pre-post study with propensity-score matching in six juvenile probation offices and a sample of 2260 youth. The findings indicated good to excellent inter-rater reliability among JPOs using the risk assessment tools in the field (Guy & Vincent, 2011; Vincent, Guy, Fusco, & Gershenson, 2012), significant changes in the practices of JPOs and knowledge of youth developmental issues and actual risk (Vincent, Paiva, Cook, Guy, & Perrault, 2012), significant declines in rates of youth being sent to out-of-home placements in each site that had been placing 30% or more of their youth (Vincent, Guy, Gershenson, et al., 2012; Vincent & Guy, 2012; Vincent,

Guy, Cook, Gershenson, & Paiva, 2011), and significant declines in use of maximum levels of supervision in all but one site where supervision data were available (Vincent, Guy, Gershenson, et al., 2012; Vincent & Guy, 2012; Vincent et al., 2011). However, recidivism actually declined in only one site, whereas it stayed constant in all the others.

The training and implementation steps also led to changes in the way the average JPO thought about youth and case planning. Vincent, Paiva, et al. (2012) found a significant reduction in the number of youth JPOs perceived as likely to re-offend after putting risk assessment in place. After taking into account the specific site and several characteristics of the JPOs (such as years of experience working in juvenile justice and authoritarian beliefs), we found that officers changed from perceiving 45 to 50 percent of their youth as likely re-offenders to thinking that only 30 percent were likely to re-offend. A control sample of JPOs in an office that did *not* implement a risk assessment instrument did not significantly change their estimates of youths' recidivism. Following implementation of risk assessment practices, there also was a significant increase in the number of JPOs who considered evidence-based risk factors when they made their disposition recommendations. After a risk assessment was implemented, according to quantitative and qualitative analyses of interviews with JPOs, they were significantly more likely to consider a youth's dynamic risk factors (criminogenic needs) when recommending dispositions and services in the community. Moreover, supervision levels on probation were assigned according to an individual youth's level of risk, rather than using a "one size fits all" approach.

Current Project

We intended the current project to replicate the implementation study just described, but also extend it by studying the impact of implementing standardized screening for behavioral health needs. Broadly, the purpose of this project was to assist two juvenile justice probation departments with improving their decision-making about youth processing in line with RNR principles. Our

approach involved assisting sites to implement the SAVRY and the MAYSI-2, together with a decision-making model for case planning set out in the our risk assessment implementation guidebook (Vincent, Guy, & Grisso, 2012). Consistent with state-of-the art practices for studying implementation (Fixsen et al., 2005), this study evaluated the new policies and procedures on three levels:

1. Impact of the implementation process on JPOs and the system more broadly. Qualitative analyses of focus groups conducted with JPOs after they had completed the implementation process were conducted to learn about perceived barriers, facilitators, and engagement in activities to promote sustainability. The degree to which use of the MAYSI-2 and SAVRY were consistent with the tools' policies was examined using youth case management data. The impact of the implementation efforts on system level functioning was assessed via structured analysis of response to technical assistance efforts over the course of the project.
2. Fidelity and effectiveness of the risk assessment tools. Interventions shown to be efficacious in controlled studies are not necessarily effective when taken into the real world and used with broader populations of children – and staff for that matter. In the case of a risk assessment tool, we define *effectiveness* in terms of its inter-rater reliability (IRR) in the field (as opposed to what has been demonstrated in the lab) and its predictive validity for re-offending. Both are examined in this study.
3. Impact on case management activities and outcomes. The study examines whether changes in recidivism and case processing occurred, particularly with respect to adjudication and disposition, and JPOs' recommendations about service referrals, placements, and level of supervision.

Research Design

In an effort to increase the methodological rigor of investigating these issues compared to previous studies, we chose to use a quasi "experimental" vs. "comparison" research design. The two participating states, Mississippi and Connecticut, had different risk assessment, behavioral health screening, and case management practices in place prior to the Risk and Mental Health Screening and Assessment of Youth (RAMSAY) project. In Mississippi, structured risk assessment tools had not been in use on a consistent basis, the MAYSI-2 had been used in detention but not probation settings, and no comprehensive case plan had been followed. In Connecticut, a locally developed actuarial risk assessment tool, the Juvenile Assessment Generic (JAG), had been used routinely, as had the MAYSI-2. Case management plans were detailed and structured and integrated with JAG content.

Given the differences in practice between Mississippi and Connecticut, the "experimental" procedure implemented differed for each state. In Mississippi, sites in the experimental group implemented a risk assessment measure of their choosing (SAVRY) and a behavioral health screening instrument (MASYI-2), associated policies, and a more structured approach for case planning and management (e.g., use of a case management plan and service matrix, described below). Sites in the comparison group continued on with "probation as usual," with minor modifications made to the case plans in some sites to ensure the same information was being recorded in the same manner across the comparison sites for research purposes. In Connecticut, the experimental group discontinued use of the JAG and implemented the SAVRY and a case management plan that was integrated with SAVRY content. Experimental sites in both states were to use the SAVRY for all cases in a manner consistent with the policy as part of regular practice. As such, informed consent was not sought from youth, and researchers did not have contact with youth

or their parents/caregivers. Below we report methodology and results for each state separately, given the differences just described, focusing first on Mississippi and then on Connecticut.

Appendices A, B, and C present flow charts of sites' judicial processes to illustrate when key decisions and events in the judicial processing occur, including administration of the SAVRY and MAYSI-2.

Mississippi

Methodology

Site Selection and Preparatory Steps

Three counties were selected as experimental sites and four were selected as comparison sites (referred to herein in a de-identified manner). Judges in and Department of Youth (DYS) administrators overseeing the experimental sites agreed to follow a common implementation schedule and plan wherein Youth Service Counselors (YSCs) would complete the SAVRY and MAYSI-2 with all youth immediately or shortly following petition (and prior to disposition), and use the results to inform recommendations in their social summaries regarding placement, services, and level of supervision. In essence, the judges were agreeing to a major change in practice wherein adjudication and disposition hearings would be bifurcated with at least several weeks in between the two judicial events, rather than occurring consecutively (often on the same day), as was the typical practice prior to the RAMSAY project. Another major change involved coordination in practice between YSCs in the same office who were employees of the county (and therefore under the direction of the county judge) and of the state (who were under the direction of DYS).

Judges in the three experimental sites signed MOUs attesting that results of the SAVRY would not be used for decisions regarding adjudication. Shortly after beginning the project, MS Experimental Site 3 withdrew because of resource issues (there were only two YSCs and one quit soon after the project launch). MS Experimental Site 1 did not complete the project in the manner that was originally agreed upon because the presiding judge instructed, encouraged, or allowed the YSCs to use the SAVRY only following a youth's disposition, rather than following petition. Failing to use the SAVRY immediately after petition made it difficult to study the impact of its use on the key case management outcomes under study, because (a) it is routine for youth to be assigned

services following petition but prior to adjudication in MS Experimental Site 1, and (b) the length of time between petition and adjudication is extensive (e.g., up to one year).

Youth Sample Inclusion Criteria

Youth in MS Experimental Site 2 and all comparison conditions with open petitions who had not been adjudicated as of the project start date and consecutively petitioned youth thereafter were included in the sample. That is, youth in the experimental and comparison conditions were eligible for inclusion in the study immediately following petition of charges, with the exception of MS Experimental Site 1. Because the SAVRY was administered following disposition in MS Experimental Site 1, all youth consecutively adjudicated during the project period in this county were eligible for inclusion following disposition of charges. Below we report analyses including youth from MS Experimental Site 1 whenever it makes sense to do so. However, the majority of analyses examining the key research questions include only MS Experimental Site 2 youth in the experimental group to ensure that eligibility and inclusion criteria across experimental and comparison conditions were the same. In the results below, we note whether analyses are based on the combined experimental sample comprising MS Experimental Sites 1 and 2, or only MS Experimental Site 2.

Implementation Steps (experimental condition)

We followed the empirically supported guidelines for implementing risk assessment procedures in juvenile justice probation (Vincent, Guy, & Grisso, 2012). We first conducted orientation trainings with judges, administrators, staff, and YSCs in the experimental sites that comprised an introduction to risk/needs assessment and behavioral health screening, as well as an overview of what to expect during the RAMSAY project. We assisted DYS administrators to develop and then implement comprehensive policies for use of the SAVRY and MAYSI-2 (see Appendices D and E, respectively). These policies provided background and guidance to YSCs on

how and when to conduct assessments/reassessments and how to communicate results in their reports and case management plans. Next, depending on their existing practices, we assisted experimental sites to develop or adapt case management plans to include SAVRY need areas (see Appendix F) and a service matrix (see Appendix G, for example; also described in more detail in Results) that catalogued services available in that county that addressed each of the SAVRY need areas.

We provided YSCs and key administrators with a two-day SAVRY and a half-day MAYSI-2 workshop. After the SAVRY workshop, we provided individual feedback to YSCs on four practice cases developed to increase skills and competence in, as well as confidence using, the SAVRY. To foster in-house, sustainable expertise, we trained several YSCs to be "SAVRY Master Trainers" and oversaw their delivery of a SAVRY Booster Workshop eight months following the initial SAVRY workshop. In comparison sites, we also assisted with adapting existing case management plans to capture data regarding placement, services, and level of supervision. Additional details are provided when relevant in sections below.

Data Collection Procedures

Focus group data. Separate focus groups were conducted with YSCs in MS Experimental Sites 1 and 2 approximately seven months after the MAYSI-2 and SAVRY had been implemented. Two researchers led structured group discussions. YSCs were asked open-ended questions regarding the impact of the SAVRY and MAYSI-2 on case management activities; their experiences using the tools for making recommendations about disposition and placement, services, and level of supervision; their experiences using the new case plan and service matrix; any barriers or benefits encountered in using the new procedures; and any recommendations regarding use of the tools and new case management approach to their current practice. The focus groups were audio-recorded, transcribed, and coded.

SAVRY inter-rater reliability (agreement) data. To examine the correspondence between independent ratings on the SAVRY for the same youth made by two trained raters, YSCs in MS Experimental Sites 1 and 2 completed 15 inter-rater reliability (IRR) cases. In some cases, the second trained rater was the Research Assistant (RA), Sheena Gardner. In other cases, it was a YSC from the same office. Raters made ratings based on review of the same file information and second raters observed the first rater's interview with the youth (and guardian, when such an interview occurred).

Youth case management data. Because DYS neither had a data management system nor routinely recorded in a systematic manner key case management outcomes, we hired a local RA to collect copies of social histories, case management plans, and SAVRY and MAYSI-2 data. To promote data integrity, weekly check-ins between the RA and the research team were held to troubleshoot any data collection and management issues. We contacted YSCs directly to resolve queries about inconsistent data and to obtain missing data.

Offense data. Offense data (e.g., nature and dates of petition, arrest, adjudication) for youth in the RAMSAY sample were provided electronically by DYS. Recidivism data from juvenile and adult courts were obtained for the entire sample. Juvenile records contained information regarding petitions, adjudications, and dispositions. Adult records contained information only about convictions and dispositions within the adult system.

Project Launch and Data Collection Timeline

Youth level case management data collection began close in time across counties: MS Experimental Site 2, February 25, 2013; MS Experimental Site 1, April 2, 2013; MS Comparison Site 2 and MS Comparison Site 1, December 1, 2012; and MS Comparison Sites 3 and 4, end of February 2013. Collection of case management data ended on December 31, 2013 in all sites. Missing case management data were obtained throughout 2014. Recidivism data from adult and juvenile systems were obtained on April 30, 2014.

Results

Impact of Implementation on Staff

Demographics of Youth Service Counselors

Thirty five YSCs were employed across the six probation offices that participated in the RAMSAY project as research sites at some point during the project's two years (see Table 1). When questionnaires for Waves 1 through 3 were distributed, there were 32, 31, and 27 YSCs, respectively, employed in the six sites. Staff turnover was tracked carefully to ensure all YSCs were offered the opportunity to complete the questionnaires. During the study period, three new YSCs were hired in two of the comparison sites, and eight YSCs left for various reasons (e.g., transferred to another county, resigned, medical leave, maternity leave, etc.).

Table 1

Number of YSCs by Site

Research Site	# YSCs (% of total sample of 35)
MS Experimental Site 2	6 (11.4%)
MS Experimental Site 1	10 (28.6%)
MS Comparison Site 1	1 (2.9%)
MS Comparison Site 2	6 (17.1%)
MS Comparison Site 4	6 (17.1%)
MS Comparison Site 3	8 (22.9%)

Table 2 presents demographic information for the 35 YSCs. Most (85.7%) were women of Black race (71.4%). The group's average age was 36.31 years. Most YSCs had a bachelor's (48.6%) or post-college (42.9%) degree. They had been working with juvenile justice (JJ) involved youth on average for 8.72 years and had held their current position on average for 6.91 years.

Table 2

YSC Demographics (N = 35)

Age	*M* = 36.31 years (*SD* = 8.73)
Gender	Male = 5 (14.3%)
	Female = 30 (85.7%)
Race	White = 6 (17.1%)
	Black = 25 (71.4%)
	Other = (2.9%)
	Missing = 3 (8.6%)
Education	College Degree = 17 (48.6%)
	Post-College Degree = 15 (42.9%)
	Missing = 3 (8.6%)
Duration of juvenile justice experience	*M* = 8.72 years (*SD* = 8.52)
Length of time in current position	*M* = 6.91 years (*SD* = 8.15)

Focus Group: Summary of Themes Related to Implementation of the SAVRY

Perceived barriers regarding use of the SAVRY

- Most YSCs reported it was time consuming, especially to complete pre-adjudication
- Some YSCs indicated that some items were hard to rate, especially without cooperation from the family to share information
- Expressed preference for using it only with youth with histories of engaging in violence; thought it was not appropriate to use with youth with only histories of truancy
- Indicated they thought completing the SAVRY rating form was redundant with the social summary reports
- Some YSCs reported they would prefer to use an electronic assessment system
- General consensus that they would know "what the youth needs" without completing the SAVRY

Perceived system-level barriers regarding use of the SAVRY

- There was consensus that lack of judge buy-in was problematic. In MS Experimental Site 1, after the project was underway, the judge indicated he was not receptive to the SAVRY being completed prior to adjudication. Therefore, it was completed only after a disposition had been made, by which time services typically already had been assigned. In MS Experimental Site 2, the judge strongly supported use of the SAVRY and changed the way in which he ran his court by postponing disposition hearings until after the social summary and SAVRY were completed. However, at times he made decisions about adjudication and disposition concurrently, which would not allow time for the SAVRY to be completed prior to disposition.
- Master Trainers expressed frustration because they were not given the option to assume this role. They felt it was difficult to assume the role of Master Trainer while they were learning how to use the SAVRY at the same time as the rest of the YSCs.
- The YSCs in the experimental sites felt they were not spoken to early enough in the implementation process to provide input. They felt told they about their participation after the decision had been made.
- YSCs voiced desire to have supervisors in the office to provide actual supervisory oversight for use of the SAVRY, rather than other YSCs.
- YSCs would have liked more support regarding their use of the SAVRY and implementation of the new case management processes generally; such as check-ins regarding how they were experiencing the changes in process.

Using the SAVRY for case management

- YSCs in MS Experimental Site 1 unanimously reported that using the SAVRY post-disposition was not helpful because by that point, the judge already had made decisions

about placement and disposition, and youth already had begun or completed services following referrals made pre-adjudication based primarily on the MAYSI-2 administered in pre-adjudication detention or by referral to counseling services at the discretion of the judge

- YSCs in MS Experimental Site 2 reported that they liked using the SAVRY pre-adjudication because they had the opportunity to have input regarding which youth are or are not placed on formal probation, hopefully decreasing the frequency with which youth who they felt were not appropriate for probation were placed on their caseload
- Some YSCs expressed resistance to having policy to guide a youth's level of supervision, expressing preference to supervise youth based on their own judgment
- On one hand, YSCs indicated they liked the more comprehensive case plan because it was helpful to track information about services; on the other hand, they indicated it was more time consuming to complete compared with their previous practice
- Several YSCs indicated that the SAVRY had not improved (or changed in any way) the way in which they decided which service referrals to make
- Some YSCs reported they did not have enough information to make recommendations about level of supervision
- YSCs expressed a need for more training on creating case plans
- The service matrix generally was seen to be a helpful resource because it was organized by both risk level and content domains, and an improvement over the "resource book" they used before (i.e., a list of services, many of which were no longer available)

Impact of Implementation on System Level Functioning

Several system-level enhancements occurred as a result of sites' participation in the RAMSAY project:

- YSCs and administrators characterized communication before the study as relatively fractured. The RAMSAY project promoted enhanced communication between DYS administration and YSCs employed by the county, as well as between judges and DYS administration.
- Proactive efforts were undertaken as part of the implementation process to enhance judges' openness to accepting YSCs' recommendations regarding service referrals and case management issues that were based on empirically supported procedures developed to mitigate risk for delinquency.
- YSCs were positioned to have more impact on case outcomes. They began to complete social histories earlier in the judicial process (and submit them to the judge), prior to disposition, allowing them to gather information on which to base their recommendations regarding diversion, disposition, service referrals, and level of supervision such that it could influence the judge's orders made at the disposition phase.
- The importance and benefit of research driven enhancements to the electronic case data system were taken under consideration, as well as considerations for protection of confidential information about youth.
- Supervisory oversight of YSCs was re-introduced, including review of YSCs' case management plans by supervisors.
- An inventory of available services was updated or developed.

- YSCs were provided training to use a semi-structured interview guide to promote collection of high quality information, essential for developing a comprehensive history and a valid risk assessment and management plan.
- Policies were written to guide the use of the SAVRY and MAYSI-2 in a manner that promoted best practices to mitigate risk for a given youth.
- A policy was implemented to guide decisions about level of supervision that were in line with assessed level of risk for violence, thereby preventing all youth from receiving the same degree of contact and level of supervision.
- More comprehensive case plans were implemented, with two-fold benefits: the quality of the approach to case planning for youth increased, and consistency in practice across all probation offices was promoted.
- Numerous reference documents and "decision support aids" were created, such as:
    - MAYSI-2 policy
    - MAYSIWARE administration cheat sheet
    - MAYSI-2 Refusal Form
    - MAYSI-2 administration and interpretation cheat sheet
    - SAVRY policy
    - SAVRY administration and interpretation cheat sheet
    - SAVRY and Case Plan Completion Checklist
    - SAVRY Case Supervision Plan
    - SAVRY Supplemental Rating Form
    - SAVRY Semi-structured Interview Form
    - Quality Assurance Suggestions
    - Service Matrix (in each site)
    - Level of supervision policy
    - Software to monitor SAVRY reassessments (Excel spreadsheet)
    - Resource Binder

Impact of Implementation on Case Management Activities and Outcomes

Demographics of Youth

By the end of the data collection period, there were 104 and 193 youth in the experimental and comparison conditions, respectively. To reduce potential bias resulting from non-random assignment in observational studies such as this, propensity score matching was used to select a smaller group of comparison youth to be similar to the number of experimental youth (from both MS Experimental Site 2 and MS Experimental Site 1), as well as to equate the experimental and comparison groups along a number of important youth characteristics (e.g., demographic variables, delinquency history, nature of current offense). Propensity scores were modeled using logistic regression, with the dependent variable being the odds of being in the experimental group. Matching was performed using the psmatch2 (Leuven & Sianesi, 2003) procedure with a one-to-one nearest neighbor (with no replacement and with common support) matching schema using Stata 13 software (StataCorp, 2013). The Tables below present demographic information for youth in the sample after propensity matching procedures were applied, resulting in 104 youth across the two experimental sites and 104 youth across the four comparison sites (see Table 3). Because propensity score matching was used, there were no significant differences on basic demographic data between experimental and comparison groups.

Table 3

Youth Demographics After Propensity Matching

Site	Gender	Race	Mean age at intake (years)
		EXPERIMENTAL	
Total (*n* = 104)	Girls = 29 (27.9%) Boys = 75 (72.1%)	Black = 54 (51.9%) White = 49 (47.1%) Other = 1 (1.0%)	15.15 (*SD*=1.64) Range: 9.26-18.34
MS Experimental Site 2 (*n* = 55)	Girls: 21 (38.2%) Boys: 34 (61.8%)	Black: 9 (16.4%) White: 46 (83.6%)	15.22 (*SD* = 1.57) Range: 9.26-17.23
MS Experimental Site 1 (*n* = 49)	Girls: 21 (38.2%) Boys: 34 (61.8%)	Black: 45 (91.8%) White: 3 (6.1%) Hispanic: 1 (2.0%)	15.06 (*SD* = 1.73) Range: 10.78-18.34
		COMPARISON	
Total comparison group (*n* = 104)	Girls = 26 (25%) Boys = 78 (75%)	Black =60 (57.7%) White = 40 (40.4%) Other = 2 (1.9%)	15.35 (*SD*=1.75), Range: 8.96 - 8.89
MS Comparison Site 1 (*n* = 8)	Girls: 4 (50%) Boys: 4(50%)	Black: 8 (100%)	14.92 (*SD* = 1.55) Range: 12.02-17.15
MS Comparison Site 2 (*n* = 48)	Girls: 12 (25%) Boys: 36 (75%)	Black: 32 (66.7%) White: 15 (31.3%) Hispanic: 1 (2.1%)	15.88 (*SD* = 1.41) Range: 12.77-18.89
MS Comparison Site 3 (*n* = 36)	Girls: 8 (22.2%) Boys: 28 (77.8%)	Black: 15 (41.7%) White: 20 (55.6%) Hispanic: 1 (2.8%)	15.21 (*SD* = 1.64) Range: 11.41-17.43
MS Comparison Site 4 (*n* = 12)	Girls: 2 (16.7%) Boys: (83.8%)	Black: 5 (41.7%) White: 7 (58.3%)	13.87 (*SD* = 2.50) Range: 8.96-17.42
All Youth (*N* = 208)	Girls: 55 (28.4%) Boys: 153 (73.6%)	Black: 114 (54.8%) White: 91 (43.8%) Hispanic: 3 (1.4%)	15.25 (*SD* = 1.69) Range: 8.96-18.89

Delinquency History

Of the 208 youth across all experimental and comparison sites, 101 had referrals for any sort of offense (violent, nonviolent, or status) before their referral for the baseline offense in the RAMSAY project. Of those 101 youth, 50 had previous adjudications. Youth in the comparison group on average had significantly more prior referrals and adjudications for any sort of offense and for non-violent offenses compared with youth in the experimental group (see Table 4). There was no difference in the percent of experimental and comparison youth with a history of referrals or adjudications for any kind of offense, and for non-violent and or violent offenses specifically.

Table 4

History of Referrals and Adjudications After Propensity Match

	Experimental	Comparison
ANY		
% youth with referrals	45	52
Mean # referrals*	1.31 (2.18)	2.34 (3.61)
% youth with adjudications	22	26
Mean # adjudications*	0.38 (0.91)	1.00 (2.25)
NON-VIOLENT		
% youth with referrals	43	47
Mean # referrals*	1.11 (1.87)	2.06 (3.27)
% youth with adjudications	21	26
Mean # adjudications*	.34 (.84)	.89 (2.04)
VIOLENT		
% youth with referrals	14	17
Mean # referrals	0.21 (0.55)	0.29 (0.82)
% youth with adjudications	4	7
Mean # adjudications	0.04 (0.19)	0.11 (0.44)

Note. * Denotes a statistically significant difference, $p \leq .05$.

Baseline Referral Offense Profile

The majority of youth were referred for less serious offenses (see Table 5). Across both experimental and comparison groups, most youth were charged with theft and minor, "miscellaneous" offenses (see Appendix H for a listing of charges coded as miscellaneous).

Youth in the experimental group were significantly more likely than comparison youth to have fewer baseline adjudications for non-violent offenses (this variable therefore was used as a covariate in between group comparisons, though the magnitude of this effect size was small (d = .27). There also was a trend toward significance (p = .05) for the percentage of youth with violent adjudications to be lower in the experimental versus comparison sample. There were no other significant differences between the two groups.

Table 5

Baseline Referrals and Adjudications

	Experimental	Comparison
NON-VIOLENT		
% youth with referrals	85.6%	89.4%
Mean # referrals	1.46 (1.45)	1.63 (1.57)
% youth with adjudications	70.2%	81.7%
Mean # adjudications*	1.02 (1.26)	1.38 (1.40)
VIOLENT		
% youth with referrals	20.2%	22.2%
Mean # referrals	.21 (.43)	.27 (.56)
% youth with adjudications	14.4%	19.2%
Mean # adjudications	.15 (.39)	.23 (.53)

Note. * Denotes a statistically significant difference, $p \leq .05$.

MAYSI-2

The MAYSI-2 is a scientifically valid and reliable brief screening tool for use in the juvenile justice system to identify youth who might have special behavioral health needs. This tool consists of 52 'yes/no' questions concerning whether something has been true for a youth "*in the past few months."* The MAYSI-2 was normed for use with youth aged 12 to 17 and is scored on six clinical scales: suicide ideation, depressed-anxious, angry-irritable, somatic complaints, thought disturbance (for boys only), and alcohol/drug use (see Table 6). The Traumatic Experiences scale is included in the MAYSI-2 for research purposes only and was not normed as a scale for clinical use.

Table 6

MAYSI-2 Scales

Scale	Scale Description
Alcohol/Drug Use	Patter of frequent use of alcohol or drugs, with risk for substance abuse
Angry-Irritable	Experiences frustration, lasting anger, and moodiness
Depressed-Anxious	Experiences a mix of depressed and anxious feelings
Somatic Complaints	Experiences body aches and pains associated with emotional distress
Suicide Ideation	Thoughts and intentions to harm oneself
Thought Disturbance *(boys only)*	Has unusual beliefs or perceptions suggestive of thought disorder
Traumatic Experiences *(research scale only)*	Lifetime exposure to traumatic experiences (e.g., abuse, beatings, rape, observed death of another)

The MAYSI-2's six clinical scales were developed with two levels of cut-off scores: Caution and Warning. Scores above the Caution cut-off on a given scale indicate the youth scored at a level with 'possible clinical significance.' Scores above the Warning cut-off on a given scale are intended to alert staff that the youth has scored exceptionally high in comparison with other youth in the

juvenile justice system. Warning cut-off scores were set at the point that identified approximately the highest 10% of youth on a given scale in the initial study completed to develop the MASYI-2. Warning cut-off scores are higher than Caution cut-off scores and therefore identify a subset of all the youths above the Caution cut-off who are most in need of attention. The "Caution range" comprises all scores above the Caution cut-off, not just the scores *between* the Caution and Warning cut-off. Therefore, when we report the percent of youth over the Caution range below, we are referring to all youth in the Warning range as well.

Additional Details Regarding Standardized Implementation Procedures

The MAYSI-2 can be administered in two ways: with a "paper and pencil" version or via computer, using MAYSIWARE, a software program that allows youth to hear items by headphone and respond on-screen. Prior to implementation of the MAYSI-2, YSCs attended a half-day training on the MAYSI-2 and MAYSIWARE. Three months later, YSCs were trained on the MAYSI-2 Policy, which included instruction regarding when to administer it, how to administer it and what to tell the youth about the process, and how to incorporate MAYSI-2 findings into case management practices.

Experimental sites were provided with complimentary copies of MAYSIWARE. The program automatically scores the MAYSI-2 and produces an individual report for the youth. It also maintains a local database that contains data from all MAYSI-2 administrations in the office. In addition, MAYSIWARE is useful because it provides national norms (useful for comparing a youth's MAYSI-2 results to the "national average"), creates dynamic site norms (useful for creating norms for individual probation offices), and has data exporting capabilities (useful for providing data to us for analysis). Protecting confidential data and maintaining security was a priority; MAYSIWARE is a secure program in that it has password protection and only allows staff members who are granted access to the program to administer the MAYSI-2. In addition, a youth cannot exit administration of

the MAYSI-2 without a counselor entering a password, which prevents youth from accessing confidential information on the computer. The multiple advantages of MAYSIWARE are expected to promote sustainability of behavioral health screening practices following completion of the RAMSAY project.

Adherence to MAYSI-2 Policy

Per policy, YSCs were to request the MAYSI-2 results for all youth administered the tool when detained following arrest. Because we did not receive many MAYSI-2 profiles of youth given the tool in detention, results below exclude youth who received a MAYSI-2 only in detention. Twenty-one of the 104 youth in MS Experimental Sites 1 and 2 were not given the MAYSI-2. Seven youth were not administered the MAYSI-2 because of a transfer to adult jail, being under the age of 12, the YSC stopped using the tool because of confusion about the RAMSAY project, the MAYSI-2 computer was not functioning, or because the YSC forgot to administer it. For ten youth, the YSC used the MAYSI-2 administered recently in detention. Finally, for six youth, the YSCs did not indicate why the MAYSI-2 was not administered.

In MS Experimental Site 2 County, YSCs were to administer the MAYSI-2 following the filing of a formal petition, at the same time as the SAVRY. Only a few youth (n = 4, 7.3%) did not have a MAYSI-2 on record (see Table 7). Of the youth for whom we have MAYSI-2 data, the majority (n = 31, 56.4%), received it prior to being adjudicated, which is consistent with policy. Several youth completed the MAYSI-2 on the same day as being adjudicated/given a disposition (n = 10, 18.2%) or post-disposition (n = 6, 10.9%). When the MAYSI-2 was given post-petition, on average the administration occurred 40.20 days post-petition (SD = 25.06; range = 3 to 105 days), in contrast to the policy indicating administration should occur within 15 working days post-disposition.

In MS Experimental Site 1 County, YSCs were to administer the MAYSI-2 post-adjudication, at the same time as the SAVRY. We have no record of MAYSI-2 completion for almost one third of youth in MS Experimental Site 1 (*n* = 17, 34.7%; see Table 7). Of the youth for whom we received MAYSI-2 data, all but one completed it on the same day as being adjudicated/given a disposition (*n* = 11, 22.4%) or post-disposition (*n* = 20, 40.8%). When the MAYSI-2 was given post-disposition, on average the administration occurred 48.3 days (*SD* = 41.39; range = 2 to 128 days) following disposition, in contrast to the policy indicating administration should occur within 15 working days post-disposition.

Table 7

Timing of MAYSI-2 Administration by Site

Temporal Indicator	MS Experimental Site 1 (*n* = 49)	MS Experimental Site 2 (*n* = 55)
Pre-Petition	0 (0%)	4 (7.3%)
Pre-Adjudication	1 (2.0%)	31 (56.4%)
Same day as Adjudication/Disposition	11 (22.4%)	10 (18.2%)
Post-Disposition	20 (40.8%)	6 (10.9%)
No MAYSI-2 on file	17 (34.7%)	4 (7.3%)

MAYSI-2 Sample

The MAYSI-2 was administered to 83 youth in MS Experimental Sites 1 and 2. The youth primarily were male (*n* = 61, 74%) and White (*n* = 45, 54.2%). They were on average 15 years old (*SD* = 1.51; range 12-17 years). Table 8 presents demographic information of MAYSI-2 recipients by site.

Youth typically complete the MAYSI-2 in 3 to 5 minutes. Youth who complete the MAYSI-2 in 2 minutes or less are likely to not have paid attention to every item. For three youth, completion times of 160.24, 74.98, and 36.03 minutes were reported. When queried about these lengthy times, YSCs indicated that they did not log out of MAYSIWARE as required when the youth finished

answering the questions. In Table 8, data on the three outliers were excluded from analysis of average completion times.

Table 8

Demographic Summary and Completion Times for Youth who Completed the MAYSI-2

Sample	Gender	Race	Mean Age (Years)	Mean Completion (Minutes)
Experimental Site 1 (n = 32)	Boys: 31 (96.9%) Girls: 1 (3.1%)	Black: 29 (90.6%) White: 3 (9.4%) 3.1% Hispanic	15.00 (SD = 1.65) Range: 12-17	9.52 (SD = 2.58) Range: 5.10-15.76
Experimental Site 2 (n = 51)	Boys: 30 (58.8%) Girls: 21 (41.2%)	Black: 9 (17.2%) White: 42 (82.4%) 0% Hispanic	15.08 (SD = 1.44) Range: 12-17	8.53 (SD = 2.58) Range: 4.50-16.97
Experimental Sites 1 & 2 (n = 83)	Boys: 61 (74%) Girls: 22 (26%)	Black: 38 (45.8%) White: 45 (54.2%) 1.2% Hispanic	15.05 (SD = 1.51) Range: 12-17	8.92 (SD = 2.61) Range: 4.50- 16.97

Note. For "Completion" data for three youth were removed because they reflected inaccurately long times.

MAYSI-2 Profile

Overall, 74.7% (n = 62) of the 83 youth given a MASYI-2 scored above the Caution cut-off and 28.9% (n = 24) scored above the Warning cut-off on at least one scale. Table 9 shows the means, standard deviations, and percents in the Caution and Warning ranges for all scales. It focuses especially on the proportion of youth who are over the scales' Caution and Warning cut-offs.

The scale on which youth most frequently scored above Caution was the Somatic Complaints scale (47%). Large percentages of youth also scored above the Caution cut-off on the Angry-Irritable (37.3%), Depressed-Anxious (33.7%), and Thought Disturbance (27.7%) scales. The percentages for youth scoring above Warning on the scales were much smaller, which is expected.

The largest number of youth with scores above the Warning cut-off was observed on the Thought Disturbance (10.8%) and Angry-Irritable (9.6%) scales, with relatively smaller percentages above Warning on the Suicide Ideation (8.4%), Depressed-Anxious (7.2%), and Somatic Complaints (6%) scales. As an example of how to interpret the information in Table 9, consider the first main row, which indicates that 13.3% of youth scored in the Caution range and 3.6% scored in the Warning range on the Alcohol/Drug use scale.

Table 9

MS Experimental Sites 1 & 2 (n = 83): Mean Score, Standard Deviations, and Percent Over Caution and Over Warning Cut-offs for All Scales

MAYSI-2 Scale	Mean Score	*SD*	% Over Caution	% Over Warning
Alcohol/Drug Use*	1.55	1.85	13.3	3.6
Angry-Irritable	3.48	2.75	37.3	9.6
Depressed-Anxious	1.99	1.96	33.7	7.2
Somatic Complaints	2.57	1.66	47	6
Suicide Ideation	.54	1.28	14.5	8.4
Thought Disturbance	.60	.94	27.7	10.8
Traumatic Experiences	1.78	1.42	----	----

**Note*. In part because the MAYSI-2 was administered to youth in the community, the Alcohol/Drug Use (ADU) scale likely does not reflect actual substance use among this sample given that youth may under-report use of drugs and alcohol (fearing that if they report honestly they will be penalized).

Table 10 compares youth in MS Experimental Site 1 and MS Experimental Site 2 on scale scores and percentage of youth above Caution and Warning cut-offs. Cohen's *d* effect sizes indicate the magnitude of difference between scales' means. According to Cohen (1988), these standardized mean differences can be interpreted roughly as follows: small, 0.20; moderate, 0.50; and large, 0.80. On average, youth in MS Experimental Site 2 scored higher on the Suicide Ideation scale compared with youth in MS Experimental Site 1 (the difference between the sites' mean scores was moderate

in magnitude, $d = .59$. Other MAYSI-2 scales scores on average were similar or showed only small differences between MS Experimental Sites 1 and 2.

Table 10

Mean Score, Standard Deviation, and Percent Over Caution and Over Warning Cut-offs for all Scales, by Site

	MS Experimental Site 1 (n = 32)				MS Experimental Site 2 (n = 51)				
MAYSI-2 Scale	Score	*SD*	% Over Caution	% Over Warning	Score	*SD*	% Over Caution	% Over Warning	*d*
Alcohol/ Drug Use	1.53	2.06	12.5	6.3	1.57	1.72	13.7	2.0	0.02
Angry-Irritable	3.84	2.85	43.8	12.5	3.25	2.69	33.3	7.8	0.21
Depressed-Anxious	1.78	1.60	28.1	3.1	2.12	2.16	37.3	9.8	0.18
Somatic Complaints	2.56	1.66	40.6	6.3	2.57	1.68	51.0	5.9	0.01
Suicide Ideation	.13	.55	3.1	3.1	.80	1.52	21.6	11.8	0.59
Thought Disturbance	.63	.94	37.5	18.8	.59	.94	26.6	5.9	0.04
Traumatic Experiences	1.72	1.40	----	----	1.82	1.44	----	----	0.07

Gender Analysis

Overall, 72.1% (n = 44) of boys and 81.8% (n = 18) of girls scored above the Caution cut-off and 29.5% (n = 18) of boys and 27.3% (n = 6) of girls scored above the Warning cut-off on at least one MAYSI-2 scale (see Table 11). The proportions of girls and boys scoring above the Caution and Warning cut-offs on at least one scale did not differ. At the individual scale level (see Table 12), however, one gender difference emerged: boys (16.4%) were significantly more likely to be over the Caution on the Suicide Ideation scale than girls (4.5%) [χ^2 (1, 83) = 11.62, $p < .01$]. Although not statistically significant, there were higher percentages of girls who were over the Caution and Warning cut-offs on the Depressed-Anxious and Somatic Complaints Scales.

Table 11

MS Experimental Sites 1& 2 – Percent of Youth Over Caution and Over Warning Cut-offs on at Least One MAYSI-2 Scale

	Boys (n = 61)	Girls (n = 22)
Any Caution	72.1	81.8
Any Warning	29.5	27.3

Note. Any Caution is the percentage of cases scoring above the caution cut-off ("clinically significant range") of at least one MAYSI-2 scale. Any Warning is the percentage of cases scoring above the warning cut-off (top 10% of youth taking the MAYSI-2) on at least one MAYSI-2 scale.

Table 12

MS Experimental Sites 1& 2 – Percent of Boys and Girls Over Caution and Over Warning Cut-offs

	% Over Caution		% Over Warning	
MAYSI-2 Scale	Boys (n = 61)	Girls (n = 22)	Boys (n = 61)	Girls (n = 22)
Alcohol/Drug Use	16.4	4.5	4.9	0
Angry-Irritable	36.1	40.9	11.5	4.5
Depressed-Anxious	29.5	45.5	4.9	13.6
Somatic Complaints	41.0	63.6	4.9	9.1
Suicide Ideation	6.6	36.4	4.9	18.2
Thought Disturbance	37.7	----	14.8	----

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

Second Screening

Second Screening involves asking youth a few questions for results that are over the Caution or Warning cut-off scores to obtain information that will assist in deciding whether a youth requires an immediate intervention. The need for Second Screening is related to the fact that sometimes youth who score above the cut-offs do not actually require the same interventions that are normally applied to youth who score this high (i.e., "false-positives").

By default, MAYSIWARE triggers a second screening when a youth scores over the Caution cut-off on the Suicide Ideation scale or over the Warning cut-off on any two other clinical scales. Mississippi opted to implement a threshold lower than the default, with second screening being triggered by any of the following three scenarios: a score over the Caution cut-off on any combination of two scales (except Suicide Ideation), over the Warning cut-off on at least one scale, or above the Caution on Suicide Ideation. This lower threshold is the same as had been used for some time by Connecticut, the other state in the RAMSAY project.

Table 13 shows that just over half (51.8%) of youth met second screening criteria. Of these 43 youth, only 39 were administered the second screening questions required by policy. Four youth

who were identified as needing second screening either were not so screened, or were screened but record of this was not entered in MAYSIWARE per policy. Of the 39 youth for whom there were data on second screening results, 10 were identified as needing intervention. This percentage is consistent with results from other counties with whom we have worked. Table 13 also shows the smaller percentage of youth who would have been selected for second screening if the default MAYSIWARE criteria were applied.

Table 13

MS Experimental Sites 1 & 2 – Percent Meeting Mississippi's and MAYSIWARE's Second Screening Criteria

Second Screening Formula	Boys (n = 61)	Girls (n = 22)	Total Sample (n = 83)
MS Experimental Site 2 & MS Experimental Site 1 threshold	49.2%	59.1%	51.8%
MAYSIWARE default threshold	9.8%	36.4%	16.9%

Comparison of MS Experimental Sites 1 and 2 to the MAYSI-2 National Norms

The MAYSI-2 National Norms are based on data from juvenile justice programs throughout the U.S. The norms used for comparison to the present samples are those for intake probation departments nationwide. The bars in Figures 1 and 2 indicate the percent of boys and girls, respectively, above the Caution cut-off on each MAYSI-2 scale.

Consistent with the National Norms, a larger percentage of girls in MS Experimental Sites 1 and 2 scored above Caution cut-offs than boys in MS Experimental Sites 1 and 2. Overall, there were few differences in the percentages of boys and girls in the Experimental Sites who scored above the Caution cut-off on the MAYSI-2 scales compared with the National Norms for boys and girls in probation intake departments. Slightly larger percentages of boys in MS Experimental Sites 1 and 2 scored above the Caution cut-off compared with the National Norms for all MAYSI-2 scales

except Suicide Ideation. Among girls, a considerably larger percentage in the Experimental Sites scored over Caution on the Somatic Complaints scale compared with the National Norms. Also among girls, a smaller percentage in the Experimental Sites scored above Caution on the Alcohol-Drug Use scale compared with the National Norms.

Figure 1. MS Experimental Sites 1 and 2 Boys Compared with US National Norms – Percent Above Caution Cut-off

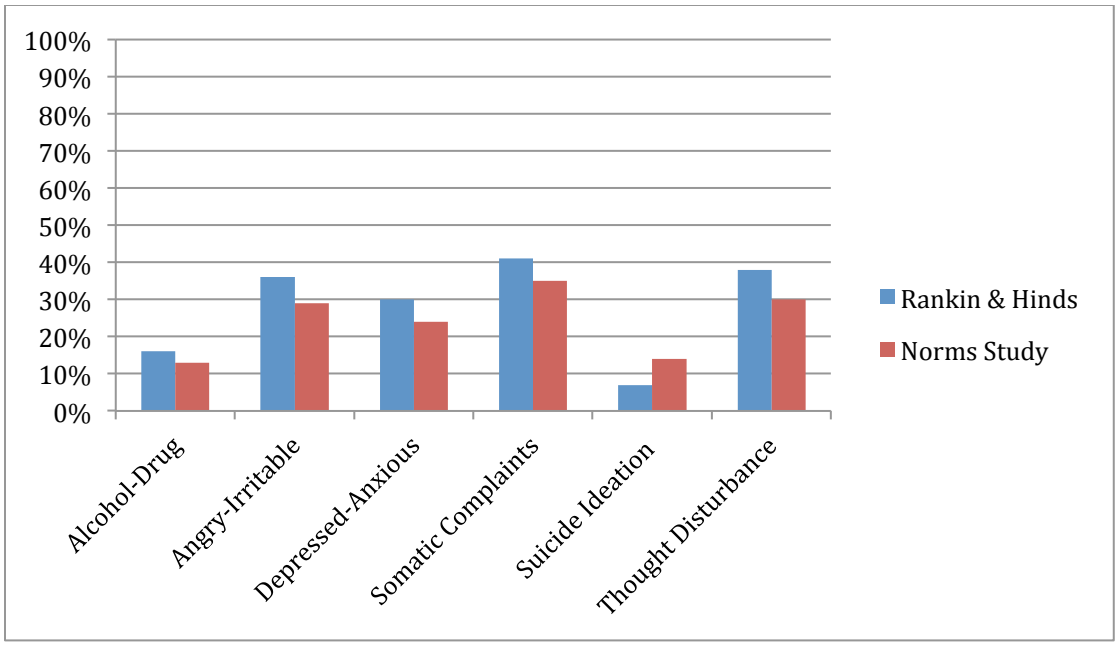
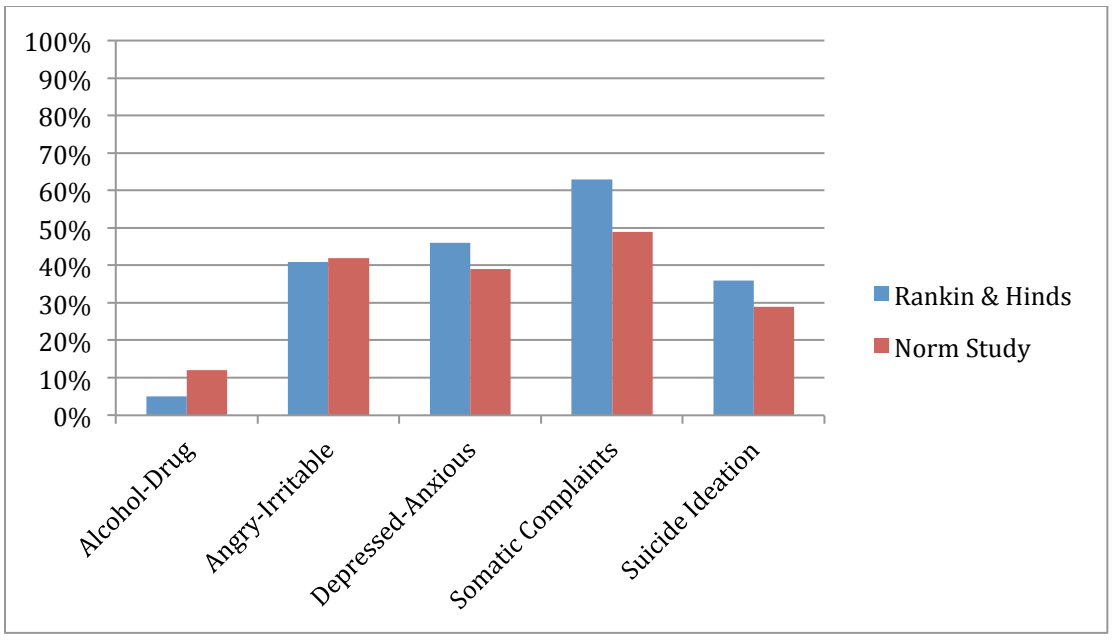


Figure 2. MS Experimental Sites 1 and 2 Girls Compared with US National Norms – Percent Above Caution Cut-off



SAVRY

The *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum et al., 2006) is an SPJ tool for assessing violence risk among adolescents. Evaluators rate the presence of 24 risk (low/moderate/high) and 6 protective (absent, present) factors. They next consider the individual relevance of the various risk and protective factors and make a summary risk rating (SRR) about risk for future violence (low/moderate/high). YSCs also were trained to make a SRR for future non-violent delinquency. As with all SPJ tools, no numbers are involved in the use of the SAVRY. However, for research purposes, item ratings can be quantified and "scores" computed to examine the tool's properties.

Adherence to SAVRY Policy

According to their policy, YSCs in MS Experimental Site 2 were to complete the SAVRY between the petition and adjudication stages and within 15 working days of case assignment. However, on average, 40 days elapsed between petition and SAVRY completion (range: 0 to 96 days). SAVRY ratings were made for the majority of youth in MS Experimental Site 2 on the petition date (n = 1), after petition when there was no subsequent adjudication (n = 17), or after petition but before adjudication (n = 23). For two youth, the SAVRY was completed the same day as decisions about adjudication and disposition occurred. There was a sharp decline in instances where decisions about adjudication and disposition were made on the same day following the RAMSAY project and consequent bifurcation of the adjudication and disposition processes. SAVRY ratings were completed post-disposition for 12 youth in MS Experimental Site 2.

Consistent with the SAVRY policy revised for MS Experimental Site 1 following the judge's decision to use the SAVRY only post-disposition, most (n = 40) SAVRYs were completed at the post-disposition phase. SAVRYs for other youth in MS Experimental Site 1 were completed on the same day as adjudication and disposition (n = 5) or prior to adjudication (n = 4). YSCs in MS

Experimental Site 1 also were to complete the SAVRY within 15 working days of case assignment. On average, YSCs in MS Experimental Site 1 completed SAVRYs 48 days following disposition (range: 4 to 128 days).

SAVRY Inter-rater Reliability

As described above, YSCs received intensive training in administration and interpretation of the SAVRY at the beginning of the RAMSAY project. It is essential to ensure that SAVRY ratings are not a function of the YSC completing the assessment. That is, a youth should receive roughly similar SAVRY ratings regardless of which YSC completes the assessment (assuming the same information is used and the YSC has demonstrated competence to use the SAVRY). As such, we examined the degree of correspondence or agreement between SAVRY ratings made for the same youth by a YSC and a second trained rater with access to the same information. In some cases, the second trained rater was the Research Assistant. In other cases, it was a YSC from the same office.

We were given data on 15 youth for whom we had these double sets of SAVRY ratings. For 12 of the 15 cases, both raters assigned overall ratings of risk for violence of "Low" for the same case. For 2 of the 15 cases, both raters assigned overall ratings of risk for violence of Moderate for the same case. There was disagreement on the overall rating of risk for violence for one case, wherein one rater assigned Low and the other rater assigned Moderate. There were no major category disagreements (i.e., where one rater assigns Low and the other assigned High). Similarly high rates of agreement were observed for overall ratings of risk for non-violent delinquency. The pair of raters both assigned Low for 7 cases and Moderate for 7 cases. For one case, the raters assigned different ratings of Low and Moderate). Thus, again no major category disagreements were observed.

Agreement, or reliability, also was examined statistically using intra-class correlation coefficients (ICC). This approach corrects for chance agreement in ratings. A two-way random

effects model with absolute agreement, single (ICC_1) measure was computed. Using standards by Fleiss (1986), .60 to .74 is good agreement and .75 or above is excellent. Kappa values were calculated for dichotomous items, where values of.40 to .60 indicate moderate agreement and .61 or above indicates substantial agreement (Landis & Koch, 1977). ICC values for ratings of violence and delinquency were .62 (good) and .84 (excellent), respectively. ICC values also were calculated for total "scores" on each of the four SAVRY scales. Agreement was good for the Historical (ICC = .70), Social/Contextual (.72), and Individual/Clinical (.70) scales, but poor for the Protective scale (0.23).

SAVRY Profile

The majority of the 104 youth from MS Experimental Sites 1 and 2 were rated as Low risk for violence (*n* = 64, 61.5%). Almost one third of youth were rated as Moderate risk for violence (*n* = 34, 32.7%), and few were rated as High risk for violence (*n* = 6, 5.8%). For ratings of risk for future non-violent delinquency, there were roughly equal numbers of youth rated as Low (*n* = 49, 47.1%) or Moderate (*n* = 48, 46.2%) risk. Few were rated as High risk for delinquency (*n* = 7, 6.7%).

Overall, youth in MS Experimental Site 1 were more likely to be rated as High risk for violence compared with youth in MS Experimental Site 2, which is consistent with the sample selection criteria (i.e., the entire MS Experimental Site 1 sample comprised adjudicated youth, whereas this was not true in MS Experimental Site 2). SAVRY ratings for future violence and delinquency in MS Experimental Sites 1 and 2 are listed in Table 14. Although items are rated using a three level categorical scheme of Low, Moderate, and High, for research purposes item ratings can be quantified using 0, 1, and 2, respectively. In Table 15, each site's mean scores on the four scales are presented.

Table 14

SAVRY Ratings for Future Violence and Delinquency, by Site

	MS Experimental Site 2 (*n = 55*)	MS Experimental Site 1 (*n = 49*)
SRR (violence)	Number of Youth (% of the sample)	
Low	40 (73%)	24 (49%)
Moderate	13 (23%)	21 (43%)
High	2 (4%)	4 (8%)
SRR (delinquency)		
Low	29 (53%)	20 (41%)
Moderate	21 (38%)	27 (55%)
High	5 (9%)	2 (4%)

Table 15

SAVRY Scale "Scores," by Site

SAVRY Index (max. possible "score")	Total Sample (*n = 104)*	MS Experimental Site 2 (*n = 55*)	MS Experimental Site 1 (*n = 49*)
Historical (20)	4.31 (2.94)	5.17 (3.41)	3.35 (1.94)
Social/Contextual (12)	3.35 (2.23)	3.68 (2.36)	2.98 (2.04)
Individual/Clinical (16)	5.07 (3.28)	5.29 (2.69)	4.38 (3.85)
Protective (6)	3.96 (1.79)	3.95 (1.80)	3.98 (1.80)

Case Level Data

Because of the deviation from the study's protocol in MS Experimental Site 1 county (i.e., completing the SAVRY post-disposition rather than post-petition in a manner consistent with the other experimental and comparison sites), we used data only from MS Experimental Site 2 to examine the impact of implementing the SAVRY on YSCs' recommendations about disposition, placement, services, and level of supervision. Youth in MS Experimental Site 1 had to be excluded from these sets of analyses because all decisions about disposition, placement, services, and level of supervision were made in MS Experimental Site 1 before the SAVRY was administered, thus

preventing the SAVRY from having any impact on initial decisions about those outcomes. Therefore, a new propensity matched comparison group was identified using all MS Experimental Site 2 youth but that excluded MS Experimental Site 1 youth.

Variables considered for inclusion in the propensity match included all key demographic and psychosocial variables coded from social summaries (e.g., offense history, current offense, demographic variables, psychosocial history variables). The analysis ultimately identified 55 youth in MS Experimental Site 2 who were matched to 55 youth across the comparison sites. Demographics of the propensity-matched sample used for case level analyses are reported in Table 16. There were no significant between-group differences.

Table 16

Demographics of Propensity-Matched Sample, Excluding MS Experimental Site 1 (N = 110)

	Gender	Race	Mean Age at Intake (Years)
Experimental	Girls: 21 (38%)	Black: 9 (16%)	15.23 (*SD* = 1.57)
(*n* = 55)	Boys: 34 (62%)	White: 46 (84%)	Range: 9.26-17.23
Comparison	Girls: 14 (25%)	Black: 16 (29%)	15.65 (*SD* = 1.67)
(*n* = 55)	Boys: 41 (75%)	White: 39 (71%)	Range: 10.59-18.89
Total Sample	Girls: 35 (32%)	Black: 25 (23%)	15.43 (*SD* = 1.63)
(*N* = 110)	Boys: 75 (68%)	White: 85 (77%)	Range: 9.26-18.89

Disposition and Adjudication Status

The range of possible dispositions/case outcomes for RAMSAY youth varied by site. Four categories of dispositions, or initial "case outcomes" were possible. In increasing order of severity, there were: (1) no disposition, (2) informal adjustment, (3) probation, and (4) placement or adult court (merged because of low base rates). Dispositions were coded as Adjudicated or Not Adjudicated in collaboration with site staff. *The use of the word "adjudicated" in this context is not meant to suggest that the risk assessment tool was used to make decisions about the guilt or innocence of a youth.* Three

adjudication statuses were possible. In increasing order of severity, there were: a) not adjudicated, minor case outcome (e.g., remand/retire to file without prejudice, petition held open); b) not adjudicated, informal adjustment; and c) adjudicated. Below, we refer to cases that were adjudicated as being "formally processed."

Did the initial "case outcome" differ between experimental and comparison groups? As noted above, four categories of case outcomes were possible. In increasing order of severity, there were: (1) no disposition, (2) informal adjustment, (3) probation, and (4) placement or adult court (merged because of low base rates). Of the 55 youth in the comparison condition, 10 (18%) received an informal adjustment, 42 (76%) received a probation disposition, and 3 (5%) received a placement disposition or were transferred to adult court. In contrast, 22 (40%) of the 55 youth in the experimental condition did not receive a disposition and 33 (60%) received a probation disposition. No youth in the experimental group received an informal adjustment or placement disposition, and none were transferred to adult court.

A hierarchical ordered logistic regression analysis was conducted to examine if there was an association between being in the experimental or comparison group and the likelihood of receiving a more severe case outcome. The benefit of using this approach of analysis, as opposed to doing multiple logistic regression with binary data or chi-square tests that are non-directional, are because it takes into account the ordered aspect of the outcomes. In the present analysis, the types of case outcomes are ordered by severity. Hierarchical ordered logistic regression analysis indicated that youth in the comparison group were significantly more likely than youth in the experimental group to receive a severe initial case outcome (= -1.53, *SE* = 0.44, Exp[B] = .22, *p* = .001). Relative to youth in the comparison group, youth in the experimental group were:

- More likely to receive an informal adjustment (experimental: marginal mean = 12%, *SE* = 0.04; comparison: marginal mean = 6%, *SE* = 0.02)

- Less likely to receive a probation disposition (experimental: marginal mean = 53%, *SE* = 0.07; comparison: marginal mean = 80%, *SE* = 0.05)
- Less likely to receive a placement disposition or to be transferred to adult court (experimental: marginal mean = 1%, *SE* = 0.01; comparison: marginal mean = 4%, *SE* = 0.03)
- Less likely to receive a disposition at all (marginal mean = 33%, *SE* = 0.06) compared with youth in the comparison group (marginal mean = 10%, *SE* = 0.03)

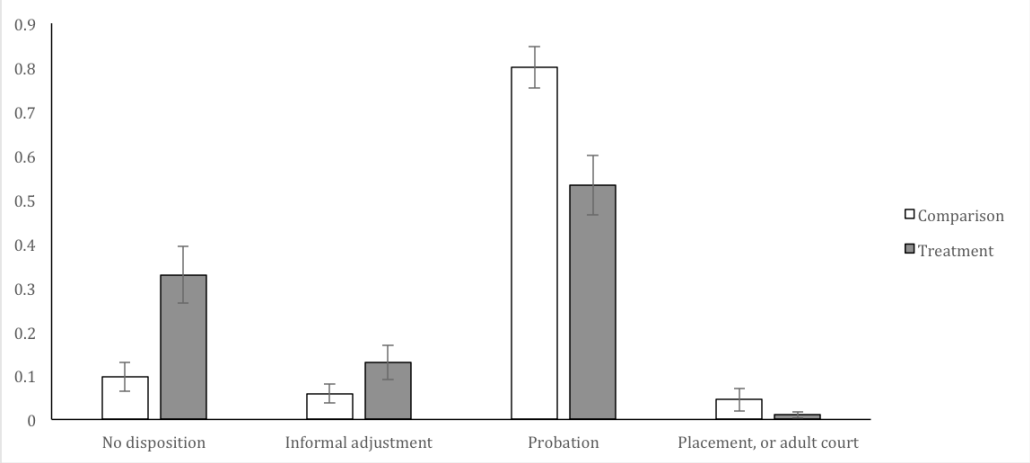
Table 17 summarizes this information, and presents the predicted probabilities for each group of receiving the particular initial case outcome (i.e., that would be expected to occur in the population based on the sample). For example, we would expect that 53% of youth assessed using the SAVRY would receive probation, whereas 80% of youth not assessed with the SAVRY would be expected to receive probation. Figure 3 presents the groups' marginal means for the four major types of initial case outcomes.

Table 17

Predicted Probability of Receiving Initial Case Outcome

Probabilities	Experimental	Comparison
No disposition	.33	.10
Informal adjustment	.13	.06
Probation	.53	.80
Placement or transfer to adult court	.01	.05

Figure 3. Initial Case Outcomes of Youth in Experimental and Comparison Groups



Note. Values are marginal means.

Did formal case processing status differ between experimental and comparison groups? As noted above, three types of case processing, or adjudication statuses, were possible. In increasing order of severity, there were: a) not adjudicated, minor case outcome (e.g., remand/retire to file without prejudice, petition held open); b) not adjudicated, informal adjustment; and c) adjudicated. Of the 55 youth in the experimental group, 19 (35%) received a minor case outcome, none received an informal adjustment, and 36 (65%) were formally processed. In contrast, of the 55 youth in the comparison condition, none received a minor case outcome, 10 (18%) received an informal adjustment, and 45 (82%) were adjudicated.

A hierarchical ordered logistic regression was conducted to examine whether the groups differed in likelihood of obtaining more severe case processing, or adjudication status. Overall, youth in the experimental group received significantly less serious case processing than youth in the comparison group (= -1.18, *SE* = 0.45, Exp[B] = .31, *p* = .009). More specifically, relative to youth in the comparison group, youth in the experimental group were significantly:

- More likely to receive informal processing with a minor case outcome (experimental: marginal mean = 26%, *SE* = 0.06; comparison: marginal mean = 10%, *SE* = 0.03)
- More likely to receive informal case processing and an informal adjustment (experimental: marginal mean = 12%, *SE* = 0.04; comparison: marginal mean = 6%, *SE* = 0.02)
- Less likely to be formally processed in general (experimental: marginal mean = 61%, *SE* = 0.07; comparison: marginal mean = 84%, *SE* = 0.05)

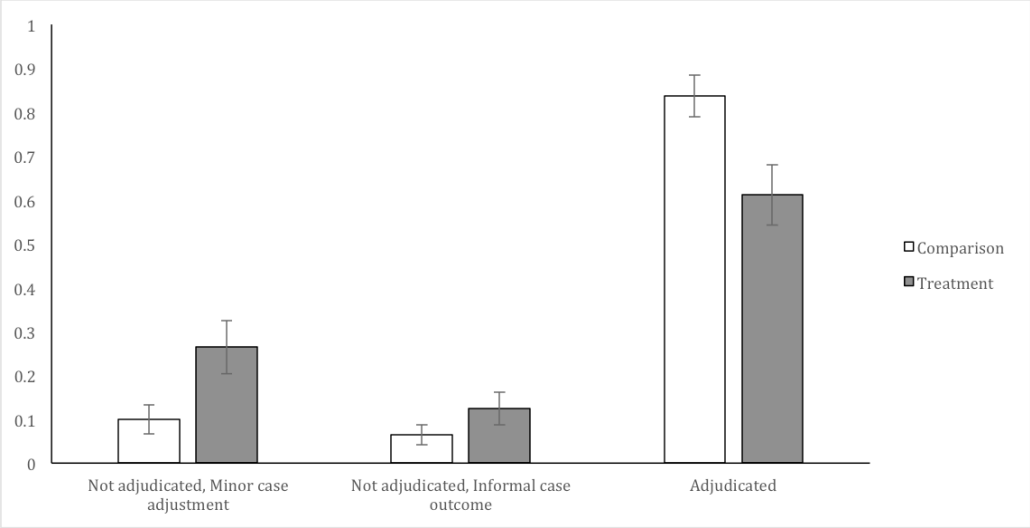
Table 18 summarizes this information, and presents the predicted probabilities for each group of receiving the particular adjudication status (i.e., that would be expected to occur in the population based on the sample). Figure 4 presents the groups' marginal means for the three major types of initial adjudication status.

Table 18

Predicted Probability Associated with Adjudication Status

	Experimental	Comparison
Not adjudicated, minor case outcome	.26	.10
Not adjudicated, informal case outcome	.12	.06
Adjudicated	.61	.84

Figure 4. Initial Adjudication Status of Youth in Experimental and Comparison Groups



Note. Values shown are marginal means.

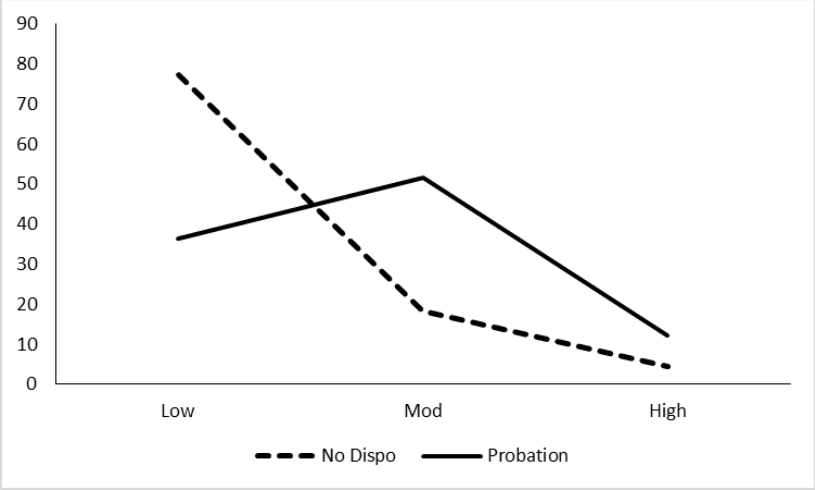
Impact of risk: Was level of risk for violence or delinquency related to initial disposition "case outcome" or initial adjudication status? Risk for future violence (low, moderate, or high) was not related to youths' initial case outcome (no disposition, informal adjustment, probation, or placement/adult court) or adjudication status (not adjudicated, minor case outcome; not adjudicated, informal adjustment; or adjudicated).

However, ratings of risk for future delinquency (low, moderate, or high) were related to both initial case outcome and adjudication status. Twenty-nine of the 55 youth (53%) were rated as low risk for future delinquency, 21 (38%) as moderate risk, and five (9%) as high risk.

Because youth were classified into only two of the four possible levels of the initial case outcome variable, a binary logistic regression was run to investigate whether there was an association between summary risk rating for delinquency and the likelihood of receiving probation versus no disposition. There was a significant association between the likelihood of receiving probation and summary risk ratings of risk for future delinquency (= 1.37, *SE* = 0.54, Exp[B] = 3.93, *p* = .011).

For their initial case outcome, 12 of the 29 low risk youth (41%) received probation, compared with 17 of the 21 moderate risk youth (81%), and four of five high risk youth (80%). Figure 5 illustrates the association between risk for delinquency and initial case outcome. The vertical axis represents the percentage of youth within a given case outcome who were rated as being at low, moderate, or high risk for future delinquency.

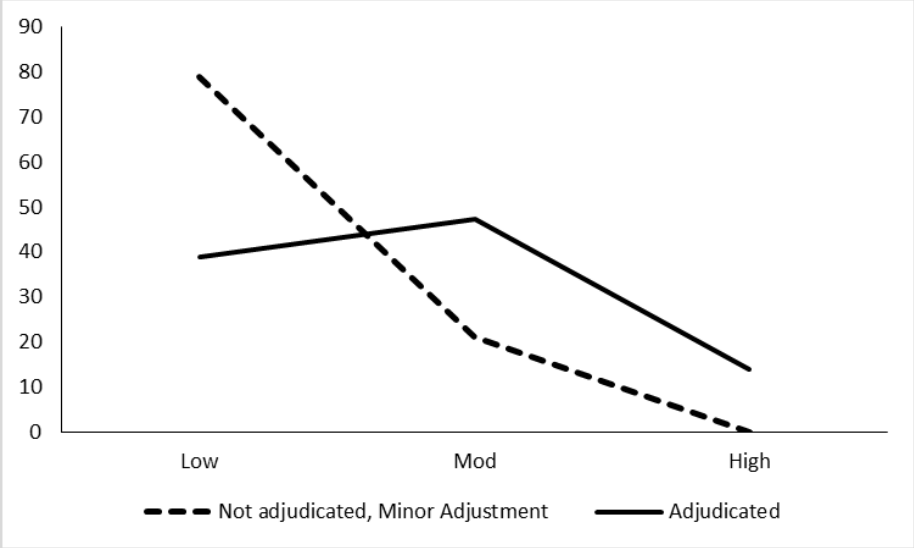
Figure 5. Risk for future delinquency and Probation Versus No Disposition



Because no youth were given an informal adjustment, youth were classified into only two of the three possible levels of the initial adjudication variable. A binary logistic regression was run to investigate whether there was an association between summary risk rating for delinquency and the likelihood of being adjudicated versus not being adjudicated. There was a significant association between the likelihood of being adjudicated and summary risk ratings of risk for future delinquency (= 1.66, *SE* = 0.62, Exp[B] = 5.28, *p* = .007). Of the 29 youth rated as low risk for future delinquency, 14 (48%) were adjudicated and the remaining youth were not adjudicated. Of the moderate risk youth, 81% (n = 17) were adjudicated. Finally, all five (100%) youth rated as being at

high risk for future delinquency were adjudicated. Figure 6 illustrates this association, graphing risk within adjudication status.

Figure 6. Risk for future delinquency within adjudication status



Placement

Placements occurring at any point between a youth's baseline petition and his or her study tracking end date (i.e., the last date when case management data were received) were included in analyses. On average, placements among the 55 youth in MS Experimental Site 2 and the 55 propensity score matched youth in the comparison sites were tracked for 285.90 days (*SD* = 132.91 range: 65 – 630 days).

Where were youth placed? Four general categories of out-of-home placements were available in the participating counties: Detention, Residential (a non-therapeutic setting), Treatment (drug and alcohol, mental health), and Extended Family. Placements could occur at multiple decision-points (post-petition, at disposition, or post-disposition at any point during probation). At each point, the decision to place a youth may be affected by different factors.

Sixteen of the 55 youth in MS Experimental Site 2 had one or more out-of-home placements. Of these 16 youth, 33 placements occurred. Similarly, 16 of the 55 youth in the comparison group were placed. Among these 16 youth, there were 27 placements. By far, the most common type of placement was detention. Among youth in the experimental group, 25 of the 33 placements were in a detention facility either pre- or post-adjudication. Among youth in the comparison group, 16 of the 27 placements were in a detention facility. There were four and five placements to a facility in the experimental and comparison groups, respectively. There were one and two placements to a dependency facility in the experimental and comparison groups, respectively. Placements to extended family were only made for a youth's first placement, and this occurred for two youth in the experimental group and one youth in the comparison group. There were one and three placements to a residential (non-therapeutic) facility in the experimental and comparison groups, respectively. No youth from MS Experimental Site 2 were placed in drug and alcohol treatment facilities (such facilities existed and were available to youth in MS Experimental Site 2).

Did placements rates among youth in experimental and comparison sites differ?

There was no difference in the number of youth from the experimental and comparison groups who were in an out of home placement at any point following petition (= -.08, *SE* = 0.42, Exp[B] = 0.92, *p* = .850). In the experimental group, 16 (29%; marginal mean = 29%, *SE* = 0.06) of the 55 youth received some kind of placement. Of the 52 youth in the comparison group for whom information on post-petition placements was available (three youth were transferred out of the county), 16 (31%; marginal mean = 31%, *SE* = 0.06) were given an out of home placement. Placements usually occurred at some point following disposition, though typically not immediately following disposition. No between group differences were observed when comparing placement

rates for each type of out of home placement (Detention, Residential, Treatment, and Extended Family).

No between-group differences were observed for the number of post-petition placements *per youth*. Considering all 55 youth in the experimental group, youth each received on average 1.24 placements post-petition (*SD* = 1.37, range = 0 – 6), whereas youth in the comparison group each received on average 1.00 placement post-petition (*SD* = 1.05, range = 0 – 4); t (*df* = 106) = 1.02, p = .31.

For how long were youth placed? Youth in MS Experimental Site 2 spent significantly fewer days in placement than youth in the comparison group: 41.93 days (*SD* = 45.40; range: 1 – 153 days) vs. 113.08 days (*SD* = 102.16; range: 1-327 days); t(*df* = 16.05) = 2.32, p=.03; d = .92.

Impact of Risk: Did placements rates among youth in experimental site differ as a function of SAVRY risk level? To investigate whether SAVRY risk ratings for future violence and non-violent delinquency were associated with the rates of youth who were given out of home placements at any time following petition, a binary logistic regression using data from all 85 youth who were adjudicated in both MS Experimental Sites 1 and 2 was conducted. Including MS Experimental Site 1 allowed us to increase the sample size and therefore maximize statistical power. Among these 85 youth, 51 were rated as being at Low risk for violence, 28 were rated as being at Moderate risk for violence, and 6 were rated as being at High risk for violence. Ratings for risk of delinquency were distributed relatively more evenly across the Low and Moderate categories. Among these 85 adjudicated youth, 34 were rated as being at Low risk for delinquency, 44 were rated as being at Moderate risk for delinquency, and 7 were rated as being at High risk for delinquency.

Thirty-one (36%) of the 85 adjudicated youth were given a placement post-petition. There was a significant association between the likelihood of being placed out of home and summary risk ratings of future violence (= 0.97, *SE* = 0.38, Exp[B] = 2.64, p = .01). That is, youth at high and

moderate risk for violence, respectively, were approximately 2.64 and 5.28 times more likely to be placed out of home than were low risk youth (p = .01). Of the 51 youth rated as low risk for future violence, 14 (27.4%) were placed out of home. Of the 28 moderate risk youth, 12 (43%) were placed out of home. Finally, 5 of the 6 high risk youth (83%) were placed out of home. Figure 7 illustrates the summary risk rating for violence within placement status, and Figure 8 presents placement status as a function of risk for future violence.

Figure 7. Risk for future violence within out of home placement status

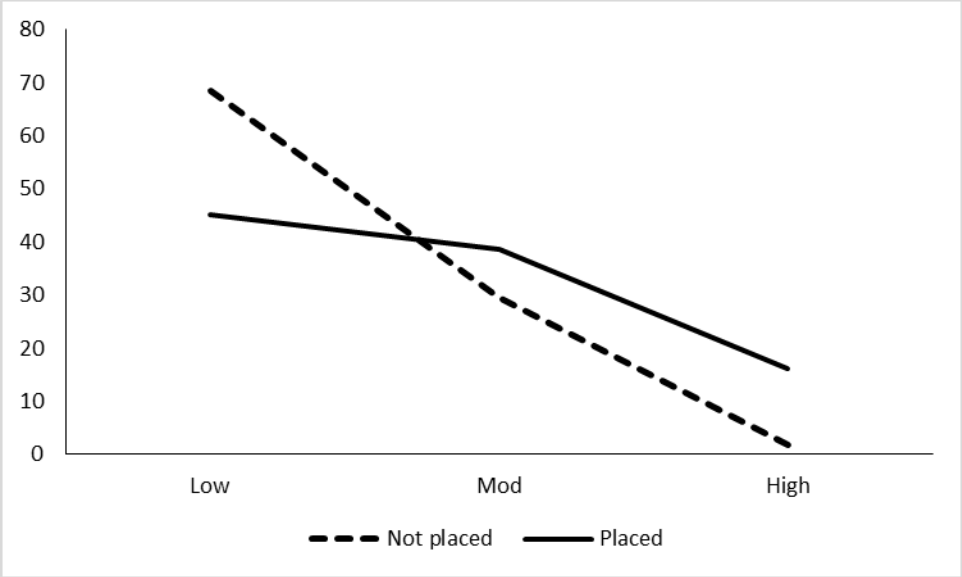
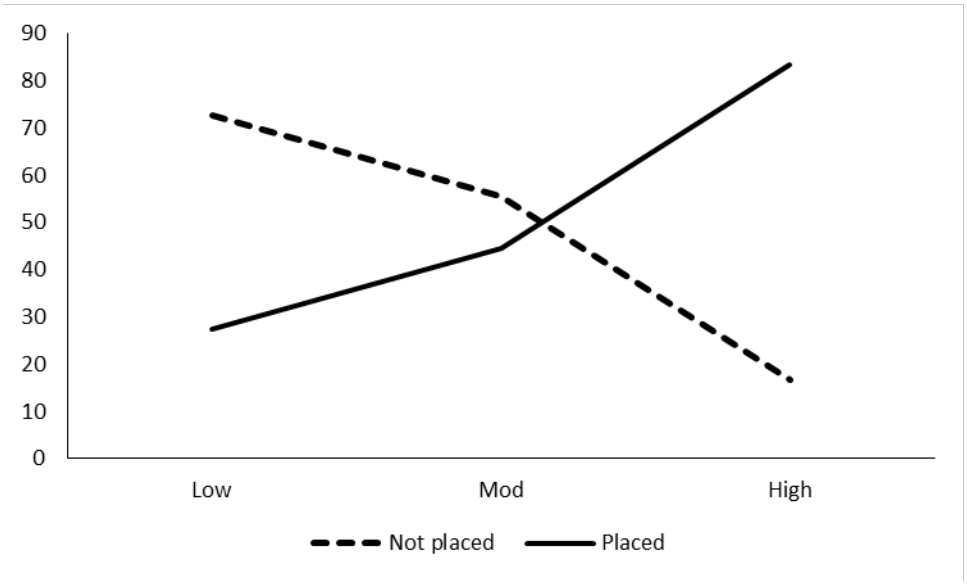


Figure 8. Rates of out of home placement status within risk for future violence



The likelihood of being placed out of home also was significantly predicted by risk for future delinquency (= 0.95, *SE* = 0.39, Exp[B] = 2.58, *p* = .02). That is, youth at high and moderate risk for delinquency, respectively, were approximately 2.58 and 5.16 times more likely to be placed out of home than were low risk youth (*p* = .02). Of the 34 youth rated as low risk for future delinquency, 7 (21%) were placed out of home. Of the 44 moderate risk youth, 20 (45%) were placed out of home. Finally, 4 of the 7 high risk youth (57%) were placed out of home. Figure 9 illustrates the summary risk rating for delinquency within placement status, and Figure 10 presents the data in the opposite manner (i.e., placement status as a function of risk for future delinquency).

Figure 9. Risk for future delinquency within out of home placement status

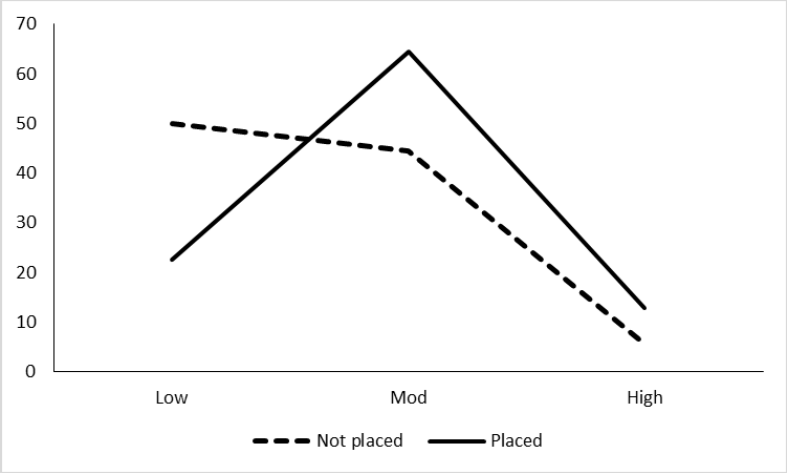
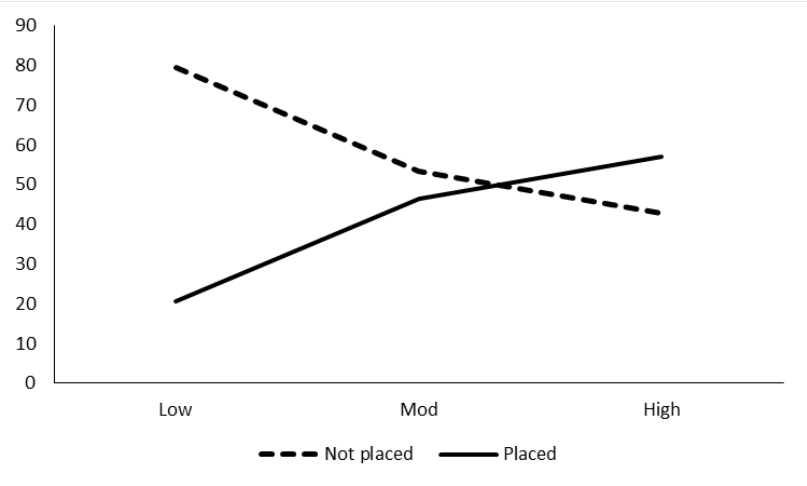


Figure 10. Rates of out of home placement within risk for future delinquency



Next, we investigated whether either type of risk rating (violence or non-violent delinquency) impacted rates of post-petition placement to detention or to a treatment facility. Focusing first on placement in detention, approximately one quarter (n = 21; 25%) of the formally processed (adjudicated) youth were placed in detention at some point following petition. There was a significant association between risk for future violence and likelihood of being placed in detention versus not being placed at all or having a non-detention placement (= 0.93, *SE* = 0.40, Exp[B] =

2.54, p = .02). A similar pattern of findings for post-petition placements to detention was observed regarding the impact of risk for non-violent delinquency (= 0.96, SE = 0.43, Exp[B] = 2.61, p = .03). The likelihood of being placed in a treatment facility was not related to youths' risk for future violence or non-violent delinquency.

Services During Probations

Each experimental and comparison site was assisted with developing an individualized service matrix listing services available in the community. Sites first developed a list of service providers and services currently available locally. Although some counties already had such a list, many of the services were no longer available and newly available services had not yet been listed. Sites were assisted in organizing the services according to the SAVRY need area they targeted and level of intensity (e.g., length of treatment program, number of sessions per week). A service matrix from one of the sites is in Appendix G.

Information was obtained about services in the community to which youth were referred or attended. The following interventions were not considered as services and thus excluded from analyses: electronic monitoring, social security administration, restitution, community service, attending school, and evaluation/assessment. Referral or enrollment in drug court was coded as a substance abuse service. Attendance in the SICU program within a detention center was coded as a mental health service (any other information about possible services in detention was not known). If a service provider was listed under multiple SAVRY need areas, the youth was coded as having received a single service (e.g., individual counseling with a single provider could address multiple need areas, but was coded as a single rather than multiple service received).

YSCs recorded information about each service referral, including the name of the service program and service provider, the type of service (e.g., mental health counseling, substance abuse counseling, etc.), the goal of the service or the need area it addressed, and attendance/completion on

youths' case management plans for the duration of the probation period. We received case management plans for data coding on a regular basis. Upon receipt of the first few case plans, we noticed that many YSCs listed themselves as working with youth to address multiple goals or need areas, rather than making referrals to structured services. To capture YSCs' interventions with youth more accurately, we coded two distinct service options: (1) "structured" service and (2) "any" service. A service was coded as a "structured service" either if the YSC noted that she or he was providing counseling to the youth to address a specific goal or need area or if the youth was referred to a service provider or program in the community or detention facility. When the case management plan indicated the YSC was providing *monitoring* for a particular need area, this was not coded as a structured service. The "any" service category comprised all "structured" services as well as all instances of *monitoring*.

Services occurring at any point between a youth's baseline petition and his or her study tracking end date (i.e., the last date when case management data were received) were included in analyses. On average, services among the 55 youth in MS Experimental Site 2 and the 55 propensity score matched youth in the comparison sites were tracked for 285.90 days (*SD* = 132.91 range: 65 – 630 days). For each service to which a youth was referred, YSCs made progress ratings on the case management plan periodically during the youth's probation period using the following categories: (1) successfully completed service; (2) participating in service, with expected progress; (3) participating in service, less than expected progress, sporadic / poor participation; and (4) participating in service, no progress/willful non-compliance. Progress ratings were used to identify the number of services (1) to which a youth was referred, regardless of attendance, (2) attended with expected progress or successful completion, and (3) attended, irrespective of degree of participation or success.

Who delivered the services? The majority of youth who received services in both the experimental and comparison groups received some or all of their services from an external

provider: 31, or 56.4%, of the experimental sample youth and 34, or 61.8%, of the comparison sample youth. A larger proportion of comparison youth received all their services, even if only monitoring, from the YSC: 2, or 3.6%, of the experimental sample youth versus 12, 21.8%, of the comparison sample youth. Substantially more youth in the experimental group were not given any service referrals: 22, or 40%, of the experimental sample youth versus 9, 16.4%, of the comparison sample youth.

Did the number of referrals to and participation in services differ between experimental and comparison groups? In addition to the variables controlled for via propensity analyses (as described above), for the analyses below, number of days on probation was controlled for via inclusion as covariates in regression models.

Among youth on probation, those in the experimental group received significantly more referrals for "any" and "structured" services than youth in the comparison group. More specifically, for the 34 (62%) youth in the experimental condition and 52 (95%) youth in the comparison condition who were placed on probation, the average number of any service referrals was 2.29 (*SD* = 1.34, range = 0 – 8) and 1.17 (*SD* = 0.71, range = 0 – 3), respectively (= 0.48, SE = 0.22, $p <$ .001). For the 52 (95%) youth in the comparison condition and the 34 (62%) youth in the experimental condition who were placed on probation, the average number of referrals to structured services was 0.79 (*SD* = 0.70, range = 0 – 2) and 1.65 (*SD* = 1.25, range = 0 – 7), respectively (= 0.41, *SE* = 0.21, $p <$ .001).

Among youth who were on probation and referred to a service, those in the experimental group attended significantly more services of any kind than youth in the comparison group (= 0.45 *SE* = 0.17, $p <$ .001). The 32 (58%) youth in the experimental group attended on average 1.91 (*SD* = 0.89, range = 1 – 4) services, whereas the 41 (75%) youth in the comparison condition attended on average of 1.20 (*SD* = 0.51, range = 0 – 3) services. Youth in the experimental group

also attended significantly more structured services than youth in the comparison group, after controlling for the number of days youths were on probation (= 0.46 *SE* = 0.19, $p < .001$): on average, 0.73 (*SD* = 0.63, range = 0 – 2) versus 1.25 (*SD* = 0.84, range = 0 – 3) structured services among youth in the experimental versus comparison group, respectively.

Service participation ratings were compared for experimental and comparison group youth on probation who received one or more services. Youth in the experimental group were rated as participating "actively" in significantly more services of any kind and significantly more structured services than youth in the comparison group. More specifically, the 41 (75%) youth from the comparison condition were rated as participating actively in an average of 1.07 (*SD* = 0.61, range = 0 – 3) services, compared with the 32 (58%) youth from the experimental condition who were rated as participating actively in an average of 1.53 (*SD* = 0.72, range = 0 – 3) services, respectively (= 0.33, *SE* = 0.16, $p = .004$). Regarding structured services, the 41 (75%) youth in the comparison condition and the 32 (58%) youth in the experimental condition actively participated in an average of 0.73 (*SD* = 0.63, range = 0 – 2) and 1.00 (*SD* = 0.67, range = 0 – 3) structured services, respectively. This represented a significant between group difference (= 0.24, *SE* = 0.15, $p = .041$).

Impact of Risk: Did rates of service referrals differ as a function of SAVRY risk level?

Data using the 85 adjudicated youth in MS Experimental Sites 1 and 2 were used to examine whether ratings of risk for future violence and delinquency were related to service referrals. Data for service referrals were missing for four youth. Among the 85 youth, 51(60%) were rated as being at Low risk for violence, 28 (33%) were rated as being at Moderate risk for violence, and 6 (7%) were rated as being at High risk for violence. The average number of service referrals for youth at low, moderate, and high risk for future violence was 1.69 (*SD* = 0.85, range = 0 - 4), 1.85 (*SD* = .97,

range = 1 - 4), and 3.00 (*SD* = 2.53, range = 1 - 8), respectively. This was a significant difference (= 0.25, *SE* = 0.19, *p* = 0.02).

A somewhat similar pattern of findings was observed for referrals to structured services as a function of risk for future violence. The average number of structured service referrals given to youth rated as being at low, moderate, and high risk for future violence was 1.02 (*SD* = 0.83, range = 0 - 3), 1.12 (*SD* = 1.11, range = 0 - 3), and 2.50 (*SD* = 2.35, range = 1 - 7), respectively. Risk for violence was significantly related to referrals to structured services (= 0.26, *SE* = 0.19, *p* = .02).

Next, the impact of risk for future non-violent delinquency was examined. Among the 85 youth, 34 (40%) were rated as being at Low risk for violence, 44 (52%) were rated as being at Moderate risk for violence, and 7 (8.2%) were rated as being at High risk for delinquency. The average number of any service referrals given to youth at low, moderate, and high risk for future delinquency was 1.50 (*SD* = 0.76, range = 0 - 3), 2.07 (*SD* = 1.32, range = 1 - 8), and 2.00 (*SD* = 0.63, range = 1 - 3), respectively. The average number of structured service referrals given to youth at low, moderate, and high risk for future delinquency was 0.84 (*SD* = 0.85, range = 0 - 3), 1.35 (*SD* = 1.31, range = 0 - 7), and 1.50 (*SD* = 0.84, range = 1 - 3), respectively. Risk for delinquency was at the cusp of statistical significance in terms of its association with number of any service referrals and structured service referrals made, both at = 0.22, *SE* = 0.20, *p* = .05.

Level of Supervision During Probation

None of the study sites had a policy pertaining to assignment of and case management practices regarding level of supervision prior to the RAMSAY study. Therefore, as a proxy to allow us to examine preliminarily the impact of implementing the SAVRY on level of supervision, we asked YSCs to report the number of contacts she/he had with a youth in person or on the telephone. We also asked YSCs to rate youth using a 5-level "supervision performance" rating scale following each supervisory contact. Because MS Experimental Site 1 did not systematically record

data on YSC contacts with youth, level of supervision analyses focus on the 36 adjudicated youth in MS Experimental Site 2.

The overall number of in-person contacts did not differ between the experimental and comparison group, after controlling for the length of time in probation (= -0.13, *SE* = 0.89, *p* = .137). Youths in MS Experimental Site 2 had an average of 4.96 (*SD* = 6.06, range = 0 – 28) in-person contacts, and youth in the comparison group had an average of 4.82 (*SD* = 3.75, range = 0 – 16) in-person contacts.

The number of phone contacts did not differ for youth in MS Experimental Site 2 versus the comparison group, after controlling for the length of time in probation and current mental health diagnosis (= -0.12, *SE* = 0.58, *p* = .186). Youth in MS Experimental Site 2 had an average of 2.69 (*SD* = 3.24, range = 0 – 11) phone contacts, and youth in the comparison group had an average of 2.75 (*SD* = 3.33, range = 0 – 13) phone contacts.

Youth in MS Experimental Site 2 received significantly more positive supervision performance ratings compared with youth in the comparison group. More specifically, the average supervision performance rating among youth in the experimental condition was 3.60 (*SD* = 4.85, range = 0 – 23.4), whereas the average rating among youth in the comparison group was 2.77 (*SD* = 3.29, range = 0 – 14.2). The difference in supervision performance rating was significant, after controlling for the length of time in probation (= -0.21, *SE* = 0.74, *p* = .022). The marginal means for MS Experimental Site 2 and the comparison group were 4.05 (*SE* = .52) and 2.32 (*SE* = .52), respectively.

Impact of risk: Did the average number of in-person contacts between the YSC and youth differ as a function of SAVRY risk level? Data from the 36 adjudicated youth in MS Experimental Site 2 were used for these analyses. The average number of in person contacts for the low, moderate, and youth rated as being at high risk for future violence was 6.15 (*SD* = 3.73, range

= 0 - 16), 9.57 (*SD* = 9.93, range = 0 - 28), and 14.50 (*SD* = 16.26, range = 3 - 26), respectively. After controlling for length of time on probation, both proxy variables for level of supervision – number of in person contacts and telephone contacts – were not significantly associated with ratings of future risk for violence or delinquency.

Next, contacts in person and by telephone were summed to create an aggregate variable. The average number of any contacts for the low, moderate, and youth rated as being at high risk for future violence was 9.93 (*SD* = 5.41, range = 0 - 20), 13.43 (*SD* = 11.43, range = 0 - 34), and 22.50 (*SD* = 13.44, range = 13 - 32), respectively. Controlling for length of time on probation, this aggregate variable was significantly associated with risk for violence, □ = 0.39, *SE* = 2.10, *p* = .02). However, no association between this variable and risk for delinquency was observed.

Recidivism

Recidivism rates – defined as youth with a new petition following the baseline offense – were relatively high: half of all youth in the group of 104 comparison youth and over one third of the 104 youth in the experimental group received a new petition (see Table 19). The amount of time for which a given youth was "at risk" or "had an opportunity" to reoffend varied as a function of when she or he entered the RAMSAY study and the total amount of time spent in placement during the study. The follow-up period commenced on the date of adjudication or, for youth whose baseline offenses were not adjudicated, on the date the decision regarding how to proceed with the baseline referral (e.g., dismissed, take no action, etc.) was made. When values for placement end date were missing, time in placement was estimated by substituting the average number of days the sample spent in the first placement (i.e., which was 40.12 days, calculated using placement start and end dates for youth for whom these dates were known). For youth who remained in placement at the end of the study, the study end date was used as the placement end date of the actual end date was not known, and the actual end date was used if known. Recidivism data were tracked on average for 344 days (*SD* = 73; range: 147 – 504 days).

Among the 208 youth, there were no significant differences in the rates of youth in the experimental and comparison groups who received *any type* of new petition ($\chi^2 = 3.30$, $p = .069$): 39 of the youth in the experimental group (38%) and 52 of the youth in the comparison group (50%) had some type of new petition during the study period. Likewise, the rates of youth who were given petitions for *non-violent* offenses were similar between the experimental (37%) and comparison (45%) groups, $\chi^2 = 1.62$, $p = .203$). Between group rates also were not significantly different for any new petition for a *status offense* ($\chi^2 = 2.40$, p = .121) or any new petition for a *probation violation* ($\chi^2 = .948$, $p = .330$). However, significantly more youth in the comparison group obtained a new petition for a *violent* offense (22.3%) compared with youth in the experimental group (2.0%; $\chi^2 = 19.42$, $p < .001$).

Table 19

Number (%) of Youth with New Petitions Following Baseline Referral

	Any	Status	Probation Violations	Nonviolent	Violent
Experimental	39	3	13	39	2
(*n* = 104)	(37.5%)	(2.9%)	(12.5%)	(37.5%)	(2%)*
Site 2	24	3	13	24	2
(*n* = 55)	(43.6%)	(5.5%)	(23.6%)	(43.6)	(3.7)**
Site 1	15	0	0	15	0
(*n* = 49)	(30.6%)			(30.6)	
Comparison	52	8	18	48	23
(*n* = 104)	(50%)	(7.7%)	(17.3%)	(46.2%)	(22.3%)**
Site 1	3	0	1	3	2
(*n* = 8)	(37.5%)		(12.5%)	(37.5%)	(25%)
Site 2	18	1	3	16	7
(*n* = 48)	(37.5%)	(2.1%)	(6.3%)	(33.4%)	(14.9%)**
Site 4	8	0	0	7	4
(*n* = 12)	(66.7%)			(58.3%)	(33.3%)
Site 3	23	7	14	22	10
(*n* = 36)	(63.9%)	(19.4%)	(38.9%)	(61.1%)	(27.8%)

Note. * Data missing for four youth; ** Data missing for one youth.

The length of time until a youth's first instance of recidivism was examined across groups. Among youth in the experimental group who reoffended, the average number of days until recidivism was: any type of new petition (135.25, *SD* = 117.86); new nonviolent petition (130.20; *SD* = 115.09); and new violent petition (257.00; *SD* = 182.43). Among youth in the comparison group who reoffended, the average number of days until recidivism was: any kind of new petition (119.85, *SD* = 103.80); new nonviolent petition (115.66; *SD* = 101.95); and new violent petition (138.00; *SD* = 123.89). Separate Cox regression analyses indicated there were no significant

differences between youth in the experimental and comparison groups in their time to the commission of any new petition (any new petition: □ = .24, SE = .21, Exp[B] = 1.27, *p* = .262) or any nonviolent petition (□ = .16, SE = .22, Exp[B] = 1.17, *p* = .472). The time to the commission of a new violent petition, however, differed (though it should be noted that only two youth in the experimental group reoffended with a violent petition): □ = 2.32, *SE* = .74, Exp[B] = 10.20, *p* = .002, with comparison youth recidivating more quickly.

Predictive Validity of the SAVRY

All 104 youth in the experimental group were included in these analyses. Because youth had different lengths of follow-up in the community depending on when they entered the RAMSAY sample and length of time spent in placement, survival analysis, which accounts for time to the occurrence of reoffending, was used to examine predictive validity. In the experimental sample, separate cox regression analyses were conducted to test whether the SAVRY indices were predictive of two outcomes: *any* new petition and new *nonviolent* petition. The low base rates for new petitions for violent and status offenses as well as probation violations precluded analysis of predictive validity for these outcomes. Regression models for seven SAVRY indices were computed: SRR for violence, SRR for non-violent delinquency, total presence ratings, and each of the four domain total presence ratings.

For the outcome *any* new petition, each predictor when entered separately was significant (see Table 20). The same pattern of findings was observed for prediction of *nonviolent* petition (see Table 21). For both types of recidivism outcomes, the summary risk rating for delinquency had larger hazard ratios than for the summary risk rating for violence. When the ratings for violence and delinquency were compared directly in a model predicting any new petition, only the delinquency rating remained statistically significant, □ = .0.94, *SE* = .28, Exp[B] = 2.57, *p* = .001.

Several regression models were computed to examine the relative predictive validity of the various SAVRY indices. In a regression model comprising the four domain scores and the summary risk rating for violence, only the protective factor domain was significantly predictive of any new petition, overall model χ^2 (5) = 26.08, $p < .001$. When a model comprising the four domain scores and the summary risk rating for delinquency was computed, both the protective factor domain and the summary risk rating were independently predictive of any new petition, overall model χ^2 (5) = 30.15, $p < .001$; SRR: β = .0.77, *SE* = .32, Exp[B] = 2.16, $p = .015$; protective: β = -0.30, *SE* = .12, Exp[B] = .74, $p = .011$. In a model comprising the three risk factor domains of Historical, Social/Contextual, and Clinical/Individual, only the Social/Contextual was statistically significant, overall model χ^2 (3) = 17.44, $p < .001$; Social/Contextual: β = .0.26, *SE* = .08, Exp[B] = 1.30, p = .002. Finally, we examined the predictive validity of the total risk score compared with the SRRs in a stepwise fashion. The SRR violence did not demonstrate incremental predictive validity over the total score. However, the SRR delinquency did: Wald χ^2 (1) = 4.72, $p = .03$.

Table 20

Cox Regression Models for SAVRY Indices' Association with New Petition

	β	*SE*	*Exp[B]*	χ	*p*	95% CI	
						LL	LL
Total	0.09	0.02	1.09	3.71	0.00	0.04	0.13
History	0.12	0.05	1.13	2.33	0.02	0.02	0.22
Social/Contextual	0.29	0.07	1.33	4.33	0.00	0.16	0.42
Individual/Clinical	0.12	0.05	1.13	2.68	0.01	0.03	0.21
Protective	-0.36	0.09	0.7	-4.12	0.00	-0.53	-0.19
SRR Violence	0.55	0.25	1.74	2.24	0.03	0.07	1.03
SRR Delinquency	1.02	0.26	2.77	3.95	0.00	0.51	1.53

Survival curves associated with time to reoffend with any new petition for youth at low, moderate, and high risk for violence (Figure 11) and delinquency (Figure 12) both demonstrate that

youth rated as being at higher risk reoffended more quickly than youth rated as being at lower risk. The curves for any new nonviolent petition were highly similar.

Figure 11. SRR Violence for Any New Petition

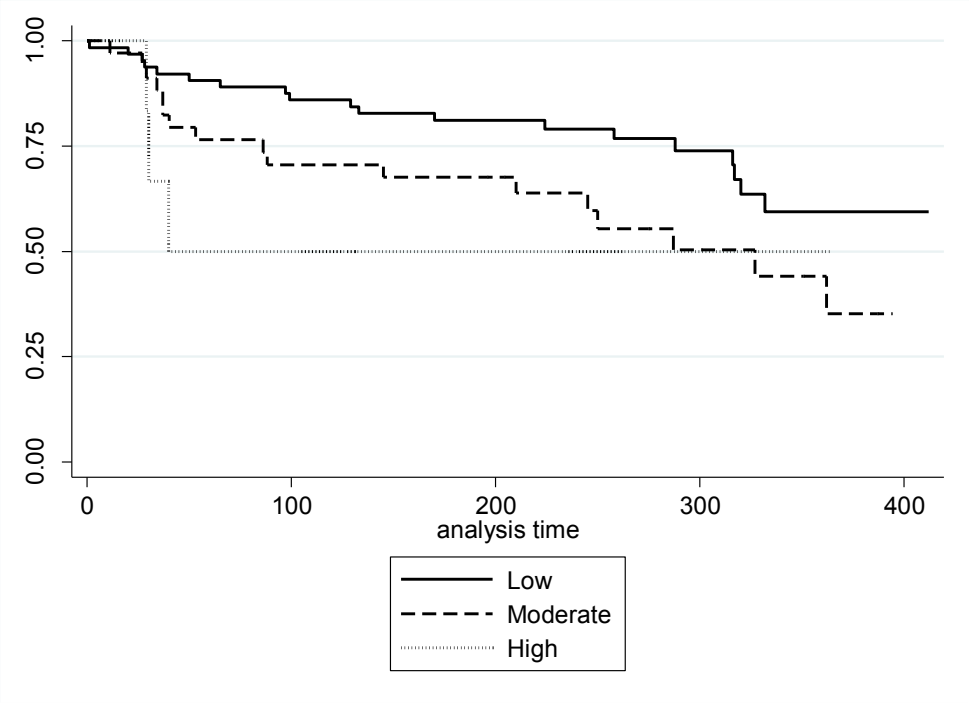


Figure 12. SRR Delinquency for Any New Petition

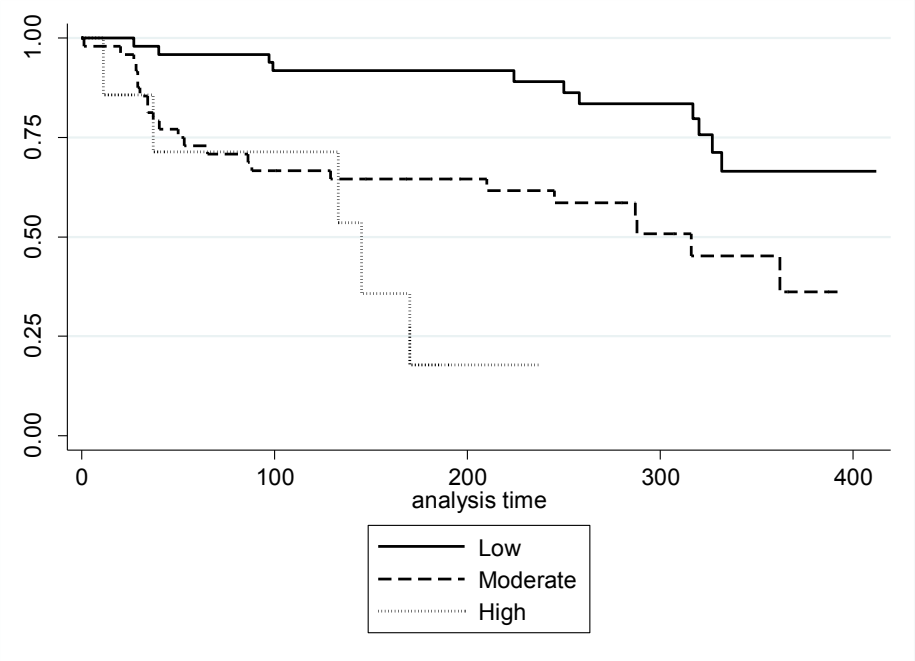


Table 21

Cox Regression Models for SAVRY Indices' Association with New Nonviolent Petition

	□	*SE*	*Exp[B]*	*z*	*p*	95% CI	
						LL	LL
Total	0.09	0.02	1.09	3.68	0.00	0.04	0.13
History	0.12	0.05	1.13	2.3	0.02	0.02	0.22
Social/Contextual	0.28	0.07	1.32	4.1	0.00	0.14	0.41
Individual/Clinical	0.13	0.05	1.14	2.78	0.01	0.04	0.22
Protective	-0.34	0.09	0.71	-3.91	0.00	-0.52	-0.17
SRR Violence	0.52	0.25	1.69	2.08	0.04	0.03	1.02
SRR Delinquency	1.06	0.26	2.89	4.08	0.00	0.55	1.57

Summary of Key Findings in Mississippi

Disposition

- Youth in the experimental group were more likely than youth in the comparison group to have less serious judicial handling of their cases:
    - Youth in the experimental group were more likely to receive an informal adjustment or no disposition and less likely to be placed on probation or placed out-of-home; they also were less likely to be adjudicated
- Risk for delinquency, but not violence, was related to youths' disposition and adjudication statuses, such that youth rated as posing relatively higher risk received more serious outcomes than youth rated as being a lower risk

Placement

- There were no differences between the groups in rates of youth who received out of home placements, although youth in the experimental group spent significantly fewer days in placement than youth in the comparison group
- The most frequent type of placement was detention
- Risk level was related to placement status, such that youth judged to be at relatively higher risk for violence and delinquency were more likely to be placed out of home than youth at lower risk

Services

- Youth on probation in the experimental group were referred to and attended more services than probationers in the comparison group
- Youth in the experimental group were rated as participating actively in significantly more services than youth in the comparison group

- Number of service referrals was significantly related to risk for violence, but not risk for non-violent delinquency, such that youth at relatively higher risk were referred to more services than youth at relatively lower risk

Level of Supervision

- This outcome could not be studied well in Mississippi because level of supervision policies had not been implemented; a proxy variable of level of supervising comprising combined average number of in person and telephone contacts over the period of supervision did not differ between groups
- YSCs' decisions about how frequently to have contact with youth was related to risk for future violence, but not to non-violent delinquency, such that increased in person and telephone contact was significantly related to higher ratings of future violence
- Youth in the experimental group received significantly more positive supervision performance ratings than youth in the comparison group

Recidivism

- Half of the youth in the comparison group and just over one third of the youth in the experimental group received a new petition
- Rates of youth in the experimental and comparison group with new petitions of any kind, or of new petitions for nonviolent, status, or probation violation offenses did not differ significantly; substantially more youth in the comparison group obtained a new petition for a violent offense

SAVRY Risk Profile and Predictive Validity

- Strong inter-rater agreement was observed
- The majority of youth were at low risk for violence, and few were rated as high risk for delinquency
- Roughly equal numbers of youth were rated as being at low and moderate risk for non-violent delinquency
- All SAVRY indices were predictive of incurring a new petition of any type, as well as of incurring a new petition for a non-violent offence; predictive validity of the SAVRY for other types of recidivism was not examined given low base rates
- When the predictive validity of various SAVRY indices were compared directly with one another, only ratings of risk for delinquency and the scores on the protective factor scale demonstrated significance

MAYSI-2

- Behavioral health needs as assessed via this brief screen were prevalent
- A larger percentage of girls scored above Caution cut-offs than boys, which is consistent with the National Norms
- JPOs reported the value of attending to behavioral health needs
- Information about behavioral health needs often was available for youth on probation recently released from detention, but ignored or underutilized by JPOs

Discussion

There were several positive outcomes from implementation of an evidence based approach to case management in the experimental sites in Mississippi. Qualitatively, the process of implementing a behavioral health screening tool (the MAYSI-2) and a comprehensive violence risk assessment tool (the SAVRY) resulted in procedural changes that improved the way the juvenile justice system handled youth. Among such changes were improving communication between administration and YSCs, instilling the benefits of a data-driven approach, structuring social histories and the information obtained about youth and families to improve decision-making, and developing a current inventory of services and other resources.

Some YSCs acknowledged the value of having more information about the youth to help make recommendations and to track services, and appreciated the ability to conduct the assessment pre-adjudication so youth who they did not believe belonged on probation could be identified and responded to appropriately. On the other hand, some YSCs felt the SAVRY and interview process did not lead to any conclusions that they would not have been able to make on their own. Our previous work has indicated that this sentiment tends to be present among probation officers who have relatively more experience (Vincent, Paiva, et al., 2012). Research has shown, however, that violence risk assessments that rely merely on professional experience are substantially less accurate than violence risk assessments based on structured approaches that are empirically validated (Guy, 2008).

There were challenges with implementation of the SAVRY and MASYI-2 that are key issues for all states to consider when adopting a case management approach that includes a structured risk assessment method if they wish to do so effectively. Most of the challenges that were noted are not specific to the SAVRY; they occur with use of any comprehensive risk assessment approach.

One of these challenges is the need to adjust the case management process of the court to allow for assessment to occur prior to making case management-related recommendations and decisions. The point at which these decisions are made can vary by state, and even by court. In one of the counties in Mississippi, the lack of buy-in from the judge made it impossible for the YSCs to conduct the SAVRY or MAYSI-2 at a point that would have guided any disposition or service referral decisions. In situations such as this, conducting a comprehensive risk assessment has little value (except as a decision tracking tool) because it cannot be used to guide case management decisions about the youth. In our experience once judges understand and acknowledge the usefulness of any assessment screen and/or tool they are more willing to allow probation officers the to complete the tool in order to have a more comprehensive understanding of the youth.

A second challenge arises in courts in which YSCs are not used to conducting comprehensive social histories. Often they will find completion of a comprehensive risk assessment to be burdensome because of time constraints. In our previous work, we conducted repeated interviews with probation officers and found complaints about the amount of time required for structured risk assessment methods generally dissipated after six months, when officers became more comfortable with the process (Vincent, Paiva, et al., 2012). Another common dissatisfaction with a risk assessment tool arises when the tool is not integrated into the electronic case management system if one exists, as was the case in Mississippi.

With respect to the impact of implementation of the SAVRY on actual case processing, youth in the experimental group:

- Received less severe dispositions than youth in the comparison group
- Received a severity of disposition that was commensurate with risk level

- Were referred to and attended significantly more services than youth in the comparison group (although this may have been due to county differences), and decisions about number of referrals was commensurate with risk level
- Were rated as participating in services more actively than youth in the comparison group
- Were rated as having more positive performance on supervision than youth in the comparison group
- Received doses of in person and telephone contact commensurate with their level of risk
- Received significantly fewer petitions for new violent offenses than youth in the comparison group (although the base rates in both groups was low)

Surprisingly, there were no differences between the experimental and comparison sites in the rates of youth being sent to out-of-home placements. In the experimental group, placement decisions appeared to be related to youths' risk level. We do not know how placement decisions are made in the comparison sites or whether such decisions may be tied to risk even in the absence of use of a validated instrument. Overall, placement rates in the counties were average, with 29% of youth being placed out of the home at least once; most placements were to detention. Based on our previous work, we would have expected to see this rate be lower in the experimental site. It is possible that placement rates in the sites were tied in some way to funding, placement availability, and many other issues that do not relate to risk level or criminogenic risk.

With respect to behavioral health screening findings, in the present sample, few differences between sites were found for the proportion of youth over Caution cut-off on the MAYSI-2 scales. One exception to the similarity across sites was the relatively low percentage over Caution on Suicide Ideation in MS Experimental Site 2 compared to MS Experimental Site 1. This is an artifact of the gender composition of the site samples. In national norms, as in the present samples, average MAYSI-2 scale scores for girls are slightly higher than for boys (except for Alcohol/Drug use), but

they are substantially higher for girls on Suicide Ideation. The lower Suicide Ideation average for MS Experimental Site 2 is explained simply by the fact that it was almost entirely male, while girls comprised roughly one-third of all of the other sites.

There are some clear limitations with respect to the study's procedures, including the ways in which the case management system was implemented, that make it challenging to draw clear conclusions. First, the research team learned late during the data collection phase that some YSCs in the comparison sites had been exposed to risk assessment tools at some point in the past, and were still using them occasionally. Those tools included the Youth Assessment and Screening Instrument (YASI; Orbis Partners, 2007) and a locally developed risk checklist. Most of the YSCs in the comparison sites (all but 7 of 21 YSCs) had been exposed to YASI training previously, and these YSCs were the case managers for approximately 84% of the comparison sample.

We do not know the extent to which the YASI and locally developed tool guided decisions for individual cases in the comparison sites, but it certainly is a confounding factor and may explain in part or in whole the lack of differences observed in rates of out of home placement. This could be a factor even if some YSCs had used such tools in the past and were not using them at present; such exposure might have sensitized them to consider certain risk factors more carefully that are included on such tools when making their case management decisions, even if not actually using the tools themselves. On the other hand, given the lack of empirical validation for these tools (especially the home grown tool), they theoretically could have exerted a detrimental influence on case outcome decisions. In short, it is impossible to gauge the impact of the contamination in our comparison group as a function of having been exposed to violence risk assessment tools previously.

Second, removal of one of the experimental sites from the majority of analyses because of implementation problems (the SAVRY was not conducted before all the case management decisions were made by the judge) resulted in a very small sample of youth in the experimental group. The

sample size was so small that the statistical power necessary to detect any moderate or small effects was substantially compromised. As a result, we cannot conclude that any null findings were due to a true lack of effect. In other words, we cannot trust that there were truly so few differences in case processing between the experimental and comparison sites, despite the rigorous statistical controls we employed.

Connecticut

Methodology

Site Selection and Preparatory Steps

The research focus in Connecticut differed slightly from the focus in Mississippi. Whereas in Mississippi the "experimental" sites were not using a risk assessment tool prior to the project, in Connecticut the experimental site was using a locally developed actuarial tool that was not evidence-based, the Juvenile Assessment Generic (JAG). For the RAMSAY project, the experimental site used the SAVRY in lieu of the JAG, and the comparison sites continued to use the JAG. Hence, we studied whether use of an evidence-based risk assessment tool developed adhering to the structured professional judgment model (the SAVRY) was associated with better case management outcomes compared with use of a non-evidence based risk assessment tool developed using an actuarial framework (JAG).

A key difference between the JAG and SAVRY is that the JAG is an actuarial tool that incorporates a "professional override" option, whereas the SAVRY is an SPJ tool.

Three counties Connecticut participated in the study: one experimental site and two comparison sites (referred to herein in a de-identified manner). For judicial cases, the JAG was being completed prior to adjudication together with the Pre-Dispositional Summary. For non-judicial cases, a screening tool (the Brief Risk Assessment Tool, BRAT) was completed and, for cases that exceeded a threshold, the Juvenile Assessment Generic (JAG) was completed next. This procedure continued to be followed in the comparison group once RAMSAY began. The SAVRY was completed at the same periods in the court processes in the experimental group.

Youth Sample Inclusion Criteria

All consecutive cases handled judicially were eligible for inclusion after a judicial "agreement" was in place, pre-adjudication. All consecutive cases handled non-judicially that scored

above the BRAT screening threshold were eligible for inclusion. Appendix A presents a flowchart of the court process and point at which youth became eligible for inclusion in the study.

Implementation Steps (experimental condition)

The implementation protocol used in Mississippi, described above, also was followed for Connecticut followed (see Vincent, Guy, & Grisso, 2012). In contrast to Mississippi, detailed polices regarding case management, mental health screening, and risk assessment were in use in Connecticut. We therefore assisted administrators in the experimental site to adapt existing policies to be relevant to and appropriate for use with the SAVRY. We also assisted the experimental site to adapt their existing case management plan to reflect SAVRY need areas. A service matrix of sorts was in use, and we facilitated a more detailed update of it (described in more detail in Results). Additional details are provided when relevant in sections below.

Data Collection Procedures

Focus group data. Focus groups were conducted with JPOs in the experimental site (two groups, each with half the JPOs in attendance given their large number) approximately 9 months after the SAVRY had been implemented. Two researchers led structured group discussions. JPOs were asked open-ended questions regarding the impact of the SAVRY and MAYSI-2 on case management activities; their experiences using the tools for making recommendations about disposition and placement, services, and level of supervision; their experiences using the new case plan and service matrix; any barriers or benefits encountered in using the new procedures; and any recommendations regarding use of the tools and new case management approach to their current practice. The focus groups were audio-recorded, transcribed, and coded.

SAVRY inter-rater reliability (agreement) data. To examine the correspondence between independent ratings on the SAVRY for the same youth made by two trained raters, JPOs in CT Experimental Site completed several inter-rater reliability (IRR) cases. The second rater was one of

the SAVRY Master Trainers. Raters completed the SAVRY based on review of the same file information and second raters observed the first rater's interview with the youth (and guardian, when such an interview occurred).

Youth case management data. Data were obtained from multiple sources: (1) an electronic Case Management Information System (CMIS) maintained by the probation department; (2) Contractor Data Collection System made available to juvenile probation by service providers; (3) Multisystemic Therapy Data System made available to juvenile probation by service providers; and (4) paper based case management plans. We contacted administrators and/or JPOs directly to resolve queries about inconsistent data and to obtain missing data.

Offense data. Offense data (e.g., nature and dates of referral, adjudication, and disposition) for youth in the RAMSAY sample were provided electronically. Recidivism data from juvenile and adult courts were obtained for the entire sample. Juvenile records contained information regarding referrals, adjudications, and dispositions. Adult records contained information about arrest, convictions, and dispositions within the adult system.

Project Launch and Data Collection Timeline

Youth level case management data collection began on March 11, 2013 and ended on January 17, 2014 in all sites. Missing case management data were obtained throughout 2014. Recidivism data from adult and juvenile systems were obtained on August 22, 2014.

Results

Impact of Implementation on Staff

Demographics of Juvenile Probation Officers

Sixty-eight JPOs were employed across the three probation offices that participated in the RAMSAY project at some point during the project's two years (see Table 22). When questionnaires for Waves 1 through 3 were distributed, there were 68, 68, and 64 JPOs, respectively, employed in the three offices. We tracked staff turnover carefully to ensure all JPOs were offered the opportunity to complete the questionnaires. During the study period, four JPOs left for various reasons (e.g., transferred to another county, maternity leave, and retired).

Table 22

Number of JPOs by Site

Site	# JPOs (% of total sample of 68)
CT Comparison Site 1	20 (29.4%)
CT Comparison Site 2	23 (33.8%)
CT Experimental Site	25 (36.8%)

Most JPOs (n = 40; 58.8%) were women and White (41.2%). The group's average age was 37.82 years (SD = 8.55; range: 23-56 years). Most JPOs had a bachelor's (70.6%) or post-college (26.9%) degree. They had been working with juvenile justice (JJ) involved youth on average for 13.38 years and had held their current position on average for 10.97 years. Table 23 presents demographic information for the 68 JPOs.

Table 23

JPO Demographics (N = 68)

Race	Level of Education	Mean Years Experience	Mean Length In Current Position (Years)
White: 29 (42.6%) Black: 26 (38.2%) Asian: 1 (1.5%) Other: 12 (17.6%)	Some university/college: 1 (1.5%) College Degree: 48 (70.6%) Post-College Degree: 18 (26.9%) Missing: 1 (1.5%)	13.38 (*SD* = 6.75) Range: 33 - 28	10.97 (*SD* = 6.61) Range: 41 - 22

Focus Group: Summary of Results Related to Implementation of the SAVRY

Perceived benefits to using the SAVRY

- A positive aspect identified about the SAVRY was the ability to focus on factors that the JPO perceived to be more relevant for the particular youth, rather than "reduce a kid to an actuarial formula" (this, in fact, is a key goal of the SPJ model) or have to override what the JAG indicated as being the most important need areas
- More comprehensive coverage of various risk factors was noted by some to be a strength of the SAVRY relative to the JAG
- Some JPOs reported learning information about youth that they otherwise would not have obtained using the JAG. As one example, a JPO mentioned that she was working with a "low level first time offender" and found out the youth's orientation was more antisocial than she had originally assumed; she attributed developing this insight directly to needing to gather information to rate the risk factors on the SAVRY (some of which are not included in the JAG).
- Some JPOs reported a general preference for the SAVRY (versus the JAG) because it gave a more comprehensive picture of the youth.

- Many JPOs viewed the SAVRY's focus on professional discretion as an important strength; as one JPO remarked: (the SAVRY) "sticks you less in a box than the JAG would."

Perceived barriers regarding use of the SAVRY

- Many JPOs reported spending up to half a day completing the SAVRY, which they perceived to be too time consuming.
- On one hand, JPOs reported that the SAVRY was redundant with the pre-disposition reports they were required to complete (which makes sense in that the information gathered to complete the PDS also is considered when rating the SAVRY). On the other hand, some JPOs reported completing two separate interviews to complete the PDS and SAVRY (which was inconsistent with their training about how to use the SAVRY).
- Some JPOs reported finding the semi-structured interview provided as a template too detailed
- Some JPOs questioned whether they had the requisite training to ask the types of questions required by use of the SAVRY, and wondered whether a social worker would be more qualified
- Some JPOs expressed fear about being accountable for their decisions when using the SAVRY (versus when using the JAG because they could abdicate responsibility to "what the tool told me"); JPOs elaborated that this fear was rooted in how administration would react to a JPO who assessed a youth to be a low risk but who went on to engage in violence
- Some JPOs believed the SAVRY was too comprehensive, or yielded more information than they needed (i.e., that such information would be more appropriate for a service provider than for a JPO).
- Some JPOs did not think the SAVRY improved their ability to make recommendations for a youth

Perceived barriers regarding how the SAVRY was implemented

- Intense frustration was expressed about using a paper-based assessment; the fact the SAVRY was not integrated into the electronic case management system was problematic
- Some JPOs objected to the policy directing that they complete the SAVRY with all youth, as was the case for the JAG; rather, they felt it should be used only with youth who had histories of engaging in violence
- A theme that emerged with respect to service referrals was a strain on the relationship with service providers, who were unaware of the switch to using the SAVRY, and thereby leading to questions about the basis for JPOs' decisions about service recommendations

Impact of Implementation on System Level Functioning

Several system-level enhancements occurred as a result of sites' participation in the RAMSAY project:

- JPOs in the experimental site regained the ability to use professional judgment when it came to categorizing a youth's risk, as well as services. Although there was some resistance to this change in the beginning, many JPOs welcomed the ability to use their professional knowledge into what recommendations they provided to the court regarding disposition, placement, and services. The SPJ approach also allowed them to focus on factors perceived to be relevant for a particular youth and their risk for reoffending.
- By completing the SAVRY JPOs were now required to assess for risk for violence and general delinquency and to recognize the difference between the two. The JAG does not make this distinction.
- Implemented a Master Trainer model for the SAVRY
- Development of a current inventory of available services, not just services provided by the CSSD
- More formal evaluation of the appropriateness of an available resource in light of a given youth's risks/needs by consideration of individual and situational responsivity factors; this was critical in light of resource challenges
- Creation of numerous reference documents and "decision support aids" such as:
    - SAVRY Semi-Structured Interview Form
    - SAVRY Case Supervision Plan
    - SAVRY Case Plan Policy
    - SAVRY Policy
    - SAVRY Supervision Policy

- Supplemental Form for Comparison Sites
- MAYSI-2 Race and Ethnicity Reference
- Service Matrix (in each site)

Impact of Implementation on Case Management Activities and Outcomes

Demographics of Youth

By the end of the data collection period, the sample comprised 531 youth: 278 in the CT Experimental Site and 253 in the comparison group (152 from Site 1 and 101 from Site 2). Similar to the procedures followed with the analyses for the Mississippi data, to reduce potential bias resulting from non-random assignment in observational studies such as this, propensity score matching was used to select a smaller group of comparison youth to be similar to the number of experimental youth, as well as to equate the experimental and comparison groups along a number of important youth characteristics (e.g., demographic variables, delinquency history, nature of current offense). Propensity scores were modeled using logistic regression, with the dependent variable being the odds of being in the experimental group. Matching was performed using the psmatch2 (Leuven & Sianesi, 2003) procedure with a one-to-one nearest neighbor (with no replacement and with common support) matching schema using Stata 13 software (StataCorp, 2013). The resulting propensity-matched sample used for analyses of case management data comprised 227 CT Experimental Site youth and 227 comparison group youth (138 CT Site 1 and 89 Site 2). Table 24 presents demographic information for youth in the sample after propensity matching procedures were applied. Because propensity score matching was used, there were no significant differences on basic demographic data between experimental and comparison groups.

Table 24

Demographics of Propensity-Matched Sample, by Site (N = 454)

Site	Gender	Race/Ethnicity	Mean Age at Filing Date (Years)
Experimental Site (*n* = 227)	Girls: 57 (25.1%) Boys: 170 (74.9%)	Black: 126 (55.5%) White: 53 (23.3%) Hispanic: 46 (20.3%)	15.02 (*SD* = 1.50) Range: 11-18
Comparison Site 1 (*n* = 138)	Girls: 44 (31.9%) Boys: 94 (68.1%)	Black: 73 (52.9%) White: 40 (29%) Hispanic: 23 (16.7%)	14.72 (*SD* = 1.61) Range: 8-17
Comparison Site 2 (*n* = 89)	Girls: 21 (23.6%) Boys: 68 (76.4%)	Black: 37 (41.6%) White: 12 (13.5%) Hispanic: 39 (43.8%)	15.09 (*SD* = 1.34) Range: 12-17
Comparison (Sites 1 and 2) (*n* = 227)	Girls: 65 (28.6%) Boys: 162 (71.4%)	Black: 110 (48.5%) White: 52 (22.9%) Hispanic: 62 (27.3%)	14.86 (*SD* = 1.52) Range: 8-17

Delinquency History

Of the 454 propensity-score matched youth across experimental and comparison sites, 61% had charges for any sort of offense (violent, nonviolent, or status) before their referral for the baseline offense in the RAMSAY project. There were no differences between the experimental and comparison groups in terms of the proportion of youth with referrals or adjudications for offenses of any kind, and for non-violent and or violent offenses specifically (see Table 25). This was to be expected, as delinquency history was one of the classes of variables used to identify the propensity score matched groups.

Table 25

History of Referrals and Adjudications

	Experimental	Comparison
	ANY	
% youth with charges	60.80	61.20
Mean # charges	1.94 (2.96)	2.53 (3.64)
% youth with adjudications	21.6	19.4
Mean # adjudications	.36 (.83)	.37 (.98)
	NON-VIOLENT	
% youth with charges	48.6	49.5
Mean # charges	1.34 (2.34)	1.60 (2.55)
% youth with adjudications	18.9	16.3
Mean # adjudications	.28 (.70)	.25 (.65)
	VIOLENT	
% youth with charges	22.3	27.7
Mean # charges	.36 (.83)	.55 (1.20)
% youth with adjudications	5.3	7.5
Mean # adjudications	.06 (.25)	.11 (.47)

Baseline Referral Offense Profile

Significantly more youth in the experimental group were adjudicated for any type of baseline charge (149 of 227, or 65.6%) compared with youth in the comparison group (121 of 227, or 53.3%), chi-square = 7.17, $p = .007$ (see Table 26). This pattern held for non-violent and violent adjudications as well. Youth in the experimental group also had significantly more charges for violent offenses, though the effect size was small ($d = .22$).

Table 26

Baseline Referrals and Adjudications

	Experimental	Comparison
ANY		
Mean # charges	3.49 (3.63)	2.94 (3.40)
% youth with adjudications**	65.6%	53.3%
Mean # adjudications	.93 (.92)	.81 (1.06)
NON-VIOLENT		
% youth with charges**	87.2%	63.4%
Mean # charges	2.49 (3.31)	1.92 (3.30)
% youth with adjudications*	49.3%	39.2%
Mean # adjudications	.67 (.89)	.59 (.98)
VIOLENT		
% youth with charges**	41.9%	28.6%
Mean # charges*	.86 (1.40)	.58 (1.16)
% youth with adjudications	19.4%	15.9%
Mean # adjudications	.23 (.52)	.19 (.49)

Note. * Denotes a statistically significant difference, *$p \leq .05$, **, $p \leq .01$.

MAYSI-2

Additional Details Regarding Standardized Implementation Procedures in Connecticut

All JPOs had been trained on the MAYSI-2 and MAYSIWARE prior to the RAMSAY project because the state had been MASYI-2 in its juvenile probation departments regularly since April 2009. Just before RAMSAY began, JPOs in the experimental site attended a half-day MAYSI-2 booster training.

Adherence to MAYSI-2 Policy

Per policy, each JPO was responsible for administering and scoring the MAYSI-2 for each youth at the earliest point at which it was legally permissible: for delinquency cases, following adjudication, plea agreement, or statement of responsibility; and for Family with Service Needs (FWSN) or Youth in Crisis (YIC) complaints, agreement to cooperate with the JPO to resolve the matter. The MAYSI-2 must be administered prior to the JPO writing the Pre-Dispositional Summary (PDS). Per policy, JPOs were to enter the MAYSI-2 data into CMIS within one business day of its administration.

When the first data file containing MAYSIWARE administrations was received (8 months following implementation), data for only 53% of the youth in the RAMSAY sample was included. This low rate of completion possibly may have been related to use of differ youth IDs in MAYSIWARE and Connecticut's electronic case management system (CMIS). Thereafter, Connecticut agreed to provide MAYSI-2 data pulled from the CMIS system. However, data were received only from the two comparisons sites, and not from the experimental site.

Data regarding the point in the judicial process when the MAYSI-2 was administered were available for only 298 youth. Only 29.5% of the MAYSI-2 administrations occurred prior to adjudication; most occurred following completion of the PDS, which is inconsistent with policy. The MAYSI-2 most often was completed on the same day as the case was disposed (n = 90, 30.1%),

post-adjudication (*n* = 86, 28.9%), or after the decision was made regarding whether the case would be handled judicially or non-judicially (*n* = 76, 25.5%). For the few youth who completed the MAYSI-2 following disposition (*n* = 33, 11.1%), results were not available to influence JPOs' recommendations made to the court regarding services (in contrast to their MAYSI-2 policy).

There were some notable differences between sites in terms of when the MAYSI-2 was completed. Administrations tended to occur earliest in the judicial process in CT Comparison Site 2 (55.7% of youth at that site completed it after the decision was made about judicially or non-judicial handling). Most youth in CT Experimental Site completed the MAYSI-2 post-adjudication (49%), whereas youth in CT Comparison Site 1 (36.5%) most frequently completed the measure on the same day as their case was disposed (see Table 27).

Table 27

Timing of MAYSI-2 Administration by Site

	Group			
Temporal Indicator	Experimental	Comparison Site 1	Comparison Site 2	Total
Post-filing	2 (1.4%)	7 (8.1%)	0 (0%)	8 (2.7%)
Same day as handling decision	4 (2.8%)	0	0	4 (1.3%)
Post-handling decision	13 (9%)	19 (25%)	44 (55.7%)	76 (25.5%)
Same day as adjudication	1 (.3%)	0	0	1 (.3%)
Post-adjudication	71 (49%)	11 (14.9%)	4 (5.1%)	86 (28.9%)
Same day as disposition	46 (31.7%)	27 (36.5%)	17 (21.5%)	90 (30.1%)
Post-disposition	8 (5.5%)	11 (14.9%)	14 (17.7%)	33 (11.1%)
Total	145 (100%)	75 (100%)	80 (100%)	298 (100%)

Note. The PDS is meant to be completed between the post-handling decision but before adjudication; the MAYSI-2 should be administered before the PDS is written.

MAYSI-2 Sample

Because of the data collection obstacles described above, the findings below are not representative of the project's overall sample. Of the 454 youth in the propensity score matched sample, at least 42 (9.3%) were excluded from analyses because the youth or parent/guardian refused to complete the MAYSI-2 (for data obtained from MAYSIWARE and not CMIS, information about refusal was not provided). An additional 114 (25.1%) youth were excluded because MAYSI-2 data were not available (see Table 28). The higher refusal rates observed in CT Comparison Site 1 (n = 39, 92.9%) were expected given that it is regular practice among defense attorneys in that jurisdiction to advise clients to not complete the MAYSI-2. Thus, we are able to report on MAYSI-2 data for 298 youth.

Table 28

MAYSI-2 Completion Rates by Site

	Group			
	Experimental Site (n = 227)	Comparison Site 1 (n = 138)	Comparison Site 2 (n = 89)	Total (N = 454)
Completed	145 (48.7%)	74 (24.8%)	79 (26.5%)	298 (100%)
Refused	0 (0%)	39 (92.9%)	3 (7.1%)	42 (100%)
Data Unavailable	82 (71.9%)	25 (21.9%)	7 (6.1%)	114 (100%)

The 298 youth for whom MAYSI-2 data were available primarily were male (n = 219, 73.5%) and Black (n = 136, 46.3%). They were on average 15.40 years of age (SD = 1.47, range: 11-18 years). Table 29 presents information about length of completion time for completion and demographic for MAYSI-2 recipients by site.

Youth typically complete the MAYSI-2 in 3 to 5 minutes. Youth who complete the MAYSI-2 in 2 minutes or less are likely to not have paid attention to every item. Among the 227 youth for whom length of completion was available (this information was available only for youth whose data were drawn from MAYSIWARE), completion times did not differ significantly across sites. The average completion time among the 227 youth was 3.24 minutes (SD = 1.83, range: .33 – 7.03).

Table 29

Descriptive Summary and Completion Times for Youth who Completed the MAYSI-2

Youth	Gender	Race/Ethnicity	Mean Length Completion (Minutes)
Experimental Site (n = 145)	Boys: 111 (76.6%) Girls: 34 (33.8%)	Black: 76 (52.4%) White: 33 (22.8%) Hispanic: 34 (23.4%)	3.11 (SD= 1.21) Range: .33-7.03
Comparison Site 1 (n = 74)	Boys: 49 (66.2%) Girls: 25 (33.8%)	Black: 32 (43.2%) White: 26 (35.1%) Hispanic: 14 (18.9%)	3.18 (SD = .71) Range: 2.35 – 5.48
Comparison Site 2 (n = 79)	Boys: 59 (74.7%) Girls: 20 (25.3%)	Black: 30 (38%) White:12 (15.2%) Hispanic: 36 (45.6%)	3.69 (SD = 1.25) Range: .35-6.55
Total Sample (N = 298)	Boys: 219 (73.5%) Girls: 79 (26.5%)	Black: 138 (46.3%) White: 71 (23.8%) Hispanic: 84 (28.2%)	3.24 (SD = 1.83) Range: .33 – 7.03

MAYSI-2 Profile

Overall, 63.1% (n = 188) of the 298 youth given a MAYSI-2 scored above the Caution cut-off and 25.2% (n = 75) scored above the Warning cut-off on at least one scale. No differences in these percentages were observed between sites (see Table 30).

Table 30

Percent of Youth Over Caution and Over Warning Cut-offs on at Least One MAYSI-2 Scale

	Experimental	Comparison	Total (N = 83)
Over Any Caution	63.4	62.7	63.1
Over Any Warning	26.3	24.2	25.2

Note. Any Caution is the percentage of cases scoring above the caution cut-off ("clinically significant range") of at least one MAYSI-2 scale. Any Warning is the percentage of cases scoring above the warning cut-off (top 10% of youth taking the MAYSI-2) on at least one MAYSI-2 scale.

Table 31 compares youth in the Experimental and Comparison groups on scale scores and percentages scoring above Caution and Warning cut-offs. The scales on which the largest percentage of youth in both groups scored above Caution were Somatic Complaints (experimental: 41.4%; comparison: 37.5%) and Angry-Irritable (experimental: 40%; comparison: 40.5%). Large percentages of youth from both groups also scored above Caution on the Depressed-Anxious and Thought Disturbance scales (see Table 31). The scales on which the largest percentage of youth in both groups scored above Warning were Angry-Irritable (roughly 10% in both groups), Thought Disturbance (roughly 9% in both groups), and Suicide Ideation (experimental: 7.8%; comparison: 9%).

Cohen's *d* effect sizes indicate the magnitude of difference between scales' means: small, 0.20; moderate, 0.50; and large, 0.80. On average, youth in the Experimental group scored higher on the Alcohol/Drug Use Scales compared with youth in the Comparison group (the difference was moderate in magnitude, $d = .29$). Other MAYSI-2 scales scores on average were similar or showed only small differences between the Experimental and Comparison groups (see 31).

Table 31

Mean Scores, Standard Deviations, and Percent Over Caution and Over Warning Cut-offs for All Scales, by Group

	Experimental (n = 145)				Comparison (n = 153)				
MAYSI-2 Scale	Score	*SD*	% Over Caution	% Over Warning	Score	*SD*	% Over Caution	% Over Warning	*d*
Alcohol/Drug Use	1.04	1.86	14.5	5.5	.56	1.41	7.2	2.6	0.29
Angry-Irritable	3.59	2.85	40	9.7	2.90	3.05	40.5	9.8	0.23
Depressed-Anxious	1.81	2.09	29	9.0	1.71	2.25	32.7	7.2	0.05
Somatic Complaints	2.21	1.81	41.4	6.9	1.84	1.91	37.3	5.2	0.20
Suicide Ideation	.51	1.23	12.4	9.0	.51	1.15	15.7	7.8	0
Thought Disturbance	.36	.78	23.4	9.0	.45	.88	27.5	9.2	-0.11
Traumatic Experiences	1.39	1.40	---	----	.91	1.30	-------	-------	0.36

**Note*. Comparison group comprises CT Comparison Sites 1 and 2. In part because the MAYSI-2 was administered to youth in the community, the Alcohol/Drug Use (ADU) scale likely does not reflect actual substance use among this sample given that youth may under-report use of drugs and alcohol (fearing that if they report honestly they will be penalized).

The same pattern of findings was observed at the individual site level (see Table 32).

Table 32

Mean Score, Standard Deviation, and Percent Over Caution and Over Warning Cut-offs for All Scales, by Probation Office

	CT Experimental Site (n = 145)				CT Comparison Site 1 (n = 74)				CT Comparison Site 2 (n = 79)			
MAYSI-2 Scale	*M*	*SD*	% Over Caution	% Over Warning	*M*	*SD*	% Over Caution	% Over Warning	*M*	*SD*	% Over Caution	% Over Warning
Alcohol/ Drug Use	1.04	1.86	14.5	5.5	.76	1.69	9.5	4.1	.37	1.08	5.1	1.3
Angry-Irritable	3.59	2.85	40	9.7	3.31	3.04	43.2	13.5	2.52	3.03	38.0	6.3
Depressed-Anxious	1.81	2.09	29	9.0	1.92	2.52	35.1	10.8	1.51	1.95	30.4	3.8
Somatic Complaints	2.21	1.81	41.4	6.9	2.10	2.04	41.9	10.8	1.59	1.76	32.9	0
Suicide Ideation	.51	1.23	12.4	9.0	.78	1.47	23.0	14.9	.25	.65	8.9	1.3
Thought Disturbance	.36	.78	23.4	9.0	.53	.91	33.8	8.1	.38	.85	21.5	10.1
Traumatic Experiences	1.39	1.40	-------	-------	1.13	1.52	-------	-------	.70	1.03	-------	-------

Gender Analysis

Overall, 77.2% (n = 61) of girls and 58% (n = 127) of boys scored above the Caution cut-off and 30.4% (n = 24) of girls and 23.3% (n = 51) of boys scored above the Warning cut-off on at least one MAYSI-2 scale (see Table 33). Girls were significantly more likely than boys to score above a Caution cut-off (χ^2 (1, 298) = 9.21, p < .01). Boys and girls were equally likely to score above Warning on a scale. This pattern of findings was the same in the experimental as well as comparison group.

Table 33

Percent of Youth Over Caution and Over Warning Cut-offs on at Least one MAYSI-2 scale

	Experimental		Comparison		Total	
	Boys (n = 111)	Girls (n = 34)	Boys (n = 108)	Girls (n = 45)	Boys (n = 219)	Girls (n = 79)
Any Caution	60.4	73.5	55.6	80	58.0	77.2
Any Warning	23.4	35.3	23.1	26.7	23.3	30.4

Note. Any Caution is the percentage of cases scoring above the caution cut-off ("clinically significant range") of at least one MAYSI-2 scale. Any Warning is the percentage of cases scoring above the warning cut-off (top 10% of youth taking the MAYSI-2) on at least one MAYSI-2 scale.

In both experimental and comparison groups, girls' MAYSI-2 scores indicated much more distress than boys' scores (see Table 34). Among youth in the experimental group, significantly more girls than boys scored over Caution on the Depressed-Anxious [χ^2 (1, 145) = 7.07, p < .01], Somatic Complaints [χ^2 (1, 145) = 7.61, p < .01], and Suicide Ideation [χ^2 (1, 145) = 8.07, p < .01] scales. The same pattern of findings was observed among youth in the comparison group, where girls were significantly more likely than boys to score over Caution on the Depressed-Anxious [χ^2 (1, 153) =

7.61, $p < .01$], Somatic Complaints [χ^2 (1, 153) = 9.13, $p < .01$], and Suicide Ideation [χ^2 (1, 153) = 3.70, $p < .01$] scales.

Girls in the experimental group were significantly more likely than boys to be over the Warning cut-off on the Angry-Irritable [χ^2 (1, 145) = 6.09, $p < .05$], Depressed Anxious [χ^2 (1, 145) = 7.35, $p < .01$], and Suicide Ideation [χ^2 (1, 145) = 11.54, $p < .01$]. In the comparison group, girls were significantly more likely than their male counterparts to score above Warning on the Somatic Complains [χ^2 (1, 153) = 4.45, $p < .05$] scale.

Table 34

Percent of Boys and Girls Over Caution and Over Warning Cut-offs

MAYSI-2 Scale	Experimental (n = 145)				Comparison (n = 153)			
	% Over Caution		% Over Warning		% Over Caution		% Over Warning	
	Boys (n = 111)	Girls (n = 34)	Boys (n = 111)	Girls (n = 34)	Boys (n = 108)	Girls (n = 45)	Boys (n = 108)	Girls (n = 45)
Alcohol/Drug Use	13.5	17.6	4.5	8.8	9.3	2.2	3.7	0
Angry-Irritable	36.9	50.0	6.3*	20.6*	36.1	51.1	11.1	6.7
Depressed-Anxious	23.4**	47.1**	5.4**	20.6**	25.9**	48.9**	4.6	13.3
Somatic Complaints	35.1**	61.8**	5.4	11.8	29.6**	55.6**	2.8*	11.1*
Suicide Ideation	8.1**	26.5**	4.5**	23.5**	12.0**	24.4**	5.6	13.3
Thought Disturbance	21.6	-----	6.3	-----	26.9	-----	7.4	-----

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

Second Screening

Second Screening involves asking youth a few questions for results that are over the Caution or Warning cut-off scores to obtain information that will assist in deciding whether a youth requires an immediate intervention. The need for Second Screening is related to the fact that sometimes youth who score above the cut-offs do not actually require the same interventions that are normally applied to youth who score this high (i.e., "false-positives").

By default, MAYSIWARE triggers a second screening when a youth scores over the Caution cut-off on the Suicide Ideation scale or over the Warning cut-off on any two other clinical scales. Connecticut's MAYSI-2 policy uses threshold lower than the default, with second screening being triggered by any of the following three scenarios: a score over the Caution cut-off on any combination of two scales (except Suicide Ideation), over the Warning cut-off on at least one scale, or above the Caution on Suicide Ideation.

Among the 266 youth for whom MAYSI-2 data were obtained from MAYSIWARE (this information was not reported reliably for cases obtained from CMIS), roughly half (46%) met Connecticut's second screening criteria (see Table 35). Records indicate that of these 71 boys and 33 girls, only 61 were administered the second screening questions required by policy. The remaining 40 youth who met second screening criteria either were not screened, or, if they were screened, no record of such was entered into MAYSIWARE. Table 35 also shows the smaller percentage of youth who would have been selected for second screening if the default MAYSIWARE criteria were applied.

Table 35

Experimental and Comparison Youth – Percent Meeting Connecticut's and MAYSIWARE's Second Screening Criteria

	Youth Meeting Second Screening Criteria		
Second Screening Formula	Boys (*n* =164)	Girls (*n* =62)	Total (*N* = 226)
Connecticut's threshold	43.3% (*n* = 71)	53.2% (*n* = 33)	46% (*n* = 104)
MAYSIWARE's default threshold	12.8% (*n* = 21)	21.0% (*n* = 13)	15% (*n* = 34)

Of the 61 youth with second screening data, four received a subsequent clinical consultation. Whether other forms of follow-up action were taken for those or other youth is unknown. For three youth, no information was available about whether follow-up occurred.

Comparison of Connecticut's Sites to the MAYSI-2 National Norms

The MAYSI-2 National Norms are based on data from juvenile corrections programs throughout the U.S. Data for these analyses include only data from intake probation departments. The bars in Figures 13 and 14 indicate the percent of boys and girls, respectively, above the Caution cut-off on each MAYSI-2 scale.

Consistent with the National Norms for probation intake departments, relatively more girls than boys in both the experimental and comparison groups scored above Caution. Overall, roughly similar proportions of boys in the RAMSAY project (in both experimental and comparison groups) and boys in the National Norms scored above Caution cut-offs on the MAYSI-2 scales. However, relatively larger proportions of girls in the RAMSAY project (again in both experimental and comparison groups) scored above Caution cut-offs compared with the girls in the National Norms. Substantially more girls in the experimental site scored above Caution relative to girls in the comparison group and the National Norms.

Figure 13. Experimental and Comparison Girls compared with US National Norms – Percent Above Caution Cut-off

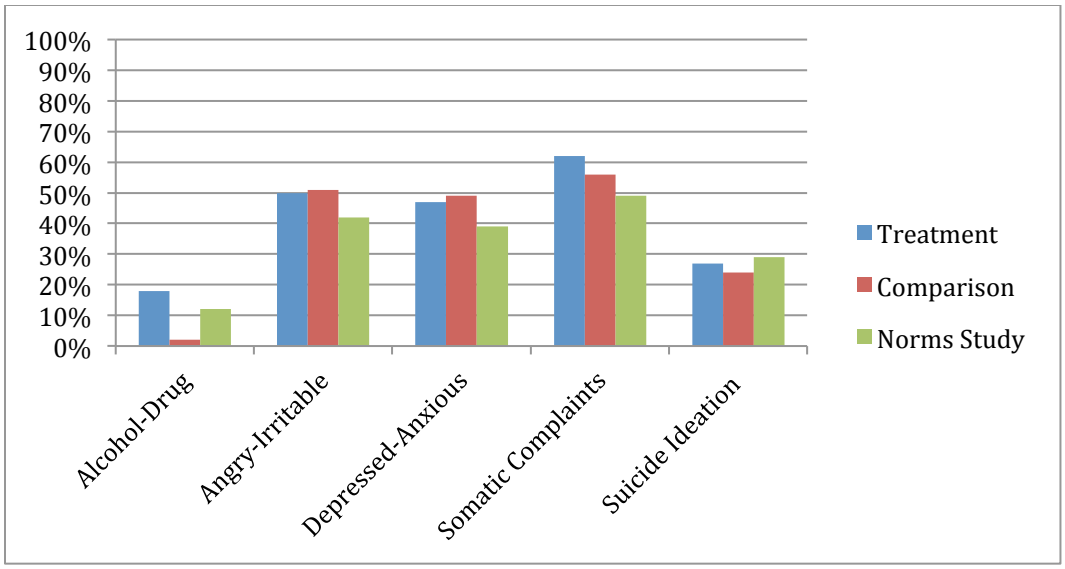
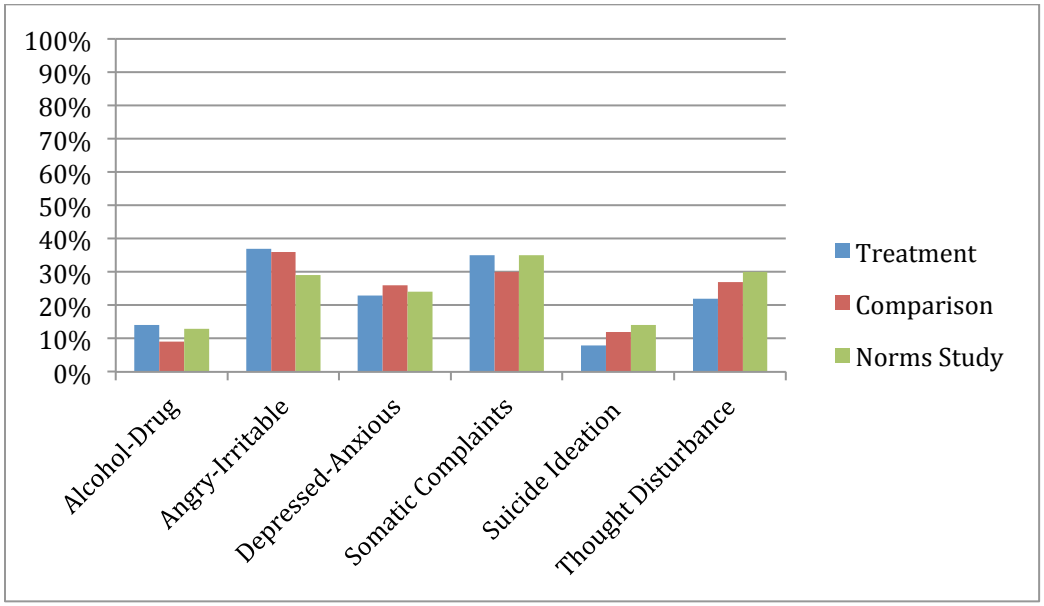


Figure 14. Experimental and Comparison Boys compared with US National Norms – Percent Above Caution Cut-off



SAVRY

As noted above, the *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum et al., 2006) is an SPJ tool for assessing violence risk among adolescents. Evaluators rate the presence of 24 risk (low/moderate/high) and 6 protective (absent, present) factors. They next consider the individual relevance of the various risk and protective factors and make a summary risk rating (SRR) about risk for future violence (low/moderate/high). JPOs also were trained to make a SRR for future non-violent delinquency. As with all SPJ tools, no numbers are involved in the use of the SAVRY. However, for research purposes, item ratings can be quantified and "scores" computed to examine the tool's properties.

Adherence to SAVRY Policy

According to their policy, JPOs are to attempt to interview both the youth and a parent or guardian. For all 278 youth in the experimental group, the youth was interviewed. In most cases (262, 94.2%), a parent also was interviewed. Interviews with collateral sources occurred for 61 (21.9%) of the sample. For almost one quarter of all assessments (67, or 24.1%), no records were used to complete the SAVRY, which is contrary to policy.

SAVRY Inter-rater Reliability

Similar to procedures in Mississippi, we examined the degree of correspondence or agreement between SAVRY ratings made for the same youth by a JPO and a second trained rater with access to the same information. In Connecticut, the second raters were supervisors or Master Trainers (whereas in Mississippi the second raters were a research assistant or another probation officer).

We were given data on double sets of SAVRY ratings for 52 youth. Of the 51 cases for which ratings about overall risk for violence were available, 20 cases had ratings of Low/Low; 23 cases had ratings of Moderate/Moderate; and six cases had ratings of High/High. The only

disagreements were minor ones: for two cases, one rating was Low and the other was Moderate. Similarly high rates of agreement were observed for overall ratings of risk for non-violent delinquency. The pair of raters both assigned Low for 11 cases, Moderate for 28 cases, and High for 8 cases. For three cases, one rating was Low and the other was Moderate. For two cases, one rating was Moderate and the other was High.

Agreement, or reliability, also was examined statistically using intra-class correlation coefficients (ICC). This approach corrects for chance agreement in ratings. A two-way random effects model with absolute agreement, single (ICC_1) measure was computed. Using standards by Fleiss (1986), .60 to .74 is good agreement and .75 or above is excellent. Kappa values were calculated for dichotomous items, where values of.40 to .60 indicate moderate agreement and .61 or above indicates substantial agreement (Landis & Koch, 1977). ICC values for ratings of violence and delinquency both were excellent: .95 and .88, respectively. ICC values also were calculated for total "scores" on the four SAVRY scales. Agreement was excellent across all scales: Historical (ICC = .89), Social/Contextual (.91), Individual/Clinical (.93) scales, and Protective scale (0.90).

Profiles of Youths' Ratings on the Risk Assessment Tools

Below we summarize SAVRY ratings and JAG scores for youth in the experimental and comparison groups, respectively. We report first or initial assessments that a youth received during the study period. If a youth's first recorded administration was made at discharge, we used the subsequent assessment.

SAVRY. Among the 278 youth in the experimental group, 104 (37.4%) were rated as being at Low risk for violence, 132 (47.5%) were rated as being at Moderate risk for violence, and 42 (15.1%) were rated as being at High risk for violence by JPOs using the SAVRY. A similar distribution of ratings was observed for risk of delinquency, with 95 (34.2%) being rated at Low risk for delinquency, 143 (51.4%) at Moderate risk for delinquency, and 40 (14.4%) at High risk for

delinquency by JPOs using the SAVRY (see Table 36). Table 37 provides mean scores on the four scales.

Table 36

SAVRY Ratings for Future Violence and Delinquency

	CT Experimental Site (*n* = 278)
SRR (violence)	
Low	104 (37.4%)
Moderate	132 (47.5%)
High	42 (15.1%)
SRR (delinquency)	
Low	95 (34.2%)
Moderate	143 (51.4%)
High	40 (14.4%)

Table 37

SAVRY Scale "Scores"

	CT Experimental Site (*n* = 278)	
	Mean (*SD*)	Range
SAVRY Index (max. possible "score")		
Total Risk (48)	15.95 (6.63)	1 – 35
Historical (20)	6.17 (3.06)	0 – 15
Social/Contextual (12)	4.01 (2.15)	0 – 9
Individual/Clinical (16)	5.77 (3.03)	0 – 13
Protective (6)	3.40 (1.67)	0 - 6

JAG. Overall, JAG total risk and risk scale scores were in the lower end of the range of possible maximum values for the various indices (see Table 38). Protective scores generally were

relatively higher compared with scores on the risk indices. Whereas the SAVRY use categorical risk levels (low, moderate, high) to communicate judgments about overall risk, the JAG uses numerical scores.

Table 38

JAG Total and Scale Scores

	CT Comparison Site 1 (n = 151)		CT Comparison Site 2 (n = 101)	
	Mean (*SD*)	Range	Mean (*SD*)	Range
JAG Index (max. possible score)				
Total Risk Score (47)	13.17 (6.84)	1 - 29	11.84 (6.02)	1 - 29
Criminal History (5)	1.04 (1.27)	0 - 5	1.58 (1.49)	0 - 5
Substance Abuse/Risk-Taking (9)	1.76 (2.08)	0 - 7	1.26 (1.60)	0 - 6
Distress/Family (10)	3.50 (1.78)	0 - 9	2.93 (1.72)	0 - 8
Peers/Stake-in-Conformity (13)	4.18 (3.08)	0 - 12	3.68 (2.66)	0 - 10
Personal Values (10)	2.69 (1.71)	0 - 7	2.39 (1.73)	0 - 9
Total Protective Score (57)	36.44 (7.91)	20 - 55	38.09 (7.14)	19 - 56
Substance Abuse/Risk-Taking	9.66 (2.34)	4 - 12	9.94 (2.21)	4 - 12
Distress/Family	4.77 (1.85)	0 - 9	5.00 (1.59)	1 - 9
Peers/Stake-in-Conformity	15.64 (4.25)	6 - 26	16.67 (4.04)	1 - 27
Personal Values	6.36 (1.94)	1 - 9	6.49 (1.74)	0 - 9

Comparison of SAVRY and JAG profiles

Ratings of risk for future violence and delinquency using the SAVRY indicated that the majority of the sample was at moderate to low risk. JAG total risk scores fell in the lower range of possible scores, with means of 13.17 (SD=6.84) and 11.84 (SD=6.02) in the two comparison sites out of a possible maximum score of 47.

Case Level Data

As noted above, despite the use of propensity matching to better equate the experimental and control groups, a few small differences remained related to characteristics of the groups' charges and adjudications at baseline. Therefore, the five variables that differed between the groups' baseline offense characteristics (see Table 26) were used as covariates in between-group analyses to ensure these preexisting group disparities would not influence differences between the groups pertaining to the key outcomes of interest in analyses on which we report in this section. If a covariate was not statistically significant, it was dropped from the statistical model and is not reported below. Covariates that were significant and therefore retained in the model are identified when reporting the particular analysis.

Disposition

Prior to administration of the SAVRY or JAG, decisions are made regarding whether to handle a case judicially or non-judicially, and whether a case is deemed a delinquency or Family with Service Needs (FWSN) case. Non-judicial case handing is a case processing decision that assigns a delinquency summons or a FWSN to be processed by a JPO without presentation to a judge. Judicial handling is a case processing decision that assigns a delinquency summons or a FWSN complaint to be petitioned before a judge. Supervisors have some discretion when determining which cases are handled non-judicially versus judicially. However, there are certain cases (i.e., felonies) that must be handled judicially. In order for a case to be handled non-judicially a youth must admit to the charges and all parties must be in agreement; otherwise, the case is handled judicially automatically.

The same proportion of youths' cases in the experimental and comparison groups were handled judicially (171, 75%) and non-judicially (56, 25%). However, the proportion of cases classified as delinquency (versus FWSN) cases differed significantly ($\chi^2 = 20.45$, $p < .001$), with

more youth in the experimental group being classified as delinquent. Of the 227 youth in the experimental group, 97% (n = 221) had cases classified as delinquency, compared with 85% (n=194) of the youth in the comparison group. Only 33 and 6 youth in the comparison and experimental groups, respectively, were classified as FWSN. Based on our discussions with the project contacts in CT, we know of no explanation for these between-group differences.

The mean length of time under supervision for youth in the experimental and comparison groups was 130.89 (SD=64.75) and 138.83 (SD=74.32), respectively, and did not differ t(df=352.54) = 1.089, p = .277, d = 11.

Did the initial disposition differ between experimental and comparison groups?

Following discussion with project contacts, we rationally coded all possible dispositions into six categories. For youth with multiple charges at baseline, we coded the most serious disposition given at baseline. In increasing order of severity, the disposition categories were:[1]

1. Not Convicted/Dismissed/Withdrawn/Not Accepted
2. Diversion
3. Convicted, No Supervision
4. Supervision/Monitoring
5. Probation
6. Commitment/Placement

A hierarchical ordered logistic regression analysis was conducted to examine if there was an association between being in the experimental or comparison group and the likelihood of receiving a more severe case outcome. As noted above, the benefit of using this approach of analysis, as

[1] Charges also could be disposed of via transfer to adult court. However, all youth in our sample who received this disposition for one of their baseline charges also received a disposition of commitment/placement and were coded as such.

opposed to doing multiple logistic regression with binary data or chi-square tests that are non-directional, are because it takes into account the ordered aspect of the outcomes. In the present analysis, the types of case outcomes are ordered by severity.

A hierarchical ordered logistic regression using the entire propensity-matched sample (and controlling for number of prior and baseline charges filed) indicated that the likelihood of receiving a more severe disposition did not differ between youth in the experimental and comparison groups (= .27, SE = .20 Exp[b] = 1.31, p = .178). However, significant between group differences were observed for the most and least serious disposition category. Considering the 12 youth whose cases were classified in the lowest category (i.e., Not Convicted/Dismissed/Withdrawn/Not Accepted), there were significantly more youth in the comparison group (11 of 12, or 91.7%) than in the experimental group (1 of 12, or 8.3%) in this disposition category, χ^2 (df = 1) = 8.56, p = 0.003). One a covariate controlling for whether the youth had any nonviolent baseline charges was included in the model, it was no longer statistically significant, likely due to lower power; final model: (= -1.77, SE = 1.07, Exp[b] = .17, p = .099).

Considering the 26 youth whose cases were classified in the highest category (i.e., Commitment/Placement), there were significantly more youth in the comparison group (21 of 26, or 80.8%) than in the experimental group (5 of 26, or 19.2%) in this disposition category, χ^2 (df = 1) = 10.44, p = .001. The model remained statistically significant even after controlling for age and whether any baseline charges were adjudicated (final model: = -1.64, SE = .52, Exp[b] = .19, p = .001). Stated another way, of the 226 youth in each group, 9.3% of the comparison youth and 2.2% of the treatment youth received the most severe disposition possible. Taken together, results indicate that although for the majority of youth there was no difference in severity of disposition received, significantly more youth in the comparison group than in the treatment group received the most serious level of disposition.

Impact of risk: Was disposition related to risk level?

Experimental group. Among youth in the experimental group, risk for future violence (low, moderate, or high) was related to severity of disposition, such that youth at higher risk received more serious dispositions (= .56, SE = .19, Exp[b] = 1.76, p = .003; Cramer's V = .21). For example, 4 of the 5 youth who were placed out of home were rated as being at high risk for future violence (the other youth placed was rated as moderate risk). Whereas only 10% of youth given a disposition of supervision/monitoring were at high risk, 48% and 42 % of youth given this disposition were at low and moderate risk for future delinquency, respectively. Of the 167 youth given probation, 35%, 49%, and 16% were rated as being at low, moderate, and high risk for future violence, respectively. A similar pattern of findings was observed when risk for future delinquency was examined, with youth at higher risk being given more a serious disposition (= .58, SE = .20, Exp[b] = 1.78, p = .004; Cramer's V = .22). The Figures below illustrate the percentage of youth within each disposition category who were rated as being at low, moderate, or high risk of future violence (Figure 15) and non-violent delinquency (Figure 16). The Figures are weighted to reflect the number of youth within each disposition category, with shorter bars denoting fewer youth than higher bars.

Figure 15. SAVRY Risk for Violence Within Disposition Category

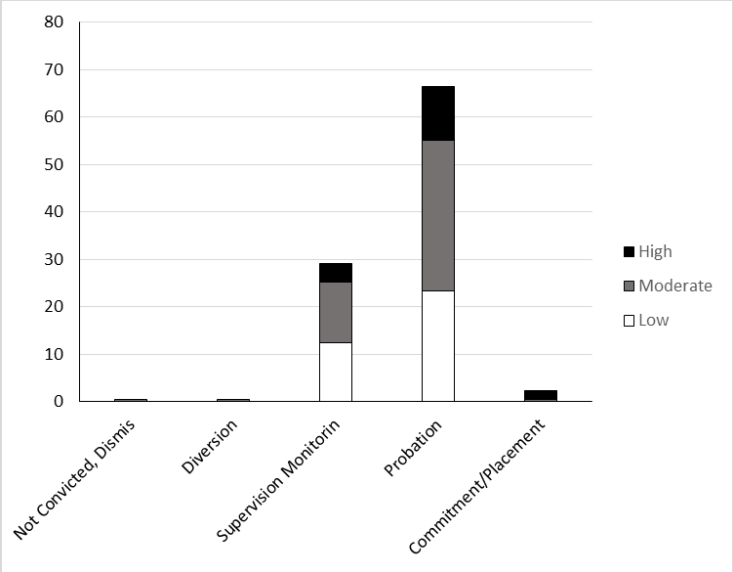
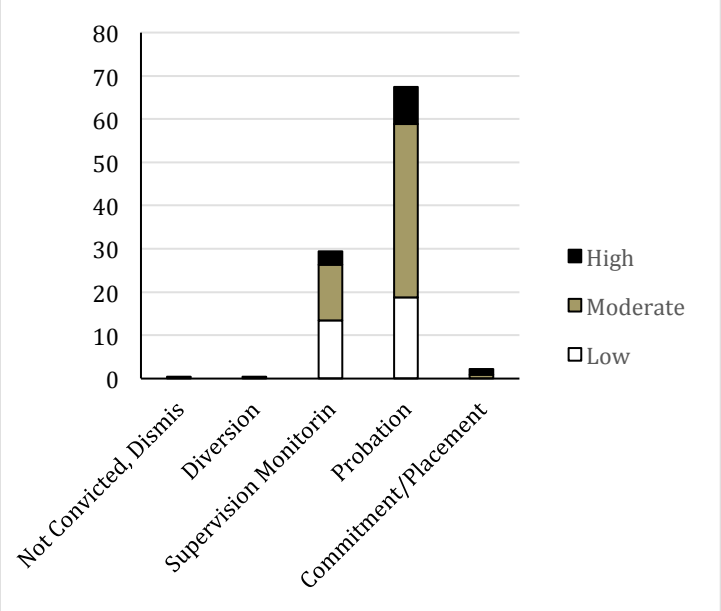


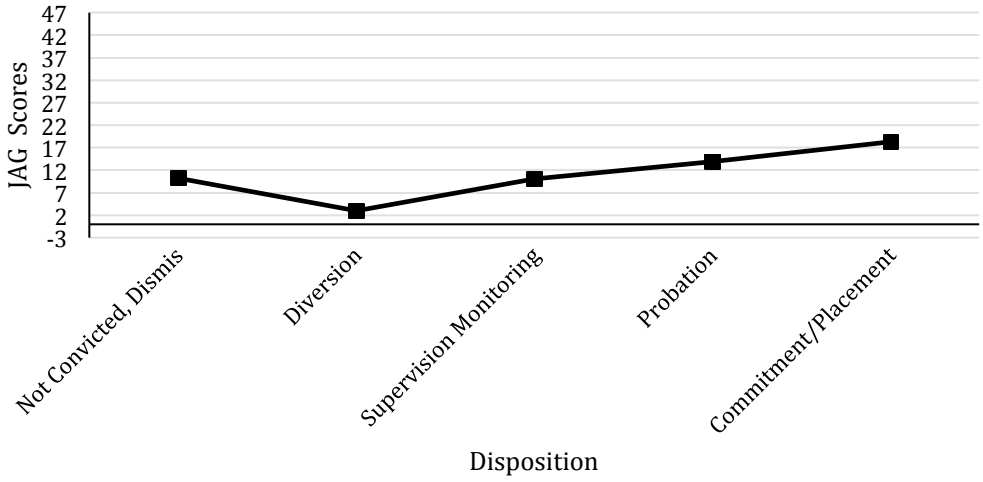
Figure 16. SAVRY Risk for Delinquency Within Disposition Category



Comparison group. Among youth in the comparison group, the likelihood of receiving a more severe disposition also was significantly related to risk, as measured by the JAG Total Risk Score (= .13, SE = .02, $p < .001$). The maximum possible JAG total risk score is 47. The mean

JAG total risk score among the 21 youth given the most serious level of disposition (placement) was 18.29 (*SD* = 6.27), compared with an average score of 13.94 (*SD* = 5.98) among the 114 youth who received a less serious disposition (probation). Figure 17 illustrates the association between JAG total score and disposition category.

Figure 17. JAG Risk for Violence Within Disposition Category



Placement

Placements occurring at any point between a youth's filing date for the baseline charge and his or her study tracking end date (i.e., the last date when case management data were received) were included in analyses. On average, placements were tracked for 303.41 days (*SD* = 130.82 range: 13-846 days). Placement data were obtained from CMIS. These data were supplemented with any placements listed on youths' paper case plans (this seldom occurred). If a youth was in placement prior to the beginning of the RAMSAY project, but the placement ended after the RAMSAY project began, the placement start date was coded as the project start date (03/11/13). Of importance, JPOs in Connecticut typically do not continue contact with youth on their caseload when they are placed out of home, and information about placement more generally is not tracked regularly by JPOs in

paper files or CMIS. Another limitation on our ability to report accurate placement rates was lack of access to juvenile correctional data. Information regarding all Department of Children and Family (DCF) commitments and Training School and residential placements are maintained by DCF, not juvenile probation. We were not provided with these data, and therefore it is highly likely that our results underestimate the actual rate of placements that occurred during the study.

Because length of time under supervision did not differ significantly between youth in experimental and comparison groups, this variable was not controlled for statistically in the analyses below (and it was not significantly related to the outcome variables). Length of time under supervision (i.e., youth with dispositions of supervision/monitoring and probation) was calculated as the difference between the date of the disposition for the baseline charge(s) and the date the case was closed. For cases with baseline disposition dates *before* data collection for the RAMSAY project began (on 03/11/2013), the JAG or SAVRY administration date was used as the starting point to calculate days under supervision. For cases with baseline disposition dates *after* the end of data collection (on 01/17/2014), the project's data completion cessation date was used as the end point to calculate days under supervision. For youth who received dispositions for baseline charges of both probation and commitment/placement, length of time under supervision was not calculated because we did not know when the placement ended and probation began. The average length of time information about placement (and services) was tracked was 303.41 days (*SD* = 130.82 range: 13-846 days).

Where were youth placed? The data available for this study could address placement in three settings: detention, psychiatric hospital, or an inpatient substance use treatment facility.[2] By far, the most common type of placement for youth in both the experimental and comparison groups

[2] Anecdotally, we know that two youth in the sample also had placements at a group home or the CT juvenile training school.

was detention. Of the 227 youth in the experimental group, 61 (26.9%) had at least one placement, with a total of 112 placements across these cases. Most youth received only one placement. All but three placements were to a detention facility; the other three placements were to a mental health inpatient facility, a substance abuse treatment inpatient facility, and an inpatient facility for treatment of both mental health and substance use. Of the 227 youth in the comparison group, 61 also (26.9%) had at least one placement. There were 138 placements among these 61 youth in the comparison group. With the exception of one placement each to a mental health and a substance use treatment facility, all placements were to detention.

When were youth placed? Of the youth in the experimental group who were placed, 41 had their first placement pre-adjudication and 19 had their first placement post-adjudication (most of which occurred more than a month after disposition – not at the time of disposition). For youth in the experimental group who had two or more placements, the second placement occurred pre-adjudication for 13 youth and post-adjudication for 14 youth. Among youth in the comparison group, the timing of first placements was relatively more evenly distributed, with 32 youth having their first placement pre-adjudication compared with 29 youth with first placements post-adjudication (most of which occurred over one month post-disposition). For youth in the comparison group who had two or more placements, the second placement occurred pre-adjudication for 20 youth and post-adjudication for 11 youth.

Did placements rates and length of placement differ between youth in experimental and comparison sites? The number of youth who were in an out of home placement during the study was the same in the experimental and comparison groups: 61 of 227 (i.e., 26.9%) in each group. There also were no differences in the rates of youth in the experimental and comparison groups who were placed immediately following disposition.

The number of youth who were placed following administration of the SAVRY (31 of 227; 13.7%) or JAG (44 of 227; 19.4%) did not differ between groups, $\chi^2 = 2.70$, $p = 0.10$. (Results were the same when controlling statistically for the influence of any nonviolent charges or any adjudications at baseline). Of those 75 youth, the number of placements per youth did not differ between groups. Treatment group youth who were placed on average had 2.03 placements (*SD*=1.35; range: 1-7) and comparison group youth who were placed on average had 2.36 placements (*SD* = 1.93; range: 1-9), t (df=73) 0.82, $p = .41$, d = .19. Although, as noted above, placement rates were comparable between the groups, length of stay was not. On average, youth in the experimental group spent significantly less time in placement than youth in the comparison group: 15.92 days (*SD* = 13.24, range = 0 – 63) versus 36.88 days (*SD* = 33.06, range = 0 – 133), respectively (β = -.39, SE = 4.6, p <.001). Focusing on youths' placements sequentially, youth in the treatment group spent significantly less time in their first placement than youth in the comparison group: 7.14 days (*SD*=6.38, range: 1-29) versus 15.94 days (*SD*=13.79, range: 1-51); t (df=60) 3.11, p = .003, d=.79. The same pattern was observed for second placements, with youth in the treatment group having significantly shorter placements than youth in the comparison group: 7.99 days (*SD*=5.2, range: 1-16) versus 17.32 days (*SD*=16.71, range: 1-76); t (df=42) 2.28, $p = .027$, d=.70. Summing length of time in placement across all of a youths' placements, youth in the treatment group had significantly shorter time overall in placement compared with youth in the comparison group: 15.26 days (*SD*=11.87, range: 1-52) vs. 39.07 days (*SD*=29.41, range: 1-124); t (df=57.28) 4.76, $p = < .001$, d=1.01. This pattern of findings was the same when the outlier of 124 days (1 youth in the comparison group) was removed.

Impact of risk: Are the "right" youth being placed? Is placement related to risk level? To investigate whether risk ratings using the SAVRY and JAG were associated with the rates of youth in the experimental and comparison groups, respectively, who were given placements, we

conducted binary logistic regression analyses using placements that occurred subsequent to administration of the SAVRY or JAG.

Experimental group. Among the 227 youth, 31 were placed following the SAVRY. Of these 31 youth, 8 were low risk (25.80%), 17 were moderate risk (54.84%), and 6 were high risk (19.45%) for violence. Figure 18 illustrates the percentage of youth at each level of the SRR for violence, by placement status (placed or not placed). Considering the data in another way, of the 81 youth rated low amongst the 227 youth in the experimental group overall, 8 (9.88%) were placed post SAVRY; of the 107 of 227 youth rated moderate, 17 (15.89%) were placed post-SAVRY; and of the 39 of 227 youth rated as high risk, 6 (15.39%) were placed post-SAVRY. Figure 19 illustrates the percentage of youth placement or not place, by level of SRR for violence. Logistic regression analysis indicated that out of home placements post-SAVRY were not related to ratings of risk for future violence, □ = .28, SE = .23, Exp[B] = 1.32, p=.306, Cramer's V = 0.08.

Figure 18. SAVRY Risk for Violence within Placement Status

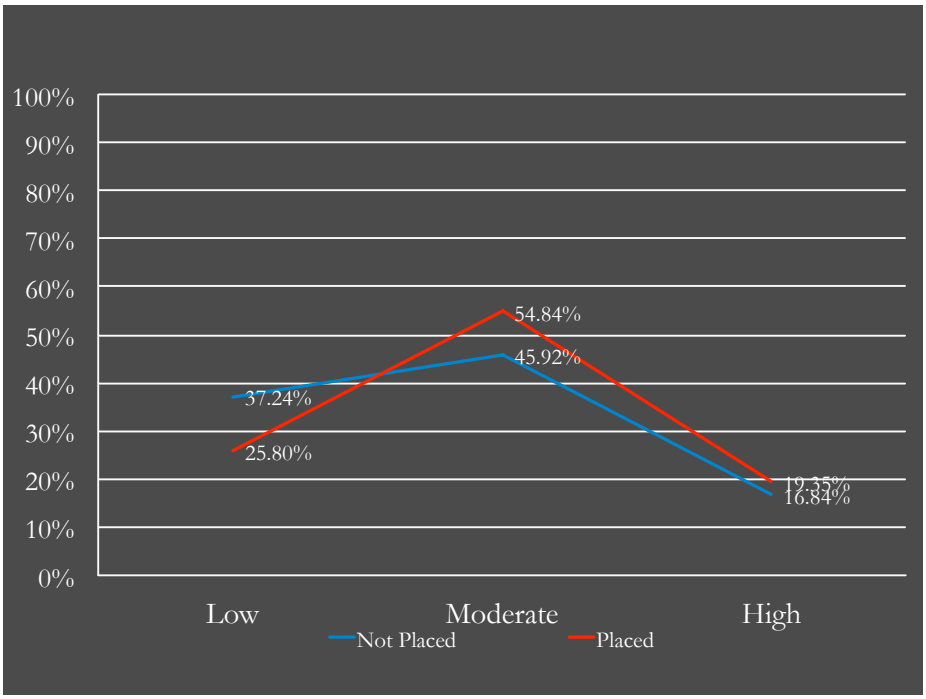
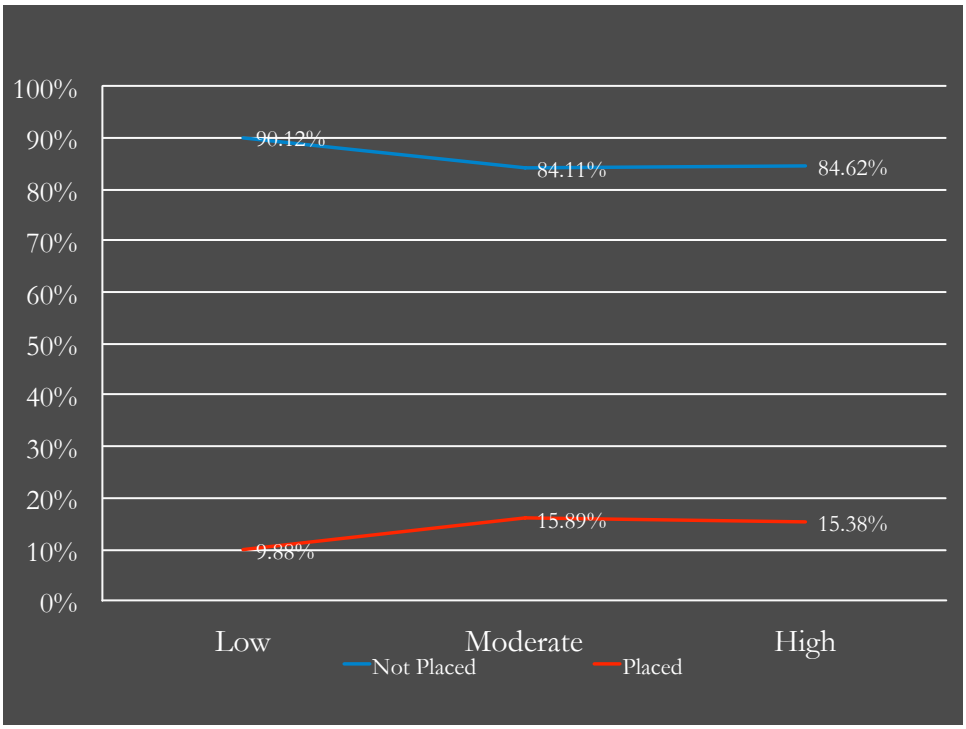


Figure 19. Placement Status within SAVRY Risk for Violence



Roughly the same pattern of results was observed when ratings of risk for delinquency were considered. Of the 31 youth placed following the SAVRY, 3 were low risk (9.68%), 21 were moderate risk (67.74%), and 7 were high risk (22.58%) for delinquency. Figure 20 illustrates the percentage of youth at each level of the SRR for delinquency, by placement status (placed or not placed). Considering the data in another way, of the 74 youth rated low amongst the 227 youth in the experimental group overall, 3 (4.05%) were placed post SAVRY; of the 122 of 227 youth rated moderate, 21 (17.21%) were placed post-SAVRY; and of the 31 of 227 youth rated as high risk, 7 (22.58%) were placed post-SAVRY. Figure 21 illustrates the percentage of youth placement or not place, by level of SRR for delinquency. Logistic regression analysis indicated that risk for future delinquency was significantly related to placement rates post-SAVRY, such that youth at higher risk

for future delinquency were more likely to be placed than youth at relatively lower risk, □ = .871, SE = .306, Exp[B] = 2.39, *p*=.004, Cramer's V = 0.20.

Figure 20. SAVRY Risk for Non-Violent Delinquency within Placement Status

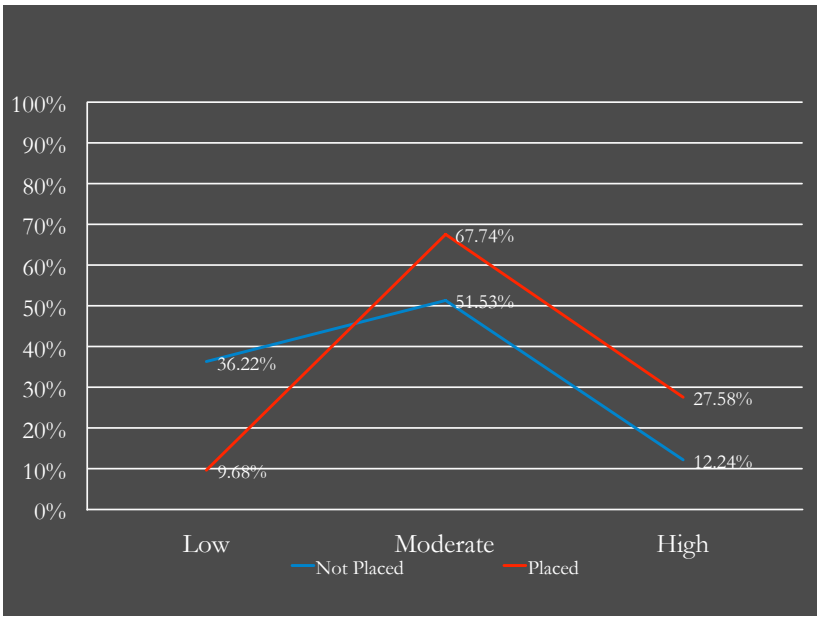
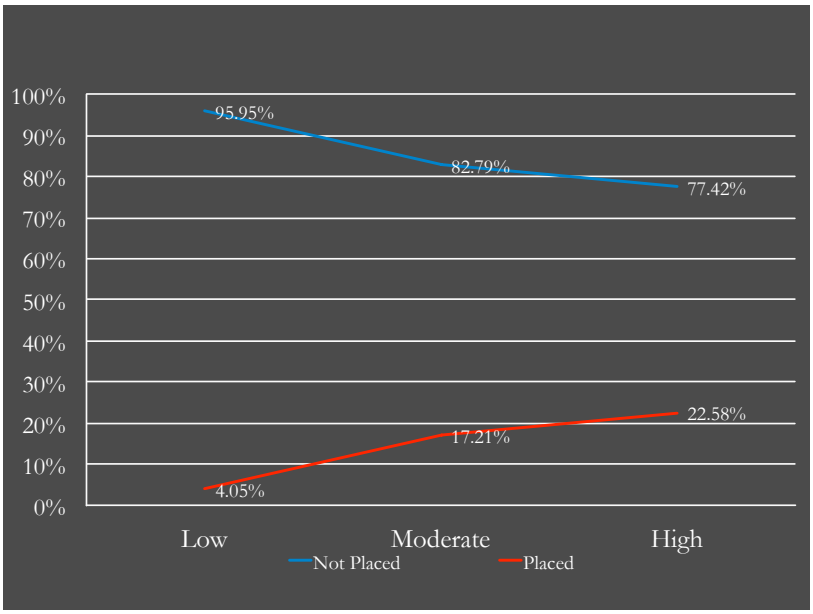
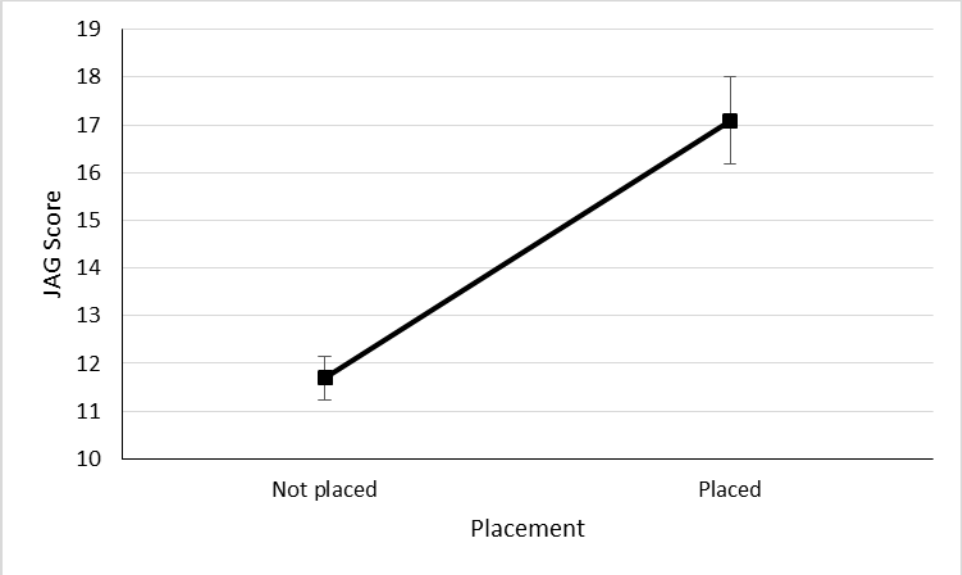


Figure 21. Placement Status within SAVRY Risk for Non-Violent Delinquency



Comparison group. Among the 44 youth in the comparison group who were placed post JAG, the mean JAG total risk score was 17.09 (*SD* = 6.07; range: 7 - 29) out of a possible maximum score of 47. Among the 183 youth not placed post JAG, the mean JAG total risk score was 11.69 (*SD*= 6.09); range 1-29), t(df=225) = 5.28, *p*<.001, d=.89. Among the 227 youth in the comparison group, placement rates were related to JAG total risk scores in the anticipated direction (= .133, SE = .028, Exp[B] = 1.14, *p* < .001); see Figure 22.

Figure 22. Placement Status as a Function of JAG Total Risk Score



Services

Prior to the RAMSAY project, all sites in CT already had well developed lists of "contracted" service providers available in their jurisdiction, and had categorized them according to the risk/need area they targeted and level of intensity (e.g., length of treatment program, number of sessions per week). We worked with sites to add the many "non-contracted" service providers used in each jurisdiction, and to then categorize them according to the need addressed and the level of service intensity.

Data about services were aggregated from and triangulated across four sources: electronic case management system (CMIS), electronic services data files from CDCS, electronic services files from MST providers, and paper-based case management plans JPOs used for a portion of the RAMSAY study. Services were defined as any service in the community aimed at treatment or rehabilitation (e.g., mentoring programs, functional family therapy, anger management, individual counseling, multisystemic therapy, etc.). Sanctions or punishments, such as community service, curfew, electronic monitoring, and JPO supervision, were not counted as services. School also was not considered as a service. Service data captured from the sources listed above were: service type, service agency, service attendance start and end dates, and whether the service was successfully completed.

We coded *program* referrals as well as *service* referrals because a youth could be referred to a single program (e.g., YES!) for multiple services (e.g., MST, anger management, etc.). There was a substantial amount of missing data for service type and program. For youth who were referred to one or more services, the data provided allowed us to code, for each service, whether the youth: attended the service and had no known problems with participation, attended but was observed to have some problems with participation, and never attended at all (attendance rates reflect "assumed" levels of attendance based on service providers' records, but attendance was not confirmed by JPOs). Rates of service completion all were coded.

Similar to the analyses regarding placement above, length of time under supervision did not need to be controlled for in the analyses for services below because of a lack of between-group differences on this variable. Services occurring at any point between a youth's filing date for the baseline charge and his or her study tracking end date (i.e., the last date when case management data were received) were included in analyses. On average, services were tracked for 303.41 days (*SD* = 130.82 range: 13-846 days).

Did the number of service and program referrals differ between experimental and comparison groups? Just under half of the youth in the experimental group (105 of 227, 46%) received at least one service referral. Of these 105 youth, most received only one service referral (83, 78%). Sixteen youth received two service referrals, four youth received three service referrals, and two youth received four referrals. Among youth in the comparison group, just over half (136 of 227, 60%) received at least one referral to a service. Similar to youth in the experimental group, most youth in the comparison group who received a referral received only one service referral (95, 70%). There were 27 youth who each received two service referrals, 13 youth who each received three service referrals, and one youth who received four referrals.

On average, youth in the experimental group (X = .59, *SD* = .77, range = 0 – 4) were referred to significantly fewer services than youth in the comparison group (X = .85, *SD* = .88, range = 0 – 4), *t* (*df* = 452) = 3.239, *p* = .001, *d* = 32. The model remained statistically significant after controlling for whether youth had adjudications at baseline. The number of programs to which youth were referred did not differ between the experimental (.56, *SD* = .69, range = 0 – 3) and comparison group (.78, *SD* = .79, range = 0 – 4); t (df=452) = 3.24, d = .30.

Did participation-in-service ratings differ between youth and in the experimental and comparison groups? Of the 105 youth in the experimental group who received at least one service referral, most (94, 89.5%) attended and no problems with participation were reported. Similarly high rates were reported for the 136 youth in the comparison group who received at least one service referral: most (112, 82.4%) attended and no problems with participation were reported. There was no difference between youth in the experimental and comparison groups in terms of the average number of services attended without participation problems (experimental: X = 0.11, *SD* = .35, range = 0 – 2; comparison: X = 0.19, *SD* = .45, range = 0 – 2; (□ = -.10, SE = .05, *p* = .115).

Did service completion rates differ between the experimental and comparison groups? Youth in the experimental group were significantly more likely than youth in the comparison group to complete at least one service, $\chi^2 = 12.13$, $p < .001$. Of the 105 youth in the experimental group who were referred to services, 35 (33.3%) completed at least one service, compared with 76 of the 136 youth (55.9%) in the comparison group referred to services. Almost one-third (30, 29%) of youth in the treatment group completed one service, 4 youth (4%) completed two services, and 1 youth (1%) completed four services. Among the 136 youth in the comparison group referred to services, 60 youth (44%) completed one service, 14 youth (10%) completed two services, and 2 youth (2%) completed three services. On average, youth in the experimental group completed significantly fewer services (X = .40, *SD* = .66, range = 0 – 4) than youth in the comparison group (X = .70, *SD* = .72, range = 0 – 3); t(df=239)=3.24, *p*=.001, d=.43.

Impact of risk: Was risk level related to the number of service and program referrals, and to service completion?

Experimental group. Across the 227 youth in the experimental group, the average number of service referrals for youth in the experimental group who JPOs rated as being at Low, Moderate, and High risk for violence using the SAVRY were .49 (*SD* = .73, range = 0 – 3), .64 (*SD* = .74, range = 0 – 4), and .69 (*SD* = .92, range = 0 – 4), respectively. The average number of *service* referrals for youth rated as being at Low, Moderate, and High risk for delinquency by JPOs using the SAVRY was .46 (*SD* = .68, range = 0 – 4), .74 (*SD* = .84, range = 0 – 4), and .33 (*SD* = .54, range = 0 – 2), respectively. Neither risk judgment was related to the number of service referrals given per youth, although the pattern of findings was in the expected direction for risk for violence, with high risk being associated with increasingly more service referrals (risk for violence: β = .11, SE = .07, *p* = .081; risk for delinquency: β = 0.08, SE = .08, *p* = .208).

The number of programs to which a youth was referred did not differ as a function of risk for violence (= .11, SE = .06, p = .082) or delinquency (= .11, SE = .07, p = .064). The average number of program referrals for youth rated as being at Low, Moderate, and High risk for violence and delinquency, respectively, were .46 (*SD* = .67, range = 0 – 3), .60 (*SD* = .66, range = 0 – 3), and .64 (*SD* = .78, range = 0 – 3); and .42 (*SD* = .55, range = 0 – 2), .69 (*SD* = .76, range = 0 – 3), and .32 (*SD* = .54, range = 0 – 3).

The number of services completed was not significantly related to JPOs' estimates of risk for future violence (= .02, SE = .09, p = .812) or delinquency (= .09, SE = .12, p = .377). The average number of programs completed by the youth rated as being at Low, Moderate, and High risk for violence and delinquency, respectively, was .38 (*SD* = .49, range = 0 – 1), .40 (*SD* = .58, range = 0 – 2), and .42 (*SD* = 1.01, range = 0 – 4); and .27 (*SD* = .45, range = 0 – 1), .48 (*SD* = .75, range = 0 – 4), and .22 (*SD* = .44, range = 0 – 1).

Comparison group. Among the 227 youth in the comparison group, the average number of program and service referrals both were significantly related to JAG total risk scores, controlling for the length of time on probation, with higher risk youth receiving more referrals (Program: = .31, SE = .01, p < .001; Services: = .30, SE = .01, p < .001). The number of services completed, however, was not related to the JAG risk score (= -.06, SE = .01, p = .477).

Level of Supervision

For youth whose cases are handled via non-judicial disposition, a JPO may provide supervision for up to six months. Supervision for youth with judicial cases is linked to the youth's score on the Juvenile Assessment Generic risk assessment tool, which determines the minimum number and types of contacts a JPO must have with the juvenile on a monthly basis. All sites followed their policy on supervision level in effect prior to the beginning of the RAMSAY project. In the experimental group, JPOs' rating of the overall risk for future violence (low, moderate, or

high) using the SAVRY was used as the assigned level of supervision for youth in the experimental sample (and hence three levels of supervision were available). In the comparison group, youth could be assigned to one of four levels of supervision (low, moderate, high, and very high), depending on the youth's age and JAG score.

Data about initial level of supervision was known for 435 youth. Among the 227 youth in the experimental group, initial levels of supervision were: Low (50, 22%), Moderate (128, 56.4%), and High (49, 21.6%). Among the 208 youth in the comparison group, initial supervision levels were: Low (47, 22.6%), Moderate (111, 53.4%), High (43, 20.7%), and Very High (7, 3.4%). The distribution of initial levels of supervision did not differ significantly between youth in the experimental and comparison groups (= .28, SE = .19, p = .649).

Impact of risk: Was risk related to initial level of supervision assigned? Were higher risk youth assigned to more intensive supervision levels?

Experimental group. By policy, youths' risk for future violence using the SAVRY (low, moderate, high) was designated as their supervision level (low, moderate, high). Because there should be complete concordance between risk and supervision levels, analyses were not undertaken to examine the impact of risk on supervision level.

Comparison group. Among the 212 youth in the comparison group, the total risk score on the JAG was significantly related to initial supervision level (= .45, SE = .04, p < .001), such that youth with higher JAG scores were assigned to more intensive levels of supervision. Mean total JAG risk scores for each initial supervision level were: Low (7.02, *SD* = 4.83, range: 1 – 22); Moderate: (11.51, *SD* = 3.42, range: 4 – 20); High (19.65, *SD* = 4.04, range: 3 -26); and Very High: 25.86, *SD* = 5.37, range: 14 – 29).

Recidivism

Recidivism data from juvenile and adult courts were provided electronically for the entire sample. Juvenile records contained information regarding referrals, adjudications, and dispositions. Adult records contained information about arrests, convictions and dispositions. Recidivism was defined as a new juvenile referral or adult arrest filed after the baseline petition filing date.

The amount of time for which a given youth was "at risk" or "had an opportunity" to reoffend varied as a function of when she or he entered the RAMSAY study and the total amount of time spent in placement during the study. The follow-up period commenced on the date of petition filing for the baseline offense. When values for placement end date were missing, time in placement was estimated by substituting the average number of days the sample spent in the first placement (i.e., which was 12.26 days, calculated using placement start and end dates for youth for whom these dates were known). For youth who remained in placement at the end of the study, the study end date was used as the placement end date of the actual end date was not known, and the actual end date was used if known. Recidivism data were tracked on average for 494.86 days (*SD* = 130.33; range: 211 - 1044 days) across groups.

The base rate of recidivism were relatively high, with 51.77% and 60.35% of youth in the experimental and comparison groups, respectively, receiving a new petition of any kind. Significantly more youth in the comparison group incurred new petitions for a status offence compared with youth in the treatment group, $\chi^2 = 13.30$, $p>.001$. All other between-group comparisons were not significantly different (see Table 39).

Separate Cox regression analyses conducted indicated there were no significant differences between youths in the experimental and comparison groups in their time to the commission of any new recidivism (= -0.89, *SE* = .28, Exp[B] = .82, *p* = .11 hierarchical ordered logistic regression was conducted hierarchical ordered logistic regression was conducted 8), probation violation (= -

.19, *SE* = .25, Exp[B] = .82, *p* = .445), nonviolent referral/arrest (= -.03, *SE* = .14, Exp[B] = .96, *p* = .802), and violent referral/arrest (= -.11, *SE* = .21, Exp[B] = .89, *p* = 606). Time to commission of a new referral for a status offense, however, was significantly shorter among youth in the treatment group: = -.89, SE = .28, Exp[B] = .41, *p* = .001.

Table 39

Number (Percentage) of Youth with New Petitions Following Baseline Referral

	Any	Status	Probation Violation	Nonviolent	Violent
Experimental (*n* = 226)	117 (51.77%)	18 (7.95%)	28 (12.39%)	101 (44.69%)	40 (17.70%)
Comparison (*n* = 227)	137 (60.35%)	45 (19.82%)	35 (15.42%)	107 (47.14%)	48 (21.15%)
Site 1 (*n* = 138)	85 (61.59%)	32 (23.19%)	18 (13.04%)	65 (47.10%)	26 (18.84%)
Site 2 (*n* = 89)	52 (58.43%)	13 (14.61%)	17 (19.10%)	42 (47.19%)	22 (24.72%)

Predictive Validity of the SAVRY and JAG

In analyses of the tools' predictive validity, the date of administration of the SAVRY or JAG was designated as the beginning of the follow-up period. Data were tracked on average for 380.69 days (*SD* = 79.75; range: 211 - 523 days) for youths in the experimental group, and 444.18 days (*SD* = 74.09; range: 228 - 522 days) for youths in the comparison group. This difference was significant ($t(498.25) = -9.25$, $p < .001$).

Use of the SAVRY in the experimental group

Separate cox regression analyses were conducted to test whether the SAVRY summary risk ratings for future violence and delinquency were associated with five types of recidivistic outcomes: any new referral/arrest, and new referral/arrest for a non-violent offense, a violent offense, a status offense, or a probation violation (see Table 40). Supplementary analyses of the predictive validity of the SAVRY's total and scale "scores" also were completed.

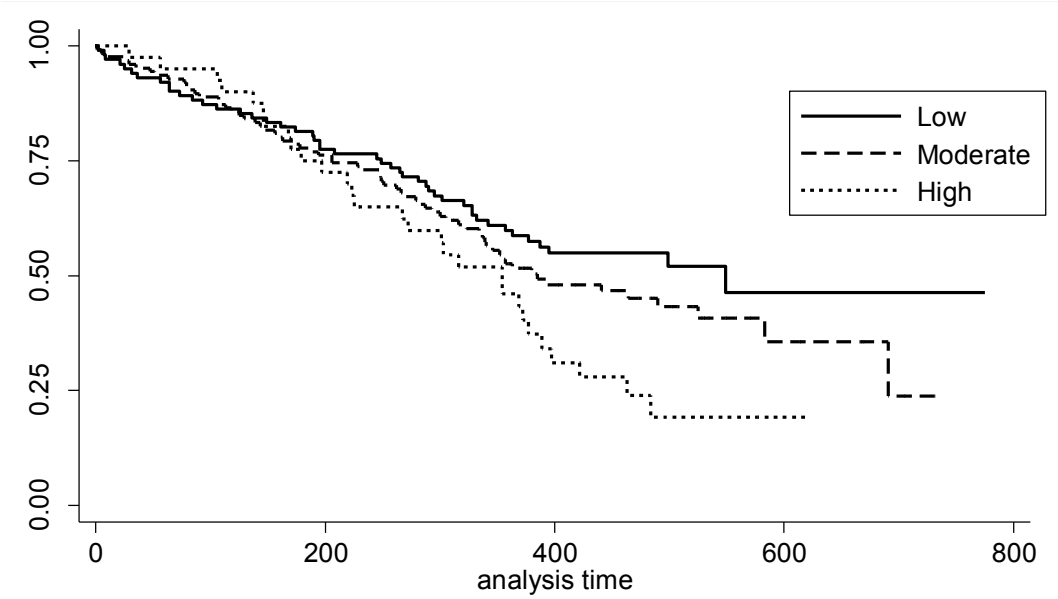
Ratings of risk for future violence (low, moderate, or high) were significantly associated with any new type of referral/arrest, as well as with a new referral/arrest for both nonviolent and violent offenses, with small effect sizes (i.e., odds ratios, listed in the Tables below as *Exp[B]*). Risk for violence was not associated with new petition for a status offense or new referral/arrest for a probation violation. Figure 23 shows that youth rated as being at higher risk for violence recidivated more quickly by obtaining a new charge than youth rated as being at relatively lower risk for violence.

Table 40

Cox regression for Summary Risk Rating for Violence and Recidivism

Outcome	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Any	0.29	0.12	1.13	2.45	.014	0.06	0.53
Status	-0.27	0.29	1.34	-0.91	.364	-0.84	0.31
Probation							
Violation	0.42	0.25	1.29	1.65	.100	-0.08	0.91
Nonviolent	0.41	0.13	1.14	3.14	.002	0.15	0.67
Violent	0.57	0.2	1.23	2.8	.005	0.17	0.98

Figure 23. Summary Risk Rating for Violence and Time to Any New Petition



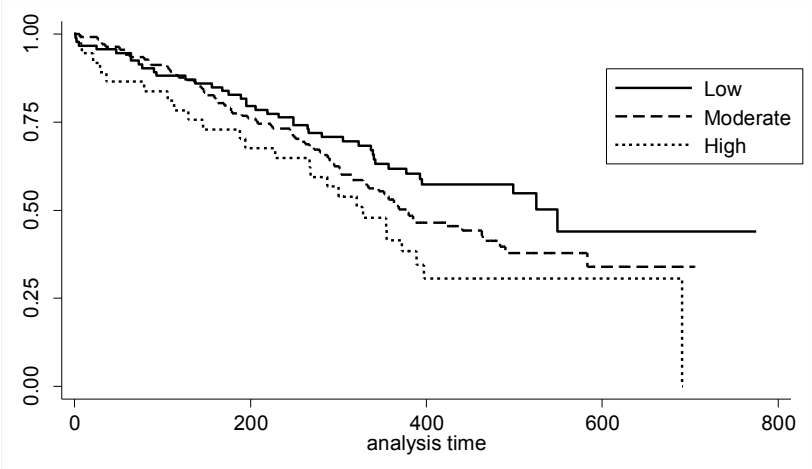
Ratings of risk for future delinquency (low, moderate, or high) were related significantly to any type of new charge and a new charge for a nonviolent offense (see 41). Risk for delinquency was not associated with new charges for violent or status offenses or probation violation. Figure 24 shows that youth rated as higher risk for delinquency recidivated more quickly by obtaining a new charge than youth rated as at lower risk for delinquency.

Table 41

Cox Regression for Summary Risk Rating for Delinquency and Recidivism

	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Any	0.34	0.13	1.13	2.67	.008	0.09	0.58
Status	0.27	0.29	1.34	0.91	.362	-0.31	0.85
Probation							
Violation	0.3	0.27	1.31	1.11	.268	-0.23	0.83
Nonviolent	0.34	0.14	1.15	2.44	.015	0.07	0.61
Violent	0.24	0.22	1.24	1.1	.270	-0.19	0.67

Figure 24. Summary Risk Rating for Delinquency and Time to New Petition



Generally, a similar pattern of results was observed for the predictive validity of the SAVRY's total risk "score" and four domain or scale "scores." The total score and all the scales except Historical were significantly associated with recidivism in the form of any new charge (Table 42), and all the SAVRY indices were associated with a new non-violent charge (Table 43). These effect sizes were smaller than those for the summary risk ratings.

Table 42

Cox Regressions for the SAVRY's Association with Any New Charge

SAVRY	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Total	0.05	0.01	1.01	3.96	.000	0.02	0.07
History	0.05	0.03	1.03	1.9	.057	0	0.1
Social/Contextual	0.12	0.04	1.04	3.3	.001	0.05	0.19
Individual/Clinical	0.13	0.03	1.03	4.55	.000	0.07	0.18
Protective	-0.22	0.05	1.05	-4.47	.000	-0.32	-0.13

Table 43

Cox Regressions for the SAVRY's Association with New Charge for a Nonviolent Offense

SAVRY	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Total	0.06	0.01	1.01	4.31	.000	0.03	0.09
History	0.06	0.03	1.03	2.28	.022	0.01	0.12
Social/Contextual	0.14	0.04	1.04	3.39	.001	0.06	0.22
Individual/Clinical	0.15	0.03	1.03	4.85	.000	0.09	0.21
Protective	-0.21	0.06	1.06	-3.69	.000	-0.31	-0.1

Survival curves depicting the time to failure for the SRR for violence and non-violent delinquency for new petitions for violent and non-violent offenses are presented in Figures 25 through 28.

Figure 25. Summary Risk Rating for Violence and Time to New Petition for a Violent Charge

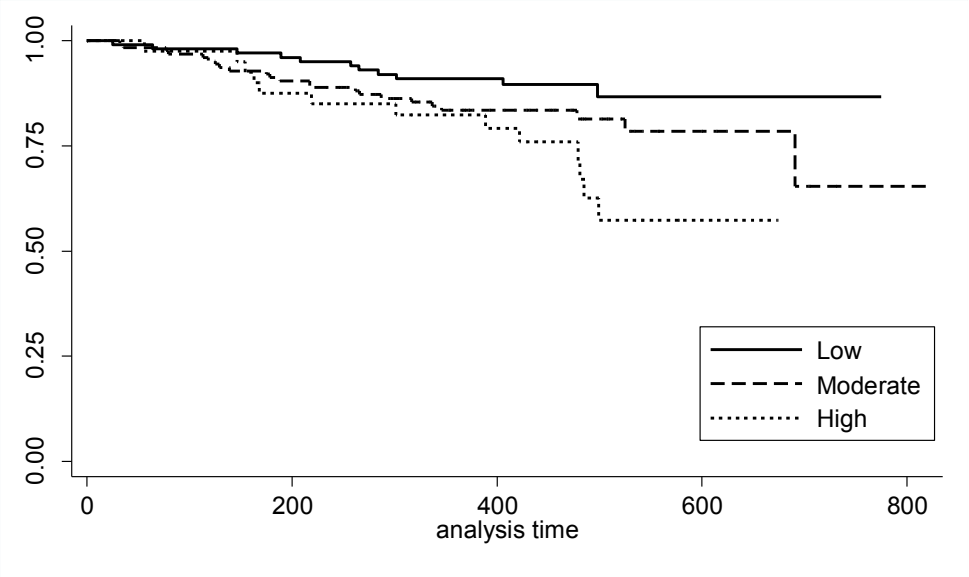


Figure 26. Summary Risk Rating for Non-Violent Delinquency and Time to New Petition for a Violent Charge

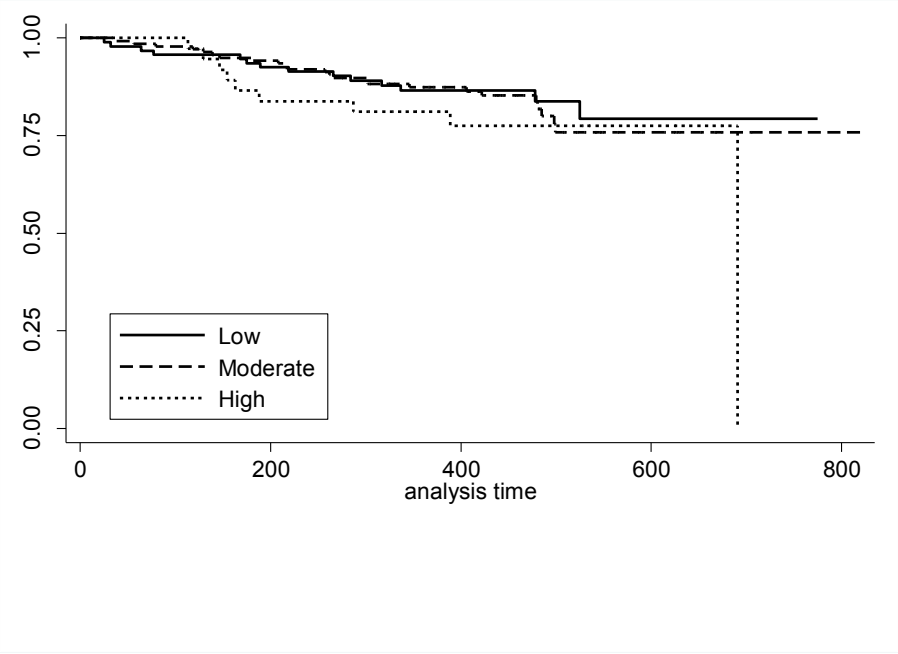


Figure 27. Summary Risk Rating for Violence and Time to New Petition for a Non-Violent Violent Charge

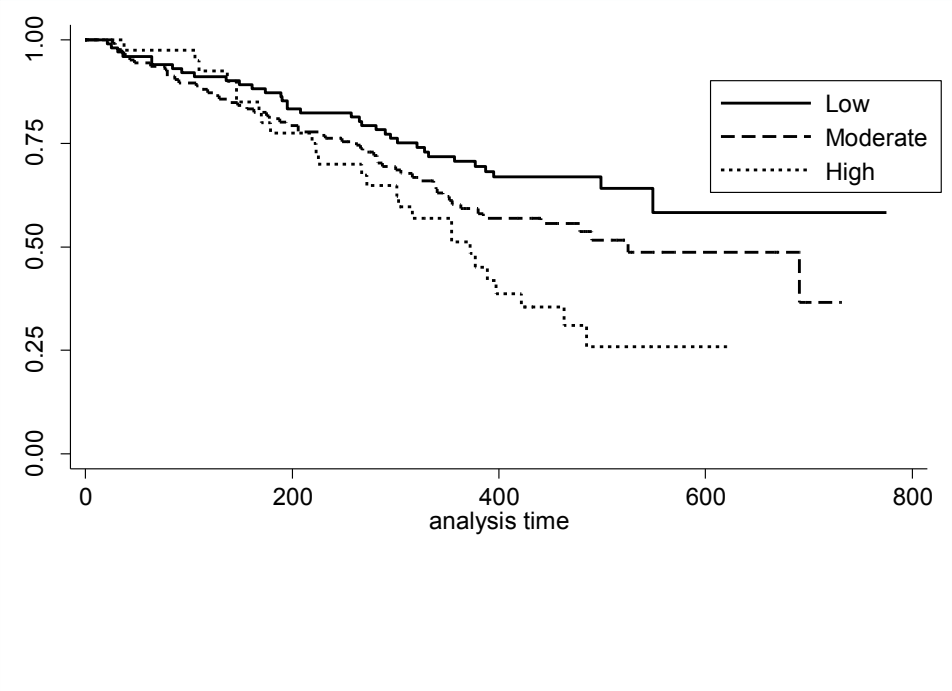
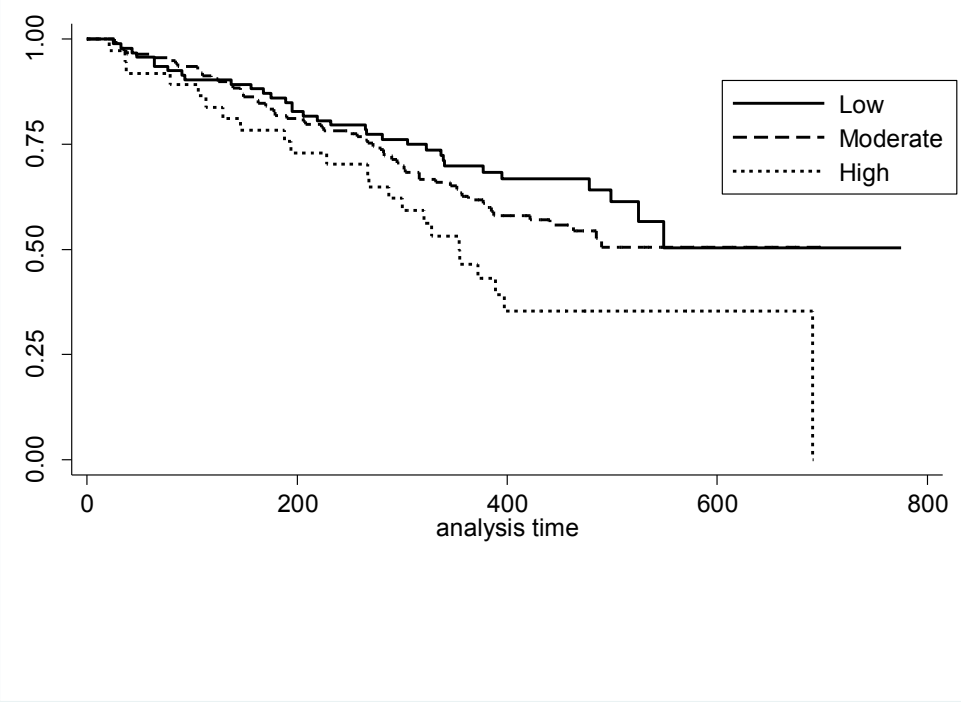


Figure 28. Summary Risk Rating for Non-Violent Delinquency and Time to New Petition for a Non-Violent Charge



With a few exceptions, the SAVRY total and scale scores were not associated with new violent offenses, status offenses, and probation violations. The exceptions were significant associations for the total score and Individual/Clinical scale with new charge for a violent offense, and for the Social/Contextual scale and new charge for a probation violation. No predictive validity was observed for new charges for a status offense. Results are summarized in Tables 44 through 46.

Table 44

Cox Regressions for the SAVRY's Association with a New Charge for a Violent Offense

SAVRY	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Total	0.06	0.02	1.02	2.61	.009	0.01	0.1
History	0.06	0.05	1.05	1.36	.174	-0.03	0.15
Social/Contextual	0.08	0.07	1.07	1.16	.245	-0.05	0.2
Individual/Clinical	0.18	0.05	1.05	3.57	.000	0.08	0.28
Protective	-0.11	0.08	1.09	-1.34	.179	-0.28	0.05

Table 45

Cox Regressions for the SAVRY's Association with a New Charge for a Probation Violation

SAVRY	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Total	0.04	0.03	1.03	1.64	.102	-0.01	0.1
History	0.01	0.06	1.06	0.11	.909	-0.11	0.12
Social/Contextual	0.19	0.08	1.09	2.35	.019	0.03	0.35
Individual/Clinical	0.11	0.06	1.06	1.8	.073	-0.01	0.23
Protective	-0.19	0.11	1.11	-1.78	.075	-0.4	0.02

Table 46

Cox Regressions for the SAVRY's Association with a New Charge for a Status Offense

SAVRY	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Total	-0.01	0.03	1.03	-0.38	.703	-0.07	0.05
History	-0.1	0.07	1.07	-1.38	.167	-0.23	0.04
Social/Contextual	-0.02	0.09	1.09	-0.24	.810	-0.2	0.16
Individual/Clinical	0.05	0.06	1.07	0.74	.460	-0.08	0.17
Protective	-0.16	0.11	1.12	-1.41	.157	-0.39	0.06

Finally, regression models with multiple predictors indicated that there was no incremental validity for ratings of risk for violence or non-violent delinquency over the SAVRY total "score" for the following types of recidivism: any new petition, a new petition for a violent charge, and a new petition for a non-violent charge. With respect to the comparative performance of the SAVRY scales, when all four scales were entered in the same block, only the Individual/Clinical scale was predictive of any new petition, of a new petition for violent charge, and of a new petition for a non-violent charge. There was a trend toward significance for the Protective scale for any new petition. None of the scales were associated with new petitions for status offenses or probation violations,

Use of the JAG in the Comparison Group

With the exception of new referrals for a status offense, the JAG total risk and protective scores significantly predicted all recidivism outcomes, with small effect sizes (see results in Tables 47 and 48).

Table 47

Cox Regressions for JAG Total Risk Scores and Recidivism

	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Any	0.06	0.01	1.01	4.84	.000	0.04	0.09
Status	0.005	0.02	1.02	0.2	.843	-0.04	0.05
Probation Violation	0.16	0.03	1.03	5.98	.000	0.11	0.21
Nonviolent	0.06	0.01	1.01	4.2	.000	0.03	0.09
Violent	0.05	0.02	1.02	2.66	.008	0.01	0.1

Table 48

Cox Regressions for JAG Total Protective Scores and Recidivism

	□	*SE*	*Exp[B]*	*z*	*p*	*95 LL*	*95 UL*
Any	-0.05	0.01	1.01	-3.72	.000	-0.07	-0.02
Status	-0.02	0.02	1.02	-0.91	.362	-0.06	0.02
Probation Violation	-0.13	0.03	1.03	-4.59	.000	-0.18	-0.07
Nonviolent	-0.04	0.01	1.01	-3.12	.002	-0.07	-0.02
Violent	-0.04	0.02	1.02	-2.04	.041	-0.08	0

Summary of Key Findings in Connecticut

Disposition

- Significantly more cases in the treatment than comparison group were classified as delinquency than FWSN
- Although for the majority of youth there was no difference in severity of disposition received, youth in the experimental group were significantly less likely to receive a placement disposition than youth in the comparison group
- In both groups, assessed risk for future violence and delinquency using the SAVRY and risk score using the JAG were related to youths' dispositions
- Youth rated as higher risk by any measure – SAVRY SRR for violence, SAVRY SRR for non-violent delinquency, and JAG total risk score - were significantly more likely to be placed out of home than youth rated as lower risk

Placement

- Out of home placements most typically were to detention
- Youth in the experimental and comparison groups were equally likely to be placed out of home; on average, 27% of the sample was placed
- Youth in the experimental group spent significantly fewer days in placement (detention or inpatient facility) than youth in the comparison group
- Youth at higher risk for future delinquency using the SAVRY were more likely to be placed than youth at relatively lower risk
- Youth with higher JAG risk total scores were more likely to be placed than youth with relatively lower scores

Services

- Although there was no difference in the number of programs to which youth in the experimental and comparison groups were referred, youth in the experimental group on average received slightly fewer service referrals and completed slightly fewer services; however, they were significantly more likely than youth in the comparison group to complete at least one service
- JPOs' decisions about service and program referrals were not related to risk for violence or non-violent delinquency using the SAVRY; service completion rates also were not related to SAVRY risk levels
- Higher JAG risk scores were associated with more referrals to programs and services, but not to actual completion of services

Level of Supervision

- There were no differences between youth in experimental and comparison groups in initial level of supervision
- By policy, level of supervision was redundant with the risk level in both groups

Recidivism

- The base rate of recidivism were relatively high, with 51.77% and 60.35% of youth in the experimental and comparison groups, respectively, receiving a new petition
- The number of youth in the experimental and comparison group with new petitions of any kind, or of new petitions for nonviolent or probation violation offenses, did not differ significantly; substantially more youth in the comparison group obtained a new petition for a status offense

Risk Profile and Performance

- Strong inter-rater agreement was observed on the SAVRY
- The majority of youth assessed with the SAVRY were at Moderate risk for violence and delinquency, and few were rated as High risk for violence and delinquency
- The comparison group assessed with the JAG on average had relatively low risk scores, with a mean of 13.17 (of a possible maximum total risk score of 47)
- SAVRY ratings of risk for future violence (low, moderate, or high) were significantly associated with any new type of referral/arrest, as well as with a new referral/arrest for both nonviolent and violent offenses, with small effect sizes; but risk for violence was not associated with new charges for a status offense or probation violation
- SAVRY ratings of risk for future delinquency (low, moderate, or high) were related significantly to any type of new charge and a new charge for a nonviolent offense; but risk for non-violent delinquency was not associated with new charges for violent or status offenses or probation violation.
- With the exception of new charges for a status offense, the JAG total risk and protective scores significantly predicted all other outcomes, with small effect sizes

MAYSI-2

- Behavioral health needs as assessed via this brief screen were prevalent
- In both experimental and comparison groups, girls' scores indicated much more distress when compared with boys' scores in the same groups as well as with girls' scores in the National Norms

Discussion

In Connecticut, we examined the effects of transitioning from a case management approach based on use of an actuarial risk assessment tool without external empirical validation – the JAG - to a case management approach based on an empirically validated tool developed according to the structured professional judgment model – the SAVRY. To our knowledge, this type of question has not been researched previously.

Implementing a new risk assessment tool in a system in which one already was in place presented several benefits and challenges not encountered when a system does not have a tool or established procedure for assessing risk in place. On one hand, stakeholders had been using information from risk assessments routinely to inform their decisions for a long time, and this was a distinct advantage during the implementation phase in the present project. In general, one of the major challenges to be overcome to achieve successful implementation of risk assessment procedures is educating and gaining buy in from front line users (here, JPOs), administrators, judges, and lawyers. In Connecticut, information from the JAG is valued and used to make case related decisions. As such, key stakeholders did not have to be educated regarding the importance of using risk related information to improve case management decision-making.

The JAG is integrated intricately into the state's probation system. It is standard practice to conduct the JAG with all judicial cases (and with non-judicial cases when a youth scores above a threshold on the BRAT), and case management plans are developed primarily to reflect the need areas on the JAG. This kind of seamless integration between assessment and management is highly desirable. JPOs were used to completing the JAG online, and it was integrated electronically into the case management system. Ironically, one of the main challenges associated with implementation of the SAVRY was this user friendly, electronic assessment and management system that JPOs used as part of their day-to-day practice. Although it was planned for the SAVRY also to be incorporated

into the electronic case management system for this project, this had not occurred by the time the project began. Having to complete the SAVRY and case management plan in hard copy expectedly (and justifiably) led to much frustration among JPOs because it took them more time and was more cumbersome than the electronic format to which they had become accustomed.

Another implementation-related challenge was associated with shifting from an actuarial approach to a structured professional judgment approach. The policies supporting the use and application of the actuarial JAG in Connecticut made the JPOs less vulnerable to potential negative outcomes resulting from their recommendations. Because results of the JAG (used together with an assessment of the youth's motivation) essentially dictate the type and degree of intervention a youth receives, JPOs are afforded a good degree of protection against criticism or questioning from others, such as supervisors, should a youth have an undesirable outcome, including engaging in subsequent violence. Because the SPJ approach emphasizes individualization of every assessment, and requires the use of judgment by well-trained professionals, JPOs using the SAVRY may be made more accountable for their recommendations than JPOs using the JAG. In this way, shifting from using the JAG to the SAVRY was experienced as a difficult transition for some JPOs.

With respect to the impact that implementation of the SAVRY had on actual case processing in Connecticut, there were few differences in case outcomes compared to the sites in which the JAG remained in use. Although there was no difference in severity of disposition received for the majority of youth in the experimental and comparison sites, youth who were assessed with the SAVRY were significantly less likely to receive a placement disposition than youth assessed with the JAG. Among youth who were placed, those assessed with the SAVRY spent significantly fewer days in placement (detention or inpatient facility) than youth assessed with the JAG, although it is unclear how JPOs' recommendations could have influenced placement length. Given the lack of access to comprehensive data about placements, our ability to draw conclusions about this issue was limited.

With respect to services, youth in the experimental and comparison groups were referred to the same number of programs, but youth assessed with the SAVRY on average received slightly fewer service referrals and completed slightly fewer services. However, youth assessed with the SAVRY were significantly more likely than youth assessed with the JAG to complete at least one service. An important analytic component that was beyond the scope of the present project was examination of the "goodness of fit" between the risk factors salient for a given youth (as assessed with the SAVRY or JAG), and the risk domains addressed by the case management plan. As described in the Introduction, optimal outcomes for youth, including reductions in recidivism, are achieved when the intensity or dosage of services and other interventions are commensurate with the youth's risk level, when the target of the service or intervention matches the most salient risk relevant domains of the youth, and when other factors associated with the context or youth that might affect the effectiveness of the intervention are taken into account. Analysis of this level of the data will be completed in the future.

Also relevant to the discussion of service referrals is JPOs' use of the MAYSI-2. Prior to the present project, the MAYSI-2 already was used routinely by JPOs to facilitate decision-making about service recommendations. As noted above, few differences between groups were found for the proportion of youth over Caution cut-off on the MAYSI-2 scales. Implementation related challenges also emerged for the MAYSI-2, as there some inconsistencies in the use of the tool by probation staff were observed. Although the majority of youth in Connecticut received the MAYSI-2 pre-disposition, there were some youth who received the MAYSI-2 too late in the process (i.e., post-disposition) for it to have any influence on key case management decisions, such as disposition and placement.

In both the experimental and comparison groups, risk was related to case outcomes and management decisions. Assessed risk for future violence and delinquency using the SAVRY and

total risk score using the JAG were related to youths' dispositions and likelihood of being placed out of home (most typically to detention). Decisions about service referrals were less strongly and consistently related to risk level, with higher JAG risk scores having a small association with referrals to programs and services, but not to actual completion of services. Estimates of risk using the SAVRY were not related to service referrals or completion.

Consistent with previous research in the state (personal communication, M. White, March 10, 2013), youth in the present sample had relatively high rates of recidivism, defined as a new petition for any kind of charge: 52% in the experimental group, and 60% in the comparison group. Focusing on new petitions for violent offences, rates in the experimental and comparison groups were 18% and 21%, respectively. Neither risk assessment approach identified many youth as being at high risk; the JAG appeared to be associated with relatively more appraisals of low risk compared with the SAVRY. Both the JAG and the SAVRY were significantly associated with recidivism in the form of any new petition. Effect sizes for predictive validity for both tools were relatively small, although somewhat larger for the SAVRY.

Considering the potential overall impact on Connecticut's system and a benefit-cost analysis of the efforts that would be required to implement the SAVRY as a replacement for the JAG throughout the state, our results suggest that there is little empirical justification to switch from using the JAG to the SAVRY at present. This observation is buoyed by the fact that, since the SAVRY was published over a decade ago, considerable developments in the research and practice literatures on delinquency and violence generally, as well as risk assessment and management more specifically, have occurred, prompting discussion about the need for revision of the tool (Guy, Nelson, Fusco-Morin, & Vincent, 2014). In addition to lacking some risk factors that research now shows to be important (e.g., history of sexual abuse), the SAVRY does not incorporate the significant advancements that have occurred in the past decade pertaining to the application of the

structured professional judgment approach. For example, most newer SPJ tools make explicit the need to consider not only whether a risk factor is or has ever been present for an individual, but also whether and if so how the risk factor is relevant to the risks posed by the individual, or to case management efforts required to mitigate risk. The absence of ratings about individual relevance of risk factors is a drawback of the SAVRY given that relevance ratings are intended to bridge the divide between nomothetic and idiographic approaches to and applications of risk assessment. Preliminary evaluation of the validity of relevance ratings using the adult version of the SAVRY, the HCR-20 Version 3 (Douglas, Hart, Webster, & Belfrage, 2013), showed incremental post-dictive validity over presence ratings (Blanchard & Douglas, 2011), although in a subsequent prospective study relevance ratings did not add incrementally to presence ratings (Strub, Douglas, & Nicholls, 2014). In addition, other steps in the SPJ approach that are standard components of the administration procedure (e.g., case formulation, scenario planning, risk management recommendations based on results of scenario planning) are not incorporated in the SAVRY.

Regardless of the particular tool Connecticut chooses to use for assessing and managing risk for violence and delinquency, review of the degree to which the tool is useful for case management and violence and delinquency prevention, as well as the extent to which the broader risk assessment and management procedures used meet standards for evidence based practice (see Vincent, Guy, & Grisso, 2012) should occur regularly.

Overall Project Conclusions and Recommendations for Practice and Policy

Violence Risk Assessment

Our results indicate that probation staff can be trained to complete violence risk assessments using the structured professional judgment approach with a high degree of inter-rater agreement and that, when such an approach is used, case management decisions can be made in a way that appropriately takes into account a youth's risk for future offending. In order for risk assessment to impact youths' case and individual outcomes, risk assessment *must* occur early enough in the judicial process to have the capacity to be influential. Risk assessment is an investment that requires significant human and financial resources. One key policy-related recommendation arising from this study is that in order for states to reap the utmost benefit from such an investment, risk assessment should occur before decisions about disposition, placement, and services are made.

A second recommendation with implications for both practice and policy based on findings from the present project is that states should use a structured, empirically validated approach to risk assessment. A significant body of research has demonstrated that unstructured approaches to risk assessment essentially have "accuracy" rates that are no better than chance. As such, agencies whose staff engage in case planning and management practices using an unstructured approach are at peril of using an approach that is not being maximally effective, and perhaps even detrimental to a youth.

Behavioral Health Screening

In this study, probation officers administered the MAYSI-2 at various points (depending on the site) in the decision process for case planning and placement. The MAYSI-2 was a supplement to case planning and placement of youths (in the experimental group in Mississippi and in all groups in Connecticut), and thus this study did not seek to relate MAYSI-2 results, or use/non-use, to outcomes independent of the overall comparisons outcomes for the experimental and comparison groups. As noted earlier, the MAYSI-2 does not provide diagnoses, and high scores do not

necessarily indicate mental health services are required. Rather, elevated scale scores signal probation staff to the possibility that a youth might have mental health needs requiring consideration in placement/treatment plans.

The MAYSI-2 measures reported symptoms of youth on six clinical scales, offering data on the proportion of youth in the clinically-significant range ("over Caution cut-off") in each site. The proportions over Caution cut-offs in the present study were quite similar to the proportions found in the MAYSI-2 National Norms, based on many sites nationwide regarding administration of the MAYSI-2 specifically during the Probation decision-making process. Use of the MAYSI-2 in other settings, especially at the front door of detention centers or juvenile corrections facilities, produce very different normative data on some MAYSI-2 scales. One of these differences is a much lower proportion of youths over Caution on the Alcohol/Drug Use scale. This apparently occurs due to youths' reluctance to report substance use in assessments that may influence probation staff decisions with consequences for future placement (Grisso, Fusco, Paiva-Salisbury, Perrault, Williams, & Barnum, 2011). This accounts for the relatively low proportion of youth in the present study who exceeded the Caution cut-off on Alcohol/Drug Use.

Few differences between sites were found for the proportion of youth over Caution cut-off on the MAYSI-2 scales. Therefore, it is safe to say that any differences that were found between sites in their placement or recidivism outcomes was not due to differences between sites in the proportion of youths with mental health needs. One exception to the similarity across sites was the relatively low percentage over Caution on Suicide Ideation in the experimental site in Mississippi, compared to the other Mississippi sites and the Connecticut sites. This is an artifact of the gender composition of the site samples. In national norms, as in the present samples, average MAYSI-2 scale scores for girls are slightly higher than for boys (except for Alcohol/Drug use), but they are substantially higher for girls on Suicide Ideation. The lower Suicide Ideation average for the

experimental site in Mississippi is explained simply by the fact that it was almost entirely male, whereas girls comprised roughly one-third of all of the other sites.

The results indicated a variety of inconsistencies in the use of the MAYSI-2 by probation staff in this study. Roughly 20% of youth in one site never received the MAYSI-2 at all. In other sites, some received it too late in the process for it to have any influence on placement decisions. This was despite our efforts to train staff to use the MAYSI-2 in conjunction with the risk tool, and to offer guidance for considering MAYSI-2 findings when engaging in case management decisions. Some inconsistencies are inevitable in the course of routine probation practice. But it is instructive to know that in various studies involving use of the MAYSI-2 at intake in juvenile detention centers and juvenile corrections, staff typically administer and appropriately use the MAYSI-2 with almost 100% of their intake cases. Why was the MAYSI-2 used so much less efficiently in the present probation settings?

First, in detention/corrections intake settings, the MAYSI-2 is a step in a series of steps, with the remaining steps not being possible until the MAYSI-2 is given. For example, typically the detention intake process occurs within the first hour after police bring a youth to the facility. Typically the intake process requires immediate decisions (e.g., In what unit will the youth be given a bed? Is there a need to alert the detention staff to implement suicide prevention procedures?). In contrast, the probation assessment interview with a youth typically requires no immediate decisions, and the MAYSI-2 is not necessarily required to be given at a particular point in the assessment process.

Therefore, in the present study, offering greater structure in the sequencing of data collection might have improved MAYSI-2 use. For example, department policy could require that the MAYSI-2 be given immediately prior to the SAVRY data collection interview. In addition, probation staff was given guidance about how to incorporate MAYSI-2 findings into case

management practices. But this did not involve a structured way to use MAYSI-2 findings when completing the SAVRY. For example, might compliance be improved if training emphasizes the MAYSI-2 as part of the completion of the SAVRY, not as a "mental health add-on?" A combined SAVRY-MAYSI administration might require that certain scales on the SAVRY (e.g., suicide, anger, substance use) must be completed based on the MAYSI-2 results, and a structured translation process for doing that could be provided. This would "embed" the MAYSI-2 within the SAVRY process, so that no SAVRY could be completed without MAYSI-2 administration at the same time.

A second reason for inconsistencies in MAYSI-2 use was encountered in one state in which defense attorneys routinely advised their adolescent clients not to complete the MAYSI-2, apparently on the presumption that it might provide self-incriminating information that could be used against them in later legal proceedings. This problem arises when the MAYSI-2 is used by probation to gather information to be used by the court in later legal proceedings. (Typically this is not a problem in detention intake situations, where the MAYSI-2 is used solely to make immediate decisions about a youth's safety, and where local policies typically prohibit any use of the information in later adjudicative or dispositional legal proceedings.) In fact, none of the MAYSI-2 items asks for information about a youth's illegal behaviors other than alcohol/drug use. Therefore, if defense attorneys have meaningful concerns, they are less relevant to actual self-incrimination, but related more to ways that mental health symptoms (e.g., MAYSI-2's Angry-Irritable scale) might negatively influence judicial impressions.

Several things can be done to mitigate this problem. One is to educate defense attorneys about the items in the MAYSI-2 when it is being introduced in a jurisdiction as routine policy for probation assessments. This may allay concerns that the youth will be offering self-incriminating information. A second strategy would be the development of a solid policy, backed by a local judicial ruling, that the data from probation assessments will not be given to the court until after

adjudication, thus mitigating the danger of negative impressions derived from SAVRY or MAYSI-2 data. In our experience, this has reduced such concerns about the use of the MAYSI-2 in probation assessments in almost all jurisdictions with which we have worked, in which local juvenile defense advocates have routinely had no objection to the use of psychological tests or screening tools under those conditions.

A third reason for inconsistencies in MAYSI-2 use was encountered in one experimental site in Mississippi (MS Experimental Site 1), where the judge advised youth service counselors to not complete any assessments until post-disposition. Training the judge on the importance and usefulness of the MAYSI-2 results would be the first step to rectify this issue. In our experience once judges understand and acknowledge the usefulness of any assessment screen and/or tool they are more willing to allow probation officers the to complete the tool in order to have a more comprehensive understanding of the youth.

Future Research

Much research indicates that case management practices should be completed in a manner that reflects not only level of risk, but also the specific domains of risk that are most salient for that particular youth. The degree to which case management plans were tailored for a given youth were beyond the scope of the present project, and thus serve as an important area for future inquiry.

Limitations

Several challenges with respect to study design and methodology were encountered. The present study used a comparison-group design, which was intended to provide a methodological advancement over our previous research on this topic (CITE). However, quite early on in preparatory process for the present project, we became aware that there were differences between sites – many that seemed unquantifiable – with which we had to contend. For example, especially in Mississippi, service and placement availability differed by county, which likely was related to

financial resources. Despite the general superiority of comparison-group designs, our research questions of interest – how implementation of an empirically validated approach to violence risk assessment impacted case management practices and outcomes – may be studied best by using pre-post intervention designs.

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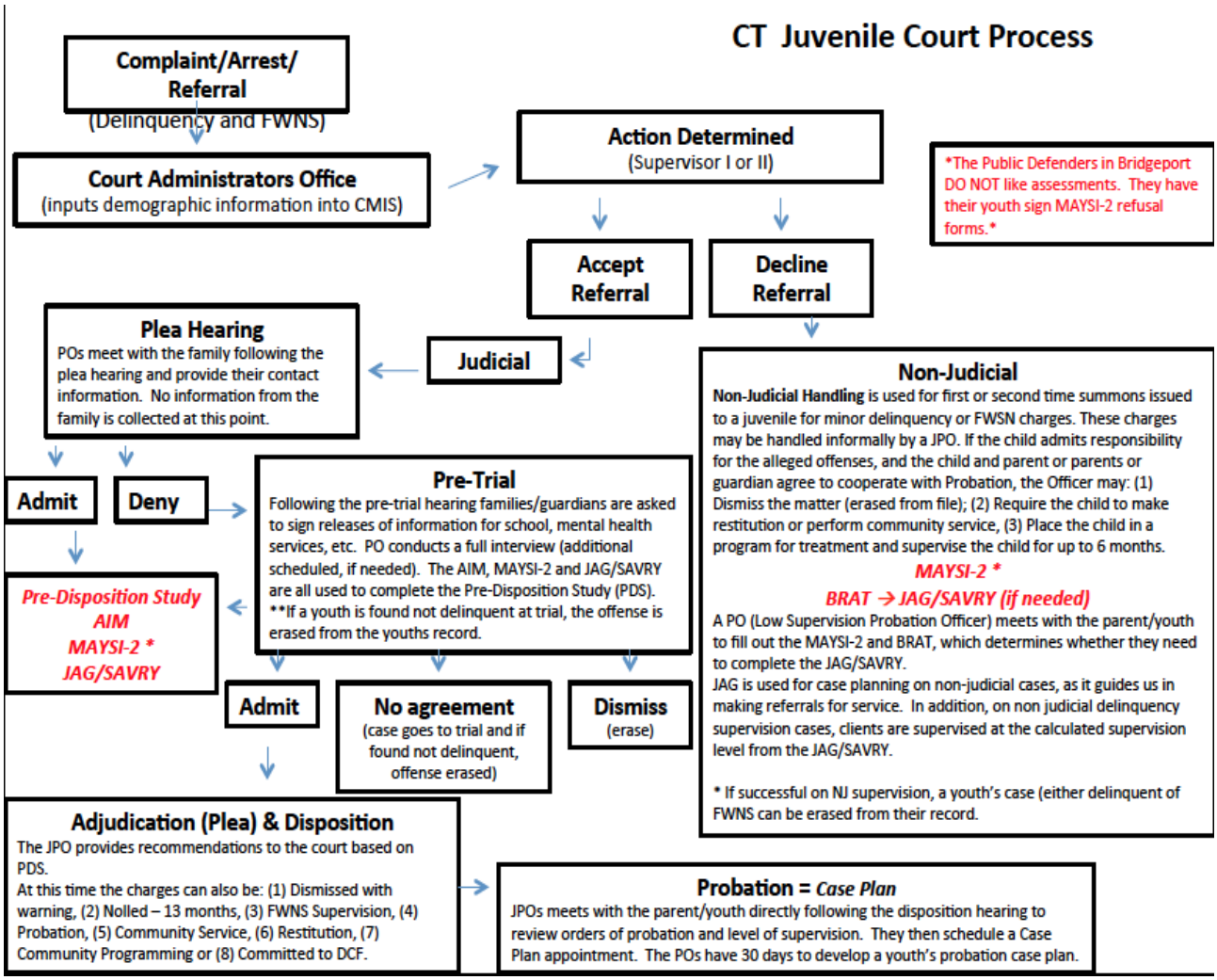
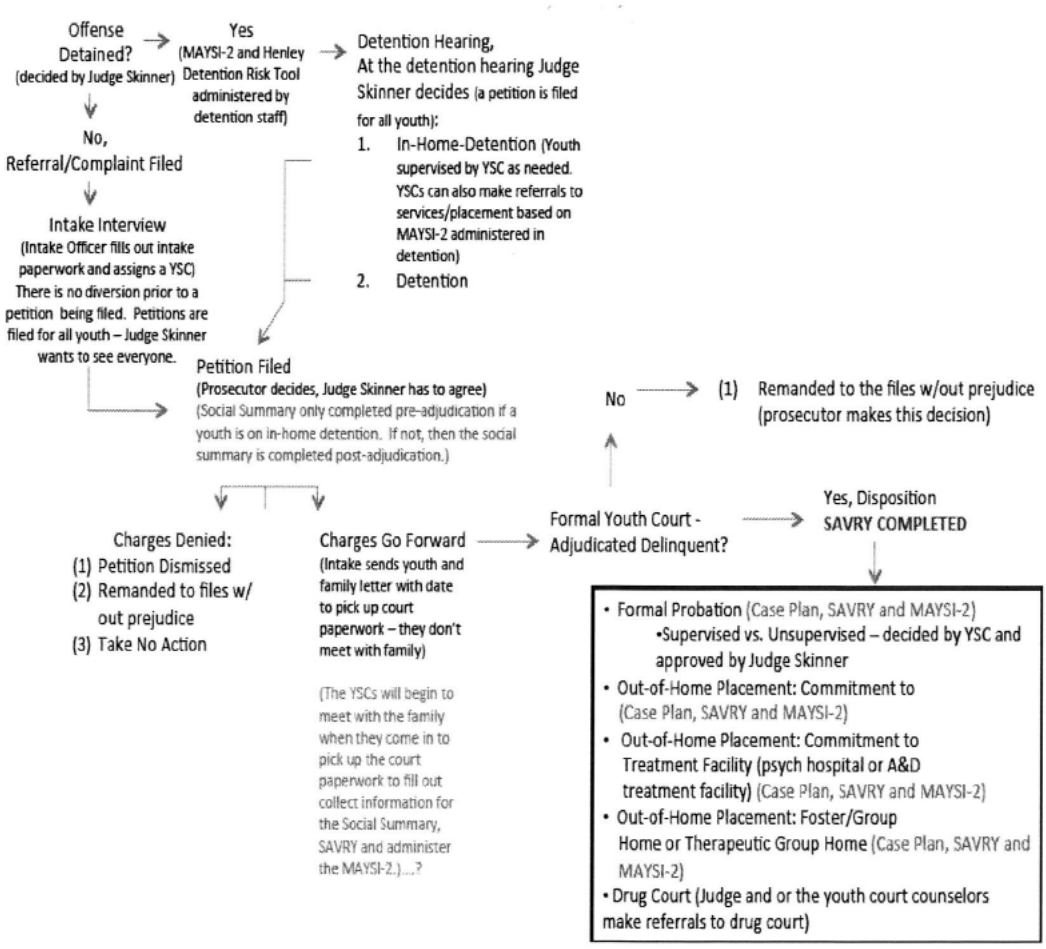
APPENDICES

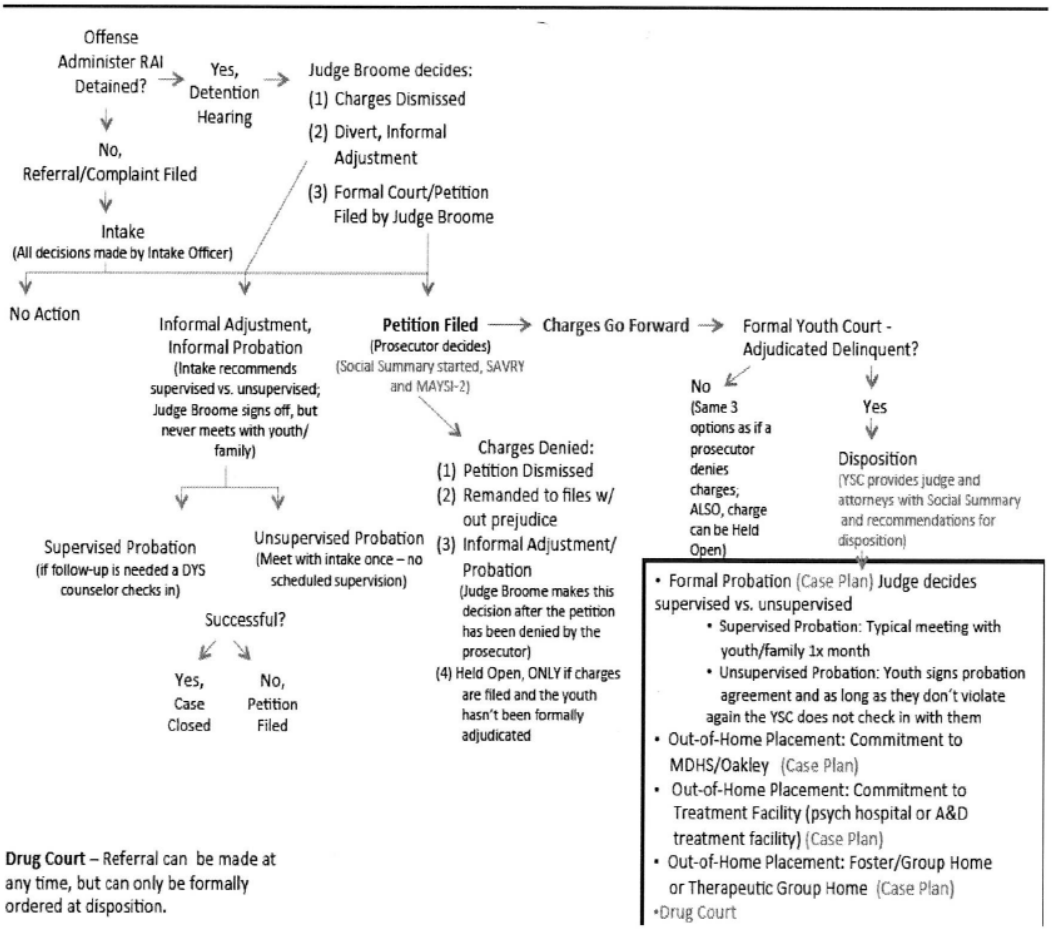
Appendix A
CT Experimental Site; Juvenile Court Flow Chart



Appendix B
MS Experimental Site 1; Juvenile Court Flow Chart



Appendix C
MS Experimental Site 2; Juvenile Court Flow Chart



Appendix D
Mississippi SAVRY Policy

MISSISSIPPI DEPARTMENT OF HUMAN SERVICES DIVISION OF YOUTH SERVICES	
Subject: **SAVRY**	**Policy Number:** **41**
Number of Pages: **6**	**Section:**
Attachments:	**Related Standards & References:**
Effective Date:	**Approved:** **James Maccarone, Director**

POLICY

The SAVRY is an evidence-based assessment designed to assist professionals in making judgments about a juvenile's risk for future general re-offending and violence and for identifying a juvenile's needs for case planning. This assessment comprises 24 risk/needs items that were identified from a review of existing research on adolescent development and on delinquency and aggression in youth. Six protective factors are included in the SAVRY that also have been identified by current research as potentially mitigating the risk of future violence and delinquent activity. The SAVRY utilizes a structured professional judgment method of assessment, meaning the individual completing the assessment rates the juvenile on a number of evidence-based factors and then considers all the information to come to a final judgment that the juvenile has a relatively Low, Moderate, or High risk for future violence and/or general recidivism.

The SAVRY is intended for pre-adjudication, disposition recommendations, and post-disposition case planning.

SAVRY **is not** intended for assessing risk for future sexual offending. It can be useful for assessing risk for future violence and general delinquency for delinquents with a Sexual Offense.

DEFINITIONS

A. Criminogenic Need – Needs of an individual or his or her situation or circumstances that can lead to or cause crime or delinquency.

B. Youth Services/County Counselor – A Counselor employed by the State or County whose duties include preparing social history reports to the court and supervising juveniles under the court's jurisdiction.

C. Protective Factors – Factors that exist within an individual or his or her situation/circumstances that may mitigate a juvenile's overall risk.

D. Social History Report – A written report that is a thorough description and assessment of the child, family and the events surrounding the offense, including recommendations for services and disposition. It is derived from multiple sources and is designed to assist the court in making a final disposition.

PROCEDURE

The following guidelines should be followed when using the SAVRY with youth classified as formal for both delinquent and Child In Need of Supervision cases.

Time of Initial Assessment

The SAVRY must be administered within fifteen working days (3 weeks) of case assignment to the Youth Services/County Counselor. It should be administered within that time frame **for every case** under the following circumstances:

- Pre-adjudication (whenever a counselor is assigned to the case)
- Pre-disposition (for disposition and case management planning)
- Whenever a Social History Report is required (in which case it must be completed pre-disposition)
- Post-disposition (for case-management only in cases where no Social History Report is completed but the youth is placed on probation)

The Social History Interview Form must be completed prior to rating the SAVRY. The following steps must be taken to complete a Social History Interview Form.

Time of Reassessment

- The purpose of the reassessment is to monitor changes in risk and service/supervision needs. As a general guideline**,** each probationer should be re-assessed with the SAVRY no later than 180 days from disposition and no later than every 180 days thereafter until the probation period is concluded. A reassessment can be conducted every 90 days on high risk youth if the counselor deems it necessary. In addition, the SAVRY should be administered before any major changes in placement, monitoring, or supervision. The senior counselor will monitor cases on a monthly basis to ensure the SAVRY is being completed on all youth within fifteen days of case assignment.

- The SAVRY also should be administered when a major life-changing event occurs (e.g., commission of re-offense; major trauma experience; drug overdose). In such circumstances, the SAVRY would not be required again until six months following the most recent assessment.

- All reassessments will be done with supervisory approval to ensure that the coordination of the reassessment is consistent.

Responsible Party
The person responsible for administering the SAVRY is the Youth Services/County Counselor who is assigned to the case.

Training Requirements and Qualifications for Use

- Each office should designate at least two master trainers who receive extensive training on use of the SAVRY in the form of a two-day workshop with a SAVRY training expert. Master trainers also should complete a minimum of two to three additional standardized practice cases. More master trainers may be needed depending on the size of the office. More than one is essential due to potential turnover of master trainers.

- Youth Services/County Counselors should only administer the SAVRY after completion of formal training in use of the instrument. Training should be received from an author of the SAVRY, another qualified trainer, or a designated master trainer. Generally, initial training involves a one to two day workshop that covers some of the research on delinquency (e.g., trajectories of offending, risk factors, needs factors) and at least two practice scoring cases.

- Staff should complete ratings for a minimum of two to three additional standardized practice cases following the initial training and should receive feedback on their ratings. Typically this is done in groups. This should occur prior to staff using the tool. Staff with more "incorrect" responses than average should receive individual feedback from a master trainer. The acceptable number of "incorrect" item ratings will be at the discretion of the master trainer. The acceptable number of "incorrect" item ratings will be at the discretion of the master trainer.

- All staff who are responsible for completing a SAVRY assessment should receive additional training in the office about the following: 1) the office policy regarding when and for what cases the initial assessment and subsequent re-assessments are to be conducted, 2) how the results of the assessment are to be communicated in pre-adjudication, disposition recommendations and post-disposition reports, and 3) how the results of the assessment should be used to select appropriate service referrals, level of supervision for case planning, and ongoing case management.

- Master trainers should conduct booster trainings in the office twice a year (generally every six months). Booster trainings can be accomplished in two ways: 1) using another standardized practice case that all staff complete and then receive feedback on from the master trainers, or 2) making a presentation based on a case handled in the office and then having all staff rate the case and discuss the most appropriate ratings. Following the case presentation and discussion, the booster training should include a discussion about how the results of the assessment should be used for case management in that particular case, including the disposition recommendation, service referrals in the supervision or case plan, and appropriate level of supervision on probation.

- Staff that has more than an acceptable number of "incorrect" item ratings at a booster training should receive individual feedback from the master trainers and should complete an additional case to discern whether there has been improvement. The acceptable number of "incorrect" item ratings will be at the discretion of the master trainer.

Method of Implementation

- The Youth Services/County Counselor administering the SAVRY must follow the guidelines as described in the SAVRY Professional Manual. This includes basing ratings on a review of file information, face-to-face interview with the youth, and usually an interview with the parent/guardian and collateral contacts. In the event that the parents/guardians cannot be interviewed, documentation of the circumstances must be provided. If a face to face interview cannot be scheduled, a telephone interview could be conducted with the supervisor's approval. The Youth Services/County Counselor must utilize the Social History Interview Form to guide the interview and ensure that all the proper information is gathered. The youth should be interviewed **separately** from the parent/guardian to gather at least some of this information – particularly in regards to the home life and past aggressive behavior.

- In general, the Youth Services/County Counselor should review the juvenile record and other documents prior to interviewing the youth, and the sources of information should be documented. Examples of useful sources of collateral data include information from professionals, prior reports (school records, employment, legal history, child welfare records), and other records with information pertinent to the SAVRY assessment**. Every effort should be made to complete the SAVRY with more information than the youth interview only – some collateral information should be obtained.** A thorough review of all available information, verification of self-reported information (including that pertaining to residence, school and/or training, and employment) and frequent reference to the scoring instructions will help ensure rating accuracy. It also is helpful to consider the evidence both "for" and "against" each item before assigning a rating.

- In circumstances where a Youth Services/County Counselor is not able to obtain all of the information to accurately rate the SAVRY during the initial assessment, it should be corrected within 30 to 60 days after the assessment as new information accumulates. The senior counselor must approve any corrections. It is important to correct the original SAVRY ratings if these were incorrect, rather than to wait for the first re-assessment to correct this information.

Use of Information

- **Social History**: Results of the SAVRY must be included in the Social History Report, if ordered, or in oral dispositional recommendations in the absence of a written report. This should include the Youth Services/County Counselor's judgment as to whether the juvenile is at relatively Low, Moderate, or High risk for general re-offending; and Low, Moderate, or High risk for violence. Reports also should include a summary of the juvenile's risk/needs factors that contribute to his or her risk for delinquency and/or violence; these are the factors that should be addressed in disposition and service planning. The social history

interview template can be followed as a guide. **Social History Reports should NOT include any specific SAVRY item ratings**.

- **Service Plans (aka Case Plan or Supervision Plan)**: The Case Supervision Plan is to be completed after the disposition of each case and undated as the status of the case changes. The Case Supervision Plan should be reviewed every 90 days. Results of the SAVRY also must be utilized to develop the Service Plan. This involves consideration of risk/needs factors where the youth was rated Moderate or High, and all factors that the Youth Services/County Counselor rated as being highly relevant or 'critical.' The service matrix should be used to identify proper services based on these risk/needs factors - possibly using a version of the *SAVRY Needs Worksheet* produced for Mississippi. Generally, the Youth Services/County Counselor shall refer a juvenile to a **maximum of three** services at any single time to address up to three of the need areas that represent the most problematic SAVRY domains on the juvenile's supervision plan (this is not a minimum; if there are not 3 services from which the youth will benefit, no services or fewer services should be assigned). The youth's level of risk and need in those areas should be considered in the assignment of services. Higher need and higher risk youths should receive more intensive services whenever possible. Lower risk youths often do not require services.

- **Reassessments:** If a reassessment indicates needs have changed (e.g., some initially high risk needs have improved or new need areas have appeared), the probation service plan should be adjusted accordingly (e.g., once a particular service is completed and that need has been addressed, a referral to new service to address a different need area could be made)

Supervision per Risk Level

- The minimum number of face-to-face contacts required for the three risk levels as assessed by the SAVRY is as follows:

Low:	one face-to-face contact every 60 days
Medium:	one face-to-face contact every 30 days
High:	one face-to-face contact every two weeks

- Minimum requirements do not relieve the Youth Services/County Counselor from the responsibility of responding to the youth's needs as they arise.

- The minimum requirement of a Low supervision level for Low risk youth should not be superseded unless there is very good reason. More is not better.

- Supervision levels will be adjusted either up or down based on the progress of the case and a SAVRY reassessment following the senior counselor's approval.

Quality Assurance: Senior Counselor

- Senior counselors should complete the same training on the SAVRY as the staff in order to supervise the quality of their staff's assessments.

- Staff members are responsible for notifying the senior counselor of all completed SAVRY forms. Senior counselors should check that the SAVRY was completed for all required cases as per the office policy.

- A senior counselor or master trainer will review the forms and ensure the assessment meets a sufficient level of quality before signing off on the assessment. This review will include ensuring that staff made efforts to obtain appropriate collateral data and considered all available information when rating the SAVRY. At a minimum, this should include all existing file information and an interview with the youth. Should staff decide to assign a risk rating that deviates substantially from what might be expected based on what is indicated by the item ratings, the senior counselor should ensure the staff member's written justification for the deviation is appropriate.

- A senior counselor must approve any major changes to SAVRY assessments.

- Senior counselors should also sign the proposed service plan by ensuring the service referrals are reasonable given the results of the assessment.

Quality Assurance: Data Checks

- There should be an individual(s) assigned to quality assurance and data tracking.

- Check the data periodically (e.g., every 6 months) to ensure that the correct classes of youth are being assessed with the SAVRY (e.g., all youth for whom a Social History Report is required, and all youth placed on probation when no Social History Report is completed).

- Check the data periodically (e.g., every 6 months) by obtaining a print out of assessment ratings by Youth Services/County Counselor and other staff persons. Query any Youth Services/County Counselors who are routinely assigning a single risk category (e.g., all of their youth are rated as "Low Risk", all youth are rated as "Moderate Risk", or all youth are rated as "High Risk").

- Periodically check a sample of youth or generate an aggregate data print out to see whether youth are receiving the appropriate level of supervision given their overall risk rating.

- Periodically check the ratings for a sample of youth to see if they actually received the appropriate service referrals from staff according to the facility's/office's service matrix.

Feedback Loop

- Establishment of a feedback mechanism between the master trainers, senior counselor, regional director and quality assurance personnel is essential. The supervisors should be notified about any staff members who require individual feedback for a number of "incorrect" ratings in order to adjust their monitoring of those staff accordingly. Likewise, the senior counselor and regional director must see the QA reports.

Appendix E
Mississippi MAYSI-2 Policy

MISSISSIPPI DEPARTMENT OF HUMAN SERVICES **DIVISION OF YOUTH SERVICES**	
Subject: **MAYSI-2**	**Policy Number:**
Number of Pages: 6	**Section:**
Attachments: **MAYSI-2 Refusal Form**	**Related Standards & References:**
Effective Date:	**Approved:** _____ **James Maccarone, Director**

1. **Policy** The Mississippi Department of Human Services (MDHS) will have a standardized mental health screening instrument that will be utilized in all cases when Youth Services has the legal authority to do so (either by informal adjustment agreement or post-adjudication).

2. **Definitions**

   A. Caution Cutoffs - Scores on the MAYSI-2 sub-scales that reflect disturbance/distress at a level that is higher than 75% of the general population of children and youth.

   B. Clinical Consultation - Discussion and direction received from mental health professionals who can recommend appropriate follow-up referrals, including but not limited to evaluation or emergency care.

   C. Court-Based Assessment - A court ordered psychological, psychiatric, substance abuse, or problem sexual behavior evaluation arranged by a Youth Services /County Counselor with a court approved service provider.

   D. Mental Health Facility - A twenty-four hour residential facility that is used for assessment and/or acute or long-term treatment.

   E. Youth Services/County Counselor (YSC) - A professional employee whose duties include preparing studies for the court and supervising juveniles under the court's jurisdiction.

   F. MAYSI-2 (Massachusetts Youth Screening Instrument – Version 2) - A mental health screening instrument used by Youth Services/County Counselors to screen for and triage children with potential mental/emotional disturbance or distress.

G. Override - A decision made by a senior counselor, based on mitigating circumstances, to alter a recommended outcome. The designated supervisor will sign off on the second screening if an override occurs.

H. Warning Cutoffs - Scores on the MAYSI-2 sub-scales that reflect disturbance/distress in the top 5-15% children and youth involved in the juvenile justice system.

I. Second Screening Forms - Forms that provide standard questions regarding MAYSI-2 items that youth have endorsed on scales that exceed the Warning and Caution Cutoff scores.

J. Summary Form - Form to record whether any action and reasons for taking action or for choosing not to take action for the youth following completion of second screening forms.

3. **General**

A. The MAYSI-2 will be used only for screening purposes, and cannot determine diagnosis or the necessary treatment required for specific symptoms. The results of the MAYSI-2 will be used for the purpose of identifying mental health symptoms and making referrals for mental health consultation or evaluation when appropriate and is not to be used by the Youth Services/County Counselor for the purpose of detention, adjudication or disposition.

B. The results of the MAYSI-2 will not be submitted to the Court in the court file. The results may be released to treatment providers as necessary to conduct a mental health evaluation or to provide mental health treatment.

C. The results of the MAYSI-2 may indicate that clinical consultation or mental health evaluation may be necessary. A Youth Services/County Counselor may recommend to the Court the need for evaluation based on MAYSI-2 results, but should not quote answers to MAYSI-2 questions directly in the Social History Report or in other written or verbal reports to the Court. The Youth Services/County Counselor may indicate that, through the counselor's investigation and assessment, there is reason to believe a mental health evaluation or referral for treatment is warranted based on indicators of "warning" and/or "caution" on MAYSI-2 scales.

4. **Operational Procedures**

A. Mental Health Screening

(1) The Youth Services/County Counselor responsible for the case will administer and score a MAYSI-2 Mental Health Screen in accordance with the provisions of this policy and at the earliest point that it is legally possible to do so. This will occur:

a. For all new referrals, prior to adjudication
b. For all CHINS (Children in Need of Supervision) cases, prior to adjudication
c. For all youth with violations for delinquency
d. For all youth whose cases are disposed of via informal adjustment or diversion
e. The child/youth is between the ages of 12 and 17 inclusive.

(2) Detention is responsible for administering the MAYSI-2 once the youth is in custody of the court. All Youth Services/County Counselor will contact the responsible party within XX days of case assignment to inquire whether the youth was administered the MAYSI-2 while in pre-trial detention.
   a. If the youth was given the MAYSI-2 in detention, the Youth Services/County Counselor will request a copy of the MAYSI-2 administration results and the specific follow-up actions taken by detention staff within forty-eight hours of the youth being detained in detention.
   b. Youth Services/County Counselors will re-administer the MAYSI-2 to all youth within XX days of case assignment if it has been longer than three weeks since the last administration. The MAYSI-2 can be administered when the SAVRY is completed.
   c. If the detention staff fails to administer the MAYSI-2, the Youth Services/County Counselor will administer the MAYSI-2.

(3) Any Youth Services/County Counselor who suspects that screening with the MAYSI-2 would be beneficial for a child who does not fall into the inclusionary criteria outlined above should notify the child's attorney (or parent/guardian if no attorney is appointed) in writing of the Youth Service/County Counselor's concerns so the attorney (or parent/guardian) may explore the need for an evaluation with the child and family.

(4) The counselor will monitor the youth while taking the MAYSI-2. Prior to beginning the MAYSI-2, the Youth Service/County Counselor will inform the child/parent/guardian that the administration of the MAYSI-2 is a part of the evaluation and assessment process completed with all juveniles who come in contact with the court and that a limited confidentiality rule will apply to the results. The Youth Service/County Counselor will follow a script to introduce the MAYSI-2 to the youth. The script for introducing the MAYSI-2 should include the following:

   a. Introduce the administration and MAYSI-2 by saying: "I am going to ask you to sit down at this computer to answer some questions about things that sometimes happen to people. It should only take you about 10 minutes to complete the questions on the computer. You will see the questions on the screen and you will hear them read to you. For each question, please answer yes or no whether that question has been true for you **in the past few months**. (*Consider picking a holiday or date*

approximately two months prior so they have a reference point.) Please answer these questions as well as you can. You might also see that a couple of the questions will ask if something has ***EVER*** happened to you. Please let me know if there is any question that is not clear, and I will explain it. Your answers cannot be used in court when it decides about your charges, and won't ever be seen by the court unless the court gives me a special order. Do you understand? Do you have any questions? Let's begin."

b. Give the confidentiality warnings by saying: "Your answers to these questions are confidential. Nothing that you reveal can be used against you in any court hearing. If your answers tell me that you might need some special help right away, I might have to share that with your parents or a mental health person. I might also have to do that if you tell me you are going to hurt yourself or someone else. "

The results may only be used to identify mental health symptoms that may need further assessment or possible treatment, and to make the appropriate referrals. The Youth Services /County Counselor will further advise the child/parent/guardian that the results of the mental health screen will be for planning and treatment purposes only, and will not be used by the Youth Services/County Counselor for the purpose of detention, adjudication or disposition. In most circumstances the recommendations derived from the MAYSI-2 will be used exclusively by the Court or contracted providers, however, some information may have to be shared with entities outside the Court. The Youth Services/County Counselor will inform the child/parent/guardian that if the child discloses information that suggests possible abuse or neglect, the Youth Services/County Counselor is mandated to report that information to the Mississippi Department of Human Services, Division of Family and Children Services (F&CS). However, it should be noted that the MAYSI-2 does not ask specific questions about childhood abuse or neglect.

(5) The Youth Services/County Counselor will ensure that the child completes either the automated form (i.e., MAYSIWARE, administered via computer) or a paper and pencil version of the MAYSI-2. If the child completes the paper and pencil version, the Youth Services/County Counselor will ensure that the results of the screen are entered into MAYSIWARE on the designated MAYSI-2 computer within one (1) business day. Headphones will be provided for the juvenile's use while taking the MAYSI-2 on the computer. Prior to and after test administration, the Youth Service/County Counselor will ensure that headphones are disinfected with cleaning wipes to provide proper sanitation.

(6) Re-administration of the MAYSI-2 is recommended:

a. When a youth completed the MAYSI-2 in pre-trial detention, but that administration occurred more than 3 weeks prior to the date at which

the Youth Services/County Counselor completes the social history report.

b. At any time the Youth Services/County Counselor suspects a change in the child's emotional or mental health status;

c. Following the occurrence of an identifiable stressor;

d. At other points during service where change in legal status is believed to have occurred;

e. At other times at the discretion of the Youth Services/County Counselor.

(7) If the parent/guardian refuses to allow MAYSI-2 to be administered, the Youth Services/County Counselor will address any concerns or questions the parent/guardian may have. If the parent/guardian still refuses to allow the administration of the MAYSI-2 and the matter is a formal case, the matter should be brought to the Court's attention to address the refusal and to seek appropriate court orders for assessment if mental health concerns exist. If the parent/guardian refuses to allow the administration of the MAYSI-2, and the matter is an informal case, the parent/guardian's refusal will be documented by the Youth Services/County Counselor in in the youth's case file. In both formal and informal cases where there has been a refusal, the Youth Services/County Counselor will secure a parental signature verifying the refusal on the MAYSI-2 Refusal Form. Refusal of the MAYSI-2 by the child or parent/guardian does not preclude referral for services or evaluation if the counselor believes that a mental health problem exists and the refusal is to be documented in the youth's case file. Cases will not be made formal based on a parent's/guardian's refusal to allow a MAYSI-2 screen to be completed on his/her child. In addition, cases will not be made formal solely on the basis of MAYSI-2 results or the presence/absence of mental health concerns.

(8) The Youth Services/County Counselor will ensure the completed MAYSI-2 is retained in the counselor file. The MAYSI-2 results, second screening forms and summary form will be printed and placed in the youth's case file on the original date of admission.

(9) The Youth Services/County Counselor will ensure that all information generated from the MAYSI-2 or any other mental health screening will be shared and/or released in accordance with the MDHS Confidentiality / Release of Information Policy and Procedure.

B. Responses to MAYSI-2 Results - Any combination of scales except Suicide Ideation Scale:

(1) Two or Three "Cautions" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts.

(2) One "Warning" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts.

(3) One "Warning" and One "Caution" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts.

(4) Four "Cautions" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts, clinical consultation and request a court- based assessment if necessary.

(5) Two or More "Warnings" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts, clinical consultation, and request a court-based assessment if necessary.

(6) The Youth Services/County Counselor should document the action taken in response to the MAYSI-2 results on the second screening form.

C. Responses to MAYSI-2 Results – Suicide Ideation Scale only.

(1) One "Warning" or One "Caution" - The Youth Services/County Counselor will respond with follow-up questions (second screening) and collateral contacts, and clinical consultation.

(2) After consultation with the senior counselor and if it is decided that immediate crisis intervention is warranted, a referral to Acute Mental Health Services or transportation to an Emergency Room should occur while the juvenile is still at the counselor's office. If it is decided that referral for either consultation or assessment is appropriate, the referral will be made no later than the end of the business day. The Youth Services/County Counselor making the referral will be responsible for ensuring that the consultation or assessment occurs in a timely manner. In those cases where the consultation or assessment did not occur as scheduled, the Youth Services/County Counselor will notify the senior counselor who will ensure that all parties are contacted to determine what actions need to be taken.

(3) The Youth Services/County Counselor should document the action taken in response to the MAYSI-2 results on the second screening form.

D. All referrals for court-based assessment initiated by a Youth Services/County Counselor based on the results of an administered MAYSI-2 that are outside the guidelines as established in Sections 4.B. and 4.C. of this policy will be documented in the youth's case file by the counselor.

E. After administration of the MAYSI-2, the Youth Services/County Counselor will communicate to the child, parent/guardian, and attorney of record, the general results of the screen and decisions to respond to those results. The goal will be to sensitize and educate the parties to the presence of potential emotional disturbance and/or distress, and enlist support for a course of action, when appropriate.

F. Subpoena of MAYSI-2 and Mental Health Screening Records When a Youth Services/County Counselor or Supervisor is served with a subpoena for MAYSI-2 and/or Mental Health Screening Records the Youth Services/County Counselor or Senior Counselor will:

(1) Seek judicial approval as required under section 43-21-105 of the Mississippi Code.

G. Data Collection The data gathered from the administration of the MAYSI-2 will be filed on the MAYSI-2 computer. The Regional Director will be responsible for ensuring that by the fifth day of each month, the data collected the previous month will be downloaded on a disk or email file, and sent to MDHS/DYS Central Office for analysis.

5. **References**

A. Grisso & Barnum (2000). Massachusetts Youth Screening Instrument, Second Version (MAYSI-2). User's Manual and Technical Support.

B. Wasserman, GA Jensen, P.S. Ko SJ, Cocozza J, Trupin, E., Angold, A., Cauffman, E. & Grisso, T.: Mental Health Assessments in Juvenile Justice: report on the consensus conference. J Am Acad Child Adolesc Psychiatry 2003; 42(7):752-761.

6. **Exceptions**

Any exception to this policy will require prior written approval from the Division's Director.

Appendix F
Mississippi SAVRY Case Management Plan

SAVRY CASE SUPERVISION PLAN

Name:_____ **MYCIDS #/Child Number**:_____ **File/Cause #:** _____
Gender: Female Male **Ethnicity**: Latino Non-Latino **Race**: Black White Other **DOB**: _____ **Age**:___
Counselor:_____ **Probation Start**: _____ **Prob. End**:_____
Probation successfully completed?: YES NO **Reason for End of Probation:** _____
Detained Pre-Adjud? YES NO **Pre-Adj Detention Start Date**: _____ **Pre-Adj Detention End Date**: _____
Name of Pre-Adj Detention facility: _____
Child welfare involvement: *Previous* YES NO *Current* YES NO
Discharge Summary received from any service providers during period of probation? YES NO
Date of Social Summary: _____
SUPERVISOR SIGNATURE & DATE: _____

Youth Prior Arrest History **attach offense sheet

Petition Date	Referral Charge(s)	Adjudication Date	Disposition

Current Case/Legal Status - (Information regarding all current offense(s)

Referral date:		**ALL** Referral charges:	
Intake Date:			
Adjudication date:		**ALL** Adjudicated offenses:	
Disposition date:		Disposition:	

YSC's Recommendations and Court Orders regarding Disposition and Placement

	YSC's Recommendations	Court Ordered Outcomes (indicate "ditto" if the same as YSC's recommendations)	Judge at Disposition
Disposition:			
Placement:			
List all Specific Conditions of Probation (include disposition order):			

Version 3/5/13

ALL Dates of Contact/Monitoring, Case Plan Review, SAVRY level, and Supervision Level Tracking

Date of Contact	Person or Phone?	Reason for Contact	Case Plan Review	Admin Date	Violence SRR (L, M, H)	NV SRR (L, M, H)	Supervision Level (L, M, H)	Supervision Performance (use rating scale below)
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					
			Plan updated/changes made? Yes No					

Supervision Performance Rating Scale

1	Outstanding	Total compliance with supervision and all conditions have been met
2	Meets Requirements	Generally meets conditions but sometimes lacks motivation to comply
3	Needs Improvements	Non-Compliance in some areas
4	Poor	Non-Compliance in most areas or a major incident has occurred (e.g., felony arrest, expulsion from school, repeated violations of supervision conditions resulting in return to court)
5	Very poor	Arrested and/or charged for new offense

ALL court ordered out-of-home placements while under supervision (e.g., foster care; residential short and long term, residential A&D, residential psych, residential dual diagnosis, Training School, detention, group home, court ordered relative placement)

Placement name	Start/admission date	End/discharge date	Reason for release
1.			
2.			
3.			
4.			
5.			

ALL probation violations while under supervision – (when official court action taken)

Date of violation	Nature of violation	Outcome/penalty	Date of violation	Nature of violation	Outcome/penalty
1.			3.		
2.			4.		

Youth Arrests (any occurring after case plan creation) ****attach offense sheet for arrest history**

Petition Date	**Referral Charge(s)**	**Adjudication Date**	**Disposition**

Service Participation Rating Scale

X	Referral pending	3	Successfully completed service
0	No progress/willful non-compliance	4	Condition removed, waived, or replaced - no space/ problem with service
1	Less than expected progress, sporadic/poor participation	5	Condition removed, waived, or replaced - another reason
2	Expected progress		

NEED AREAS/GOALS

- Historical risk factors are in *italics* and should be considered for intervention if rated as relevant or critical
- **Check off risk factors with presence ratings of High, Relevance ratings of Yes, or if rated as critical, and protective factors rated as Absent**

Attitudes & Disruptive Behaviors

[ ] Negative Attitudes (#17)
[ ] Risk Taking / Impulsivity (#18)
[ ] Anger Management Problems (#20)
[ ] Other
[ ] Low Empathy/Remorse (#21)
[ ] Poor Compliance (#23)
[ ] *Past Supervision/Intervention Failures* (#4)

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Examples of special factors to be considered when selecting services that would be the best "fit" for the juvenile

- Poor social skills
- Financial/housing problems
- Shy/withdrawn
- Physical health problems
- Communication barriers (e.g., language)
- Low IQ/developmental delay
- Learning disability
- Psych. functioning (e.g., anxiety, depression, or psychosis)
- Personality characteristics
- Medication needs
- Cultural issues
- Motivation of youth or parents to participate
- Female-specific issues (e.g., mothering)
- Uncooperative parent

Education/Employment

[ ] *Poor School Achievement (#10)*
[ ] Low Interest / Commitment to School (#24)
[ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Mental Health/Emotional Stability **MAYSI-2 dates: Detention: _____ Probation: _____**

MAYSI-2 scales above caution: _____
MAYSI-2 scales above warning:_____

Action Taken? (noted on Summary Sheet):_____

Previous Mental Health Diagnoses: _____
Current Mental Health Diagnoses: _____

☐ Youth has no previous or current mental health diagnoses

[ ] *History of Self-Harm or Suicide Attempts* (#5)
[ ] Stress and Poor Coping (#13)
[ ] Attention Deficit/Hyperactivity Difficulties (#22)
[ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Family

[ ] *Exposure to Violence in the Home (#6)*
[ ] *Childhood History of Maltreatment* (#7)
[ ] *Parental/Caregiver Criminality* (#8)
[ ] *Early Caregiver Disruption (#9)*
[ ] Poor Parental Management (#14)
[ ] Lack of Personal/Social Support (if no support from adult family members) (#15)
[ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Peer Relations

[ ] Peer Delinquency (#11)
[ ] Peer Rejection (#12)
[ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Substance Abuse

[ ] Substance Abuse Difficulties (#19) [ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Community and Protective Factors

[ ] Lack of Personal/Social Support (if no support from non-family pro-social adults) (#15)
[ ] Community Disorganization (#16)
[ ] Prosocial Involvement (#P1)
[ ] Strong Social Support (#P2)
[ ] Strong Attachments and Bonds (#P3)
[ ] Pos. Attitude Towards Intervention & Authority (#P4)
[ ] Strong Commitment to School (#P5)
[ ] Resilient Personality Traits (#P6)
[ ] Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken by YSC to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

Appendix G
MS Experimental Site 2; Service Matrix

SERVICE REFERRAL MATRIX

Low Risk indicates low probability of future violence and/or delinquent behavior. Enhance protective factors by actively recognizing strengths and strategically building upon pre-existing strengths. Remember, increased exposure to the juvenile justice system increases risk of low risk juveniles. ***For low risk youth, focus on increasing or enhancing protective factors.***

Bolded text refers to general intervention strategies and not to specific service programs or agencies. Underlined text refers to a service available in Rankin County.

	Attitudes and Disruptive Behaviors	Mental Health/Emotional Stability	Substance Abuse	Family	Education/Employment	Peer Relations	Community and Protective Factors	Other
LOW NEED	**Review and monitor services being provided (counseling, programs, etc.)**	**Encourage and monitor compliance with medication and services if applicable.** Region 8 Mental health screening	Region 8 – New Roads Drug Education Course	**Encourage open family communication** **Ensure proper supervision is provided by parent / custodian** **Determine if there is or encourage the establishment of at least one positive role model**	**Monitor school attendance / performance** Parent/Teacher Conference Rankin County Family Resource Center Tutor, peer-to-peer tutor	**Encourage Church attendance** **Encourage organized sports**	**Maintain current placement and seek community based programs** **Encourage child to participate in organized sports** **Encourage Church attendance**	
MOD NEED	Region 8 Mental health assessment Region 8 Individual therapy aimed at self-destructive behaviors and/or impulsivity	**Intensive outpatient treatment or in-home treatment should be considered at this need level** Brentwood Mental health intensive outpatient Catholic Charities Hope Haven home based services, Solomon Counseling, New beginnings, Trauma Recovery for Youth, Rape Crisis Crossroads Outpatient counseling	**Possible referral for substance use evaluation** **May indicate need for outpatient substance use treatment, drug/alcohol education group, self-help group, or day treatment** Brentwood Mental health intensive outpatient and inpatient rehab	**Consider intensive outpatient or in-home family services** Region 8 Family Counseling McClean Fletcher Center Provides free grief counseling to children and provides a support group for parents/caregivers while child is in counseling group Mission First Children's Programs. Both after school and summer programs are provided for	**Monitor school attendance / performance** **Recommend tutoring** **Consider requesting IEP meeting/behavior intervention plan** Hinds Community College – Gateway to College Program Dropout prevention re-	**Encourage Church attendance** **Encourage organized sports** Region 8 Individual Counseling targeting issues related to peer bullying or rejection Project	**Encourage organized sports** **Encourage Church attendance**	Center for Pregnancy Choices Provides pregnancy testing, referrals, counseling, classes and clothing

		Imagine Intensive outpatient treatment for mental health and alcohol and drugs Innovative Behavioral Services Intensive outpatient treatment for mental health and alcohol and drugs Life Steps Intensive In-Home treatment McClean Fletcher Center Provides free grief counseling to children and provides a support group for parents/caregivers while child is in counseling group Psycamore Mental health intensive outpatient, alcohol and drug intensive outpatient Region 8 Mental health outpatient Southern Christian Services Outpatient Counseling Stafford Counseling Services Outpatient Counseling The Therapy Center Outpatient Counseling	Imagine Alcohol and drug treatment – intensive outpatient Innovative Behavioral Services Alcohol and drug treatment – intensive outpatient Psycamore Mental health intensive outpatient, alcohol and drug intensive outpatient Region 8 - New Roads Alcohol and drug treatment – outpatient	MYPAC Intensive in-home services Rankin County Family Resource Center Parenting classes Stewpot Ministries Provides a food pantry, clothing closet, Matt's House (women and children's shelter) and Sim's House (transitional shelter for women and children) City of Pelahatchie Food pantry Father's Heart Ministry Provides a bag of groceries to Rankin County residents on Tuesday evenings at 5:30. Must provide picture ID and proof of Rankin County Residence First Baptist Florence Food pantry Grace Baptist Church Food pantry Marvin United Methodist Church Food pantry and clothing closet Pinelake Church Care Center Appointment only – can assist with food and with other needs from time to time Salvation Army Can provide energy and gas bill assistance for those that qualify, also has a thrift store and the Center of Hope Transitional Shelter Rankin County Human Resource Agency Can provide energy and gas bill assistance as well as mortgage and rental assistance if they qualify, also has food pantry and clothing closet	Pearl WIN Job Center Provides services for job placement and career planning, also food bank, clothing bank, utility assistance/school recruitment Rankin County Adult Education GED classes Rankin County Family Resource Center Tutor, peer-to-peer tutor Project Impact	Impact		

HIGH NEED	**May indicate need for short-term placement in residential or other treatment facility** Require mental health assessment This could include screening for acute or residential treatment. Child is to be referred to Christy Emerson – Region 8/Youth Court Liaison and/or psychological eval. by Dr. O'Brien. Region 8 – Individual Counseling or Anger Management MYPAC Intensive in-home services	**Intensive outpatient treatment, day treatment, or short-term residential/inpatient treatment should be considered at this need level** Alliance Mental health acute inpatient, alcohol and drug acute inpatient Brentwood Mental health acute inpatient Cares Residential mental health (school must agree necessary) The Crossings Residential mental health Sexual offender treatment Diamond Grove Mental health residential (school must agree necessary) Memorial Alcohol and drug treatment acute inpatient, mental health treatment Millcreek Residential mental health (school must agree necessary) Mississippi Dept. of Rehabilitation Services Provides services for individuals with mental health and physical disabilities	**Assessment and referral for substance use treatment recommended** **Intensive outpatient substance use treatment, inpatient substance use treatment, Drug Court** Alliance Mental health acute inpatient, alcohol and drug acute inpatient Best of Both Worlds (females) Residential alcohol and drug treatment Born Free Residential alcohol and drug treatment for pregnant/parenting females Brentwood Mental health intensive outpatient and acute inpatient for dual East MS State Hospital Inpatient A&D treatment Commitment (Males)	**Intensive in-home family services** **Possible out of home placement** Hope Haven Adolescent group home services Life Steps Intensive in-home services MYPAC Intensive in-home services Rankin County Family Drug Court Intensive outpatient drug and alcohol treatment to prevent removal or restore custody Rankin County Family and Children's Services Report suspected abuse and neglect and other support services. Stewpot Ministries Provides a food pantry, clothing closet, Matt's House (women and children's shelter) and Sim's House (transitional shelter for women and children) South Rankin Food Resources Center Food bank for Rankin County Catholic Charities Domestic Violence Shelter for Battered Families and Services	**Educational assessment for learning disabilities, etc.** **Possible placement in specialized education program or alternative school** **Assessment or intensive services if there are behavioral problems** Christian Women's Job Corps Clothing closet and services to assist women in poverty who are unemployed or under-employed, a part of His Heart Community Ministries Pearl WIN Job Center Provides services for job placement and career planning, also food bank, clothing bank, utility assistance/school recruitment Request IEP meeting Youth Challenge Program/Camp Shelby Assist child in finding employment Catholic Charities Domestic Violence Shelter	Region 8 – Individual Counseling to target issues related to peer bullying or rejection Youth Challenge Program/Camp Shelby	**Encourage child to participate in organized sports** **Encourage Church attendance** **Consider placement with family member** Center for Violence Prevention Emergency shelter, counseling and daycare services for children of women staying in shelter. Also has a second chance store which benefits the services provided HUD Stewpot Ministries Provides a food pantry, clothing closet, Matt's House (women and children's shelter) and Sim's House (transitional shelter for women and children)	Central MS Legal Services Legal aid MS Bar Association Pro Bono Project Legal aid Mission First Legal aid Christmas Village For pregnant women with no support system who chose to continue the pregnancy, provides shelter, medical needs, educational needs and all around assistance to daily living. Must be in first 2 trimesters and will work/volunteer with the Christmas Confection Store for 20 hours week. Free

		MYPAC Intensive in-home services Oak Circle Center Acute inpatient, commitment Parkwood Acute mental health inpatient & residential (school must agree necessary) Pine Grove Acute inpatient mental health / dual Psycamore Mental health intensive outpatient, alcohol and drug intensive outpatient Specialized Treatment Facility Psychiatric residential services University Medical Center Acute inpatient	Fairland Residential alcohol and drug treatment for pregnant/parenting females Memorial Alcohol and drug treatment acute inpatient, mental health treatment Parkwood Acute mental health inpatient & residential (school must agree necessary) alcohol and drug treatment Pine Grove Acute mental health inpatient, alcohol and drug acute inpatient Psycamore Mental health intensive outpatient, alcohol and drug intensive outpatient River Region Detox Sunflower Landing Residential alcohol and drug treatment (only Medicaid, 16-21) TLC – Transitional Living and Learning Center (formally the ARK) Transitional-Therapeutic Group Home/ Residential alcohol and drug treatment.		for Battered Families and Services			

Appendix H
Miscellaneous Offenses

Charges Coded as Miscellaneous

- Causing a Disturbance
- Mischief/ Criminal Mischief
- Driving while Disqualified
- Driving while License Suspended
- Violation of Immigration Laws
- Disguised with Intent
- Taking Auto Without Consent
- Loitering at Night
- Criminal Damage to Property
- Vandalism
- Arson (garbage can)
- Prostitution
- Disturbing Family Peace
- Disturbance of Public School: Fighting in School
- Disorderly Conduct: Failure to Comply
- Trespassing/ Criminal Trespassing
- Disturbing the Peace
- Accessory Before the Fact
- Hunting Violation: Shoot on or from Roadway
- Conspiracy
- Disorderly Conduct
- Public Drunkenness
- City Ordinance Violation
- Gambling
- Contributing to the Neglect or Delinquency of a Child
- FWSN-Indecent/Immoral Conduct
- Passenger with no Helmet
- Traffic Control Signals
- Illegal Possession of Exploding Fireworks
- Failure to Keep Right – Bicyclist
- Interfering with an Emergency Call
- Attempt to Commit a Crime
- Town Ordinance
- Improper Parking
- Failure to Comply with Fingerprint Regulations
- Illegal Operation of Motor Vehicle Under Suspension
- Improper Turn/Stop – No Signal
- Reckless Driving > 85 MPH
- EVADE RESP-DMG/INJ (SBS OFF)
- Unsafe Backing
- Person < 18 Operative MV Without Insurance
- Improper Rear/Marker Lamps
- Telephone calls: Abuse of Emergency System (911)
- No Passing Zone
- Abandon Motor Vehicle
- Destruction of Property