

**Multi-Method Study on Risk Assessment Implementation and Youth Outcomes  
in the Juvenile Justice System**

**Executive Summary**

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## **Executive Summary**

### **Multi-Method Study on Risk Assessment Implementation and Youth Outcomes in the Juvenile Justice System**

Risk assessment research is extensive, but tends to be concentrated in certain areas, namely the relationship between risk and official records of recidivism. As several important questions warrant consideration to offer insight on the usage and impact of risk and needs assessment with justice-involved youths, this research project builds on existing studies but seeks to focus more extensively on implementation and usage. To help answer these outstanding questions, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) funded the University of Cincinnati Center for Criminal Justice Research (CCJR) to complete a project entitled the Multi-Method Study on Risk Assessment Implementation and Youth Outcomes in the Juvenile Justice System.

This study pursued four main objectives:

1. Describe and assess risk and needs assessment usage and implementation practices at different juvenile justice decision-points (i.e., intake/diversion, detention, disposition, residential intake, and reentry), using a multi-state sample of sites at different stages of adoption, to develop recommendations on best practices in training, monitoring, and usage.
2. Assess court and programming decision-making outcomes based on variation in risk and needs assessment usage and implementation practices across agencies and states.
3. Evaluate how the implementation of risk and needs assessments across multiple stages of the juvenile justice system impacts recidivism among juvenile offenders.
4. Evaluate justice-based and developmentally relevant youths' outcomes based on variation in assessment-based decisions that reflect the usage, monitoring, and implementation of standardized risk and needs assessments.

The project focuses on the implementation of one particular juvenile risk and needs assessment (JRNA), the Ohio Youth Assessment System (OYAS) (Latessa, Lovins, & Ostrowski, 2009; Lovins & Latessa, 2013), across different juvenile justice decision-points and at agencies at various stages in the implementation process, which permitted a more nuanced and specific set of

analyses and subsequent recommendations. However, as they are based in broad and pervasive themes from the juvenile justice personnel views and agency practices, the results and recommendations also generalize to the state-, county-, or agency-wide adoption of other JRNAs.

The report presents a varied set of analyses using comprehensive sets of data in line with the research objectives described above. These include early sections devoted to explicating key themes from juvenile justice personnel interviews and web-based surveys. Later sections of the report present findings from the analysis of the comprehensive sample of case records and youths' follow-up interviews. In addition to the main analyses, the middle portion of the report contains overviews of several "usage" studies that help to illustrate important points in understanding risk and needs assessment "in action" in the juvenile justice system. Finally, the report reiterates some of the key findings of the research project and identifies important data limitations to set an interpretive context around the results. The study's concluding section then turns to a series of recommendations regarding JRNA training, usage, monitoring, and future evaluation and research based on the synthesis of key findings from the study.

## **Study Methods**

The research team interviewed juvenile justice personnel at various agencies across the three states in various stages of the implementation process. In-person interviews ( $N = 217$ ) were conducted with personnel from 22 juvenile justice agencies. The agencies were purposively selected so that we could assess how the full suite of OYAS tools was being implemented and ensure a mix of different types of juvenile agencies and staff with various experiences with and views of the OYAS. In the sites, we also purposively selected personnel who had experience directly related to the OYAS. For example, through planning its implementation, administering the assessment, using its results to make juvenile justice-related decisions, or training other staff on the assessment. Interviewees included court ( $n = 37$ ); correctional/secure treatment ( $n = 44$ );

probation ( $n = 105$ ); parole ( $n = 14$ ); and state-level ( $n = 17$ ) personnel. An interview guide was developed in order to answer questions specific to implementation context, policies, and practices in each state. Additionally, the research team reviewed the policies and procedures documents for each of the three state-level administrative bodies in order to identify trends in these policies around assessment, and the facilitators and barriers to assessment implementation and use.

To capture data from a more generalizable sample, a web-based survey on assessment use and practices was distributed to everyone in who was registered as an administrator of the OYAS in each of the three states and other juvenile justice personnel who interacted with the results of the assessment (e.g., judges, magistrates) who were not included in the interview sample. The web-based surveys were sent to an email list of juvenile justice personnel via Qualtrics. Names and emails were provided by state-level administrative bodies in each state. In total, 1,013 surveys were completed resulting in a 32.4% response rate. Survey respondents included staff from court ( $n = 102$ ), correctional/secure treatment ( $n = 132$ ), probation ( $n = 592$ ), parole ( $n = 7$ ), state-level ( $n = 8$ ), and individuals whose agency setting could not be inferred from their job title due to the anonymous nature of the survey data ( $n = 157$ ) or whose job title was missing ( $n = 15$ ). Though job roles varied, all personnel in the survey sample administered the OYAS and/or used its results to inform their decisions. Respondents who administered the OYAS were randomly assigned a vignette to score, which served as a measure of reliability in scoring relative to the manual. To triangulate certain findings, some of the questions from the semi-structured interviews were also included on the web-based survey. Special care was taken to analyze these particular results comparatively across the samples.

To ensure adequate representation of youths at varying stages of the juvenile justice process, a large sample of youths was selected through stratified random sampling techniques. Youths who

resided in State 1 or State 2 were eligible for selection if they were assessed in 2014 or 2015. Youths in State 3 were eligible if their assessments took place in 2013 through 2015 for juvenile corrections and 2016 or 2017 for juvenile court cases. The first stage of sampling involved selecting counties from which youth would be selected. Due to the large number of counties in State 1 and State 2, counties were stratified based on assessment usage and were randomly selected from each stratum to participate in the study. The number of counties in State 3 is limited relative to the other states and all counties were included. Youths within the selected counties were then stratified based on the type of assessment used. This process resulted in a sample of 6,222 youths being selected for the study.

A smaller subsample of youths was randomly selected from the larger sample to participate in follow-up interviews conducted by research staff over the telephone. Similar to the process used to select the larger sample of youths, cases were stratified based on the year and tool used to complete the assessment. Research staff undertook an intensive location and follow-up procedure that led to a sample of 131, which was 9 percent of the 1,402 cases for which states and local agencies provided contact information. The effective interview response rate was 20.4 percent when factoring in only those cases for which research staff had some contact with the youth or a parent (e.g., this does not include cases with inaccurate or outdated contact information).

## **Data and Measures**

**Juvenile Justice Personnel In-Person Interview Data.** The interviews, which lasted roughly 30 to 60 minutes, were conducted using a 55-question semi-structured interview that allowed for elaboration from the interviewees. The questions touched on themes relevant to JRNA implementation literature, including: agency and staff characteristics; approach to youth assessment; the OYAS implementation process; and youth assessment practices. Following grounded theory (Corbin & Strauss, 2008), the research team analyzed the open-ended questions

by assigning codes to words and phrases, and grouping them accordingly as patterns emerged. Codes were inductively assigned based on their latent content, which was done using qualitative data analysis software (QDA Miner). The quantitative analysis of the close-ended, standardized questions (i.e., rating scales, or “yes,” “no,” or “unsure” responses) was completed using SPSS.

**Web-based Survey Data.** The full survey contained 52 items, though the number of questions respondents were asked depended on their role in the agency and connection to the OYAS. The questions covered themes regarding personnel characteristics, assessment use and practices, and the implementation process. Those respondents who administered any of the OYAS tools were asked to score a randomly-assigned vignette. All analyses of the survey data (including some qualitative analysis of the open-ended responses) were completed using SPSS. These analyses followed the same general processes as the interview data.

**Youth Case Records.** Data for the youths selected for the comprehensive assessment sample consist of official records provided by agencies in each state. For youths in State 1 and State 2, the research team created an annotated spreadsheet with instructions that was shared with agencies through a secure File Transfer Protocol (FTP) up/download process. The spreadsheets contained identifying and case information about the youths to aid agency staff in selecting the appropriate cases for data extraction. Agencies were asked to complete the spreadsheets by adding the requested information. State 3 provided their information on a hard drive which was physically transferred to a research team member. In a few State 1 and State 2 jurisdictions, research staff were granted access to case record management systems in order to extract the requested data or were provided larger amounts of data that were downloaded from such systems from which the requested data were identified and extracted. For the smaller subsample of youths selected for the follow-up interviews, contact information was also requested. This was collected in the same

manner just described. Once the requested data were received by the research team, they underwent an extensive cleaning process prior to being merged together for analysis.

**Follow-Up Survey with Youths.** Youths selected for follow-up interviews were contacted by phone by research staff and asked to participate in the study. Youths over 18-years of age provided verbal consent for participation. Parents (Guardians) were asked to provide verbal consent for those under 18-years old and these youths were also asked to provide verbal assent/consent to participate. Youths participated in a semi-structured interview consisting of 46 questions across eight content areas: education/employment; family, living arrangements, and neighborhood; peer associations; situational awareness; beliefs; substance use; contact with the criminal justice system and JRNA; and treatment services. Interviews typically took approximately 30 minutes to complete, and youths were sent a \$15 gift card to a restaurant to compensate them for their time.

### **Analytic Procedures**

By design, the study reported here is based on various sources and types of data. The juvenile justice personnel interviews and survey data were coded and analyzed with a mix of quantitative and iterative, qualitative methods. The analysis of the case record and youth interview data proceeded in varied fashion depending on the objective of the particular analysis. We utilize varying analytic methods to answer questions under each of the objectives relevant to those sets of data. Those analytic methods range from basic descriptive methods and bivariate tests to convey information about our samples and subsamples utilized in particular analyses to several types of multivariate analyses. Multivariate models were usually based on logistic regression given the nature of many study measures. These models allowed for estimation of key relationships while conditioning on other factors that could plausibly impact the inferences from those analyses. Measurement models and path/mediation models were also utilized in answering some questions.

## Summary of Key Findings

**Juvenile Justice Personnel Interviews and Surveys.** This portion of the study identified a solid foundation upon which juvenile justice agencies may build an effective and sustainable implementation process. We found that most personnel were satisfied with the OYAS and believe it benefits the agency and the youths that they work with. However, they perceive their own satisfaction to be higher than that of their peers, which may speak to organizational culture and the messaging around the OYAS. More generally speaking, personnel were in agreement that risk and needs assessments enhance fairness in the juvenile justice decision-making process. Personnel also perceived the OYAS to provide useful information regarding criminogenic needs, but not about non-criminogenic needs. In general, agencies used the assessment information that was gathered in important ways (e.g., establishing supervision levels), but did not optimize its use (e.g., examine aggregate OYAS data).

Validation was an important aspect to establishing buy-in among staff for the accuracy of the tool. While two out of the three states had the OYAS validated on their specific population, personnel saw numerous limitations of the OYAS that they perceived to lead to the need for overrides. Further, issues of validity and reliability were some of the most commonly cited limitations in the OYAS across each state. This perception on behalf of many personnel had implications for their buy-in for the tool and usage of its information. Most personnel indicated that they were told the reasons that their agency adopted the OYAS, but did not feel like specific steps were taken to establish buy-in. Training was cited as the main strategy for garnering buy-in among the staff. Additionally, formal quality assurance measures were decidedly absent. This may contribute to a lack of sustainability in the implementation process, as a lack of quality assurance processes reduces the quality of the information gathering process, and therefore also limits the usefulness of the information for juvenile justice decisions.

Specific to the web-based surveys, OYAS administrators consistently provided more negative views than non-administrators of the assessment, its usefulness, and its impact on their jobs. Despite providing slightly more negative views of the OYAS than non-administrators, OYAS administrators still tended to express positive overall sentiments of the assessment and its impact on their agency and the youths they work with. The scoring of vignettes in the web-based survey found some concerns with the accuracy of OYAS scoring. Only half OYAS administrators ( $n = 228$ ) scored their assigned vignette correctly (52.2%). This may feed directly into the high level of concern reported concerning reliability and validity of the OYAS.

**Youths Case Records and Follow-Up Survey with Youths.** In addition to implementing risk and needs assessments, the study also investigated how the information was used in ways that could impact the experiences youths have in the juvenile justice system. Modern assessments such as the OYAS are designed to inform decision-making, which is assumed to improve outcomes for youths. With regard to dispositions, the results indicated that when risk levels based on OYAS scores are used to match youths to dispositions the likelihood of the youths recidivating is impacted. For example, when state commitment relative to non-custodial sanctions is used with higher risk youths, a small negative effect on the likelihood of recidivism is observed. Other results illustrate complex relationships among risk, disposition/placement, and recidivism that are informative about the relationship between risk assessment and justice decisions.

In the analyses investigating the use of domain scores to match youths to appropriate treatment, the findings were generally inconsistent with what would be expected based on theory underlying JRNA. Overall, participation in various interventions was not associated with reductions in recidivism, or significantly increased the odds of youths having a new adjudication. When domain scores were examined in relation to the treatment youths received, scores in the

*Prosocial Skills* domain were most consistently related to treatment decisions. In other words, higher scores on this criminogenic need area increased the odds that youths would receive a treatment intervention. There was little evidence to suggest that the relationships between criminogenic needs and recidivism are mediated through various treatment options, however.

Many of the self-reported outcomes for the youths were positive when looking at the various attitudinal scales measured during the follow-up interviews. Most of the 131 youths were in school or working at the follow-up point as well. These results did not vary much across the different initial OYAS risk level groups. Youths frequently received treatment during the juvenile justice process or follow-up period, and the moderate and higher risk groups tended to report greater involvement in treatment across most of the categories included in the interview protocol. Still, despite some positive results in self-reported attitudes, interviewees also reported a good deal of later contact with the juvenile and criminal justice system and many self-reported drug or alcohol use. There are some potentially useful interrelationships among the various self-report responses that are investigated in exploratory analyses.

**Usage Studies.** In addition to the central analyses, the breadth of the data allowed us to carry out six subsudies to deepen the understanding of more nuanced aspects of the juvenile justice process. Usage study 1 evidenced that individuals reporting more favorable views of the OYAS scored the web-based survey scoring vignettes more accurately than those with less favorable views of the OYAS. In usage study 2, assessment classifications varied significantly among sites in our sample of juvenile court jurisdictions and Non-White youths were significantly more likely to receive a higher risk classification than their White counterparts. Usage study 3 identified some item, domain, and overall risk score performance differences across race and ethnicity, suggesting the need for further consideration of invariance across those subgroups of youths. In usage study

4, we discovered that while overrides are allowed by most agencies, only 3.4 percent of assessments were overridden, and almost always in the upward direction. Usage study 5 revealed that youths who were noted as having mental health or substance use needs were significantly more likely to receive treatment in these areas. Finally, in usage study 6, we determined that the optional strengths and barriers included on the OYAS tools were being used with some regularity and that these were noted at higher rates for higher risk youth and youth who progressed further into the system.

## **Discussion**

The results of the current report help to further set the stage for the effective and sustainable implementation of JRNA. A set of recommendations based on these results are provided to identify some potentially effective strategies for moving forward. Despite the comprehensive and specific nature of these results and recommendations, there are still contextual elements to which those in charge of planning and carrying out the implementation must pay special attention, and adjust their strategies accordingly. Namely, state (and county) context matters for implementation. Those in leadership are advised to take heed of state and county initiatives that are in place and could help to ‘embed’ the assessment process and its information into what is already being carried out. To that end, risk and needs assessment implementation does not occur in a vacuum, and therefore there will always be a residual impact of prior initiatives on the general reception of the tool. These elements will differ between localities and should be considered prior to full implementation.

At this stage of their evolution, JRNA are often not implemented onto a “blank state” as personnel and agency administrators may already have other experiences with assessment tools and other research-to-practice initiatives. The steps taken prior to, during, and after the initial rollout of a risk and needs assessment will set the tone for its reception. Formal quality assurance practices will ensure fidelity to the assessment, as well as sustainability in its implementation over

time. Overall, policies, training practices, automated systems functioning and integration, and assessment information usage practices will vary from agency to agency, and personnel perceptions of the assessment will be impacted uniquely by these conditions.

Aside from state and local context, personnel characteristics are also relevant to implementation. Personnel using risk and needs assessments work in many different agency settings, have unique job roles, varying degrees of tenure in the field, and varying current and past experience with risk and needs assessments. Staff in leadership positions are encouraged to examine these characteristics, and consider the ways in which this may impact their perceptions (e.g., Have the personnel bought-in? Have they ever used any assessments before? Do they believe that the assessment is accurate and its information useful? How will their daily work be impacted by the tool? Are they able to seamlessly use and share this information? Are the trainings tailored specifically to them?). All of these characteristics can impact their level of buy-in with the tool, as well as their propensity to use and share the assessment information effectively.

The fourth objective of the study involved evaluating justice-based and developmentally relevant youths' outcomes based on variation in assessment-based decisions that reflect the usage, monitoring, and implementation of standardized risk and needs assessments. The result from the juvenile justice record portion of the analysis suggested that risk level and juvenile court dispositions have an impact on youths' recidivism and these are generally in ways anticipated by prior research and the underlying logic of JRNA. For example, when state commitment was used appropriately, it had a slight negative effect on the likelihood of recidivism for higher risk youths. In other instances where there was less alignment of risk level and disposition there tended to be increased recidivism, suggesting that supervision and other placement decisions may likely to lead to less desirable outcomes in those instances. We also examined processes that are expected to

occur around the domain level needs information from the OYAS (e.g., education and employment, substance use). JRNA processes should provide information that can be used to strategically match youths to treatment and services that address key needs, which in turn is intended to reduce recidivism. The results of the analysis generally suggest that matching criminogenic needs to treatment does not consistently occur in the juvenile justice systems that we studied as much as anticipated based on the underlying logic of JRNA. Case management and treatment matching is a key objective of contemporary risk and needs assessment, but these results suggest a need for more focus on this in future research and development of practice. It also requires further consideration of how risk and needs are balanced in processing and treating justice involved-youths. In general, this formal process-based modeling helps to better illustrate the manner in which different elements of measured risk and needs might impact eventual case outcomes.

Although limited some by data concerns, the follow up interviews identify some insightful relationships pertinent to how the juvenile justice process can utilize the assessment information collected early on to inform decisions that impact positive attitudes and other developmental outcomes later on—effectively breaking the relationship between risk and later poor outcomes. This is illustrated in part based on the procriminal attitudes example that was explored in order to illustrate some tentative relationships among JRNA, treatment, and different categories of youth outcomes. It is, however, that the assessment process is viewed as part of a series of sequential steps where intermediate outcomes, like change in values or prosocial efficacy, are measured and responded to strategically throughout.

## **Conclusion**

The results of this study should help to build processes for improving the quality and use of JRNA. As a state or agency is rolling out new assessment practices, or looking to improve their

current risk and needs assessment processes, they should consider key implementation and sustainability facilitators: careful planning that includes establishing support for the risk and needs assessment amongst a variety of stakeholders, creating realistic but detailed usage and implementation guidelines and policies and procedures, sharing information with all those who will be impacted by the use of the assessment, sufficient training and post-training support, and beneficial quality assurance practices that will help ensure the risk and needs assessment is completed correctly and used to its full potential.

The analysis of case record data across three states and dozens of agencies provide greater insight on the ways in which risk assessment information is used in practice. In some cases that use fit with the underlying logic of assessment practice (and existing research); however, in other instances the evidence that the tools were being used as intended was not as clear. The youth follow-up interview data help to reinforce the importance of focusing a portion of the discussion of JRNA on outcomes besides official recidivism. The questions asked on the interview serve both as endpoints for more developmental juvenile justice in themselves and as important leverage points in attaining positive justice-related goals (i.e., reductions in recidivism). Collectively, the findings from the study—both supportive and critical—offer some insight on how risk and needs assessment can be used as an engine to help generate better outcomes for youths and the juvenile justice agencies whom they encounter.