REVIEW OF EVIDENCE-BASED AND PROMISING RISK/NEEDS ASSESSMENT TOOLS FOR JUVENILE JUSTICE

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This document contains four reviews of risk/needs assessment tools designed for use in juvenile justice or designed for young offenders in general. These reviews were developed by the National Youth Screening & Assessment Project (NYSAP) to assist Models for Change Initiative states with selecting a risk/needs assessment tool that could be used in probation offices for pre-disposition reports and later case planning. NYSAP is a member of the National Resource Bank of technical assistants, associated with the MacArthur Foundation’s Models for Change Initiative.

The tools included in this document were selected following an extensive review of standardized risk/need or risk assessment tools available for youth. We reviewed any risk/needs assessment tools in circulation, in either the published literature or web-based searches. This review contains only risk/needs assessment tools that would be considered evidence-based or promising. Tools were defined as evidence-based if they met a list of criteria, which are provided later in this document. Further, we only selected tools that followed a developmental model, meaning they were sensitive to the malleability of risk for recidivism and antisocial behavior in youth.

The reader should note that there may be new developments since June 2009 when this document was developed. New research could have been generated that would have elevated the promising tools to evidence-based tools and vice versa. In addition, research may be produced on other existing risk/needs tools that elevate the tools to evidence-based or promising.
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Definitions and Evidence-Based Criteria

What is a Risk/Needs Assessment Tool?

A risk/needs assessment tool is an assessment, meaning it generally requires an interview with youth and parents and gathering of collateral information to complete. A risk/needs tool will have some way of quantifying a youth’s risk for re-offending (e.g., Low, Moderate, or High risk) and will contain risk factors that are dynamic and capable of change following intervention. Consistent themes in many placement decisions in the juvenile justice system are both the youth’s risk for recidivism and treatment or service needs. The goal of risk assessment is to target those youth in highest need of rehabilitation efforts and intensive risk management. Thus, staff examiners and clinical evaluators require tools capable of assessing both the likelihood of a youths’ risk to public safety in the future, and the needs of youths that should be addressed in order to reduce a youth’s risk. It is important to note that risk assessment tools differ in the way they define risk. Some were designed to identify risk for recidivism, meaning a re-arrest for any type of offense. Other tools were designed to identify risk for violence specifically.

Importance of a Developmental Approach

Social science research tells us that, for the majority of adolescents who commit offenses, the behavior will desist in late adolescence or early adulthood. In this case, by desistance we mean the termination of offending. Thus, a crucial concept for assessments of risk for violence and serious offending among youth is the impact of developmental factors on the time frame for which predictions remain accurate. A significant limitation with attempts to identify youth who will become chronic and violent offenders is the inevitable high false positive rate. Many youth who engage in violent behavior at one stage of development do not continue to do so as their development proceeds. In addition, evaluating risk requires consideration of the developmental stage and social context. Different risk indicators at different ages mean different things. For example, smoking prior to age 12 is a significant risk factor, but smoking at age 15 when experimentation is a normal part of development is not a risk factor. For these reasons, preference should go to tools that:

- Contain dynamic risk factors permitting reassessment by providing a measure of change in risk level,
- Contain dynamic risk factors that can be translated into “needs” or targets of intervention/services in order to direct service referrals or case/risk management efforts,
- Contain protective factors or strengths,
- Permits some rater/examiner discretion. In other words, preference would go to tools that incorporate some level of examiner discretion to account for idiosyncratic risk factors, as opposed to a strict actuarial approach resulting in only score-based decisions.

Criteria for a Tool to be Considered Evidence-Based

The term evidence-based is usually applied to interventions or treatments. If we were to apply it to an assessment tool we must consider the evidence that the tool properly screens or assesses individuals. We proposed a minimum standard, based in part on Austin (2006) and criteria for a
Evidence-based tools are those that meet all the criteria below. Tools that come close but do not meet all the criteria are considered promising until more research is produced.

- **A manual**: A tool should have some version of a test manual that contains scoring criteria and/or detailed item descriptions to structure the administration.

- **Contains empirically-based risk factors**: A tool should contain youth risk factors that have been empirically demonstrated to have an association with future crime and violence.

- **Two studies by independent parties demonstrating reliability**: Risk assessment instruments should have some reported evidence for inter-examiner reliability. If the tool is self-report only (in other words, the tool does not rely on examiner ratings), then the interest is in internal consistency and test-retest reliability. However, for tools that do rely on examiner ratings, evidence for inter-rater reliability is critical to provide confidence that the tool will be completed fairly consistent across examiners. The preferred measure of reliability in this case is intraclass correlation coefficients (ICCs). ICCs should be above .70 at the minimum and preferably above .90. An instrument should have two tests of inter-rater reliability that were conducted in a juvenile justice setting by an independent party (meaning someone other than the test developer).

- **Two studies by independent parties demonstrating predictive validity**: A risk assessment tool must have evidence that it predicts recidivism and/or violence. When evaluating a tool, it is important to be familiar with this research, including the actual outcomes tested (e.g., institutional violence, community violence, official re-arrests, self-reported delinquent behavior) and the methods used (e.g., prospective versus retrospective studies). At the minimum, we would want to see prospective studies of the tool’s validity for predicting recidivism or antisocial behavior. There are many statistical procedures used to assess predictive validity. Preference goes to predictive models that take time at-risk into account (e.g., Cox proportional hazards regression, survival analyses), and Receiver Operating Characteristic curves (ROC) as a measure of predictive accuracy. The area under the ROC curve (AUC) is an index of the tool’s overall accuracy, in this case, ability to correctly identify a youth who will re-offend. The AUC can range from 0 to 1.0 where .5 indicates chance-level accuracy, greater than .5 indicates above-chance accuracy, while less than .5 indicates below-chance accuracy. According to Swet (1988), AUCs for an acceptable screening tool would be between 0.70 and 0.90. There should be at least two studies by an independent party demonstrating good predictive validity (medium to large effects) in a juvenile justice setting. Preferably, validity studies also will report differences by gender and race/ethnicity.

A final note: When applying the concept of “evidence-based” to the social sciences, it generally refers to shaping government policies based on scientific evidence that shows the policy has some cause and effect (Austin, 2006). At this point there have not been any randomized studies showing that implementing risk assessment tools in juvenile justice has an impact on recidivism or appropriate intervention planning. The only tool in our list that has some evidence of having...
an impact on recidivism or other positive outcomes is the YLS/CMI (Vieira, Skilling, & Peterson-Badali, 2009), which indicated the more services a youth received that were directly related to their risk and needs factors the lower the likelihood of recidivism. We expect more pre-post and possibly randomized studies will come for these tools in the future.

References of Interest

The reader is encouraged to read the following references:


THE STRUCTURED ASSESSMENT OF VIOLENCE RISK IN YOUTH (SAVRY)
EVIDENCE-BASED ASSESSMENT

Purpose of the Instrument
The SAVRY Version 2 (Borum, Bartel, & Forth, 2006) was designed to assess violence risk in adolescents, aged 12 to 18 years who have been detained or referred for an assessment of violence risk. Although the instrument was originally intended to assess risk for violence specifically, research shows that the SAVRY is valid for identifying the risk of re-arrest for both violent and general re-offending. The authors designed the SAVRY with the following objectives in mind (Borum, 2005): 1) systematic with clear operational definitions of the factors, 2) empirically grounded, 3) developmentally informed, 4) treatment oriented, 5) flexible to allow consideration of case-based factors, and 6) practical so it does not require much time beyond a regular assessment.

Description/Design of the Tool
The SAVRY uses the structured professional judgment approach. This means that it assures that examiners assess risk factors that are empirically associated with violence, consider their applicability to the specific examinee, and classify the factor’s severity. The SAVRY protocol is composed of 6 items defining Protective Factors (that may lower the likelihood of risk) and 24 items defining Risk Factors (that may increase the likelihood of risk). Risk items are divided into three categories; Historical, Individual, and Social/Contextual. Evaluators also are able to designate additional risk and protective factors, recognizing that some cases may present circumstances that are not included among the SAVRY risk factors. Coding is guided by clear statements in the manual describing the conditions under which a case receives Low, Moderate, or High ratings on each item.

The final determination of an examinee’s overall level of risk for violence and delinquency is the evaluator’s Summary Risk Rating for violence (Low, Moderate, High risk) based on the examiner’s professional judgment as informed by a systematic appraisal of relevant factors. One option for use in probation is to add a second Summary Risk Rating to indicate one’s risk for non-violent re-offending, as has been done in some states.

Many of the items in the SAVRY are dynamic. This means they can change over time. The inclusion of dynamic factors in risk assessment permits re-assessment and allows examiners to identify changes in risk for a particular youth over time or as a result of a response to services that were provided to try to reduce risk. If the SAVRY is tracked in a computer system, administrators can monitor changes in risk across all youth coming into their offices, which is very helpful for reporting purposes and decisions about allocation of resources.

The SAVRY is not “prescriptive”, meaning it does not say certain scores target needs for specific types of services. Most of the risk factors on the SAVRY identify “needs.” The service referrals made as a result of these needs would depend on resources available in the community. The suggested interventions and treatment should flow from the risk assessment.
Examiners and Administration

The SAVRY can be administered by probation officers or clinicians as long as they have experience in interviewing and assessing the adolescent population and they receive special training on the SAVRY. The instrument is coded based on record review and an interview with the youth examinee at a minimum. An interview with the parents may be necessary for additional collateral information in some cases. There is no structured interview to accompany the SAVRY – examiners are able to use their own interview style and modify it to the case as needed to get the necessary information. However, NYSAP, expert consultants, and several key juvenile justice personnel in the state of Louisiana created a generic youth risk interview and parent risk interview that can accompany the SAVRY or many other risk/needs assessment tools for use in information gathering.

The time required for assessments will vary based on the complexity of each case. Scoring of the SAVRY will add approximately 20 minutes to an existing assessment or social history involving a semi-structured interview with the youth and record review. In cases where record reviews and interviews with the youth are not already conducted, a full SAVRY assessment would require at least 90 minutes.

Research Evidence

Reliability. Inter-rater reliability for the SAVRY is acceptable as reported in two studies by independent researchers (meaning they were not the authors of the instrument and have no financial interest in the tool). Catchpole and Gretton (2003) reported the intra-class correlation coefficient (ICC; the preferred measure of reliability) for SAVRY Total Scores was .81, and .77 for Summary Risk Ratings. McEachran (2001) reported an ICC of .83 for SAVRY Total Scores, and .72 for Summary Risk Ratings. This means that the SAVRY makes it possible to get reasonable agreement between examiners who rate the same youth for both the total scores AND the summary risk ratings. It does not necessarily mean that this degree of agreement will occur in actual practice. That may depend on the quality of the examiners and the training they receive.

Validity. The predictive validity of the SAVRY is good and has been tested in forensic and young offender populations across several studies by independent researchers. Several published studies have followed youth after they have taken the SAVRY to see if the youths were re-arrested or committed any acts of institutional violence (see references below). These studies demonstrated that the SAVRY total scores and Summary Risk Ratings are able to separate youths into categories that have distinctly different likelihoods of re-offending or committing violence in the future.

The SAVRY is better at identifying likely violence than re-offending generally. Gretton and Abramowitz (2002), for example, examined the relation between SAVRY scores and general and violent re-offending in a sample of 176 young offenders. The proportion of youth who had a later violent offense were 5.7% in the Low Risk Rating group, 13.1% in the Moderate Risk group, and 40.4% in the High Risk group. For non-violent re-arrests, they reported an area under the curve (AUC; the preferred measure of predictive accuracy) of .66 for SAVRY Risk Ratings, .68 for SAVRY Total Scores. For violent re-arrests, the predictive accuracy was better for the summary risk rating (AUC = .74) than for a total score calculated for research purposes (AUC = .67). This
means that there was a 74% chance that a youth who was charged with a violent re-arrest obtained a higher score on the SAVRY than a randomly chosen individual who did not commit a violent re-arrest.

Researchers demonstrated that higher scores on the SAVRY Individual/Clinical Scale and Summary Risk Ratings are related to acts of institutional aggression and number of aggressive conduct disorder symptoms (Bartel, Forth & Borum, 2003; Lodewijks et al., 2008). Finally, the protective factors scale of the SAVRY alone is negatively related to re-arrest (Dolan & Rennie, 2007), meaning the more protective factors a youth has – the less likely they are to be re-arrested.

A very recent study compared the SAVRY to the YLS/CMI in the ability to predict general and violent recidivism. When comparing the two instruments, the SAVRY out-performed the YLS/CMI (Welsh et al., 2008) in the prediction of both types of recidivism. However, it should be noted that the SAVRY was completed by trained Psychology graduate students based on file data, while the YLS/CMI was completed by probation officers as part of their assessments of youth. These are not comparable processes. Nonetheless, the SAVRY had very good indices of predictive accuracy (AUC = 0.77 for general recidivism, AUC = 0.81 for violent recidivism).

Applicability to Minorities. Chapman, Desai, Falzer, and Borum (2006) found that African-American youth had a significantly greater likelihood of being rated as low risk for violence than their White counterparts on the SAVRY. However, until these researchers relate these scores to offending, it is unclear whether this is due to a racial bias in SAVRY scoring (“favoring” African-American youth), or if the disparity in scores reflects real differences in risk between African-Americans and Whites.

Applicability to Girls. A prospective study (of adolescent offenders found that both total scores and summary risk ratings on the SAVRY were related to non-violent and violent re-offending after a 2-year follow-up (Penney et al., 2007) for both girls and boys. This was regardless of using official charges or self-reported offending. It was a stronger predictor for boys. The SAVRY appears to predict institutional violence quite well for girls (Gammelgard et al., 2008).

Implementation
NYSAP interviewed individuals from two different systems about their use of the SAVRY. In the youth forensic system in British Columbia, the SAVRY is being used by nurses and social workers with positive outcomes. In Connecticut, they use this in pretrial detention during intake for every youth and it is administered by correctional counselors, generally with a BA in Human Services who had been provided SAVRY training. The administrator told us that the SAVRY was initially overwhelming to the front-line staff, but they quickly became more comfortable with it as they started using it. They found the training was very helpful. Once examiners get through their first few SAVRY assessments, they are able to complete the rest in about 20 minutes. They get “excited” about the case management aspects.

In Louisiana, the SAVRY has been implemented in most of the juvenile probation offices for use by probation officers to form their social histories and guide disposition recommendations and
service plans. Louisiana is piloting an electronic system they designed to track SAVRY results and other outcomes for youth on probation.

**Costs**
Costs for implementing the SAVRY are low. The cost of training is $5000 + trainer’s travel expenses for a 1.5 day training for approximately 40 to 50 participants. There is the option of paying for a train-the-trainer training which could improve the sustainability of the use of the SAVRY. This training is offered at the same cost. The training is provided by Patrick Bartel, Ph.D. or Randy Borum, Ph.D., authors of the SAVRY. They require about 6 weeks notice in order to schedule a training. Finally, sites may want a booster training some time after implementation, which could be obtained at a reduced trainer fee. This is optional. It is preferable to have sites conduct their own booster trainings using their master trainers. At the time of this review, manuals were $40 a piece and scoring sheets were approximately $1 per case.

**Advantages:**
- Cost-effective
- The Risk factors are needs that guide intervention/treatment planning.
- Includes dynamic risk factors so the SAVRY can be used for re-assessment and monitoring in increases or decreases in risk at key decision-making points or transitional points for youths.
- The structured professional judgment approach allows examiners to consider factors idiosyncratic to the case when estimating risk – so the instrument has more flexibility.
- Good evidence of reliability and predictive validity – better than most risk/needs instruments we have encountered on the market today.
- The SAVRY has reported the best predictive accuracy of any instrument based on available research.
- Because there are no “norms” it may be more flexible for use with younger youths or status offenders with proper training of the examiners.

**Disadvantages:**
- There is no software available for use with the SAVRY. The user can get copyright permission from the publisher (PAR) to create software for internal use.
- The item scoring for the SAVRY introduces some subjectivity than the other measures. Inter-rater reliability studies indicate this does not impair the reliability of the instrument; however, some may express concern about its useability for front-line staff.
- The SAVRY was not designed with front-line staff case management practices in mind so agencies generally develop case plan formats to use in conjunction with the tool. NYSAP has some examples available.

- As with many risk/needs assessments, when assessing risk for recidivism for adolescent females, one suggestion is to consider additional risk factors that may be more strongly related to risk in females in the overall Summary Risk Rating.

**References**


Purpose of the Instrument
The YLS/CMI (Hoge & Andrews, 2006) is a standardized inventory for assessing risk for recidivism and need factors and assisting in case management for male and female juvenile offenders aged 12 to 17. The authors designed the YLS/CMI primarily to assist with pre and post-adjudication case planning, but it also can assist with other decisions, such as pre-adjudication diversion and detention, waivers to adult court and the mental health system, and post-adjudication dispositions.

Description/Design of Tool
The YLS/CMI contains 42 items divided across eight subscales (e.g., Prior and Current Offenses, Parenting, Education/Employment, Peer Associations, Substance Abuse, Personality, and Attitudes) and it is divided into six sections (I. Assessment of Risks/Needs, II. Summary of Risk/Need Factors, III. Assessment of Other Needs/Special Considerations, IV. Your Assessment of the Client’s General Risk/Need Level, V. Contact Level, VI. Case Management Plan). The lay-out of the tool permits examiners to score and summarize risk and needs factors based on the tool as well as additional factors that may be relevant to case planning.

The YLS/CMI is not “prescriptive”, meaning the tool does not say certain scores target needs for specific types of services. Many of the risk factors on the tools identify “needs.” The service referrals made as a result of these needs would depend on resources available in the community. The suggested interventions and treatment should flow from the risk assessment.

Examiners and Administration
The YLS/CMI can be administered and scored by trained front-line staff (namely, probation officers) based on an interview with the youth, collateral and file information. Training on administration of the YLS is needed. The scoring takes approximately 20 to 30 minutes. A probation officer told us that once examiners get through their first few YLS/CMI assessments, they are able to complete the YLS in about 1.5 hours, including the time required for completing the interview and gathering record-based information.

Items are scored using a checklist format, with the evaluator indicating if risk factors and strengths are present. The instrument uses an “adjusted actuarial” approach using a total score derived by a sum of objective item ratings to designate the risk level as “Low”, “Medium”, “High”, or “Very High”. Evaluators are able to consider additional risk factors not included in the checklist and the “actuarially-derived” risk level can be over-ridden based on clinical judgment.

Research Evidence
Reliability. Inter-rater agreement for scoring on the YLS/CMI has been tested across researchers, mental health professionals, and probation officers by independent researchers. Comparing professionals and probation officers, Schmidt et al. (2005) reported intra-class correlations on the subscales from .71 to .85, with the exception of Peer Relations = .61. Poluchowiz, Jung, and
Rawana (2000) reported an ICC of 0.75 for the Total Risk score. This means that the YLS/CMI makes it possible to get reasonable agreement between independent examiners who rate the same cases, but this level of agreement is lower than the standard of 0.90 for good reliability. Onifade et al. (2008) were able to achieve a standard of .90 in their study.

Validity. Independent researchers have reported a few studies of the YLS/CMI that follow young offenders after they have been administered the tool to see if they re-offend. In a prospective 3.5 year follow-up study of young offenders, Schmidt et. al (2005) found YLS/CMI total scores predicted serious re-offending at an AUC = 0.67, and for any re-offending the AUC was 0.61. Similar findings have been reported from other studies in the US. This means that there was a 67% chance that a youth who was charged with a new offense obtained a higher score on the YLS than a randomly chosen individual who was not charged with a new offense. In a prospective study of female and male young offenders in Australia, YLS/CMI total scores completed by juvenile justice officers had an AUC with general recidivism = .75 given an average 16 month follow-up (Upperton & Thompson, 2007). The most significant predictor was the Personality and Behavior scale. The only non-significant predictor was Peer Relations. Another study of file rated YLS’ with a one-year follow-up reported the AUCs for general and violent recidivism were around .74 (Catchpole & Gretton, 2003).

Taken as a whole, the AUCs indicate that the predictive accuracy of the YLS for recidivism is better than chance and has fairly good accuracy across studies. According to Swet (1988), AUCs for an acceptable screening tool would be between 0.70 and 0.90.

Applicability to Minorities. Very few studies have examined the applicability of YLS/CMI scores to minority groups. There is some evidence that YLS/CMI total scores operate similarly for Native and non-Native groups (Jung & Rawana, 1999). We do not know about African-American or Latino groups at this time.

Applicability to Girls. One study found that there was no difference in the relation to future violence and recidivism of YLS/CMI scores for girls versus boys (Schmidt et al., 2005). Girls were included in the normative sample for the test and in many studies; however, specific demonstrations of its applicability to girls are still limited.

Implementation
One advantage of the YLS is that it is easy for probation officers and other non-professional staff to use. In this regard, individuals tend to view it positively and find it helpful for case management. Professional staff (i.e., psychologists) have suggested that other types of tools might be more useful for their purposes.

NYSAP interviewed individuals from two different systems about their use of the YLS/CMI. In Alaska, they use the YLS/CMI state-wide to impact placement decisions for every youth post-adjudication. The YLS is completed primarily by probation officers after they have had proper training. The administrator told us that the YLS/CMI was very useful to probation officers and that the User’s Guide in particular was beneficial in scoring and interpreting the tool. They found the training was very helpful. The administrator reported that the state-wide consistency is one of the best outcomes of implementing the YLS/CMI.
The YLS/CMI also is being used in Tennessee, Georgia, Indiana and Minnesota. Comments suggest that sometimes it is difficult to use the YLS/CMI at probation intake because of the time required to complete an assessment and the fact that collateral information is sometimes lacking at the intake stage. Also, it was suggested that the YLS/CMI may not be as applicable for institutionalized youth as some of the domains ask about “current” substance usage or “current” leisure/recreation activities, which may not reflect the youth accurately at the time of assessment. The trainer recommends the rating criteria for these items be adjusted as per office policy based on the setting.

**Costs**
Cost estimates at the time of this review indicated that training on the YLS requires a 2-day workshop costing $2000 plus the trainer’s travel expenses. A train-the-trainer 2-day workshop is $3000 plus expenses, and 1-day booster training is $1000 plus expenses. Training is done by Dr. Hoge, one of the authors of the instrument. He said he needs about 1 month to 6 weeks notice to schedule a training. Manuals are $52 and per case costs can cost up to $5.80 depending on the numbers of forms used. There are ways of cutting manual and score form expenses. Software is available and is free with purchase of the YLS/CMI profile reports.

**Advantages:**

- The YLS/CMI is easy to use and straight-forward for a wide variety of staff.
- Decision-making for placements and referrals is easy because it is based largely on a total score yet allows staff to over-ride the score in special circumstances where some discretion is necessary.
- The YLS contains both dynamic factors and strengths and can be used in re-assessments.
- The YLS has adequate inter-rater reliability between probation officers as demonstrated in some samples.
- Staff like the YLS because allows them to summarize both risks and needs.
- The YLS has support for implementation and for learning how to integrate assessment findings into case management planning. The CMI approach provides guidelines for doing this.
- Inexpensive relative to software-based tools and relatively inexpensive software is available.

**Disadvantages:**

- Evidence of its predictive validity (association between YLS scores and future offending) to date indicates the tool has better predictive accuracy when rated by research assistants than when rated in practice. In practice, the predictive accuracy varies across sites –
which likely is due to the adequacy of staff training and information used to complete the assessment.

- Technical support for the software is limited.
- To date, there is limited evidence of its applicability to minority youth.

References


WASHINGTON STATE JUVENILE COURT ASSESSMENT (WSJCA)  
(also includes Youth Assessment and Screening Interview [YASI] and PACT)  
PROMISING TOOL

The WSJCA was created originally by Robert Barnoski for use by Washington State Institute of Public Policy (WSIPP) in post-adjudication service planning. Some companies have packaged the WSJCA for purchase by making slight modifications and developing software that requires technical support. These other instruments are the PACT (Positive Achievement Change Tool) and Back on Track, marketed by Assessments.com, and the YASI (Youth Assessment and Screening Instrument), marketed by Orbis Partners. The Back on Track is exactly the same as the original WSJCA; whereas the PACT and the YASI are modified versions that were expanded to include questions related to mental health. To complete this review, we conducted a full search for any research and information on these tools that was in circulation, and we spoke with Dr. Barnoski and the Washington Association of Juvenile Court Administrators, Dave Robinson and Orbis Partners, and attempted to speak with Assessments.com.

Purpose of the Instrument
All versions of the Washington State Juvenile Court Assessment (Barnoski, 2004) are used to determine a youth’s level of risk, identify the risk and protective factors linked to a youth’s criminal behavior, develop a case plan that focuses on reducing risk factors and increasing protective factors, and allow probation managers to determine whether targeted factors change as a result of court intervention.

The authors do not define “risk,” but it appears that the tool is used to assess “risk for re-arrest” or “future delinquency.” The authors state that the WSJCA focuses particular attention on dynamic risk factors and protective factors so that it can be used during re-assessment to monitor changes in risk and needs in individual youth over the course of supervision. There is no recommended time frame for re-assessments but data indicate that meaningful changes can be identified on a re-assessment conducted within 3 to 6 months.

Description/Design of Tool
All versions of the WSJCA (Barnoski, 2004) are risk for re-offending assessment tools for use with adolescents aged 12 through 18 who come into contact with the juvenile justice system. The WSJCA helps to allocate resources in the JJ system using a case management approach focused on reducing risk. Probation managers can identify the risk and protective factors specific to a case and can determine whether the court’s intervention will have an impact on the targeted factors identified.

The tool comes in three parts; a prescreen, full assessment, and re-assessment and can be administered by trained probation officers and other JJ staff. Information for these assessments are gathered from an interview with the youth and collateral contacts. The prescreen contains 27 items concerning criminal history, school, family, peers, drug/alcohol use, and mental health problems and typically takes about 45 minutes to complete. It produces two scores (Criminal History and Social History) that are combined to produce a “low”, “moderate”, or “high” risk for recidivism rating. Those rated as moderate or high risk complete the full assessment, which includes a structured motivational interview with a youth and his/her family and a chart review.
The full assessment includes 132 items, broken into 13 domains; such as, criminal history, relationships, mental health, attitudes/behaviors, aggression, and employment.

Youth identified by the prescreen as moderate- or high-risk are seen as needing a more thorough assessment and subsequent services or interventions. These youth complete the Full Assessment, which contains 132 items that make up 13 domains: Criminal History, Demographics, School, Use of Free Time, Employment, Relationships, Family, Alcohol and Drugs, Mental Health, Attitudes/Behaviors, Aggression, Skills, and Sex Offender: Intensive Parole. Information is gathered during a structured motivational interview with a youth and the youth’s family, as well as verification with collateral contacts. The WSJCA includes both static and dynamic items for both protective and risk factors, so that each domain produces four types of scores: static risk, static protective, dynamic risk, and dynamic protective factors.

**Examiners and Administration**

Each of these instruments can be administered by trained front-line staff; namely, probation officers, youth service workers, case management officers, and other service providers responsible for a youth’s supervision. The assessment requires an interview with the youth and a review of collateral and file information, and an interview with the parents is recommended.

The Washington State Juvenile Courts developed a quality assurance process to ensure accurate use of the WSJCA within the state. Each court designates at least one person to become a certified assessment specialist for the court and designated probation staff are trained by a consultant and a statewide expert to become “certified assessment trainers.” In order to become a trainer, a trainee needs to submit a videotape of an assessment interview for critique and review. Certified trainers then train court staff members across the state, with a quality assurance committee conducting periodic reviews of WSJCA Assessments.

Washington does not provide training to other states. Orbis Partners and Assessments.com provide training using a “master trainer model” similar to that implemented in Washington. Other states have developed their own internal training procedures and modules (e.g., Utah).

Administration of the Pre-Screen requires approximately 45 minutes. Approximately 30% of youth, on average, will be “screened out” as low-risk based on the pre-screen. The test developers state that the full assessment takes 1 to 3 hours to complete, including structured interview with the youth and family, as well as communication with collateral contacts.

According to Orbis Partners, administration of the Pre-screen for the YASI requires approximately 15-30 minutes and the Full Assessment requires 30-60 minutes but will vary by case. However, some users of the YASI reported that they complete the Full Assessment over 3 to 4 visits with the youth in order to build rapport. Both assessments are completed by the examiner on computer and the scoring is done automatically by the software, which then generates the YASI Profile Wheel. It appears that a test manual with scoring criteria does not exist for the YASI, so we do not know how items are combined to generate scores. In other words, agencies must purchase the software in order to use this version of the instrument.
These tools are not “prescriptive”, meaning the tool does not say certain scores target needs for specific types of services. Many of the risk factors on the tools identify “needs.” The service referrals made as a result of these needs would depend on resources available in the community. The suggested interventions and treatment should flow from the risk assessment.

**Research Evidence**

Because the content of the YASI, PACT, and WSJCA are slightly different, it is important to consider the research evidence separately. In other words, one should not simply assume the validity of one tool applies to another tool; however, this assumption would be most warranted for the WSJCA and PACT, which are most similar.

*Reliability.* To date, the inter-rater and test-retest reliability has not been reported for the WSJCA. In other words, we do not know the average level of agreement between two independent examiners for item or factor scores for the same youth. Inter-rater reliability has not been reported for the YASI or PACT either. However, if agencies receive the full training packages, each rater’s video taped interviews and tests are critiqued by a company until the raters achieve acceptable reliability. Similarly, agencies providing their own training should have a way of checking each examiner’s (probation officers’) reliability.

*Validity.* The ability of these tools to predict recidivism has been demonstrated in several studies by the creators of the tools. For example, in a very large sample of youth on probation, Barnoski (2004) found the 18-month felony recidivism rate of the low-risk group was 11.2% and the rate for the high-risk group was 32.2%. The rate of violent recidivism for the low-risk group was 2.9% and for the high-risk group was 11%. Thus, the high-risk group had about three times the recidivism rate of the low risk group. The predictive accuracy of the *WSJCA Pre-Screen* (e.g., AUC) was .64 for both violent and non-violent recidivism. This is a bit lower than the standard for a good screening tool (0.70).

For the *YASI Pre-Screen*, Orbis Partners followed a large probation sample in Illinois for a minimum of 12-months finding 61.8% of those identified as High risk received a new police contact for any type of offense, compared to 16.9% identified as Low risk. The Pre-Screen was better at predicting re-arrests for general offenses than violent offenses. On the *Full Assessment*, data suggested a *resiliency effect*. In other words, juveniles with high Dynamic Risk factor scores and high Protective Factors scores (Strengths) had better outcomes (comparable to “low risk” youth) than “high risk” youth with low protective factor scores.

Also of note, the *YASI re-assessments on the Full Assessment* were tested with a probation sample over a period of 12 months showing great results. All cases were assessed with the YASI Full Assessment at probation intake and then reassessed after 3 to 6 months following the initial assessment. At the 12-month follow-up mark, the data showed that youth who made large improvements (i.e., decreased Dynamic Risk scores in the first six months), showed remarkably lower rates of negative outcomes at follow-up. In addition, the cases that showed increases in risk at reassessment had more negative outcomes (58.2% having some police contact compared to only 11% of youth showing a large decrease in risk.)
With reference to the PACT, the risk assessment properties are comparable to the WSJCA. The only notable change between the PACT and the Back on Track or WSJCA is added mental health items and some added case management assistance. A dissertation in Florida indicated that the mental health items on the PACT do not agree well with MAYSI-2 (a well-validated mental health screening tool) scores in terms of the youth identified as having mental health problems (Baglivio, 2008). The mental health items on the PACT are completed by a case worker who rates the youth on seven items related to mental health symptoms based on their perceptions.

Applicability to Girls. The WSJCA properly categorizes girls as low vs. high risk to reoffend; however, it does not work as well for girls as it does for boys. This is typical of risk assessment tools available for youth. After an 18-month follow-up, low-risk males had a 13% felony recidivism compared to 6% of low risk females. High risk males had a 36% felony recidivism rate compared to only 18% of high-risk females. The report noted that females had consistently lower recidivism rates than males.

Applicability to Minorities. The ability of the WSJCA to identify youth who will recidivate has been reported for African-Americans, Asians, Native Americans, and Whites. Minority youth have similar social history scores as Whites, but have slightly higher pre-screen criminal history scores. The tool appears to properly classify minority youth as low, moderate, or high risk in the sense that those designated as high risk have the highest recidivism rates. However, there is less difference between moderate and high risk minority youth than between moderate and high risk Whites. In other words, the predictive accuracy for minorities is probably not as high as for Whites, but is still reasonable. However, the creators of this tool suggest different scoring procedures for minorities to accommodate these differences.

The YASI Validation brief reported that risk levels from the Pre-Screen Assessment worked equally well for African-American, Caucasian, and Hispanic youth on probation in New York. For African-Americans, 30.4% designated as High Risk received negative outcomes (defined as referrals to probation, arrests, violations of probation, and/or placements). This is similar to the % of high-risk Whites (29.1%) and Hispanics (27.4%) receiving negative outcomes. For all three groups, only around 11% of youth designated as Low Risk had negative outcomes. (NOTE: The research methods of this study were not evaluated by the authors of this review.)

Implementation
The WSJCA has been implemented state-wide in Washington and 10,000-15,000 youth have been assessed annually since 1999. Assessments.com provides software for Washington State juvenile courts and clients in California, Wyoming, Iowa, Texas and Idaho.

Orbis Partners developed the YASI, which differs from the WSJCA in that it added a unique reporting format (the YASI Profile Wheel), more dynamic risk factors, and some questions related to past homicidal and suicidal attempts and ideation in order to signal potential mental health problems. Currently, the YASI is being used in several U.S. juvenile justice programs such as the New York State Division of Probation and Correctional Alternatives in Juvenile Probation, the North Dakota Juvenile Court, and the Administrative Office of the Illinois Courts for Juvenile Probation.
Probation officers in Illinois interviewed for the purpose of this review noted that the YASI has been useful for determining youth’ needed level of supervision and for recommending services for youth based on the domains that are identified as problematic. Staff who had been using the YASI reported that they found the tool comprehensive, taking into consideration all important domains for a youth. They haven’t had any problems with probation officers being able to complete the test reliably, in part because they receive a lot of support and booster trainings from Orbis Partners. However, they did mention some concerns about the software (which Orbis Partners is trying to correct) and actual administration time is longer than stated in the training. Administrators have been very pleased with Orbis Partners and the YASI because the training involves adoption of a model of supervision in addition to the assessment and there is a fair amount of support.

The Juvenile Justice system in Utah created its own software, training procedures, and quality assurance procedures to implement the WSJCA. They also cut their version to 90 items based on internal research on the tool. For more information, readers can contact Susan Burke, Assistant Juvenile Court Administrator, Administrative Office of the Courts (susanvb@email.utcourts.gov).

**Costs:**
The WSJCA is available on the web. To our knowledge the only people that provide training on this tool outside of their own state are Assessments.com or Orbis Partners. Exact cost estimates are difficult but can range up to $50,000, which includes software, manuals, training, etc.

_Assessments.com_ provides the training and software for the Back on Track and the PACT, which is available as part of a “service bundle.” This bundle includes training and software for how to use scores in case management planning. Cost is based on client-specific factors such as size of facility, amount of youth to be screened, or amount of staff to be trained.

Training on the YASI is provided by Orbis Partners and is done in two 2-day segments, for a total of four-days. The first two days are devoted to learning how to score the tool, interview technique, generating the results, and entering data into the software. The second training occurs approximately two to three months later and is devoted to case planning, ongoing supervision, and service provision. They typically need 4 to 6 weeks notice to schedule a training. Prices are negotiable and costs include several rounds of initial and case planning trainings, Train-the-Trainer sessions, and often a validation study.

**Advantages:**
- Training on the WSJCA includes a quality assurance model to ensure assessment practices adhere to the WSJCA definitions and motivational interview principles.
- The WSJCA has a test manual that is easily accessible online ([http://www.wsipp.wa.gov/pub.asp?docid=99-01-0000](http://www.wsipp.wa.gov/pub.asp?docid=99-01-0000)) as well as good research evidence.
Training on the WSJCA includes adopting a model for supervision and service delivery as prescribed by Orbis Partners or Assessments.com. Other states have been very pleased with this package.

The WSJCA has a pre-screen version which is less time-consuming than the full assessment and can ‘screen-out’ low risk youth that are not in need of the full assessment. The WSJCA can also be used for reassessment to monitor changes in a youth.

The YASI has gotten extremely positive feedback from Probation Officers who are currently using the tool. The YASI Profile Wheel is one such aspect of the tool that POs find particularly useful.

Disadvantages:

- Currently, there are no reported studies that have examined the inter-rater reliability of the WSJCA or its other versions; however, the test developers informed us that they did conduct internal studies of this and the reliability was adequate to good.

- Currently, there are no studies of the WSJCA, YASI, or that have been conducted by an independent party and published in a peer-reviewed journal. Yet, we would still consider this to be a promising tool.

- Software costs and training are expensive. Conducting the WSJCA in a paper-and-pencil format without training is not recommended and would be difficult to justify as an evidence-based procedure. States can develop their own procedures for this, similar to what was done in Utah.

- Guidance in how to use the scores for case management and generating case management reports is not available unless one purchases software from a company. The costs of purchase and regular maintenance for this software from the companies are important to consider for sustainability.

References


YASI: Youth Assessment and Screening Instrument. Power point presentation downloaded from www.orbispartners.com

YASI Validation Results Brief. (No date). Orbis Partners, Inc.
RISK & RESILIENCY CHECKUP (RRC)
PROMISING TOOL

Purpose of the Instrument
The Risk & Resiliency Checkup (RRC; Bogue, 2002; Justice System Assessment and Training [J-SAT], 1998) is a semi-structured interview designed to assess behaviors that may place a youth at risk for recidivism. It is a risk/needs classification tool that also can assist agencies in making informed disposition recommendations and decisions about the services that youth may need.

Description/Design of Tool
The RRC contains 60 standard questions divided across six scales (e.g., Delinquency, Education, Family, Peers, Substance Use, and Individual). Each scale is further divided into two sections: Risk Factors and Protective Factors, for a total of 12 sections. The RRC also contains eight Additional Protective Factors that agencies have a choice to include. J-SAT allows juvenile justice agencies to work with them to adapt the tool to meet the needs of the agency; however, the 60 base items remain the same. The agency can modify the tool by adding risk or protective factors, but cannot remove any of the 60 base risk or protective factors. Both San Diego (SDRRC) and Los Angeles (LARRC) have versions of the RRC that they adapted to meet their needs.

In order to score all of the items, the RRC administrator must have access to the youth’s Current History (over the previous 6 months), the Past Year, Entire Life History, and 6 Months Prior to Institutional Confinement, as each item will ask the administrator to rate the item according to one of these time categories. Items are scored according to whether the behavior is present: Yes (score = 2), Somewhat (score = 1), No (score = 0), or Unknown (score = 0). All of the risk factors are summed to produce a Total Risk Score (a negative sign is put in front of the sum), all of the protective factors are summed to produce a Total Protective Score, the Total Protective Score (a positive number) is then added to the Total Risk Score (a negative number) to produce the Total Resiliency Score. The eight Additional Protective Factors are also summed. There are no predetermined cutoffs for these scores. The agencies decide where they want to place the cutoffs depending on the risks they want to identify and the resources for interventions.

Examiners and Administration
The RRC can be administered and scored by trained front-line staff (namely, probation, parole, prevention, and addictions workers) based on a semi-structured interview with the youth and collaterals using motivational interviewing techniques, and supplemented with file information. The RRC is available in both paper-and-pencil and software versions. The tool developers suggest that the interview takes about an hour to complete but a total time estimate from administration to scoring is not available.

We spoke with a probation officer who has been using the SDRRC about the time required for administration. He said the interview with the youth takes about 30-45 minutes, he interviews the parents/guardians for 20-30 minutes, then compiles the collateral information in about 5-10 minutes (apparently this is not time-consuming because it is all in the youths’ files already). The
user stated the scoring itself takes about 10-15 minutes because this is done by the computer. Based this information, a good estimate for completion of the RRC would be 1 to 1.5 hours.

**Research Evidence**

**Reliability.** Little (n.d.) reported high internal consistency (or item reliability) for the RRC subscales and total scores related to the **Resiliency** score and **Risk Factor** score. The **Protective** Score had considerably lower item reliability. Internal consistency is not the most important indicator of reliability, however. To date, there have not been any reported studies of the rater agreement on the RRC.

**Validity.** Two studies on the predictive validity of the RRC have been reported by independent parties. Little (n.d.) found the **Resiliency** score was a significant predictor of re-arrest, superior to the Risk score, in a sample of over 2,000 juveniles in San Diego. Turner, Fain, and Sehgal (2005) reported the validity of the RRC using data obtained from four probation departments in the San Diego area. Probation officers administered the RRC to 1,165 youth and the researchers obtained information concerning re-arrests within 12 months of RRC administration using the probation departments’ databases.

Since there are not established cutoffs for the RRC, the Turner et al. (2005) divided the **Total Resiliency** score into three categories, **Low** (score of 12 or less), **Medium** (score of 13 - 33), and **High** (score of 34 or higher). It was predicted that those in the **Low Resiliency** category would be most likely to be rearrested by the end of a 12-month follow-up period. Complete information was available for 1,036 male ($n = 768$) and female ($n = 268$) juveniles ranging from 9 to 19 years of age. The racial/ethnic composition of the sample was as follows: White ($n = 194$), African-American ($n = 299$), Hispanic ($n = 436$), other ($n = 97$), and unknown ($n = 10$). The study found that only 8% of those in the **High Resiliency** group had been rearrested within the 12-month follow-up compared to 36% of those in the **Low Resiliency** group.

**Applicability to Minorities.** Turner and Fain (2006) reported that the higher the **Resiliency** score, the lower the likelihood of re-arrest even after controlling for gender, age, and race/ethnicity. However, the researchers found significant differences in **Resiliency** Total scores between races, with Asians having the highest scores, on average, followed by Whites and African-Americans. Hispanics had significantly lower **Resiliency** Total scores. (Note: The lower the Resiliency score, the higher the risk). Further, regression analyses indicated that the SDRRC Resiliency Total score was not as strong a predictor of recidivism for Hispanics as for other groups. In other words, its validity with Hispanic youths may be limited but it does not appear to be biased against Hispanics (meaning the RRC does not lean towards rating Hispanics as high risk).

**Applicability to Females.** In the San Diego sample, girls had higher Resiliency Total scores than boys, on average, but these differences were not significant and it appears that this did not affect the ability of the SDRRC to predict recidivism for girls.

**Implementation**

Versions of the RRC are used by probation in Los Angeles and San Diego. The RRC is also used in Calaveras Probation, a prevention network in Denver (Safe City), and a large County run addictions treatment program in Greenville, SC.
We interviewed a user (probation officer) of the SDRRC in San Diego. In San Diego, they use the SDRRC for disposition recommendations. He said his role in using the RRC is to determine conditions for probation, like community service, drug treatment, etc. The agency requires probation officers to administer the SDRRC prior to disposition, then again after 6 months, and again as the youth exit probation. They only conduct interviews for the first administration while the other two are scored based on file review. The user felt that the 6-month follow-up and exit scorings of the SDRRC were not very useful and redundant, especially at the time of exiting probation since there was no procedure in probation for use of the exit scores. It seems this agency did not assign a cut-off for Total scores to use in decision-making. Instead, examiners looked at the individual item scores to make decisions about probation conditions.

Costs
A three-day practitioner training on administration of the RRC is required and is provided by J-SAT. During the training individuals learn how to administer, score, and interpret the RRC instrument, develop interview techniques, and learn the importance of evidence-based principles. At the time of this review, training costs were $3600 plus trainer travel expenses for one seminar (up to 30 people). Training of trainers is a four day training and costs between $9200 - $13,700 plus trainer travel expenses, depending on the size of the group of trainees (under 15 = $9200, over $13,700 due to having an additional trainer). Training includes how to use the RRC in case management decisions and J-SAT will modify the training on request to discuss case planning strategies more in-depth. J-SAT is hoping to develop RRC Case Planning software in the near future. This software would use the identified risk and protective factors to determine appropriate target goals, action steps and evidence-based practice interventions.

RRC forms and manuals are available free of charge with the training. Software is also available for the RRC through Assessments.com, but we have been unable to get a cost estimate for this software as it typically part of a “service bundle” and costs are dependent on a variety of factors including the type of facility or number of youth that will be screened.

Advantages:

- The RRC is useful because it identifies both risk and protective factors, allows examiners to look at these factors separately, and helps guide service referrals.

- It is easy for probation officers to score and administer and software is available to facilitate this.

- Agencies have the option of using software or paper-and-pencil, which may be better suited to the agency’s resources.

- Some validated cut-off scores exist but agencies have the flexibility to determine how to use Resiliency, Risk, and Protective factor scores in their decision-making in a manner that suits their needs and resources.

- It appears to be suitable for use with girls, comparable to other risk/needs tools, but more research would be helpful.
- There is evidence that the tool predicts recidivism well for African-American youths.

**Disadvantages:**

- Currently, it appears there is no evidence that the instrument has good (or bad) agreement between examiners.

- The manual does not designate an age range for the population that the tool should be used with. The one validation study used the SDRRC with 9 to 19 year olds and found it was a stronger predictor for younger youths than older youths. However, the majority of youths were between 12 and 19 years of age (there were few under age 12).

- It is important to monitor the practices of probation officers to confirm that they are completing the RRC based on file information as well as the interview information because self-reports from the youth and families should be verified. Probation officers may forget this detail when they use the computerized system.

**References**


