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Validity of the Youth Assessment and Screening Instrument: A Juvenile Justice Tool Incorporating Risks, Needs, and Strengths

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The primary purpose of this study is to introduce the Youth Assessment and Screening Instrument (YASI; Orbis Partners, 2000), which is a comprehensive assessment protocol gauging a range of risks, needs, and strengths associated with criminal conduct in juvenile populations. Applied to a sample of 464 juvenile offenders bound by community supervision in Alberta, Canada, the Pre-Screen version of the instrument achieved a high level of accuracy in predicting both general and violent offenses over an 18-month follow-up period (Area Under the Curve [AUC] = .79). No significant differences in overall predictive validity were found across demographic groups, save for the relatively lower level of accuracy achieved in predicting general reoffending across the subsample of girls (AUC = .68). With regard to strengths, a buffering effect was identified whereby high-risk cases with higher levels of strength had superior outcomes compared to their lower strength counterparts. Results suggest that it is advisable to consider the quantitative inclusion of strength-based items in the assessment of juvenile risk.

Keywords: Youth Assessment and Screening Instrument (YASI), juvenile assessment, strengths, Aboriginal offenders, gender-responsive assessment

The current article features an introduction of the Youth Assessment and Screening Instrument (YASI; Orbis Partners, 2000), a risk/need/strength assessment tool employed by several jurisdictions across North America to predict recidivism and guide case management efforts in juvenile justice contexts. Consistently shown to exceed the accuracy of unguided clinical judgment, the development and implementation of formal risk assessment protocols like the YASI has burgeoned over the last few decades (Andrews, Bonta, & Wormith, 2006; Hanson & Morton-Bourgon, 2009). Beyond a strict determination of risk to reoffend, information yielded from the assessment process can be integral to decisions regarding security classification in custodial settings, requisite levels of supervision, the prioritization of treatment targets, and institutional release.

Strict actuarial risk assessment tools feature a predefined set of items empirically linked to recidivism and notably, incorporate algorithms for combining items into a final estimate of risk (e.g., the Violence Risk Appraisal Guide [VRAG]; Quinsey, Harris, Rice, & Cormier, 2006). Structured protocols that do not strictly abide by all criteria inherent in the actuarial method have recently been distinguished and denoted as mechanical tools (Hanson & Morton-Bourgon, 2009). The YASI falls into the latter category, its construction grounded in both empirical and theoretical considerations drawn from a comprehensive review of the literature. Mechanical tools yield comparable levels of accuracy to actuarial tools, yet are arguably more flexible in that items may be included on the basis of clinical relevance.

The Principles of Correctional Assessment and Treatment

The principles underlying contemporary correctional assessment and intervention are captured through the operational derivative of the personal, interpersonal, community—reinforcement theory of criminal conduct (Andrews & Bonta, 2010; Andrews et al., 1990)—these are the *risk*, *need*, and *responsivity* (RNR) principles. In brief, the *risk principle* holds that the most intensive interventions should be reserved for the highest risk offenders. The *need principle*, in turn, posits that effective correctional treatment should prioritize dynamic risk factors that evidence a strong relationship to recidivism (i.e., criminogenic needs). According to a vast body of empirical research on the psychology of criminal conduct, the indicators most predictive of criminality collectively constitute the Central Eight. These encompass antisocial cognitions or attitudes supportive of crime, antisocial associates or social support for crime, criminal history, antisocial personality

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factors (e.g., impulsivity), substance abuse, family dysfunction, deficits in the educational/vocational domain, and inappropriate use of leisure time (e.g., Andrews & Bonta, 2010; Gendreau, Little, & Goggin, 1996). According to proponents of the RNR model, the Central Eight account for the vast majority of individual differences in criminal behavior. As such, these factors justifiably occupy a prominent place in the context of risk assessment so as to identify the level of need apparent within each area. It is notable that with the exception of the criminal history domain, the Central Eight are dynamic in nature and therefore subject to remediation.

The third core principle of effective correctional intervention is the *responsivity principle*, under which demographic characteristics such as gender, ethnic background, social class, and other personal characteristics such as level of intelligence are encompassed. Such contextual variables are said to merit consideration in program delivery so as to optimize treatment efficacy; however, they are not explicitly factored into risk assessment protocols because they are not viewed as major predictors of criminal outcome (Andrews et al., 2006, 2012). Rather, such variables are said to exert their influence more proximally through the Central Eight.

There is a vast body of literature to support the validity of the general RNR principles and derived assessment tools across a variety of demographic groups (e.g., Andrews & Bonta, 2010; Andrews et al., 2012; Gendreau et al., 1996; Jung & Rawana, 1999; Laub & Sampson, 2003; Olver, Stockdale, & Wormith, 2009; Rettinger & Andrews, 2010). Although adherence to RNR may indeed apply generally, most empirical evidence attesting to the universal relevance of individual risks/needs has traditionally rested on samples that were not disaggregated by gender (Blanchette & Brown, 2006). Given this methodological shortcoming, the degree to which the Central Eight are germane to demographics beyond the Caucasian male offender remains a contentious issue among certain correctional researchers and practitioners. Recent empirical investigations have demonstrated that although gender differences in the predictive value of criminogenic needs emerge at the item or domain level, aggregate scores on risk/needs tools tend to predict reoffending with similar accuracy across gender (Andrews et al., 2012; Jones, 2011; Jones, Brown, Robinson, & Frey, 2015; Olver et al., 2009).

Despite evidence in support of the gender-neutral position, feminist scholars maintain that "gender-neutral" tools fail to capture criminogenic needs that may be particularly salient or specific to justice-involved girls and women, the consideration of which may be necessary for the equitable processing of this growing demographic (Blanchette & Brown, 2006; Jones, 2011; Van Voorhis, Wright, Salisbury, & Bauman, 2010). While the general psychology of criminal conduct stems from cognitive theory and behaviorism, the psychology of women is closely tied to relational theories (Covington & Bloom, 2000; Miller, 1976). According to feminist perspectives, the genesis of female criminality resides largely in relational factors, beginning with a young girl's particular vulnerability to abuse in her family of origin. Early relational disruptions lead to attempts to flee the home environment, ensuing mental health issues, thwarted educational pursuits, impoverishment, and ultimately, to survival-based crime (e.g., Daly, 1994). Lending credence to the feminist position, Jones (2011) found that family factors (particularly around relationship quality) were more criminogenic for justice-involved girls than for their male counterparts. Furthermore, Van Voorhis and colleagues demonstrated that a collection of gender-responsive scales (e.g., mental health, parental stress, childhood abuse) significantly enhanced the predictive validity of gender-neutral scales (e.g., antisocial attitudes, criminal history, education). Notably, although the YASI is principally grounded in the gender-neutral literature, the tool does distinguish itself from analogous assessment protocols by featuring a number of gender-responsive items extolled in the feminist literature such as poverty and mental health indicators (Daly, 1994). Moreover, separate classification thresholds were delineated for girls so as to safeguard against overclassification.

The Role of Strengths in Risk Assessment

As per the core tenets of RNR, correctional practitioners have traditionally been guided by a deficit-based framework that prioritizes the identification of risk factors and the targeting of criminogenic needs (Andrews & Bonta, 2010). Although an individual's strengths are accorded attention in program delivery so as to optimize treatment responsivity, it is not the norm for such items to be quantitatively factored into risk assessment protocols. The YASI is unique among risk assessment tools in that it along with measuring risks and needs, it explicitly incorporates strength-based items and assigns them numerical weights. Items are then summed to produce both domain and total strength scores.

In a general sense, a strength-based factor (sometimes termed *promotive factor*) may be defined as a negative correlate of an undesirable outcome, namely recidivism (Farrington, 2003). In situations where strengths moderate the impact of risk on recidivism and exert a significantly greater buffering effect in a high-risk group versus a low-risk group, the resultant effect is technically termed *protective* (Jones, 2011; Jones et al., 2015; Sampson & Laub, 2005). Strengths and potentially protective factors identified among adult offender populations include marital commitment (Horney, Osgood, & Marshall, 1995) and attachment to employment goals (Blokland & Nieuwbeerta, 2005), both of which are associated with decreases in criminal activity among otherwise high-risk groups.

Developmental pathways research underscores the importance of certain predispositional variables (e.g., positive temperament) and other genetically based factors in their capacity to buffer criminal outcomes (Moffitt, 2005). In terms of dynamic factors that are subject to change, a number of strengths have been identified in the delinquency literature. A youth's school environment offers several protective features (e.g., Hart, O'Toole, Price-Sharps, & Shaffer, 2007; Henry, Caspi, Moffitt, Harrington, & Silva, 1999; Sprott, Jenkins, & Doob, 2005). For example, Sprott and colleagues determined that for children exposed to a number of risk factors at age 10, a strong bond to school, as measured by subjective reports of one's enjoyment of and commitment to school, was found to attenuate the likelihood of engaging in both violent and nonviolent delinquency 2 years later. Further longitudinal research has shown that school attendance, years of educational attainment, academic achievement (as gauged through grade point average), and the presence of a caring adult mentor within the school or greater community effectively buffer criminal outcomes for at-risk youth (Hart et al., 2007; Henry et al., 1999). Finally, Hoge, Andrews, and Leschied (1996) demonstrated that in the presence of family-related risk, positive peer relationships,

high educational achievement, positive response to authority, and effective use of leisure time served to attenuate reoffending among youths. While these represent external circumstances, recent research has also identified certain cognitive processes that underlie a cessation or attenuation of criminal activity—these include self-efficacy regarding one's ability to desist from crime, beliefs supportive of desistance and unsupportive of crime, and the ability to identify factors conducive to a prosocial lifestyle (Serin & Lloyd, 2009).

As underscored in the literature on criminal desistance, a strength or protective factor is not the polar opposite of a risk factor, nor does it constitute the absence of risk; rather, strengths offer unique information that cannot be inferred from the measurement of risk and needs. Namely, standard criminogenic needs tend to wane in their predictive ability over an offender's life course, and extinction of those risk factors does not fully account for eventual desistance (e.g., Laub, Nagin, & Sampson, 1998; Serin & Lloyd, 2009; Stouthamer-Loeber, Wei, Loeber, & Masten, 2004). Moreover, strengths and risk factors can exist concurrently, accounting for variability in outcomes observed among an otherwise high-risk group (Sampson & Laub, 2005). For example, a criminal justice client can have both antisocial and prosocial peers, each potentially exerting an influence on that client's overall risk level. As such, concurrently adopting a strength-based approach to assessment may actually complement traditional risk assessment protocols by adding incremental validity to the prediction of criminal outcome.

The body of research on strengths within the context of juvenile assessment is sparse and somewhat mixed. Penney, Lee, and Moretti (2010) found that whereas the Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2006) protective scores were related to nonviolent recidivism for males and females (OR = .71, $p < .05$), they did not significantly decrease the odds of violent offending. Research by Schmidt, Campbell, and Houlding (2011) also found that the SAVRY failed to predict recidivism among young female offenders over a 10-year follow-up; however, the sample size of women included in this study was relatively low ($N = 48$). Moreover, compared to the 46 strengths featured on the YASI, the protective scale on the SAVRY offers a very limited sampling of only 6 dichotomously rated items.

In contrast, other recent investigations have yielded compelling evidence that strengths can indeed contribute incrementally over and above risks/needs in the prediction of recidivism. Beyond demonstrating that risk and strength subscores are each individually predictive of recidivism, some research does suggest that strengths can offer unique information in risk assessment contexts. Based on a sample of 66 adolescent males, Lodewijks, Doreleijers, de Ruiter, and Borum (2008) found that total strength (or "protective") scores on the SAVRY improved the accuracy of the tool over and above the consideration of total risk scores with respect to predicting institutional aggression against persons. More recently, Jones and colleagues (2015) demonstrated that among a large sample of adult probationers ($N = 3,656$), the total strength score on the Service Planning Instrument (SPIn; Orbis Partners, 2003) enhanced the accuracy of the assessment tool beyond the overall risk score in predicting new arrests over an 18-month follow-up period. Based on YASI ratings, Jones (2011) reported similar results with a large sample of juvenile offenders from New York State.

General Description of the YASI

Used in both community supervision and custody settings with justice-involved youth, the YASI has been implemented in several jurisdictions across North America and the United Kingdom. The YASI is based on the Case Management Assessment Protocol (CMAP; Barnoski, 2003), an assessment model developed for juveniles in Washington State by the Washington State Institute of Public Policy in collaboration with the Washington State Association of Juvenile Court Administrators. The model grew out of extensive consultation with end users and attempted to address some of the outstanding juvenile assessment issues of the time. Following the original model of CMAP, the YASI has been adapted for a number of jurisdictions with modifications to content and scoring, while maintaining some of the essential features of the model (e.g., inclusion of strengths, Pre-Screen version for classification).

The YASI is available in both Pre-Screen and Full Assessment form, each of which is described in the Method section. In each case, the protocol is scored on the basis of a semistructured interview, with input frequently offered by parents or an alternative legal guardian. Interview-based data are supplemented with a systematic review of collateral sources including police files, probation records, school records, and mental health reports (Orbis Partners, 2007a).

Interrater reliability. On the basis of the research efforts of three independent teams, some evidence supporting the YASI's interrater reliability has emerged. Although results are somewhat mixed, they are also seemingly contingent on rater characteristics—namely, researchers versus correctional staff, and importantly, the competency and diligence of said correctional staff. Brown, Geck, Harris, and Skilling (2012) reported encouraging results based on YASI interviews that were administered and scored by researchers, with intraclass coefficients (ICCs) ranging from .78 to .88 for risk domain totals and from .84 to .90 for strength domain totals. In contrast, Skeem, Hernandez, Kennealy, and Rich (2012) reported single ICCs ranging from .51 to .72 for YASI total scores based on field staff ratings obtained across four different sites in California. A 60% subset of these raters did achieve acceptable levels of agreement with expert raters (i.e., ICC $\geq$ .65). Skeem and colleagues did not identify specific characteristics discriminating "good" from "poor" raters, although their report did suggest that case managers performing most poorly were predominantly based at one facility.

The National Council on Crime and Delinquency compared the validity and reliability of nine juvenile assessment tools used in the United States (NCCD; Baird et al., 2013). The study included a sample of 1,919 juveniles on probation in Virginia who were assessed with the YASI. For the nine tools under investigation, the interrater reliability rates for the Virginia YASI sample were among the highest reported. The average percentage agreement for scoring among juvenile probation staff was nearly 85% (the minimum threshold for acceptability was set to 75%), and the rate of agreement between staff and expert raters approached 80%.

Predictive validity. Previous research on the YASI shows acceptable levels of predictive validity. On the basis of 2,369

juvenile delinquents receiving probation services in New York State, the YASI Pre-Screen predicted a number of juvenile justice outcomes. The AUC for any negative outcome (rearrest, new adjudication, probation violation, admission to custody) over a 2-year follow-up period was .65 ($p < .001$; Orbis Partners, 2007b). Theoretically, AUCs can range from 0 to 1.00, with .50 signaling chance level accuracy. Rice and Harris (2005) provided a corresponding effect size rubric to be applied within the field of correctional psychology. According to their criteria, AUCs between .56 and .63 correspond to small effect sizes, AUCs between .64 and .70 to medium effect sizes, and AUCs of .71 and above to large effect sizes.

Additionally, as gauged from 4,998 youths processed by juvenile probation services in the State of Illinois, predictive validity measures obtained over a 1-year follow-up period yielded AUCs of .65 ($p < .001$) for new police contacts and .64 ($p < .001$) for new police contacts for violent offenses (Orbis Partners, 2007b). Finally, based on the aforementioned NCCD study (Baird et al., 2013), the Virginia YASI was among the top three assessment tools on measures of predictive validity, with all three of the top-rated tools showing virtually identical levels of accuracy (AUC = .68, $p < .001$).

Current Study

The purpose of this prospective study was to examine the validity of the YASI along with its other basic psychometric properties. The analyses addressed both risk and strength factors and their potential interaction in predicting recidivism. In contrast to the standard commercially available risk/needs tools adopted by many criminal justice agencies, the YASI offers unique advantages in its inclusion of broad gender-responsive content and its quantitative inclusion of strengths. On the basis of assessment data from Alberta, Canada, estimates of internal consistency, predictive utility, and predictive validity were reported. We hypothesized that overall levels of predictive validity would be moderate to high. As per previous research on "gender-neutral" risk/needs instruments (e.g., Andrews et al., 2012; Jones, 2011; Olver et al., 2009), we also hypothesized that the YASI would predict recidivism equally well across gender and ethnic subgroups. Moreover, consistent with the results of Jones et al. (2015) on SPIn—the adult version of the YASI—we hypothesized that the strength-based content of the tool would enhance predictive accuracy beyond the consideration of risk/need scores. Finally, an exploratory domain-level analysis was conducted to identify those factors most highly predictive of criminal conduct.

Method

YASI Items and Scoring

The YASI Pre-Screen, containing a subset of items featured in the full assessment, is initially administered to all youth at intake by their respective juvenile justice agencies. This abridged measure contains 34 items tapping both static and dynamic risk and strength factors across nine domains. Many items are scored on Likert-type scales, comprising up to six response options to maximize the sensitivity of the measure. For illustrative purposes, we have listed Pre-Screen risk/need and strength items in Appendix A and have provided an item example with Likert-type scale in Appendix B.

Pre-Screen risk items are summed into a total score to classify youth as low, moderate, or high risk, with higher scores reflecting greater risk. Cutoff scores for each risk category differ by gender and were determined from a preliminary recidivism study conducted internally at Orbis Partners based on juvenile probationers in Illinois. Classification thresholds were defined with the objective of maximizing the separation of recidivism rates across low, moderate, and high categories. With respect to probability estimates, the YASI manual states that the recidivism rates range between 10% and 20% for low-risk cases, 30% and 40% for moderate-risk cases, and 50% and 60% for high-risk cases. In accordance with the risk principle (e.g., Andrews & Bonta, 2010), this abridged protocol primarily serves a triage function to identify moderate and higher risk youths that require further assessment and more substantive intervention. In practice, the YASI Pre-Screen is used to classify youth according to their likelihood of general recidivism and as such, the current study assessed predictive validity based on the Pre-Screen.

For case planning purposes, most jurisdictions conduct a more detailed assessment via the YASI Full Assessment. The latter is more comprehensive, gauging additional strength-based factors and dynamic risk factors (or needs). The Full Assessment comprises 90 items (risk, need, and strength factors) across 10 separate domains. The quantitative score yielded from the YASI Pre-Screen is used to assess an offender's overall risk of recidivism, classifying youth as low, moderate, or high risk. However, the computerized algorithms associated with the full assessment generate separate scores for both the risk/needs and strength components of each domain. For example, a youth could conceivably be termed low risk on the basis of the YASI Pre-Screen. However, based on full assessment results, the same youth could be rated high risk in the area of family functioning and classified as moderate on the strength component of this domain. It is also possible for a client to score high risk and high strength within a single domain (e.g., a youth may have a combination of both prosocial and antisocial peer influences). Scores generated for particular risk and strength domains on the full assessment are simply used to identify and prioritize treatment goals in the context of case management. Note that because 45 of the 90 full assessment items are scored on Likert-type scales, the YASI is also unique among available assessment options in its ability to quantify incremental change upon reassessment.

Sample

In 2009, Alberta Justice and Solicitor General launched a province-wide implementation of the YASI for youth under community supervision and in custody. Risk assessment intake information reflected in the current dataset was collected between January 2009 and May 2011 and included all youth under community supervision with Alberta Justice and Solicitor General for whom recidivism data were available over an 18-month follow-up period. These initial YASI assessments were completed by probation officers within 45 days of the youth receiving a community sentence. Note that probation officers are provided an intensive 2-day course in the administration of YASI during their induction training. Assessment information was obtained from a variety of

sources, including but not limited to an interview with the offender/youth, previous correctional file-based information, and personal and professional collateral sources such as family members, teachers, child welfare workers, and counselors. Given that YASI records were completed in the field by probation officers, no measures of interrater reliability are available for the current data.

The sample comprised 464 youths on probation (114 female, 350 male), ages ranging from 12.5 to 19.7 years at intake with probation services (M = 16.63, SD = 1.52). Of the total sample, 61.2% were Caucasian, 25.9% were of Aboriginal descent, and 12.9% identified as "Other." Historically, 58.6% of these youths had engaged in acts of violence. Note that the research presented in this study was reviewed and approved by the Carleton University Psychological Research Ethics Board.

Measures of recidivism over an 18-month fixed follow-up period were provided by Alberta Justice and Solicitor General. Reoffense records were obtained from adult and youth provincial correctional data and included any new charges whereby the individual made recontact with correctional services. The overall recidivism rate for new offenses committed over an 18-month fixed follow-up period was 20.9%. Recidivism rates disaggregated by gender and ethnicity are presented in Table 1. As expected, male recidivism rates are consistently higher than those registered for females, with gender differences trending toward statistical significance. Similarly, recidivism rates associated with Aboriginal offenders significantly exceed those of non-Aboriginal offenders in all reoffense categories with the exception of new violent offenses.

Results

Internal Consistency

Internal consistency levels associated with risk and strength subcomponents of each domain featured on the YASI Full Assessment were determined for the Alberta sample and are presented in Table 2. High alpha levels were obtained for the majority of domains, ranging from .74 to .89. Exceptions are Mental Health (α = .65), the strength component of Aggression (α = .68), and the risk component of Employment and Free Time (α = .39). While Mental Health and Aggression approach a reliable threshold (i.e., $\alpha > .70$), the low alpha level associated with Employment and Free Time is to be expected given that this domain purposely encompasses two distinct content areas. Grouped together to achieve greater parsimony, this domain is simply intended to represent the manner in which a youth spends his or her time when not in school or with family—it is not intended to reflect a psychological construct. The fact that the strength component of the domain had higher internal consistency (α = .80) is potentially reflective of the domain being largely comprising strength-based items (9 strength items vs. 4 risk items).

Table 2
Internal Consistency of Risk and Strength Components of YASI Full Assessment Domains

Domain	Risk α (*n* items)	Strength α (*n* items)
Legal history	.75 (12)	
Family history	.82 (10)	.88 (9)
School	.80 (10)	.74 (7)
Community and peers	.86 (6)	.77 (7)
Alcohol and drugs	.75 (4)	
Mental health	.65 (6)	
Aggression	.86 (5)	.68 (2)
Attitudes	.89 (8)	.85 (8)
Skills	.92 (7)	.85 (7)
Employment and free time	.39 (4)	.80 (9)
Total	.95 (72)	.93 (49)

Note. YASI = Youth Assessment and Screening Instrument.

Descriptive Analyses

On the basis of the YASI Pre-Screen, the average total risk score for males (M = 29.31, SD = 18.42, range = 0–87) is higher than that of females (M = 25.87, SD = 16.94, range = 0–73), with the difference trending toward statistical significance ($t = -1.74$, $p < .10$, d = 0.19, 95% CI of d [−0.02, 0.40]). No significant differences were found across gender in the average total strength score (M = 8.41, SD = 6.81, range = 0–25 for males vs. M = 9.44, SD = 6.86, range = 0–25 for females, t = 1.40, *ns*, d = 0.15, 95% CI of d [−0.06, 0.36]). Compared with their non-Aboriginal counterparts, Aboriginal offenders attained a significantly higher mean risk score (M = 34.94, SD = 18.77, range = 4–87 vs. M = 26.20, SD = 17.77, range = 0–84; t = 4.57, $p < .001$, d = 0.48, 95% CI of d [0.27, 0.69]), and a significantly lower mean strength score (M = 6.52, SD = 5.53, range = 0–22 vs. M = 9.41, SD = 7.09, range = 0–25; $t = -4.57$, $p < .001$, $d = -0.45$, 95% CI of d [−0.27, −0.69]).

Predictive Validity

A measure of new arrests over an 18-month follow-up period was selected as the recidivism criterion of interest over alternative

Table 1
Recidivism Rates Across Gender and Aboriginal Status

Recidivism category	Overall sample (N = 464) %	Male (n = 350) %	Female (n = 114) %	χ^2	φ_c(95% CI)	Aboriginal (n = 120) %	Non-Aboriginal (n = 344) %	χ^2	φ_c(95% CI)
New offenses	20.9	22.9	14.7	3.28†	.08 (.00, .18)	29.2	18.0	6.68**	.12 (.05, .22)
New violent offenses	9.7	11.1	5.3	3.39†	.09 (.00, .18)	12.5	8.7	1.45	.06 (.00, .15)
New convictions	17.2	19.1	11.4	3.61†	.09 (.00, .19)	28.3	13.4	13.96***	.17 (.09, .27)
New convictions for violent offenses	6.3	7.4	2.6	3.38†	.09 (.00, .18)	10.0	4.9	3.89*	.09 (.00, .19)

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

options (e.g., convictions) in order to maximize the recidivism base rate. For the overall sample and across demographic subgroups, significant increases in recidivism rates are evident across risk assessment classifications as per Table 3 (e.g., 5.5%, 18.6%, 49.1% for low, moderate, and high categories, respectively; $\chi^2[2] = 75.03$, $p < .001$, $\varphi_c = 0.40$, 95% CI of φ_c [0.31, 0.50]). Generally, no significant differences emerged between recidivism rates of comparison groups—that is, male versus female and Aboriginal versus non-Aboriginal offenders. Although gender differences in recidivism rates within the high-risk category would suggest a tendency toward the overclassification of girls (52.1% for males vs. 25.0% for females; $\chi^2[2] = 3.13$, $p < .10$, $\varphi_c = 0.17$, 95% CI of φ_c [0.00, 0.38]), only three females in this category reoffended, thus precluding a reliable interpretation of results. The bottom portion of Table 3 reveals a significant decrease in recidivism rates across strength classifications for all demographic subsamples, save for the subsample of girls. Within a given strength category, no significant differences were evident in the recidivism rates of demographic comparison groups, with the exception of low-risk Aboriginal versus non-Aboriginal offenders; specifically, recidivism rates tend to be significantly higher for Aboriginal (46.0%) versus non-Aboriginal (30.5%) youths ($\chi^2[2] = 3.57$, $p < .10$, $\varphi = 0.15$, 95% CI of φ_c [0.00, 0.32]).

Overall, the YASI Pre-Screen predicted new offenses and new violent offenses over an 18-month follow-up period with a high level of accuracy (AUC = .79, $p < .001$, 95% CI [.74, .84]). As shown in Table 4, high levels of predictive validity were achieved across demographic subsamples, with the exception of the moderate level of validity achieved for the subsample of girls vis-à-vis new offenses (AUC = .68, $p < .05$, 95% CI [.56, .80]). Comparisons between independent ROC curves were performed to assess between-groups differences on each domain, whereas Hanley and McNeil's (1983) test of correlated ROC curves was applied to compare AUCs generated from the same subsample (i.e., within-group comparisons). With respect to predicting new offenses, the YASI achieved superior predictive validity when applied to males versus females (AUCs = .82 vs. .68, $z = 2.09$, $p < .05$). However, with regards to violent reoffending, the AUC associated with girls was on par with the remaining demographic subgroups (AUC = .79, $p < .001$).

Table 4
Predictive Accuracy of YASI Pre-Screen for Overall Sample and Demographic Subgroups

Sample	New offenses AUC (95% CI)	New violent offenses AUC (95% CI)
Overall sample ($N = 464$)	.79*** (.74, .84)	.79*** (.73, .85)
Male ($n = 350$)	.82*** (.77, .88)	.79*** (.72, .86)
Female ($n = 114$)	.68* (.56, .80)	.79* (.68, .90)
Aboriginal ($n = 120$)	.80*** (.72, .89)	.79*** (.66, .92)
Non-Aboriginal ($n = 344$)	.77*** (.71, .84)	.80*** (.73, .86)

Note. YASI = Youth Assessment and Screening Instrument; AUC = Area Under the Curve.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Presented in Table 5, direct entry logistic regression was applied to gauge the individual and incremental predictive validity of risk and strength aggregate scores on the YASI Pre-Screen. Univariate analyses suggest that both risk and strength scores individually contribute to predicting new offenses committed over 18-months. The multivariate model assessing the unique contribution of risk and strength components indicates that while the risk scale accounts for the majority of the model's predictive ability, the incremental contribution of the strength scale is trending toward statistical significance (Wald $\chi^2 = 2.72$, $OR = 0.95$, $p < .10$, 95% CI [0.90, 1.01]).

Figure 1 presents recidivism rates by risk and strength categories based on a dichotomization of the two measures via median split, demonstrating a quantifiable protective effect of strengths on overall outcome. Note that the existing three-level cutoff scores result in a cell size for high risk/high strength that is not sufficient to adequately test group differences. As illustrated, among high-

Table 3
Comparing Rates of New Offenses Over 18-Months by Gender and Aboriginal Status According to YASI Pre-Screen Risk and Strength Scores

	Overall sample ($N = 464$) % (n)	Male ($n = 350$) % (n)	Female ($n = 114$) % (n)	χ^2	φ_c(95% CI)[a]	Aboriginal ($n = 120$) % (n)	Non-Aboriginal ($n = 344$) % (n)	χ^2	φ_c(95% CI)[b]
Risk									
Low	5.5 (9)	3.1 (3)	9.0 (6)	2.63	.13 (.00, .29)	7.4 (2)	5.1 (7)	.23	.04 (.00, .20)
Moderate	18.6 (36)	17.6 (28)	22.9 (8)	.52	.05 (.00, .21)	23.5 (12)	16.8 (24)	1.13	.08 (.00, .23)
High	49.1 (52)	52.1 (49)	25.0 (3)	3.13†	.17 (.00, .38)	50.0 (21)	48.4 (31)	.03	.02 (.00, .15)
χ^2	75.03***	69.65***	4.58†			15.80***	55.68***		
φ_c (95% CI)[c]	.40 (.31, .50)	.45 (.35, .55)	.20 (.13, .39)			.36 (.21, .55)	.40 (.30, .51)		
Strength									
Low	35.5 (55)	36.5 (50)	27.8 (5)	.53	.06 (.00, .23)	46.0 (23)	30.5 (32)	3.57†	.15 (.00, .32)
Moderate	17.3 (32)	18.6 (26)	13.3 (6)	.65	.06 (.00, .22)	18.9 (10)	16.7 (22)	.13	.03 (.00, .18)
High	8.1 (10)	5.5 (4)	11.8 (6)	1.60	.11 (.00, .30)	11.8 (2)	7.5 (8)	.36	.05 (.00, .25)
χ^2	33.75***	28.14***	2.84			12.07**	19.24***		
φ_c (95% CI)[d]	.27 (.19, .36)	.29 (.19, .39)	.16 (.13, .34)			.32 (.17, .50)	.24 (.14, .35)		

Note. YASI = Youth Assessment and Screening Instrument.
[a] Comparison of male and female re-offense rates within each risk and strength category. [b] Comparison of Aboriginal and non-Aboriginal re-offense rates within each risk and strength category. [c] Comparison of re-offense rates across risk categories within each subsample. [d] Comparison of re-offense rates across strength categories within each subsample.
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5
Results of Univariate and Multivariate (Direct Entry) Logistic Regression: Contribution of YASI Pre-Screen Risk and Strength Subtotals to the Prediction of Recidivism Over 18-Months

	B(SE)	Wald χ^2	OR (95% CI)
Univariate			
Risk total	.07 (.01)	60.13***	1.07 (1.05, 1.09)
Strength total	−.14 (.03)	28.67***	.87 (.82, .91)
Multivariate			
Risk total	.06 (.01)	38.15***	1.06 (1.04, 1.08)
Strength total	−.05 (.03)	2.72†	.95 (.90, 1.01)

Note. YASI = Youth Assessment and Screening Instrument.
† $p < .10$. *** $p < .001$.

risk cases, high-strength scores are particularly effective in attenuating recidivism rates. Specifically, the reoffense rate of high-risk/low-strength cases is approximately twice that of high-risk/high-strength cases (i.e., 42.5% vs. 19.7%).

Finally, Table 6 conveys domain-level predictive validity measures for the YASI Full Assessments with respect to a subsample of cases (n = 328) for which full assessment were completed. Recall that Full Assessments are frequently completed only on youth that score moderate or high risk on the YASI Pre-Screen. At the univariate level, all domains independently predicted outcome, with the exception of Mental Health (AUC_{Risk} = .54, 95% CI [.47, .60]). In turn, the most highly predictive risk and strength domains were Legal History (AUC_{Risk} = .73, 95% CI [.68, .79]), Community and Peers (AUC_{Risk} = .72, 95% CI_{Risk} [.66, .78]; $AUC_{Strength}$ = .67, 95% $CI_{Strength}$ [.61, .74]), and Attitudes (AUC_{Risk} = .69, 95% CI_{Risk} [.63, .76]; $AUC_{Strength}$ = .69, 95% $CI_{Strength}$ [.62, .75]).

Discussion

The YASI Pre-Screen predicted reoffending with a high level of accuracy with a sample of juvenile offenders on community supervision across Alberta, Canada (AUC = .79). Recidivism rates and risk scores were significantly higher for Aboriginal versus non-Aboriginal offenders as predicted by extant literature (e.g., Rugge, 2006). Contrary to our hypotheses, the YASI Pre-Screen achieved only a moderate degree of accuracy in predicting general reoffending for girls, in contrast to the high levels of accuracy achieved for males (AUC = .68 vs. .82). However, the assessment protocol forecasted violent reoffending with an equivalent level of accuracy across all demographic subgroups under investigation.

The relatively lower level of predictive validity achieved with the female subsample for general reoffending (AUC = .68) still lies in the moderate range and is commensurate with (if not higher than) some values achieved in the correctional literature with other commonly adopted risk assessment tools designed for youth—namely, the SAVRY (Borum et al., 2006) and the Youth Level of Service/Case Management Inventory (YLS/CMI 2.0; Hoge & Andrews, 2011; e.g., Bechtel, Lowenkamp, & Latessa, 2007; Onifade

Table 6
Domain-Level Predictive Validity of YASI Full Assessment on Overall Sample Regarding New Arrests (N = 328)

	Risk domain	Strength domain
Domain	AUC (95% CI)	AUC (95% CI)
Legal history	.73*** (.68, .79)	
Family history	.65*** (.58, .72)	.63*** (.57, .69)
School	.63*** (.56, .70)	.61** (.54, .68)
Community and peers	.72*** (.66, .78)	.67*** (.61, .74)
Alcohol and drugs	.67*** (.60, .74)	
Mental health	.54 (.47, .60)	
Aggression	.65*** (.58, .72)	.61** (.54, .68)
Attitudes	.69*** (.63, .76)	.69*** (.62, .75)
Skills	.68*** (.62, .75)	.68*** (.61, .74)
Employment and free time	.58* (.50, .65)	.62*** (.56, .69)

Note. Legal History, Alcohol and Drugs, and Mental Health do not have corresponding strength domains. Consequently, these cells remain blank. YASI = Youth Assessment and Screening Instrument; AUC = Area Under the Curve.
* $p < .05$. ** $p < .01$. *** $p < .001$.

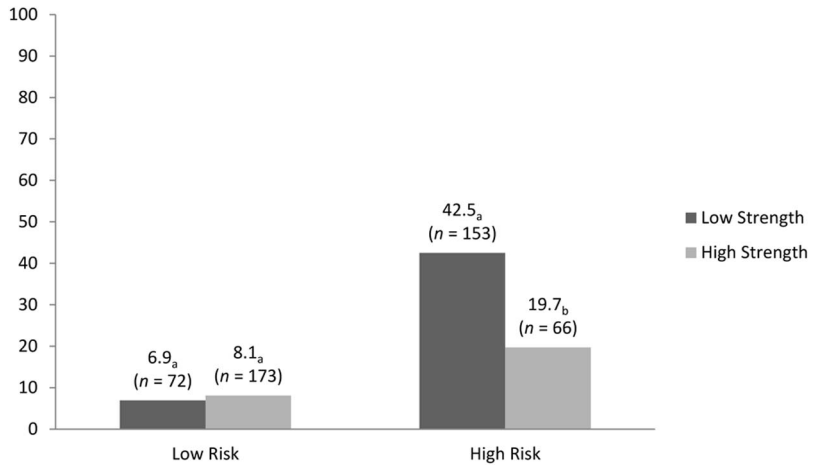

Figure 1. Rate of new offenses (%) over 18-months by risk and strength categories (N = 464). Different subscripts within each risk category denote statistically significant differences at $p < .05$ (e.g., subscripts "a" and "b" represent significant differences among the high-risk group).

et al., 2008; Penney et al., 2010; Schmidt et al., 2011). The YLS/CMI is arguably the tool most analogous to the YASI given that it was designed to predict general recidivism. In an investigation conducted by Onifade and colleagues (2008), scores from the YLS/CMI yielded an AUC of .62 in predicting convictions over a 6-month period in a collapsed sample of young male and female probationers. Bechtel and collaborators similarly reported an AUC of .64 when the YLS/CMI was applied to predict reconviction over 3.4 years in a community sample of juvenile offenders. In a recent meta-analysis incorporating 124 samples and 130,833 offenders, Olver, Stockdale, and Wormith (2014) found that the Level of Service family of tools (both youth and adult versions) predicted general recidivism with moderate effect sizes of $r_w = .30$ (fixed-effects model) and $r_w = .29$ (random-effects model). According to the effect size rubric provided by Rice and Harris (2005), these values correspond to AUCs of approximately .66 to .67. Similarly, the reader may recall that previous implementations of the YASI yielded AUCs in the mid-.60 range.

It is not surprising to observe variations in reliability and validity across samples, potentially due to differences in implementation practice and measurement of recidivism. As a case in point, a survey of 117 juvenile probation officers across several American states outlined perceived obstacles in implementing risk/needs assessment protocols (Guy, Fusco, Cook, & Vincent, 2010). Of those probation officers surveyed, 63% expressed difficulty in rating items, either due to insufficient information or because they felt that item scoring criteria were not sufficiently clear. In addition to improving data gathering practices and potentially introducing clarifications into scoring manuals based on the feedback of frontline workers, the latter observation speaks to the importance of ensuring sufficient training. In order to facilitate item interpretation and scoring, instruction is relevant both at pre-implementation stages and in the form of booster training. Indeed, beyond the content of a risk assessment protocol, there is evidence to suggest that the integrity of a tool's implementation achieved through appropriate training is essential to producing valid assessments (Flores, Lowenkamp, Holsinger, & Latessa, 2006; Latessa & Lovins, 2010).

Currently, Orbis Partners provides staff with an initial 2-day training session focusing on the administration and scoring of the YASI protocol, followed a few months later by a second 2-day session concentrating on effective case planning on the basis of assessment results. For some jurisdictions, additional booster training is also provided. Despite some evidence of adequate interrater reliability, the extent to which probation officers and other frontline staff are actually observing the instructional specifications related to item scoring is largely unknown. As such, quality assurance studies conducted specifically with the YASI are highly recommended.

The aggregate strength score and aggregate risk score on the YASI Pre-Screen respectively predicted outcome, and the incremental contribution of the strength score over the risk score tended toward statistical significance (Wald $\chi^2 = 2.72$, $OR = 0.95$, $p < .10$). Although the incremental validity of strengths was not as pronounced as in other recent research with adult populations (e.g., Jones et al., 2015), results still support the contention that strength-based factors are not simply the mirror image of risk factors. Rather, both are capable of exerting a unique influence on criminal outcome and can coexist in relative combinations within an individual. Moreover, it was clear from Figure 1 that high-strength scores were particularly effective at attenuating recidivism rates among high-risk cases.

According to the theoretical framework dominating corrections, strength-based factors are currently conceptualized as responsivity factors (e.g., Andrews & Bonta, 2010). Although strengths are implicitly incorporated into more recent versions of risk assessment protocols (e.g., YLS/CMI 2.0, Hoge & Andrews, 2011), these factors are not quantitatively tabulated into one's overall risk score, nor do they generally bear impact on offender classification. Results of the present study, combined with those of other recent investigations (e.g., Hart et al., 2007; Jones, 2011; Jones et al., 2015; Lodewijks et al., 2008), suggest that the quantitative inclusion of strengths in risk assessment is a worthwhile endeavor that is apt to enhance both predictive and case management functions.

The YASI's quantification of strengths is unique among available assessment tools. Specifically, rather than have qualitative indicators of strengths scored on the basis of check-boxes (e.g., see the YLS/CMI), the YASI assigns a quantitative score to the degree of expression of each strength-based factor using a Likert scale. Item scores are then tabulated to produce a total strength score. One could potentially have two high-risk clients that differ widely in their expression of strengths. Given the buffering effect of strengths, a high-risk/high-strength case would effectively be lower risk overall and should arguably be processed differently than a high-risk/low-strength case.

From a practical standpoint, if assessments provide both risk and strength metrics, case managers and frontline staff have more information for varying their casework strategies to address the unique issues presented by high-risk cases. Rather than treat all high-risk cases equally, the buffering effect indicates that some high-risk clients who lack strengths may need more attention than their high-risk counterparts with documented strengths. Apart from information relevant to classification decisions, employing a strength-based assessment approach can also help mobilize youth in the development of case plans. By presenting strength-based feedback to youth within the case planning context, case managers are in a better position to motivate youth to engage in a positive discussion about the need and desire to make changes, and to identify and leverage positive supports and resources in a youth's life.

With the exception of the Mental Health domain, all individual risk and strength components of the YASI Full Assessment domains independently predicted outcome for the overall sample. Consistent with the top three predictors of criminal conduct underscored in the mainstream correctional literature, the most highly predictive factors were Legal History, Community and Peers, and Attitudes. Historical entrenchment in criminal pursuits and antisocial attitudes have consistently emerged as robust predictors of future criminal involvement (Andrews & Bonta, 2010; Gendreau et al., 1996; Moffitt, 1993). It is also not surprising that peer associations would emerge as an optimal predictor given the vast body of literature supporting the pervasive influence of peer groups on delinquency among adolescents (Gardner & Steinberg, 2005; Moffitt, 1993; Monahan, Steinberg, & Cauffman, 2009).

Limitations and Future Research

The Mental Health domain of the YASI did not predict criminal outcome, a finding that is also consistent with the mainstream correctional literature that conceptualizes personal distress as a responsivity factor (Andrews & Bonta, 2010). The reader should note that the Mental Health domain is fairly comprehensive and includes psychosis, bipolar, other mood disorders, suicidal ideation/attempts, thought/personality disorders, and a global category termed "other." The impact of mental health indicators on juvenile justice outcomes is complex. For example, Hoeve and colleagues found that while the presence of a mental disorder predicted the severity of reoffending in a juvenile justice population, the relationship only held up when mental health disorders co-occurred with substance abuse disorders (Hoeve, McReynolds, McMillan, & Wasserman, 2013). Accordingly, the weak association between recidivism and mental health indicators was not surprising. That stated, future research is warranted before discounting mental health as noncriminogenic. There is some evidence to suggest that specific psychopathological symptoms in the form of extreme depression, self-harm, and suicidal tendencies are salient predictors of criminality for females (Benda, 2005; Blanchette & Motiuk, 1995; Gehring & Van Voorhis, 2014; Salisbury & Van Voorhis, 2009; Van Voorhis et al., 2010).

There may also be measurement issues at play in operationalizing mental illness. Specifically, attempting to assess the quality and severity of psychological disturbances in offender populations is particularly fraught with methodological difficulties: (1) Individuals may underreport certain symptoms at intake (e.g., attempts to self-harm); (2) in youth populations in particular, a disorder may actually be present, yet has not fully manifested itself and thus remains undiagnosed; (3) anecdotally, there is often difficulty in accurately distinguishing between historical and current diagnoses. For example, in terms of the latter point, it is often unclear whether a youth's diagnosed depression is actually being managed appropriately and to what extent the disorder remains a vulnerability factor for him or her. Within research contexts in particular, the individual conducting the risk assessment may be basing such judgments solely on a brief interview with the youth, which may or may not be supplemented by rudimentary file-based information. As such, discrepancies in the literature regarding the predictive role of mental health factors in criminal outcome are not at all surprising and might only be clarified by future research.

Although methodological concerns around the subjectivity of items ratings could potentially be applied to other domains within any risk/needs tool (e.g., antisocial attitudes), assessing clinical constructs (particularly in youth) may be especially problematic for the collective reasons outlined in preceding text. To further complicate the issue, mental health diagnoses are typically consolidated into one aggregate construct within risk assessment protocols, which can resultantly obliterate effects of those psychological disorders that may be especially pertinent to the criminal behavior of girls and women (Salisbury & Van Voorhis, 2009; Van Voorhis et al., 2010). At present, there is evidence to suggest that current manifestations of adjustment disorder, borderline personality disorder, major depression, and suicidal ideation warrant further study as potential predictors of female involvement in crime (e.g., Benda, 2005; Blanchette & Brown, 2006; Van Voorhis et al., 2010). It is also plausible that mental health diagnoses may moderate the relationship between other, more prominent criminogenic needs and recidivism outcomes. Ultimately, assessing mental health constructs with a greater level of reliability and validity would likely necessitate the development of a refined and standardized addendum to current risk assessment tools, as well as the assurance that qualified mental health professionals are consulted in rendering diagnostic judgments.

Both anecdotally and empirically, additional gender differences have been identified in the literature regarding the salience and specificity of risks and needs. Because of the small sample size associated with the full assessment results (coupled with the underrepresentation of females in the sample), we were not permitted a reliable examination of such gender differences. Unequivocally, substantial differences do exist in the offending patterns of males and females, whereby women tend to have shorter criminal careers and tend to commit crimes of lower severity in contrast to their male counterparts (Gavazzi, Yarcheck, & Chesney Lind, 2006; Kong & AuCoin, 2008; Moffitt, Caspi, Rutter, & Silva, 2001). Relatedly, the empirical evidence generally supports the lesser bearing of criminal history on a woman's risk to reoffend (Blanchette, 1996; Bonta, Pang, & Wallace-Capretta, 1995). For example, measures of this domain were considered in a recent investigation by Wright and colleagues (2007). Although items relevant to prior criminal involvement were moderately predictive of institutional misconduct for women (Pearson $r = .11$ for 6-month outcomes, $p < .05$), the predictive validity of this static domain was relatively weak in contrast to other factors identified as gender-salient for females (e.g., family-based factors).

Although one's differential association with antisocial peers has indeed shown criminogenic effects across gender (Andrews & Bonta, 2010; Benda, 2005; Brown & Motiuk, 2005; Gendreau et al., 1996; Simourd & Andrews, 1994), the YASI and other gender-neutral tools (e.g., YLS/CMI) do not tap qualitative differences in the nature of peer relationships. There is ample qualitative evidence to suggest that the nature of one's relationship with a criminal associate may have a differential influence on male versus female offending (e.g., Greiner & Brown, 2011). Given the relatively greater emphasis that women place on relationship preservation as per the tenets of relational-cultural theory (see Miller, 1986 for a review), romantic involvement with an antisocial partner may be a particularly strong facilitator of criminal behavior in females (Koons, Burrow, Morash, & Bynum, 1997; Richie, 1996). Addressing this issue empirically, Benda (2005) determined that although criminal peers are important predictors of recidivism in men, having a criminal romantic partner is indeed more influential in predicting recidivism in women.

In an attempt to adopt a gender-informed approach, Orbis Partners has recently developed the YASI-Girls (YASI-G; Orbis Partners, 2007c). Much of the tool parallels the YASI in its gender-neutral form but further encompasses items deemed foundational to the criminal behavior of young females according to the feminist and gender-responsive literatures. Specifically, the measure includes additional items pertinent to the nature of one's relationships, levels of emotional expression, self-efficacy, sexual vulnerability (e.g., prostitution), early parenthood, and features a broader array of potential mental health issues. Although the YASI-G has not yet been implemented, it is currently being researched in Ontario, Canada by the second author. It is arguable that the additional consideration of female-responsive needs and strengths

such as those featured on the YASI-G would serve to further enhance levels of predictive accuracy in the risk assessment of young females. In the meantime, there may also be an advantage to refining scoring along gender-based criteria with the current gender-neutral version of the YASI. Research on the YASI by Jones (2011) suggests that the relative strength of association with recidivism varies across gender for some YASI items and domains. As such, there is potential for adjusting item weights and classification thresholds to provide increased predictive efficiency for girls and boys, given adequate sample size to conduct cross-validation work.

Conclusion

The YASI Pre-Screen achieved high levels of predictive validity in forecasting both general and violent reoffending over an 18-month period, with an average AUC of .79. Despite a decline in the YASI's predictive validity when assessing general reoffending among females (AUC = .68), the corresponding effect size was still in the moderate range. Although some gender-responsive refinements might be possible in the future, these results support the use of this assessment approach for boys and girls of both Aboriginal and non-Aboriginal status.

The current study suggests that the quantitative inclusion of strengths in risk assessment is a worthwhile endeavor, which is apt to enhance both predictive and case management functions. The identification of a buffering effect of strengths on risk is an important finding and supports a critical element of the overall YASI assessment model. Cultivating a greater understanding of how risk and strength factors interact to predict criminal outcome is highly germane to the development of more effective risk assessment protocols and to the appropriate delivery of correctional services.

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Appendix A

List of Risks, Needs, and Strengths Featured on the YASI Pre-Screen

Risks and Needs

1. Previous police contacts for delinquent/criminal offenses
2. Age at first police contact for delinquent/criminal offenses
3. Number of police contacts
4. Police contacts for felony (Category I) offenses
5. Transfers to adult court
6. Number of weapon offenses
7. Police contacts for offenses against another person
8. Police contacts for felony (Category I) offenses against another person
9. Number of placements with children or youth services
10. Number of times admitted to remand
11. Number of times admitted to custody (open or secure)
12. Escapes
13. Failure-to-appear in court
14. Number of petitions for violations of probation or supervision (violation type)
15. Times kicked out of home/run away

(*Appendices continue*)

16. Family court finding of child neglect
17. Lack of compliance with parental rules—youth disobeys or is hostile
18. Circumstances of family members living in the household (e.g., alcohol/drug problems, mental health problems, criminal record, etc.)
19. Youth's current school enrollment status
20. Youth's attendance in last 3 months of school (e.g., unexcused absences)
21. Youth's conduct in last 3 months of school (e.g., infractions, police reports, etc.)
22. Youth's academic performance in last 3 months of school (e.g., failing some/most classes)
23. Youth associates with delinquent peers or gang
24. Age at first alcohol/drug use
25. Frequency of alcohol/drug use and disruption of function
26. Mental health condition
27. Homicidal ideation
28. Suicidal ideation
29. Sexual aggression
30. History of physical or sexual abuse
31. Previous victimization
32. Fails to accept responsibility for antisocial behavior (e.g., minimizes, denies, etc.)
33. Poor consequential thinking skills

Strengths

1. Youth complies with parental rules
2. Youth attends school regularly
3. Positive/improved conduct in last 3 months of school
4. Youth's grades in last 3 months of school are C or above
5. Youth associates with peers who have a positive, prosocial influence
6. Youths accepts responsibility for antisocial behavior
7. Youth demonstrates strong consequential thinking skills

Appendix B

Example of a YASI Pre-Screen Item

	•−−	•−	•0	•+	•++
Accepts responsibility for antisocial/criminal behavior	Openly accepts or is proud of behavior	Minimizes, denies, justifies, excuses, or blames others	Indicates some awareness of need to accept responsibility	Recognizes that he/she must accept responsibility	Voluntarily accepts full responsibility

Note. YASI = Youth Assessment and Screening Instrument.

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