

**THE YOUTH ASSESSMENT SCREENING INSTRUMENT: A PSYCHOMETRIC
EVALUATION WITH CANADIAN MALE YOUTHFUL OFFENDERS**

by

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Abstract

This study assessed key psychometric properties of the recently developed and implemented Youth Assessment Screening Instrument (YASI; Orbis Partners, 2007b) to assess risk in justice-involved youth. This study examined reliability and validity forms of the YASI pre-screen and the YASI full assessment in comparison to two other extensively validated tools: the Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0; Hoge & Andrews, 2011) and the Psychopathy Checklist: Youth Version (PCL:YV; Forth, Kosson, & Hare, 2003). A cross-sectional research design with a subsample of 156 male Canadian youthful offenders serving custodial or community-based sentences within Ontario was used to execute the study. The YASI pre-screen and full assessment demonstrated excellent degrees of internal consistency and moderate to excellent inter-rater reliability. Significant and large positive correlations emerged between the YASI, both pre-screen and full assessment, and both the YLS/CMI 2.0 as well as the PCL:YV. Lastly, mixed results emerged when the YASI pre-screen and full assessment was correlated with three indices of criminal history. In sum, the results suggest that the YASI is emerging as an effective tool in gauging level of risk in male youthful offenders. Implications for future research and clinical use involving the YASI are discussed.

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The Youth Assessment Screening Instrument: A Psychometric Evaluation with
Canadian Male Youthful Offenders

Measuring the prevalence of crime-related activity among youth in Canada is considered an important criminal justice issue. In Canada, the criminal justice system serves to protect the public, and promotes and maintains the overall safety of Canadian citizens. Based on a 2011 police-reported statistical report focusing on youth crime, over 135,600 young offenders, aged 12 to 17 years, were accused of committing a criminal act as per Canada's Criminal Code. This number is reported to be approximately 18,100 less than the rate reported in 2010, and the current Canadian youth crime rate is considered to be at its lowest since 1972 (Brennan, 2012). Moreover, since the enactment of the Youth Criminal Justice Act in 2003, the Canadian criminal justice system saw an increasing number of youth diverted from the courts instead of being formally charged with a criminal offence (Taylor-Butts & Bressan, 2006; Thomas, 2006). Despite this decline, youthful criminal behaviour remains a significant concern for the Canadian criminal justice system. Thus, identifying youth most likely to engage in criminal activity via psychometrically sound risk assessment tools is considered advantageous in facilitating the development of appropriate case management plans which foster optimal intervention strategies and, ultimately, result in safer communities.

Many decisions made regarding a youth's experience with the criminal justice system are guided by valid and reliable assessment tools that serve primarily to classify justice-involved youth into categories that reflect varying degrees of risk (Hoge, 2011). This process not only guides which type of supervision is most appropriate (e.g., probation, open custody, closed custody), but it also identifies which areas should be targeted and prioritized for treatment options (Baglivio, 2009; Hoge, 2011; Schwalbe, 2007). In general, risk assessment is an essential

process that helps preserve public safety and promote positive change in justice-involved youth. Thus, to ensure that the most accurate decisions are being made, it is important to use valid and reliable tools that purport to systematically and objectively measure level of risk.

Considering that risk assessment informs a variety of critical decisions within the field of corrections, it is understandable that the use of risk assessment tools with youthful offenders has increased dramatically since the early 1990s. In fact, between the years 1990 and 2003, there has been an approximate 53% increase in the use of risk assessment tools within correctional organizations (Schwalbe, 2008). Relatedly, alongside the increase in the use of such tools, there is a corresponding increase in the modification of existing tools and the creation of new tools to reflect the youthful offender profile. For example, the Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0; Hoge & Andrews, 2011), which was developed to assess level of risk and strength in youthful offenders and to guide case management planning, was recently modified to reflect an updated normative sample ($N = 12,798$) of youthful offenders and to enhance the assessment of offender responsivity. The Hare Psychopathy Checklist: Youth Version (PCL:YV; Forth et al., 2003) was adapted from the Hare Psychopathy Checklist: Revised (PCL—R; Hare, 2003) to measure personality features of psychopathy in adolescents. The Youth Assessment Screening Instrument (YASI; Orbis Partners, 2007b) was also recently developed to facilitate risk assessment, case management, and treatment. Numerous state jurisdictions are currently using the YASI, including California, Illinois, Mississippi, and New York (Orbis Partners, 2007a; Jones, 2011); however, as it is a relatively new tool, its reliability and validity have not been fully examined. The purpose of this study is to conduct a psychometric evaluation of the YASI with a sample of Canadian male justice-involved youth.

To begin the review of the literature, the gender-neutral theory, “What Works,” will be briefly discussed to situate the current state of risk assessment, followed by the various ways in which scholars categorize risk assessment tools. There will then be an overview of specialized assessment tools currently being used with Canadian justice-involved youth, namely the YLS/CMI 2.0 and the PCL:YV. Lastly, the YASI’s development and existing psychometric properties will be described below.

“What Works”: The Risk, Need, and Responsivity (RNR) Model

The dominant presumption in the early 1970s exposed offender rehabilitation as a fruitless endeavour (Lipton, Martinson, & Wilks, 1975; Martinson, 1974); however, other correctional researchers remained steadfast in the notion that rehabilitation was successful (Gendreau & Ross, 1979; Palmer, 1975). Subsequently, quantitative reviews on correctional rehabilitation were (re)examined and notably demonstrated the appreciable positive effects associated with correctional treatment (i.e., reductions in recidivism) for both young and adult offenders (Andrews & Dowden, 2006; Andrews, Zinger et al., 1990; Dowden & Andrews, 1999a, 1999b; Gendreau & Ross, 1979, 1980; Gendreau, Little, & Goggin, 1996; Lipsey, 1989, 1992, 1999; Losel, 1995; Losel & Schmucker, 2005; Wilson & Lipsey, 2001).

Simultaneous with the shift in correctional reform from “Nothing Works” to “What Works” was the interest in delving further into correctional rehabilitation to determine what exactly worked in offender treatment. Accordingly, the notion of risk, need, and responsivity emerged and became paramount (Andrews & Bonta, 2010b). Grounded in the general personality and cognitive social learning perspective, the “What Works” model seeks to explain deviant behaviour by examining the interactions among personal (e.g., temperament, aptitudes), interpersonal (e.g., peer relations, family relations), and community-based factors (e.g.,

neighbourhood, occupation) that actively increase or decrease the likelihood that one will engage in criminal behaviours (Andrews & Bonta, 2010b). Based on this model, three core principles for effective case management—risk, need, and responsivity principles have shaped risk assessment practices and continue to guide treatment interventions for youthful and adult offender populations worldwide (Bonta & Andrews, 2007).

In brief, the risk principle states that the higher the risk an offender presents, the more intervention he/she should receive (e.g., more treatment programs, of longer duration and intensity, closer supervision, higher security, etc). It essentially tells service providers ‘who’ should be afforded the greatest level of resources. In contrast, the need principle indicates ‘what’ should be targeted for treatment to yield the greatest reductions in recidivism (e.g., factors such as criminal attitudes, criminal associates, employment, substance abuse, marital/family issues). Lastly, the responsivity principle is the ‘how’ of effective corrections. It states that treatment services should be predominately cognitive behavioural in nature, but still be flexible enough to address individual characteristics (e.g., strengths, personality, gender, race, ethnicity). As will become more evident in the next section, risk assessment tools are linked to the risk, need and responsivity principles. Specifically, not only do risk assessment tools aim to achieve the desired outcome of the risk principle—differentiation of offenders along a continuum of risk to recidivate (e.g., low, moderate, high), the majority of the more recent tools also aim to develop unique case-management plans via examination of criminogenic need factors encapsulated within the need principle (e.g., criminal attitudes, criminal associates). Lastly, adherence to the responsivity treatment is enhanced when treatment interventions are guided by the risk and need principles (Andrews & Bonta, 2010a, 2010b; Andrews, Bonta, & Wormith, 2011; Andrews, Zinger, et al., 1990; Bonta & Andrews, 2007; Lipsey 1999, 2009).

The Evolution of Risk Assessment

Within the field of corrections, the early stages of risk assessment involved decision makers determining an offender's level of risk via unstructured interviews and clinical judgment. However, with growing research on risk assessment, a high degree of skepticism emerged surrounding the ability of an individual to accurately gauge one's level of risk without the aid of an empirically-derived tool (Hanson, 2009). Subsequently, systematic methods for determining offender risk level soon followed. This involved the development of evidence-based tools guided by both theory and research related to criminality (Bonta, 1996; Grove & Meehl, 1996). To date, two prominent models for conceptualizing risk assessment methods have been advanced: one by James Bonta (1996), the other by Karl Hanson (1998).

Bonta's Generational Approach

First generation. First generation risk assessment encapsulates unstructured clinical professional judgment. Bonta (1996) categorizes the clinical approach as assessment methods that allow decision makers the opportunity to determine not only which factors should be considered but also how those factors should be combined and weighted when making appraisals about risk. Studies have found this approach to be limited. Notably, human judgment is unsystematic and cannot consistently outperform statistical methods in assessing risk which can lead to biased and less accurate decisions (Campbell et al., 2007; Grove & Meehl, 1996; Hanson, 2009; Mossman, 1994) that will likely reduce or negatively impact predictive accuracy (Baglivio, 2009; Ferguson, 2002; Hannah-Moffat & Maurutto, 2003; Schwalbe, 2007; Schwalbe, 2008).

Second generation. Second-generation risk assessment tools are empirically based and utilize a more standardized approach to assessing risk (as compared to clinical approaches) by

incorporating static factors—fixed aspects of an offender’s lifestyle that are unchangeable (e.g., criminal history, age at first offence)- to assess level of risk in a more controlled and systemic manner. These assessments combine risk factors to compute a total risk score based on statistical algorithms that influence which factors should be considered in the assessment. Additionally, the combination and weighting of risk factors are pre-determined by statistical methods and the assessor uses these pre-determined statistical criteria which provide probabilities that are linked to recidivism (Andrews & Bonta, 2010b; Grove, Zald, Lebow, Snitz, & Nelson, 2000; Hanson & Morton-Bourgon, 2009).

The early work of Burgess (1928) examined post-release behaviour in 3,000 parolees using his newly developed prediction method. Burgess identified factors (e.g., parental status, prior record) that distinguished parole success from parole failure and then allocated one point for each factor for any individual who exhibited a value higher than the average for that factor. A composite score was then tallied and higher scores were indicative of either a more favourable outcome when examining parole success or a less favourable outcome when examining parole failure. In 1948, Hakeem evaluated post-release parole outcome with 1,108 parolees and found significant accuracy in predicting favourable outcomes using the Burgess predictive method. Although a more systematic approach was proving to be favourable in predicting outcome, a more direct assessment of the accuracy of prediction between clinical and actuarial measures is warranted. In 1954, Meehl examined 20 studies that compared both methods of assessment and concluded that, in every study, clinical procedures were less effective than actuarial procedures at predicting recidivism (as cited in Grove & Meehl, 1996). To date, numerous studies continue to demonstrate the superiority of actuarial over clinical methods (Ægisdottir et al., 2006;

Andrews et al., 2006; Bonta et al., 1998; Grove & Meehl, 1996; Grove et al., 2000; Hanson & Bussière, 1998; Mossman, 1994; Quinsey, Harris, Rice, & Cormier, 1998; Vincent et al., 2011).

As previously discussed, second generation tools offer a reliable and systematic manner to examine level of risk and predict recidivism. With a more standardized approach, these tools also offer opportunity to be psychometrically evaluated (i.e., reliability and validity) in regards to their effectiveness at measuring risk and predicting recidivism (Baglivio, 2009; Ferguson, 2002; Schwalbe, 2007; Schwalbe, 2008). An example of this type of assessment used in Canada is the Statistical Inventory on Recidivism (SIR; Nuffield, 1982).

The preferred statistical method in assessing the predictive accuracy of a risk assessment tool is the receiver operating characteristic (ROC) analysis, which examines accuracy of risk assessments via true and false positives. The rate of true and false positives can then be translated into a curve where the area under the curve (AUC) is measured to provide an overall estimate of predictive accuracy (Serin et al., 2011). The absolute range for AUC values is 0 to 1 with 0 demonstrating no prediction, .50 demonstrating chance prediction, and 1 representing perfect prediction. To further assist in reporting the predictive accuracy of assessment tools, recognized researchers in psychology have developed guidelines for determining the size of the effect. Small effect sizes have an AUC of .556, medium effect sizes have an AUC of .639, and large effect sizes have an AUC of .714 (Rice & Harris, 2005).

To distinguish between the predictive ability of clinical versus actuarial approaches, lower AUCs are consistently associated with clinical methods and higher AUCs with actuarial methods (Bonta et al., 1998). For example, in examining the accuracy of each method for predicting general and violent recidivism among mentally disordered adult offenders, Bonta and colleagues (1998) demonstrate higher AUCs for actuarial methods (i.e., .63 to .75) in contrast

with clinical methods (i.e., .51 to .59; AUCs calculated using the conversion tables of Rice & Harris, 2005). To date, many studies conclude that actuarial measures are equal to or superior to clinical judgment (Andrews et al, 2006; Bonta et al., 1998; Hanson & Bussiere, 1998; Quinsey et al., 1998).

Nonetheless, limitations warrant discussion. These evidence-based assessments are predominantly comprised of static risk factors, which limit the ability to detect changes in an offender's risk classification (Hanna-Moffat & Maurutto, 2003). However, it should be noted that item selection for these tools was statistically driven; items that proved to be maximally predictive of recidivism were included (Campbell et al., 2007). Nonetheless, these static risk factors are congruent with theory and are not necessarily atheoretical. Additionally, due to the lack of dynamic factors, these tools fail to identify areas of change, and as such, are limited in their ability to guide case management and treatment planning programs. Static risk factors, nonetheless, remain important for identifying those who are likely to recidivate and who are thus in need of intensive intervention (Andrews & Bonta, 2010b; Dvoskin & Heilbrun, 2001; Hanson & Morton-Bourgon, 2009; Vincent et al., 2011).

Third generation. In response to the aforementioned limitations, third generation tools emerged. These tools are similar to second-generation tools in that they not only assess level of risk and predict outcome via empirically supported risk factors, but that they utilize statistical algorithms to determine how items should be weighted and combined to produce a composite score (Bonta & Andrews, 2010). Distinct from second-generation tools, however, item selection for third-generation tools was influenced by the theoretical underpinnings associated with the risk-need-responsivity model. Furthermore, third generation tools include both static risk factors (e.g., criminal history, age) and dynamic risk factors (e.g., criminal associates, employment,

marital/family). Considering both static and dynamic risk factors prove to be useful in predicting level of risk, a distinguishing aspect of third generation risk assessment tools is their ability to detect changes in level of risk over time or following intervention via assessment of dynamic risk factors (Bonta & Andrews, 2010; Campbell et al., 2007). The inclusion of dynamic risk factors also enables the identification of factors that should be the focus for treatment interventions (Andrews & Bonta, 2010b; Campbell et al., 2007; Hanson, 2009). An example of this type of assessment used in Canada is the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995).

As previously discussed, second generation tools consist primarily of static risk factors and third generation tools consist of both static and dynamic risk factors. Since both types of risk factors prove to be useful in predicting recidivism and level of risk, both types of assessment should also produce similar predictive accuracies. To assist in comparing each generation's ability in predicting risk, a recent meta-analytic review is discussed. Schwalbe (2007) examined 28 studies examining general, violent, and sexual recidivism in youths. Meta-analytic results demonstrate both second-generation tools and third-generation tools to be comparable in predictive utility. For instance, when using second-generation tools, AUCs ranged from .53 to .71. Similarly, when using third-generation tools, AUCs ranged from .57 to .78.

A major criticism with third generation tools is that it takes a deficit-based approach where it is believed that criminal behaviour stems from an interaction of social and psychological factors that increase an individual's chance at engaging in antisocial acts. Therefore, to reduce and manage an individual's level of risk, the deficit-based model targets and examines risk factors most relevant to criminal offending. However, only examining risk factors is problematic because it identifies what is lacking as opposed to identifying what should be enhanced for

positive growth and well-being (Ward & Brown, 2004; Ward, 2002; Ward & Gannon, 2006). Additionally, regardless of considerable effort in establishing the utility of static and dynamic risk and need factors in assessing level of risk, these assessments lack the assessment of responsivity factors. Thus, there is no strong link to case management without the inclusion of responsivity factors (Andrews, Bonta, & Hoge, 1990; Campbell, French, & Gendreau, 2003).

Fourth generation. In response to third-generation assessment limitations, the more recent fourth generation risk assessment tools focus on the link between assessing risk via empirically and theoretically relevant static and dynamic risk factors and integrating that knowledge with individualized case management plans (Andrews & Bonta, 2010b; Campbell et al., 2007). These measures also incorporate strength, protective, and responsivity factors which, it is hypothesized, enhance well-being via identifying, promoting, and sustaining behaviours, attitudes, skills, and competencies that are pro-social (Smith, 2006; Ward, 2002; Ward & Brown, 2004).

Frequently in the field of correctional psychology, strength and protective factors are used interchangeably, however, it is hypothesized that each factor is distinct. A strength factor is considered a characteristic of an individual (e.g., attitudes reflective of prosocial behaviours, positive peer relations, problem-solving ability) that may reduce his/her level of risk or may enhance their positive growth (Ward, 2002). Protective factors (i.e., positive attributes of the individual and their environment) are assumed to moderate or buffer the negative effects of risk (e.g., positive peer influences and positive leisure pursuits) only when there is at least a moderate degree of risk present. Thus, with greater degrees of risk, scholars propose that protective factors will exert a greater moderating or buffering effect on risk (Jessor, 1991; Masten, 2001). Research has found this type of comprehensive analysis highly effective at increasing program adherence

and for informing case management strategies and treatment options for both young and adult offenders (Andrews & Bonta, 2010b; Andrews et al., 2006; Bonta & Andrews, 2007; Hannah-Moffat & Maurutto, 2003; Schwalbe 2007; Schwalbe, 2008). Examples of risk-need assessment tools used in the current state of risk assessment are the Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0; Hoge & Andrews, 2011) and the Youth Assessment Screening Instrument (Orbis Partners, 2007b).

In examining the predictive utility of fourth-generation tools, Hoge (2011) presents 14 studies relevant to the predictive utility of the YLS/CMI 2.0 in examining general and violent recidivism with young offenders. Using the Rice and Harris (2005) conversion tables, r correlation estimates were transformed into AUC values for consistency in comparing predictive outcome. The AUC values for these 14 studies ranged from .59 to .77.

Despite the current state of risk assessment and the comprehensive approach to assessing risk, some limitations warrant discussion. A shortcoming of the recent state of risk assessment is the limited understanding of the inclusion of both strength and protective factors in risk assessment tools such as how strength/protective factors are to be weighted and combined in the prediction of risk (i.e., scoring and outcome). Additionally, there is a limited understanding of how strength/protective factors guide case-management planning and how these factors impact the outcome of risk (Hannah-Moffat & Maurutto, 2003). Thus more research is necessary to advance the current understanding of risk assessment, but this is beyond the scope of this study.

Hanson's Approach to Understanding Risk Assessment

Although Bonta's (1996) conceptualization of risk assessment is quite prominent in the field of corrections, Hanson (1998) considers a different perspective of the organization of offender risk assessment, particularly for sex offenders. Accordingly, Hanson has put forth three

plausible approaches for classifying risk assessment methods: 1) pure actuarial approach; 2) adjusted actuarial assessment; and 3) structured professional judgment (SPJ).

The pure actuarial approach involves items that are determined in advance based on empirical and theoretical relevance to criminal offending. Additionally, a total composite score is then tabulated based on empirically-derived algorithmic rules regarding which factors are to be examined and how they should be weighted and combined to effectively gauge level of risk. The empirically-derived algorithmic rules are determined based on their previously demonstrated empirical relationship with criminal offending. This is most similar to Bonta's third generation assessment approach in that items were derived from both theoretical and empirical relevance to criminal offending and that statistical algorithmic rules are used to compute a total risk score. An example of this type of measure is the Violence Risk Appraisal Guide (VRAG; Quinsey, Harris, Rice, & Cormier, 2006).

The following two approaches to risk assessment (i.e., adjusted actuarial assessment and structured professional judgment), as defined by Hanson, do not equate with any of Bonta's four risk assessment generations. Perhaps this is due to the differentiation between assessing risk for offenders in general (i.e., Bonta's approach) or for sex offenders (i.e., Hanson's approach). Hanson's second approach is the adjusted actuarial assessment that may or may not involve the adjustment of a composite score from an actuarial tool. Specifically, this approach begins with an established risk score from an actuarial risk assessment measure that may be changed at the discretion of an expert evaluator (i.e., clinician). Expert evaluators may examine external factors not considered part of the actuarial risk tool to assist in the decision of whether the actuarial based score should be adjusted or not. Notably, expert evaluators examine external factors because earlier developed risk assessment tools do not contain items that were empirically found

to be salient to and predictive of criminal offending. Some examples of external factors that an expert evaluator may consider in adjusting a sex offender's risk score are: old age (60+), change in mental/physical health, and verbalized intention to harm/reoffend.

Lastly, Hanson proposes structured professional judgment (SPJ) to be a final category in defining risk assessment. In this approach, the risk factors are determined in advance, but the manner in which factors are assessed and combined to compile a total score is left to the discretion of the assessor. Hanson asserts that outcome scores on these measures do not correspond to probability rates of recidivism since systematic guidelines regarding what range of scores correlates with specific outcomes are not provided. The risk judgment is simply expressed as "low," "moderate," or "high." Arguably, this could yield some inconsistencies in predicting or gauging level of risk since concerns have been raised over the reliance on human judgment in risk assessment (Hanson, 2009; Hanson & Morton-Bourgon, 2009; Serin et al., 2011). An example of an SPJ instrument is the Historical Clinical Risk Management-20 (HCR-20; Webster, Douglas, Eaves, & Hart, 1997).

Psychometric Evaluation in Forensic Psychology

Examining the psychometric properties of risk/need assessment tools is paramount in corrections to ensure accuracy and consistency of decision-making with justice-involved youth. Notably, if risk assessment tools are not measuring what they were designed to measure (i.e., valid) nor consistent in their assessment of risk (i.e., reliable), then outcomes may be more detrimental to the offender (i.e., improper risk classification and allocation of services) (Austin, 2006). In conducting psychometric evaluations, researchers examine various forms of reliability and validity but how psychometric models are developed depend on the researcher and their study objectives.

To determine the reliability of a tool, researchers typically examine internal consistency and inter-rater reliability. Internal consistency examines the association of items using Cronbach's alpha, which in theory, can range from -1.0 to 1.0 (Nunnally, 1967). As per the rules of thumb provided by George and Mallery (2007), the following are general guidelines when evaluating internal consistency: $\alpha > .9$ = Excellent; $\alpha > .8$ = Good; $\alpha > .7$ = Acceptable; $\alpha > .6$ = Questionable; $\alpha > .5$ = Poor; and $\alpha < .5$ = Unacceptable. Inter-rater reliability examines the degree of agreement across assessors often using intraclass correlation coefficients (ICCs), kappas, or percent agreement (Nunnally, 1967). In regards to ICCs, they can be conducted in a manner that reports "consistent" or "absolute" reflections of agreement. Absolute agreement will determine the degree to which items were rated identically and any differences will emerge as disagreement among raters. Consistency ratings, however, examine the degree to which raters are relatively consistent with each other in their ratings (McGraw & Wong, 1996). ICCs are also generated for single measurements and for averaged measurements. Single measures represent reliability rating for an individual rater whereas averaged measures represents the reliability of the mean of raters (McGraw & Wong, 1996). As per the rules of thumb provided by Parkerson, Broadhead, and Tse (1993), the following are general guidelines when evaluating ICCs: ICCs $> .75$ = Excellent; ICCs ranging from 0.40–0.75 = Fair; ICCs < 0.40 = Poor. Overall, assessors should be evidencing similarity in scoring and the offender's score should reflect his level of risk, not assessor bias.

Although there is consensus on the definition of validity, how it ought to be classified differs across disciplines (Brewer, 2000; Messick, 1988; Winter, 2000). In correctional research, concurrent and convergent validity are often classified under construct-related validity and postdictive validity is classified as criterion-related validity (Forth et al., 2003; Hoge & Andrews,

2011). In contrast, sociological research considers concurrent, convergent, and postdictive validities as part of criterion-related validity (Trochim & Donnelly, 2007). In either case, the definition of concurrent, convergent, and postdictive validity remains consistent; however, classification is not firmly established for concurrent or convergent validity.

Within the context of risk assessment concurrent validity is the examination of the association of a new risk assessment tool with a psychometrically sound risk assessment tool; both tools purport to measure the same construct of risk (Nunnally & Bernstein, 1994). In contrast, convergent validity examines the degree of similarity between two assessment tools that are considered to be theoretically related but not theoretically identical. Post-dictive validity, however, is considered part of criterion-related validity whereby a current measure is examined in its relation to a previously administered criterion or measure. Overall, it appears as though correctional researchers commonly examine concurrent and convergent validities to establish a higher-order aspect of validity, whether it is construct-related or criterion-related.

In measuring validity in risk assessment, Pearson's r correlation analyses are often conducted to assess the degree of association between two assessment measures. The values may fall between -1.00 and +1.00 with the sign (i.e., "-", "+") indicating positive or negative direction of association and the value indicating the strength or magnitude of the association (Nunnally & Bernstein, 1994). As per the rules of thumb provided by Cohen (1992), the following are general guidelines in describing the magnitude of the association between variables: $r = .50$ for large effects; $r = .30$ for medium effects; and $r = .10$ for small effects.

Specialized Assessment Tools for Justice-involved Youth

Adolescence is a developmental stage that encompasses rapid fluctuations in mood and behavior and involves a high degree of immaturity and impulsivity due to underdeveloped

cognitive capacities (Doremus-Fitzwater, Varlinskaya, & Spear, 2010; Slobogin & Fondacaro, 2011). Research has also found that adolescents score lower on measures of psychosocial maturity defined by responsibility, consequential thinking, and self-restraint making them less adept at processing and integrating information for mature and well-thought-out decisions in comparison to adults (Cauffman & Steinberg, 2000). Generally, this suggests that adolescence is a time of heightened vulnerability to engage in behaviours that are antisocial, defiant, risky, and reckless (Olver, Stockdale, & Wormith, 2009; Slobogin & Fondacaro, 2011). Consequently, it seems necessary to take these developmental differences into consideration when developing and/or adapting risk assessment tools for youth.

While not technically a risk assessment tool, the Hare Psychopathy Checklist: Youth Version (PCL:YV; Forth et al., 2003) was developed for use with adolescents to measure the extent to which antisocial and psychopathic personality traits and behaviours are present in youth. Items on this tool are subsumed under four factorially distinct sub-scales: interpersonal (e.g., impression management, pathological lying); behavioural (e.g., stimulation seeking, parasitic orientation); affective (e.g., shallow affect, failure to accept responsibility); and antisocial (e.g., poor anger controls, criminal versatility) (Forth et al., 2003). Furthermore, it was adapted from the original Psychopathy Checklist—Revised (PCL-R; Hare, 2003), which was originally developed to operationalize Cleckley's (1976) conceptualization of psychopathy in adult criminal populations.

Psychopathy has been described as a persistent personality disorder that consists of affective, interpersonal, and behavioural features (Boccaccini et al., 2007; Caldwell, McCormick, Umstead, & Van Rybroek, 2007; Pozzulo, Bennell, & Forth, 2008). Defining characteristics of psychopathy are similar to characteristics that define a criminal lifestyle. Such characteristics

include impulsivity, irresponsibility, and violation of the rights of others including societal norms. However, emotions that inhibit aggression and violence are found to be lacking in psychopaths, as they are typically callous, egocentric, deceitful, manipulative, and lack remorse (Caldwell et al., 2007; Pozzulo et al., 2008).

In terms of psychometric properties of this tool, the reliability of the PCL:YV is quite robust. Internal consistencies of the total scores for youth who are in custody, on probation, and in the community demonstrate acceptable alpha coefficient levels ranging from .85 to .94 (Forth et al., 2003). Numerous studies also found high degrees of inter-rater agreement with ICC values ranging from .80 to .87 (Brandt, Kennedy, Patrick, & Curtin, 1997; Kosson, Cyterski, Steuerwald, Neumann, & Walker-Matthews, 2002). Additionally, a recently published study found ICC values to range between .94 and 1.0 (Schmidt, Campbell, & Houlding, 2011) and unpublished theses also found high ICCs ranging from .85 to .93 (Forth et al., 2003). Overall, strong degrees of reliability indicates that this tool consistently measures what it purports to measure and can be measured similarly across raters.

In examining convergent validity, correlation analyses reveal the PCL:YV to be related to measures that assess both general and violent offending; bivariate correlations are found to range from .25 to .58 and from .19 to .48, respectively, which provides support for the PCL:YV in functioning as a risk assessment tool (Forth et al., 2003). Additionally, there is robust evidence indicating that the construct of psychopathy is a significant predictor of both general and violent recidivism among youthful offenders, with AUC values typically ranging from .61 to .83 (Edens, Campbell, & Weir, 2007; Forth, Hart, & Hare, 1990; Forth et al., 1996; Forth et al., 2003; Marshall, 2006; Schmidt, Campbell, & Houlding, 2011; Schmidt, McKinnon, Chattha, & Brownlee, 2006; Vincent, Odgers, McCormick, & Corrado, 2008). Thus, although the downward

extension of psychopathy to youth is a controversial topic, the PCL:YV seems to be a useful tool in predicting future re-offending.

Departing from tools that are found to be useful in predicting re-offending, specific tools have been designed to directly assess an individual's level of risk and predict his/her likelihood to engage in criminal activity. Specifically, these tools not only identify factors that sustain an individual's involvement in criminal activity, but they also guide service delivery and treatment intervention. Two risk assessment measures designed for use with young offenders, and specific to the current study, is the Youth Level of Service /Case Management Inventory (YLS/CMI 2.0; Hoge, 2011) and the Youth Assessment Screening Instrument (Orbis Partners, 2007b).

The Youth Level of Service /Case Management Inventory 2.0 (YLS/CMI 2.0; Hoge, 2011) is the latest modified version of the Level of Service Inventory series and was developed specifically for use with adolescent offenders. It is a risk/need assessment and case management tool that incorporates theoretical underpinnings from the general personality and social psychological model of criminal conduct, as delineated by Andrews and Bonta (2010b). This tool was designed to not only examine risk, strengths, and responsivity factors in justice-involved youth, but also to assist in the development of effective, tailored case management plans for optimal outcome. The developers designed this tool to be relevant during all phases of the criminal decision-making process (i.e., pre-trial detention, diversion, sentencing, and case-planning), however, it is used prominently for case management purposes (Hoge & Andrews, 2011). Furthermore, although this risk-need assessment tool may be considered a pure actuarial assessment tool, there is a professional override option that allows the clinician or assessor to override the generated outcome score. This newly added feature also classifies this tool as an adjusted actuarial assessment tool, as per Hanson's approach (1998). In addition, the tool also

encourages a direct link between criminogenic need factors and case management planning where the professional exhibits clinical judgment in prioritizing criminogenic needs (Hoge & Andrews, 2011).

In examining the psychometric properties of the YLS/CMI 2.0, analyses were conducted with a total of 12,798 youthful offenders categorized across four normative samples (e.g., male/female custodial, male/female community). In terms of reliability, excellent internal consistency reliabilities were found to range from $\alpha = .88$ to $\alpha = .90$ (Hoge & Andrews, 2011; Kimonis et al., 2008; Marshall, Egan, English, & Jones, 2006; Welsh, Schmidt, McKinnon, Chattha, & Meyers, 2008). In terms of inter-rater reliability, numerous studies also indicate strong agreement across raters for both the total score (ICCs .72 to .98) and sub-domain scores (ICCs .43 to .92) (Catchpole & Gretton, 2003; Hoge & Andrews, 2011; Viljoen, Elkovitch, Scalora, & Ullman, 2009; Vieira et al., 2009, Welsh et al., 2008). This data indicates that the YLS/CMI 2.0 can be measured reliably when assessing risk, especially across raters.

In examining concurrent validity, analyses compare the YLS/CMI 2.0 against other measures of delinquency. For instance, Schmidt and colleagues (2005) report significant correlations between the YLS/CMI 2.0 total score and delinquent total sub-scores from the parent and youth forms of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001), $r = .54$ and $r = .52$ respectively. When addressing the degree of convergence with other theoretically related constructs, the YLS/CMI 2.0 was found to correlate significantly with measures of behavioural maladjustment ($r = .24$ to $r = .71$), sexual offending ($r = .27$ to $r = .91$), and violent offending ($r = .48$ to $r = .82$) (Catchpole & Gretton, 2003; Hoge & Andrews, 2011; Righthand et al., 2005; Schmidt, Hoge, & Gomes, 2005; Upperton & Thompson, 2007; Viljoen et al., 2009; Welsh et al., 2008). In terms of predictive validity, empirical research findings

demonstrate the YLS/CMI 2.0 is significantly effective in predicting recidivism among youthful offenders. As per the manual, numerous studies examining indices of reoffending primarily demonstrate AUCs ranging from .59 to .77 ($r = .16$ to $r = .46$; AUCs calculated using the conversion tables of Rice & Harris, 2005), although a few studies did report non-significant findings (Hoge & Andrews, 2011).

Although the YLS/CMI 2.0 demonstrates excellent reliability and validity when examining risk with various samples of justice-involved youth, this tool is considered by many correctional researchers to be the gold-standard risk assessment tool. However, given the recent inclusion of strength factors to represent a more strength-based approach, there is not only a limited understanding of the inclusion of these factors but psychometric data is also limited. Consequently, although the YLS/CMI 2.0 is considered to be the gold-standard of risk/need assessment tools in terms of gauging risk, it is not the gold-standard when examining strength factors.

The development of the Youth Assessment Screening Inventory (YASI; Orbis Partners, 2007b) was premised upon the Washington State Assessment Model, also referred to as the Case Management Assessment Protocol (CMAP; Barnoski, 2003), which was initially developed by the Washington State Institute of Public Policy (WSIPP) in conjunction with the Washington State Association of Juvenile Court Administrators (WAJCA). The CMAP is an assessment tool developed for use with youthful offenders in New York State and was originally selected to serve as the model for the YASI based on its comprehensive analysis of risk, needs, and strengths in a multiple response format (Orbis Partners, 2007a).

In 2000, the YASI was first implemented in the state of New York to better assess youth who were serving community-based sentences (i.e., probation) in order to promote and enhance

public safety. It is a comprehensive risk-need assessment tool designed to predict recidivism in youthful offenders via examination of a range of static and dynamic risk and protective factors. Due to the recent inclusion of protective and strength factors in risk assessment tools, the YASI developers conceptualize protective factors as those which (a) moderate the effect of risk and (b) identify critical targets of change to promote and enhance positive growth in justice-involved youth. In addition, it is guided by the three risk-need-responsivity principles of effective case management (Andrews et al., 1990) and falls under Bonta's (1996) classification of fourth generation risk assessment tools. Accordingly, this tool offers specific treatment options, as dependent upon each offender's needs, and also guides case management planning with the aim to reduce level of risk.

To enhance the effectiveness of service delivery to high-risk youth, the YASI is available in two formats: a Pre-Screen Assessment format (42 items measuring static, dynamic, and protective factors) and a Full Assessment format (129 items measuring static, dynamic, and protective factors). The pre-screen format is primarily used for triage purposes to determine level of risk (i.e., low, medium, high) and to direct moderate and high risk youth to complete the more thorough YASI full assessment. The premise is that higher risk youth are more likely to benefit from more intensive treatment interventions as opposed to lower risk youth with whom more intensive treatments can result in negative outcomes (e.g., youth being worse-off than before) (Andrews & Bonta, 2010b; Orbis Partners, 2007b).

In regards to implementation, the use of the YASI is extensive across several state jurisdictions (i.e., California, Illinois, North Dakota, New York, Vermont, Virginia), but it is also being employed with youthful offenders in Canada and Scotland (Jones, 2011; Orbis Partners, 2007a). The implementation of the YASI in the Canadian correctional system has been limited to

Alberta and Ontario (Jones, 2011; Orbis Partners, 2010). Despite increasing use across various correctional systems nationally and internationally, only a few studies examining the psychometric properties (i.e., predictive validity, internal consistency, inter-rater reliability) of the YASI have been published (Jones, 2011; Orbis Partners, 2007a; Skeem, Hernandez, Kennealy, & Rich, 2011).

In one of the first published studies using the YASI, Orbis Partners (2007a) examined predictive validity with a combined sample of 3,263 youthful offenders (35% female, 65% male) in the state of New York. The AUC values ranged from .60 to .65, with an average AUC = .62 at each follow-up period. Specific to each YASI subdomain, AUCs ranged between .55 and .63. Although the combined results of this study suggest that the YASI demonstrates promising results in the prediction of risk reliability was examined.

More recently, however, Jones (2011) re-examined an archival database containing a sample of 2,369 youth (1,550 males and 819 females) who were processed by probation services in the New York state. The YASI pre-screen total risk score and YASI full assessment total risk and protective scores exhibited adequate reliability with alpha coefficients of .65, .83, and .92 respectively. Notably, given the archival nature of this study, inter-rater reliability was not examined. In terms of predictive validity, the total risk scores for both the pre-screen and full assessment formats displayed AUCs of .64 and .63, respectively. Across risk subdomains on the YASI full assessment, nearly all risk domains were found to exhibit significant, albeit small, ability in predicting recidivism with AUCs exceeding .54 (Jones, 2011). Noteworthy, to appraise AUC values in the .50 to .60 range as exhibiting significant predictive ability is contestable. Nonetheless, it is important to note that in the area of risk assessment, the AUCs from Jones's study are comparable to other commonly used risk assessment tools (Olver et al., 2009).

To help address the limitation pertaining to a lack of data on inter-rater reliability, Skeem and colleagues (2011) recently examined inter-rater reliability of the California adapted version of the YASI with a sample of 78 staff members across four correctional facilities. Results of averaged ICCs across correctional sites indicate that inter-rater agreement for CA-YASI total risk scores fell within the “fair” to “good” range (i.e., .40 to .75) across all four sites with ICCs of .64, .63, .51, and .72.

Although the YASI demonstrates reliability and validity with samples of American justice-involved youth, data is still needed for Canadian justice-involved youth. Therefore, to assist in determining how well the YASI functions in Canada, the Alberta criminal justice system collected preliminary data on the YASI pre-screen with a combined sample of 287 male ($n = 218$) and female ($n = 69$) youthful offenders. Following a 4-month follow-up period, the YASI pre-screen demonstrated significant ability in predicting any negative outcome (e.g., new offences/arrests) with an AUC of .80 (Orbis Partners, 2010, as cited in Jones, 2011).

Overall, more research is necessary to add to the current limited body of existing psychometric data, particularly to examine specific psychometric properties that have yet to be examined with Canadian samples such as inter-rater reliability, concurrent validity, and convergent validity. Despite this, results of the few published studies seem to suggest that the YASI is a reliable and valid tool in assessing level of risk in justice-involved youth (Jones, 2011; Orbis Partners, 2007a; Skeem et al., 2011). However, similar to the YLS/CMI 2.0, more research is necessary for protective factors in order to add to the current limited understanding of strengths in risk assessment.

In sum, conducting psychometric data on widely used and recently developed assessment tools in corrections is crucial in establishing how well a measure functions. Preliminary results

from Alberta using a sample of Canadian justice-involved youth show promising results in its ability to predict re-offending but more data is necessary, particularly in terms of other widely examined validity forms and reliability. Therefore, the purpose of this study will be one of the primary studies to address the abovementioned limitations via an examination of key psychometric properties with a subsample of male Canadian youthful offenders from Ontario. To determine the reliability of the YASI pre-screen and full assessment, this study will examine internal consistency and inter-rater reliability. In regards to validity of the YASI pre-screen and full assessment, this study will examine three specific types of construct validity: a) concurrent, b) convergent, and c) postdictive.

Current Study: Research Questions

This study will examine several psychometric properties of the YASI and will be one of the first studies to produce results for Canadian male youthful offenders. Furthermore, this study will contribute to our growing understanding of the YASI by addressing how the validity and reliability of this new measure compares to two extensively validated measures: the YLS/CMI 2.0 and PCL:YV. The four research questions are outlined below.

Research Question 1: Are both the YASI pre-screen and full assessment formats, including their sub-domains, reliable in terms of internal consistency and inter-rater reliability?

Previous research on the YASI pre-screen and full assessment demonstrates moderate to high levels of internal consistency among total risk scores with alphas of .65 and .83, respectively (Jones, 2011). Thus, in line with previous research findings, the internal consistency of both the total and subdomain scores on both the YASI pre-screen and full assessment measures will be examined. Furthermore, there is limited empirical data on the YASI in terms of inter-rater reliability, thus inter-rater agreement on both the YASI pre-screen and YASI full

assessment measures will also be examined. In line with previous research on the YASI, it is hypothesized that the current study will demonstrate acceptable degrees of internal consistency. In contrast, examining inter-rater reliability will be exploratory in nature due to the lack of Canadian data on inter-rater reliability.

Research Question 2: Does the YASI display concurrent validity with the YLS/CMI 2.0?

Considering the YLS/CMI 2.0 and YASI were each designed to predict general recidivism in a sample of youthful offenders, they are considered to be most comparable. Therefore, research on the YLS/CMI 2.0 should be indicative of how the YASI should perform when assessing level of risk in justice-involved youth. Extant literature on the YLS/CMI 2.0 demonstrates there is good concurrent validity with other measures of delinquency (e.g., CBCL) among youthful offenders (Hoge & Andrews, 2011). Therefore, concurrent validity between each measure's total and subdomain risk and strength and protective scores will be examined. However, an exploratory approach will be utilized due to the lack of concurrent validity pertaining to the YASI pre-screen and full assessment with other risk/need assessment measures.

Research Question 3: Does the YASI demonstrate convergent validity with the PCL:YV?

Research on the PCL:YV demonstrates that this measure of psychopathy is predictive of both general and violent re-offending among justice-involved youth (Forth et al., 2003). Additionally, research also demonstrates that the PCL:YV is related to measures that assess level of risk (e.g., YLS/CMI 2.0, SAVRY) in justice-involved youth (Schmidt et al., 2011). Therefore, the correlations between the total scores on the PCL:YV and the total risk scores on the YASI (both pre-screen and full assessment) will be examined to determine degree of convergence between both measures. However, an exploratory approach will be utilized due to the lack of

convergent validity pertaining to the YASI pre-screen and full assessment with other measures assumed to measure risk.

Research Question 4: Is the YASI total risk outcome score postdictive of criminal history?

Due to study timelines, follow-up data has yet to be obtained to examine the predictive ability of the YASI. Thus postdictive validity will be analyzed between three select outcome measures of criminal history with sub-domain and overall risk scores from both the YASI pre-screen and full assessment. Due to the limited research on the YASI and the absence of information on postdictive validity this will be exploratory in nature.

Method

Participants

The sample of participants for this study was taken from a larger on-going study examining gendered pathways into the youth criminal justice system and implications for risk assessment. Following a cross-sectional research design, participant data was collected from various sites across Ontario. The current sample is comprised of 156 justice-involved youthful male offenders between the ages of 14 and 21 who reside in the province of Ontario. Male study participants were recruited from both open and closed custody facilities as well as from probation offices in both the Ottawa and Brampton regions of Ontario. Respectively, the Ottawa area sites for this study included the William E. Hay Youth Centre¹, Sherwood House², and the Youth Ottawa Probation Office³. The Brampton area site was the Roy McMurtry Youth Centre⁴. During the recruitment phase, the primary criteria for inclusion were: (a) participants had to be

¹ William E Hay Youth Centre is a closed custody facility housing male youthful offenders in Ottawa, Ontario.

² Sherwood House is an open custody facility housing male youthful offenders in Ottawa, Ontario.

³ Youth Ottawa Probation Office is located in Ottawa, Ontario.

⁴ Roy McMurtry Youth Centre is a closed custody facility housing both male and female youthful offenders in the Brampton area

male; and (b) participants had to either be on remand and awaiting sentencing or serving custodial and/or community based dispositions.

A preliminary descriptive analysis of all 156 male participants revealed that 34.2 % ($n = 53$) were African American, 34.8% ($n = 54$) were Caucasian, 8.8% ($n = 9$) were Aboriginal, and 25.2% ($n = 39$) were of other ethnic origin (e.g., Asian, East Indian, Hispanic). At the time of the study 54.2% ($n = 84$) of the sample were on remand, 29% ($n = 45$) were serving a custodial sentence, 12.3% ($n = 19$) were on probation, and 3.6% ($n = 5$) were serving a community-based sentence. See Table 1 for a representation of the sample by facility.

Table 1

Sample Descriptives: Demographic Information by Facility

Characteristic	Closed Custody				Open Custody		Community	
	WHYC		RMYC		Sherwood		OPO	
	(N = 50)		(N = 76)		(N = 7)		(N = 23)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age								
14-17 years	35	70	47	61.8	7	100	10	43.4
18-21 years	15	30	29	38.2	0	0	13	56.5
Ethnicity								
African American	2	4	47	61.8	0	0	4	17.4
Caucasian	22	44	14	18.4	6	85.7	13	56.5

Note. *WHYC* – William Hay Youth Centre, *RMYC* – Roy McMurtry Youth Centre, *OPO* – Ottawa Youth Probation Office

Table 1 (continued)

Characteristic	Closed Custody				Open Custody		Community	
	WHYC		RMYC		Sherwood		OPO	
	(N = 50)		(N = 76)		(N = 7)		(N = 23)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Aboriginal	6	12	1	1.3	0	0	2	8.7
Other ^a	20	40	14	18.4	1	14.3	4	17.3
Disposition								
Remand	24	48	57	75	3	42.9	-	-
Custodial sentence	26	52	14	18.4	4	57.1	-	-
Community Sentence ^b	-	-	5	6.6	-	-	23	100

Note. WHYC – William Hay Youth Centre, RMYC – Roy McMurtry Youth Centre, OPO – Ottawa Youth Probation Office. ^a Other ethnicity includes: Jamaican, Asian, Hispanic, European, South Pacific, and Middle Eastern ethnicities. ^b Community disposition includes deferred custody and supervision order and probation dispositions

For a representation of criminal offence information per facility, see Table 2.

Of note, a greater frequency of more serious offences (i.e., homicide, armed robbery, aggravated assault) are associated with youth serving closed custodial based sentences.

Table 2

Offence Classification: Criminal Offence Information per Location

Index Offences	WHYC		RMYC		Sherwood		OPO	
	N	%	N	%	N	%	N	%
Homicide	4	8	7	9.2	0	0	0	0
Major Assault	25	50	33	43.4	3	42.9	7	30.4
Armed Robbery	13	26	33	43.4	0	0	2	8.7
Sexual Offences	6	12	9	11.8	1	14.3	3	13
Minor Assault	22	44	25	32.9	2	28.6	10	43.5
Robbery (no weapon)	13	26	24	31.6	1	14.3	0	0
Theft	31	62	42	55.3	5	71.4	8	34.8
Break and Enter	13	26	21	27.6	3	42.9	2	8.7
Narcotics	8	16	29	38.2	3	42.9	4	17.4
Driving Offences	5	10	2	2.6	0	0	0	0
Weapons	20	40	38	50	1	14.3	3	13
Threats	21	42	14	18.4	3	42.9	4	17.4
Breaches	47	94	70	92.1	6	85.7	12	52.2
Fraud	8	16	6	7.9	1	14.3	1	4.3
Escapes	6	12	6	7.9	0	0	1	4.3
Obstruct	9	18	15	19.7	4	57.1	2	8.7

Note. WHYC – William Hay Youth Centre, RMYC – Roy McMurtry Youth Centre, OPO – Ottawa Youth Probation Office

Measures

Demographic and offence coding manual. In order to compile a thorough description of the current sample, a coding manual comprised of basic socio-demographic information (i.e., age, gender, ethnicity) and official criminal information (i.e., disposition and offence information) were coded for each participant based on a semi-structured interview and subsequent systematic file review of collateral information (e.g., police reports and legal documents). Demographic and offence information was extracted from this measure (see Appendix A). In addition, a slightly adapted version of the Cormier-Lang system for quantifying criminal history and current offences was also scored from the offence coding information recorded in the coding manual to measure the severity of offences (Quinsey, Harris, Rice, & Cormier, 1998) (see Appendix B).

The Youth Assessment Screening Instrument. The Youth Assessment Screening Instrument (YASI; Orbis Partners, 2007b) is an interview-based assessment tool designed to assess level of risk and likelihood to reoffend in justice-involved youth. In addition to gauging level of risk, this tool also examines offenders' need factors to more effectively guide case-management strategies and treatment interventions. The development of the YASI was based on an early Washington State model (Orbis Partners, 2007a), which was designed to ensure that youth level of risk is appropriately assessed and matched to specific treatment interventions.

The YASI is available in two formats: a pre-screen assessment format and a full assessment format. Each format measures a range of static and dynamic risk and protective factors. To enhance service delivery to higher risk youth, the pre-screen format is primarily used for triage purposes to determine which youth display higher degrees of risk and must thus complete the YASI full assessment. In each case, items are scored on the basis of both a semi-

structured interview and a systematic review of collateral file information (e.g., legal documentation, school records, and mental health reports) (Orbis Partners, 2007a).

The YASI pre-screen assessment is comprised of a subset of 42 static and dynamic risk and protective items extracted from the full assessment across nine domains: legal history (12 items); family (5 items); school (6 items); community/peers (2 items); substance abuse (4 items); mental health (8 items); attitudes (2 items); skills (2 items); and violence (1 item). The majority of items are rated on a 5-point response likert scale that consists of the following gradations: a) “- - -” very high risk; b) “- -” high risk; c) “0” stability or no change; d) “+” high protective factor; and e) “++” very high protective factor. This type of response scoring format is designed for enhanced sensitivity, particularly to capture any changes among risk and protective items following reassessments. In order for item responses to be scored into domain totals, empirically determined weights based on baseline recidivism data were applied. Re-weighted items were then summed to produce total scores ranging from 0 to 124 for total risk and 0 to 25 for total protective (higher scores indicate a greater degree of risk or greater protective level). Resultant total scores can then be classified accordingly into one of four risk categories: “none,” “low,” “moderate,” or “high.”

The YASI full assessment is comprised of 129 items which, like the pre-screen, examines static and dynamic risk and protective factors spread across ten domains⁵. The ten domains found within the full assessment include: legal history (12 items); family (20 items); school (17 items); community and peers (14 items); alcohol and drugs (6 items); mental health (10 items); aggression (7 items); attitudes (16 items); skills (14 items); and employment and free time (13 items). Similar to the pre-screen, the majority of items in the full assessment are rated on a 5-point response likert scale for increased sensitivity when capturing changes in risk and protective

⁵ All the items in the pre-screen assessment are also embedded within the full assessment.

levels (e.g., “- - -” very high risk, “- -” high risk, “0” stability or no change, “+” high protective factor, “++” very high protective factor). As previously mentioned, each 5-point likert option is associated with a numerical weight that is then inserted in algorithmic equations to compute a composite risk or protective score. Specifically, actuarially-based algorithms are used to generate various static and dynamic outcome scores for both risk and protective factors⁶. When reporting results, the full assessment yields five outcome levels for static risk and protective scores within each domain, which include “none,” “low,” “moderate,” “high,” and “very high.” However, total dynamic risk and protective scores can display an additional two outcome levels (i.e., “low moderate” and “moderate high”) alongside the five previously outcome levels (i.e., “none,” “low,” “moderate,” “high,” and “very high”) for greater sensitivity in detecting changes over time. As previously discussed for the pre-screen format, higher scores on the full assessment indicate higher degrees of risk. See Appendix C for detailed scoring of each YASI item and domain.

Psychometric properties. The YASI is a recently developed and implemented tool with limited psychometric data. Skeem and colleagues (2011) demonstrated adequate degrees of agreement across raters in scoring the YASI total risk component as well as the majority of subdomains. Few studies to date have examined the YASI’s predictive ability in gauging risk and demonstrate quite promising results with total risk score AUCs ranging from .60 to .65 (Jones, 2011; Orbis Partners, 2007a). Nonetheless, continued research is necessary to examine various other psychometric properties, particularly with Canadian samples of justice-involved youth.

⁶ Outcome scores from the YASI full assessment are used primarily to guide case-management planning whereas the outcome score from the pre-screen is used primarily for classification purposes.

The Youth Level of Service/Case Management Inventory 2.0. The Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0; Hoge & Andrews, 2011) is a strengths focused risk/needs assessment tool that classifies and predicts re-offending in justice-involved youth. It uses information collected from risk/needs, strengths, and responsivity factors to compile a tailored case-management plan.

The YLS/CMI 2.0 is comprised of 42 items that examine static, dynamic, and strength factors across seven domains⁷. The eight domains, which mirror the Central Eight factors are: prior and current offenses/dispositions (5 items); family circumstances/parenting (6 items); education/employment (7 items); peer relations (4 items); substance abuse (5 items); leisure/recreation (3 items); personality/behaviour (7 items); and attitudes/orientation (5 items).

The YLS/CMI 2.0 is scored based on an assessment of static and dynamic risk factors covering each domain via a semi-structured interview and collateral review of file information (e.g., legal documentation and school and family records) (Hoge & Andrews, 2011). The compilation of a total risk score (i.e., low, moderate, high, very high) is based on the summation of items that apply to the youth (e.g., items marked with an 'X'). Total scores can range from 0 to 42 with higher scores indicting a greater level of risk/needs and that more secure placements and more intensive interventions are warranted. There are also different cut-off scores for custodial and community youthful male and female offenders. For instance, a very high risk custodial male will range between 37 and 42, whereas a very high risk community male will range between 32 and 42. Notably, areas of strength are not included in the compilation of an offender's risk total; rather, strength ratings are used to guide case-management strategies.

⁷ Strengths are noted in all but the prior and current offenses/dispositions domain.

Psychometric properties. This measure demonstrates strong degrees of both internal consistency (Cronbach's alpha for total score ranged from .73 to .91) and inter-rater agreement (ICCs for total score ranged from .72 to .98) when gauging level of risk with justice-involved youth (Hoge & Andrews, 2011). In terms of validity, various studies examined the utility of the YLS/CMI 2.0 in predicting re-offending. Specifically, data primarily suggest that the YLS/CMI 2.0 is significantly predictive of both future general and violent offending. Although, four studies did report non-statistically significant findings, the statistically significant AUCs ranged from .59 to .77. The YLS/CMI 2.0 also demonstrates convergence with measures of theoretically related constructs, such as violent and sexual offending (Pearson's r correlations range from .24 to .91) (Hoge & Andrews, 2011). Overall, several psychometric evaluations demonstrate that this measure exhibits sound psychometric properties across a variety of settings when used with youth (Catchpole & Gretton, 2003; Hoge & Andrews, 2011; Righthand et al., 2005; Schmidt et al., 2005; Upperton & Thompson, 2007; Viljoen et al., 2009; Welsh et al., 2008).

The Hare Psychopathy Checklist: Youth Version. The Hare Psychopathy Checklist: Youth Version (PCL:YV; Forth et al., 2003) is a clinically based tool that examines the extent to which psychopathic related personality traits and behaviours are present in adolescents. It is comprised of 20 items, 18 of which can be categorized along four dimensions: interpersonal (e.g., "grandiose sense of self-worth" and "impression management"); behavioural (e.g., "impulsivity" and "irresponsibility"); affective (e.g., "lack of remorse" and "shallow affect"); and antisocial (e.g., "early behaviour problems" and "serious criminal behaviour"). The remaining two items that do not fall into any factor are, however, included in the tabulation of the PCL:YV total score.

The scoring for the PCL:YV is based on a semi-structured interview and a review of collateral file information. Each item is rated along a 3-point scale ranging from 0 to 2. A score of 0 indicates an item that is consistently absent, a score of 1 indicates the item is inconsistent/applies sometimes, and a score of 2 indicates the item is consistently present. Importantly, item scoring is based on the degree to which a youth's personality characteristics and behavioural dispositions match specific items (Kosson et al., 2002). Additionally, item scores reflect the consistency of the item across several life domains (e.g., school, home, peers). The item scores are then tallied to represent a total scale score ranging from 0 to 40 with higher scores indicating (a) a greater severity of psychopathic traits, (b) higher risk to reoffend, and (c) a greater likelihood to experience other negative outcomes (Catchpole & Gretton, 2010; Forth et al., 2003; Smith & Handler, 2006). Four factorially distinct subscale scores can also be tabulated: interpersonal (items 1, 2, 4, 5); behavioural (items 3, 9, 13, 14, 15); affective (items 6, 7, 8, 16); and antisocial (items 10, 12, 18, 19, 20). As previously mentioned, items 11 and 17 are not included in any of the four subscales, but are included in the calculation of the total composite score.

Psychometric properties. As per the PCL:YV manual, the developers report various psychometric data that supports the established reliability and validity of the tool (Forth et al., 2003). This measure demonstrates excellent degrees of internal consistency across various correctional settings (Cronbach's alpha ranging from .78 to .94) as well as excellent degrees of inter-rater agreement (ICCs ranging from .95 to .96). In terms of validity, this measure displays convergence with measures of general risk, learning disabilities, personality/mental health disorders (i.e., conduct disorder) (Pearson's correlations ranging from .21 to .75). Additionally, this measure displays strong predictive utility of future re-offending and violence in youth

displaying high degrees of psychopathic traits (AUCs ranging from .61 to .79) (Forth et al., 2003). In terms of concurrent validity, it displays moderate to large associations with other measures designed to assess psychopathic traits in adolescents (Pearson's correlations range from .34 to .78). Overall, several psychometric evaluations demonstrate that this measure exhibits sound psychometric properties across a variety of settings when used with youth (Catchpole & Gretton, 2010; Corrado, Vincent, Hart, & Cohen, 2004; Edens et al., 2007; Forth et al., 2003; Kosson et al., 2002; McEachran, 2011; Rogers et al., 2002; Schmidt, McKinnon, Chattha, & Brownlee, (2006); Schmidt et al., 2011; Vincent, Odgers, McCormick, & Corrado, 2008).

Procedure

This study is part of a larger project entitled, "*Gendered Pathways to Delinquency and Implications for Risk Assessment*" that was conducted by Dr. Shelley Brown, Carleton University, and Tracey Skilling, University of Toronto. The study was approved by the Ministry of Children and Youth Service Research Ethics Board and Carleton's Ethics Research Board. Research assistants were chosen by the principle investigator and underwent specific training and auditing to ensure consistent and accurate implementation of the three aforementioned tools. Prior to data collection, all research assistants were required to participate in several training sessions that involved empirical and theoretical descriptions of each measure, a discussion on issues related to administration and scoring, and information regarding each measure's psychometric properties.

Interview protocol. The principal investigator, Dr. Shelley Brown, developed the interview manual from semi-structured interview guidelines found in the YASI, YLS/CMI 2.0, and PCL:YV. Accordingly, the interview was developed to ensure that each of the three

measures could be scored in a manner consistent with each measure's respective scoring and interpretation guidelines. Given the overlapping content among the three measures, all necessary information for accurate coding was obtained from one semi-structured interview and a thorough file review.

To determine how well the Pathways semi-structured interview performed in capturing the desired information pertaining to risk, the principal investigator and research assistants piloted the interview manual with participants at the Roy McMurtry Youth Centre. Additionally, audit practices with all active research assistants using the pilot case files from RMYC were conducted. In these instances, each case file was scored on each measure and then compared across raters to examine common scoring mistakes and patterns of rating styles (e.g., low versus high rating styles across raters). To note, there were no standardized instructions for the ordering of scoring each measure and, as such, scoring order varied as a function of research assistant preference. This auditing protocol was intended to ensure consistency and accuracy among researchers in properly administering and scoring each measure.

Recruitment strategy. The recruitment strategy involved staff informing youth of an opportunity to participate in a risk assessment research study⁸. If a youth expressed interest, they were directed to a confidential and private office where the researcher detailed the specifics of the study, including informed consent, the right to withdraw, confidentiality limits, and the potential of discussing sensitive information. If a youth decided s/he would like to participate, the researcher obtained informed consent either directly from the youth, if s/he was 16 or older, or from his/her parents or legal guardians, if the youth was 15 or younger. See Appendix D for informed consent forms for both parents/guardians and youth.

⁸ Recruitment procedures varied slightly at each research site.

Data collection protocol. Data collection involved the abovementioned specially designed two and a half hour semi-structured interview to ensure that all three measures could be coded most accurately. Although not specific to the study, the youth were also asked to complete a battery of self-report measures either with the aid of the researcher or on their own time. Once the researcher received the battery of questionnaires, the researcher then debriefed each youth on the importance of this research (see Appendix E for debriefing forms for both parents/guardians and youth) and provided each youth with compensation for his/her participation (see Appendix F for acknowledgment of payment form). Depending on the number of components completed, each participant received compensation in the form of either gift cards or money ranging from \$10.00 to \$30.00, where each component was worth \$10.00. As a final step in the data collection process, a systematic file review was conducted to obtain official criminal history information as well as any file information relevant to the scoring of each tool.

Inter-rater protocol. Two research assistants were chosen to recode 20 (i.e., 10 male, 10 female) randomly selected cases to examine the degree of agreement across raters for inter-rater reliability purposes. In coding the inter-rater cases, the inter-rater coding protocol mirrored the original data coding procedure; however, using audio recorded interviews rather than completing second interviews was the only distinctive difference in the two coding procedures. A third research assistant was also delegated to obtain and summarize file information, such as criminal offence data, for each randomly selected case.

Overall, inter-rater protocol required each research assistant to score the Pathways Coding manual, the PCL:YV, the YLS/CMI 2.0, and the YASI based on both the audio files of the original interviews and the appended file information, as collected from the third research

assistant. Lastly, a separate database was then developed in order to examine inter-rater agreement.

Security and confidentiality. Following data collection and scoring, all study documents were locked on Carleton University campus, separately from consent forms and documents with identifying information, in a secure location known only to the researchers and the principal investigator.

Results

Data Screening

Data entry errors. Prior to data analysis, frequency analyses were conducted to identify any data points that were entered incorrectly (i.e., values that fell beyond absolute score thresholds). Data entry errors were corrected by reviewing the original participant data files.

Missing data. Missing values diagnostics were also conducted to describe the percentage and pattern of missing data for each measure. Overall, a range of 0 to 27.6% of participant data was identified as missing across all three measures. See Table 3 for a detailed representation of missing data for each of the measures. The missing value analysis for the YASI full assessment revealed that at most, 27.6% (43/156) of the data was missing, whereas the YASI pre-screen evidenced at most, 16.7% (26/156) missing data. In contrast, the missing value analysis for the YLS/CMI 2.0 presented a much lower percentage of missing data, 3.8% (6/156). Lastly, the PCL:YV revealed that 6.4% (10/156) of the participants had missing data.

Table 3

Percentage of Missing Data for the YASI, YLS/CMI 2.0, and PCL:YV

Measures	Risk items missing		Protective/ Strength items missing	
	n	%	n	%
The YASI – Pre-Screen				
Total	26	16.7	4	2.6
The YASI – Full Assessment				
Total	43	27.6	27	7.3
Dynamic Total	25	6.0	26	6.7
Static Total	30	9.2	4	0.6
Criminal History	14	9.0	-	-
Family	10	6.4	6	3.8
Social Networks	7	4.5	3	1.9
Mental Health	5	3.2	-	-
Substance Use	0	0.0	-	-
School	2	1.2	1	0.6
Attitudes	9	5.7	9	5.7
Social/Cognitive Skills	14	9.0	14	9.0
Free Time and Employment	3	1.9	4	2.5
Violence/Aggression	3	1.9	2	1.3

Note. – Protective items are not applicable.

Table 3 (continued)

Measures	Risk items		Protective/ Strength items missing	
	missing			
	n	%	n	%
The YLS/CMI 2.0				
Total	6	3.8	1	0.06
Prior and Current Offenses/Disposition	0	0.0	0	0.0
Family Circumstances/Parenting	2	1.3	0	0.0
Education/Employment	3	1.9	0	0.0
Peer Relations	0	0.0	0	0.0
Substance Abuse	1	0.6	1	0.6
Leisure/Recreation	0	0.0	0	0.0
Personality/Behavior	0	0.0	0	0.0
Attitudes/Orientation	0	0.0	0	0.0
The PCL:YV ^a				
Total	10	6.4	-	-
Factor 1	3	1.9	-	-
Factor 2	3	1.9	-	-
Factor 3	3	1.9	-	-
Factor 4	2	1.3	-	-

Note. – Protective items are not applicable. ^a The items on the PCL:YV do not represent risk per se but rather an antisocial personality pattern.

Missing data on the PCL:YV was resolved by using the tool's standardized Quikscore pro-rated tables. In contrast, the developers of the YLS/CMI 2.0 have not developed any

standardized pro-rating guidelines to accurately deal with missing data. Personal communication with the YLS/CMI 2.0 developer, Dr. R. Hoge, confirms that if the measure has more than four omitted items, the measure is to be considered invalid. However, if less than four items were omitted a single score can be tallied manually but is not to be pro-rated (Dr. R. Hoge, personal communication, 2012). Similarly, guidelines on how to deal with missing data on the YASI have not been developed; thus, statistical approaches developed to deal with missing data were utilized.

To determine whether data was missing completely at random (MCAR; the missing pattern of the data on one variable is unrelated to the missing pattern on another variable or the values of the variable itself) or missing at random (MAR; the missing pattern of the data on one variable varies as a function of the missing pattern on another variable) (Green & Salkind, 2011), on the YASI pre-screen and full assessment, Little's MCAR statistical test (Little, 1988) was conducted. Little's MCAR tests revealed non-significance indicating that the pattern of missing data is MCAR, $\chi^2 = .006, p = 0.94$ for the YASI pre-screen and $\chi^2 = 312.78, p = 1.00$ for the YASI full assessment.

Independent *t*-tests were also examined for the YASI full assessment to determine the pattern of missing data. Because 230 independent *t*-tests were conducted, the chances of committing a Type I error (i.e., falsely rejecting the null hypothesis) must be controlled. Accordingly, the traditional Bonferroni correction was applied to test each independent *t*-test at the .05 level (Field, 2005). Results were consequently deemed significant if a *p* value of less than $.217^{-4}$ ($.05/230$) was reported. Independent *t*-tests, where the number of present items and the number of missing items acted as independent groups, all revealed non-significance (i.e., $p > .0000217$) suggesting the data was MCAR. Accordingly, pro-rating was the chosen method of

managing data that was found to be missing completely at random. If less than 25% of the data was found to be missing, pro-rating guidelines adapted from the PCL:YV were used. If more than 25% of the data was missing on any variable, the total value for that subscore remained missing.

Outliers. After missing data was dealt with, univariate outliers were examined for each variable. Any standardized score exceeding the ± 3.29 z-score threshold was considered an outlier; to address this, all outlying values were adjusted to fall within ± 3.29 standard deviations of the mean. No outlying variables were found for the PCL:YV, the YLS/CMI 2.0, the YASI pre-screen or for the risk subscore variables on the YASI, however, a total of 25 outliers were found among the protective variables of the YASI. Nine cases contained the 25 outliers which had z-scores ranging from 3.30 to 4.38. The following protective variables contained outliers: (a) social dynamic protective subscore; (b) aggression dynamic protective; (c) attitudes dynamic protective; (d) skills dynamic protective; (e) total dynamic protective; and (f) overall protective.

Assumptions and normality. Normality was assessed via skew and kurtosis statistics as well as histogram charts. Notably, 15 variables demonstrated skewed (i.e., positively and negatively skewed) and kurtotic data. Data transformations (i.e., square root, logarithmic, and inverse transformations; Field, 2005) were conducted and square root transformations successfully dealt with non-normality on six variables. Six other variables were successfully dealt with by using the logarithmic transformation, but, unfortunately, three variables remained skewed although data transformations did evidence slight improvements. Importantly, correlation analyses were run with and without the transformed data and results did not change significantly; therefore, all final data analyses were conducted with non-transformed variables.

Additionally, assumptions of independence and linearity were examined from visual inspection of bivariate scatterplots; these assumptions were met.

Descriptives

Descriptive statistics of each measure at the total score level, including means, standard deviations, and range of scores, can be found in Table 4.

Table 4

Descriptive Statistics of the Total Scores of the YASI Pre-Screen and Full Assessment, the YLS/CMI 2.0, and the PCL:YV

Assessment Tool	N	M (SD)	Observed range
The YASI Pre-Screen			
Total Risk	156	57.22 (21.02)	0-101
Total Protective	156	7.99 (5.63)	0-25
The YASI Full Assessment			
Overall Risk	156	156.38 (48.92)	14-248
Total Static Risk	156	46.01 (17.69)	2-84
Total Dynamic Risk	156	110.32 (36.42)	8-182
Overall Protective	156	29.27 (15.69)	6-78
Total Static Protective	156	2.53 (2.01)	0-7
Total Dynamic Protective	156	26.78 (15.69)	4-73

Note. YASI – Youth Assessment Screening Instrument. The YASI full assessment total risk score was calculated via the addition of both static and dynamic risk items.

Table 4 (continued)

Assessment Tool	N	M (SD)	Observed range
The YLS/CMI 2.0			
Total Risk	155	20.86 (7.66)	1-35
Total Strength	155	1.25 (1.42)	0-6
The PCL:YV			
Total Score	156	18.89 (7.12)	1-34

Note. YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0. The PCL:YV – The Hare Psychopathy Checklist: Youth Version.

Level of Risk

Categorical cut-offs were used to determine the number of cases associated with each risk classification when assessing total level of risk on the YASI for both the pre-screen and full assessment (See Table 5). Level of risk classifications associated with the pre-screen total risk score are “low” risk (i.e., 0-15), “moderate” risk (i.e., 16-38), and “high” risk (i.e., 39+). Data trends for the pre-screen revealed the greatest proportion of cases, approximately 81.4%, were “high” risk. In addition to a single overall risk score and a single overall protective score, the YASI full assessment also computes four static and dynamic risk and protective classification ratings—1) static risk, 2) static protective, 3) dynamic risk, and 4) dynamic protective—that are each scored on a five point likert scale. See Appendix G for a detailed description of cut-off scores for the YASI, both pre-screen and full assessment. When comparing the proportion of cases falling in each risk category of both the YASI pre-screen and full assessment, an overall greater number of cases fell under “high” risk (See Table 5). At the subdomain level for the YASI full assessment, a greater proportion of cases fell under “moderate” to “high” risk classifications with a few exceptions where greater proportions of cases fell under “low” risk and

in some cases presented equal risk across levels (e.g., mental health static risk, attitudes static risk, and employment/free time static risk).

In contrast to the YASI, the YLS/CMI 2.0 generates four total risk classification scores dependent on the youth's current disposition (i.e., custodial or community based disposition) and gender. A somewhat different trend emerged for the YLS/CMI 2.0, as compared to the YASI, where a greater proportion of cases fell under the "low" and "moderate" risk categories as opposed to the "high" risk category. In terms of the subdomain risk level for the YLS/CMI 2.0, a similar trend to that of the total score emerged. Specifically, a significant proportion of cases fell under "moderate" to "high" risk classifications, with the two exceptions being the prior/current offences subdomain and family subdomain. For a detailed description of level of risk for both the YASI and YLS/CMI 2.0 at the risk and protective total and subdomain levels, see Appendices H through L. For graphic representations to assist in comparing and contrasting how youth are classified according to each tool, see Figures 1 through 3.

Table 5

Level of Risk for the Youth Assessment Screening Instrument Pre-Screen and Full Assessment and Youth Level of Service Case Management Inventory 2.0

Domain	N	None % (n)	Low % (n)	Mod.-Low % (n)	Moderate % (n)	Mod.-High % (n)	High % (n)	Very High % (n)
YASI Pre-Screen								
Total Risk	156	-	3.8 (6)	-	14.7 (23)	-	81.4 (127)	-
Total Protective	156	-	32.1 (50)	-	55.8 (87)	-	12.2 (19)	-
YASI Full Assessment								
Total Protective	156	0	16.7 (26)	-	64.7 (101)	-	18.6 (29)	-
Static Risk	156	-	3.8 (6)	-	6.4 (10)	-	89.7 (140)	-
Dynamic Risk	156	-	3.8 (6)	4.5 (7)	20.5 (32)	30.1 (47)	21.8 (34)	19.2 (30)
Static Protective	156	29.5 (46)	6.4 (10)	-	27.6 (43)	-	36.5 (57)	-
Dynamic Protective	156	-	0.6 (1)	7.7 (12)	45.5 (71)	32.7 (51)	9.0 (14)	4.5 (7)
YLS/CMI 2.0								
Community Male	20	-	40 (8)	-	35 (7)	-	25 (5)	0
Custodial Male	136	-	28.8 (45)	-	48.7 (76)	-	9.0 (14)	0

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

Research Question 1: Are both the YASI pre-screen and full assessment formats, including their subdomains, reliable in terms of internal consistency and inter-rater reliability?

The internal consistency of the YASI pre-screen, YASI full assessment, YLS/CMI 2.0, and PCL:YV were examined via Cronbach's alpha. Table 6 presents alpha coefficients associated with each measure's total scores.

Table 6

Cronbach's Alpha: Internal Consistency of the Total Scores of the YASI, YLS/CMI 2.0, and PCL:YV

Measures	n	α
The YASI Pre-Screen		
Total Risk	134	.82
Total Protective	152	.59
The YASI Full Assessment		
Total Risk	128	.89
Total Protective	129	.91
Total Static Risk	128	.78
Total Static Protective	152	.67
Total Dynamic Risk	132	.89
Total Dynamic Protective	130	.91

Note. YASI – Youth Assessment Screening Instrument

Table 6 (continued)

Measures	n	α
The YLS/CMI 2.0		
Total Risk	150	.87
Total Strength	155	.60
The PCL:YV		
Total Score	146	.85

Note. YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0, PCL:YV – Hare Psychopathy Checklist: Youth Version.

The total risk scores primarily demonstrate “acceptable” (i.e., $\alpha = .70$) to above “good” (i.e., $\alpha = .80$) degrees of internal consistency, as per the rules of thumb provided by George and Mallery (2007), with alphas ranging from .78 to .89. The total strength and protective scores demonstrate above “poor” (i.e., $\alpha > .50$) to “excellent” (i.e., $\alpha = .90$) degrees of internal consistency with alpha coefficients ranging from .59 to .91. Notably, less than “acceptable” degrees of internal consistency are primarily found for the strength and protective totals: the YASI pre-screen protective total ($\alpha = .59$), the YLS/CMI 2.0 total strength ($\alpha = .60$), and the YASI full assessment total static protective ($\alpha = .67$). Nonetheless, these results suggest that the YASI demonstrates that it consistently reflects the construct of risk in justice-involved youth.

In examining the internal consistency of the YASI Full Assessment risk subdomains (Table 7), the alpha coefficients range from .28 to .78. The YASI Full Assessment risk domains that meet or exceed the “acceptable” alpha threshold are legal history ($\alpha = .74$), family dynamic risk ($\alpha = .70$), community/peers dynamic risk ($\alpha = .77$), aggression dynamic risk ($\alpha = .70$), attitudes dynamic risk ($\alpha = .74$), and skills dynamic risk ($\alpha = .78$). The domains that exhibit

below “poor” levels of internal consistency are alcohol/drugs static risk ($\alpha = .28$), community/peers static risk ($\alpha = .32$), education static risk ($\alpha = .39$), employment/free time ($\alpha = .39$), family static risk ($\alpha = .40$), and mental health ($\alpha = .50$).

Table 7

Cronbach’s Alpha: Internal Consistency of the YASI Full Assessment Risk and Protective Domain Scores

	Risk				Protective			
	Static Risk		Dynamic Risk		Static Protective		Dynamic Protective	
YASI Domain Totals	n	α	n	α	n	α	n	α
Legal History	143	.74	-	-	^a	^a	^a	^a
Family	151	.40	151	.70	-	-	150	.81
School	155	.39	155	.60	-	-	155	.56
Peers/Community	151	.32	154	.77	-	-	153	.63
Alcohol/Drugs	156	.28	156	.69	^a	^a	^a	^a
Mental Health	151	.50	-	-	^a	^a	^a	^a
Aggression	-	-	154	.70	-	-	154	.71
Attitudes	-	-	150	.74	-	-	150	.71
Skills	-	-	142	.78	-	-	142	.86
Employment/Free Time	-	-	154	.39	155	.83	153	.58

Note. ^a Protective scores are not computed for legal history, alcohol/drugs, and mental health domains. - Static and dynamic risk and protective scores are not computed for the respective domains. YASI – Youth Assessment Screening Instrument

In examining the internal consistency of the YASI Full Assessment protective subdomains, the alpha coefficients range from .56 to .86 (Table 7). The protective subdomains of the YASI Full Assessment that demonstrate alpha levels that meet or exceed the “acceptable”

threshold are family dynamic protective ($\alpha = .81$), aggression dynamic protective ($\alpha = .71$), attitudes dynamic protective ($\alpha = .71$), skills dynamic protective ($\alpha = .86$), and employment static protective ($\alpha = .83$). The protective domains that exhibit below “questionable” (i.e., $\alpha = .60$) alphas are education dynamic protective ($\alpha = .56$) and employment/free time dynamic protective ($\alpha = .58$).

In regards to the YLS/CMI 2.0, the internal consistency alpha coefficients for risk subdomains range from .51 to .76 (See Table 8), which is comparative to the alpha range for the YASI full assessment. The domains that exhibit below “questionable” alpha coefficients are attitudes/orientation ($\alpha = .51$), leisure/recreation ($\alpha = .55$), personality/behaviour ($\alpha = .56$), and family ($\alpha = .57$). Importantly, internal consistency alpha coefficients are not available for the YLS/CMI 2.0 strength domains since each strength domain consists of one item.

Table 8

Cronbach's Alpha: Internal Consistency of the Youth Level of Service/Case Management Inventory 2.0 Subdomain Risk Totals

The YLS/CMI 2.0 Subdomain Risk Total	<i>n</i>	<i>α</i>
Prior/Current Offences	156	.76
Family	154	.57
Education	153	.60
Peer Relations	156	.70
Substance Abuse	155	.71
Leisure/Recreation	156	.55
Personality/Behaviour	156	.56
Attitudes/Orientation	156	.51

Note. YLS/CMI – Youth Level of Service/Case Management Inventory 2.0.

Inter-Rater Reliability

Using a two-way mixed model design with consistency agreement, averaged and single intraclass correlation coefficients (ICCs) were computed for all measures at both the total score and subdomain levels. Intra-class correlation coefficients examining degree of agreement between the original raters and inter-raters for the YASI pre-screen and full assessment total scores are presented in Table 9. Overall, risk and protective components of both the pre-screen and full assessment reveal excellent agreement between raters with averaged ICCs exceeding the “good” cut-off (i.e., $ICC > .75$) provided by Parkerson and colleagues (1993).

Table 9

Intra-Class Correlation Coefficients (ICC): Inter-rater reliability of the YASI Pre-Screen and Full Assessment Total Risk and Protective Scores

YASI Totals	Risk Component			Protective Component		
	N	ICC –	ICC –	N	ICC –	ICC –
		Single	Averaged		Single	Averaged
Pre-Screen Overall	15	.80	.89	15	.90	.96
Full Assessment Overall	15	.93	.96	15	.92	.96
Full Assessment Total Static	15	.76	.86	15	.85	.92
Full Assessment Total Dynamic	15	.86	.93	15	.93	.96

Intra-class correlation coefficients examining degree of agreement of the subdomains of the YASI full assessment are presented in Table 10. A closer examination of averaged ICCs reveal above “good” levels of agreement for the majority of risk and protective subdomains, as per ICC guidelines detailed by Parkerson and colleagues (1993). The risk and protective domains that demonstrate the greatest degree of agreement across raters are employment/free time static protective (.95), peers dynamic protective (.97), alcohol/drugs static risk (.99), and school

dynamic risk (.89). In contrast, the risk and protective subdomains that fall below the “adequate” ICC cut-off (i.e., less than .40) are attitudes static protective (.39) and peers static risk (.34).

Table 10

Intra-Class Correlation Coefficients (ICC): Inter-rater reliability of the YASI Full Assessment Risk and Protective Subdomains

	Static Protective			Dynamic Protective			Static Risk			Dynamic Risk		
	N	ICC – Single	ICC – Averaged	N	ICC – Single	ICC – Averaged	N	ICC – Single	ICC – Averaged	N	ICC – Single	ICC – Averaged
Domain Totals												
Legal History	-	-	-	-	-	-	14	.60	.75	-	-	-
Family	15	-	-	15	.64	.78	15	.85	.92	15	.40	.51
School	15	-	-	15	.90	.95	15	.84	.91	15	.80	.89
Peers/Community	15	-	-	15	.94	.97	15	.21	.34	15	.79	.88
Alcohol/Drugs	-	-	-	-	-	-	15	.99	.99	15	.76	.86
Mental Health	-	-	-	-	-	-	15	.71	.83	-	-	-
Aggression	-	-	-	15	.71	.83	15	.32	.49	15	.73	.84
Attitudes	13	.24	.39	14	.74	.85	13	.70	.83	14	.76	.86
Skills	-	-	-	14	.81	.89	-	-	-	14	.68	.81
Employment/Free Time	15	.90	.95	15	.49	.65	15	.74	.85	15	.49	.66

Note. – Domain scores are not computed and thus intraclass correlation coefficients are not computed.

Intra-class correlation coefficients examining agreement between original raters and inter-raters of the YLS/CMI 2.0 are presented in Table 11. Accordingly, the degree of agreement across raters at both the total risk and strength levels also reveal above “good” degrees of agreement across raters. The subdomain risk scores that exhibit above “good” degrees of agreement are prior/current offences (.91), family (.83), substance abuse (.92), leisure/recreation (.91), and attitudes (.85). There were no reports of any averaged ICCs for risk subdomains falling within the limits of “poor” agreement” (i.e., $ICC < .40$), however, education presented the lowest degree of inter-rater agreement with an $ICC = .49$, albeit it is still within “adequate” levels.

Table 11

Intra-Class Correlation Coefficients (ICC): Inter-rater reliability of the YLS/CMI 2.0 Risk

The YLS/CMI 2.0 Totals	Risk Component		
	N	ICC – Single	ICC – Averaged
Total	15	.81	.90
Prior/Current Offences	15	.84	.91
Family	15	.71	.83
Education	15	.33	.49
Peer Relations	15	.55	.71
Substance Abuse	15	.85	.92
Leisure/Recreation	15	.84	.91
Personality/Behaviour	15	.50	.67
Attitudes/Orientation	15	.74	.85

Note. – Strength component not applicable for the YLS/CMI 2.0 Prior/Current Offences domain.

^a Substance abuse and Personality/Behaviour domain produced negative ICCs.

In examining the strength subdomains, percent agreement was reported due to the dichotomous nature of the YLS/CMI 2.0 strengths (i.e., 0 = strength not present, 1 = strength present) and because the data presented cell count issues (i.e., less than a 5 expected cell count in any cell) (Table 12). Overall, the majority of strength domains presented above 80% agreement across raters. The two subdomains that presented lower percentages of agreement were the education/employment (67% agreement) and leisure/recreation (67% agreement) subdomains.

Table 12

Percent Agreement for Inter-rater reliability of the YLS/CMI 2.0 Strength Components

YLS/CMI 2.0 Strength Components	Agreement (N = 15)	
	<i>n</i>	%
Family	12	80
Education/Employment	10	67
Peer Relations	12	80
Substance Abuse	13	87
Leisure/Recreation	10	67
Personality/Behaviour	12	80
Attitudes/Orientation	13	87

Note. YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

The PCL:YV demonstrates robust agreement among raters with a total averaged ICC of .92 (See Table 13), which exceeds the “good” cut-off threshold. The four factors, however, produce a wide range of agreement with averaged ICCs ranging from .44 to .90. The affective factor demonstrates the greatest degree of inter-rater agreement with an ICC of .90 and although

there were no reports of any averaged ICCs falling below the “poor” threshold, the interpersonal factor presents a degree of agreement only slightly above “poor” with an ICC of .40.

Table 13

Intra-Class Correlation Coefficients (ICC): Inter-rater reliability of the PCL:YV

The PCL:YV	N	ICC – Single	ICC – Averaged
Total Score	15	.85	.92
Interpersonal Factor	15	.28	.44
Affective Factor	15	.78	.90
Behavioural Factor	15	.50	.67
Antisocial Factor	15	.69	.82

Note. PCL:YV – Hare Psychopathy Checklist: Youth Version

Research Question 2: Does the YASI display concurrent validity with the YLS/CMI 2.0?

Pearson’s r correlation analyses were conducted to examine the degree of similarity between the gold standard of risk/need assessment tools, the YLS/CMI 2.0, with the recently developed and implemented risk/need assessment tool, the YASI. Correlation analyses were first run at the total risk score level between the YLS/CMI 2.0 and the YASI (See Table 14). In general, the data demonstrates strong degrees of association with statistically significant correlation coefficients ranging from .72 to .85 and which present large effect sizes ($r = .50$), as per effect size guidelines from Cohen (1992). Notably, the overall risk scores for both the YASI pre-screen and full assessment demonstrate the strongest associations with statistically significant correlations of .81 and .85 respectively.

Table 14

Pearson's r Coefficients: Concurrent Validity between the YLS/CMI 2.0 Risk Total with the YASI Risk Totals

	<i>n</i>	<i>r</i>	95% CI
The YLS/CMI 2.0 – Total Risk Score			
The YASI Pre-Screen – Overall Risk	155	.81**	[.75, .86]
The YASI Full Assessment – Overall Risk	155	.85**	[.80, .89]
The YASI Full Assessment – Dynamic Risk	155	.79**	[.72, .84]
The YASI Full Assessment – Static Risk	155	.72**	[.64, .79]

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0.

* $p < .01$ ** $p < .05$

When comparing the degree of similarity between the YLS/CMI 2.0 strength factors and the YASI pre-screen and full assessment protective factors, results reveal weaker degrees of association in comparison to the risk totals of each measure (See Table 15). Although all correlation coefficients are statistically significant, their effect sizes range from “small” (i.e., $r = .10$) to large (i.e., $r = .50$). Results further reveal that the YLS/CMI 2.0 strength total correlates the strongest with the dynamic protective total ($r = .58$) but weakest with the static protective total ($r = .18$).

Table 15

Pearson's r Coefficients: Concurrent Validity between the YLS/CMI 2.0 Strength Total with the YASI Protective Totals

	<i>n</i>	<i>r</i>	95% CI
The YLS/CMI 2.0 – Total Strength Score			
The YASI Pre-Screen – Overall Protective	155	.42**	[.28, .54]
The YASI Full Assessment – Overall Protective	155	.57**	[.45, .67]
The YASI Full Assessment – Dynamic Protective	155	.58**	[.46, .66]
The YASI Full Assessment – Static Protective	155	.18*	[.02, .33]

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0.

* $p < .01$ ** $p < .05$

To further ascertain the degree of similarity between the YLS/CMI 2.0 and YASI full assessment, concurrent validity was also examined for the risk subdomains (See Table 16). This was done by matching subdomains that examined similar content, for example, both family sections from each measure would be matched. The relationship between legal/criminal history on both the YLS/CMI 2.0 and YASI full assessment demonstrates the highest degree of association with a statistically significant correlation coefficient of .79. In examining the statistically significant and large correlations more closely, the majority of associations between the YLS/CMI 2.0 with any YASI dynamic risk subdomains present statistically significant degrees of association with correlation coefficients ranging from .34 to .75. However, non-significant correlations emerged when the YASI free time/employment dynamic risk domain was matched with the YLS/CMI 2.0 education/employment and leisure/recreation domains.

Table 16

Pearson's r Coefficients: Concurrent Validity between the YLS/CMI 2.0 and YASI Full Assessment Risk Domains

Risk Subdomains	<i>N</i>	<i>r</i>	95% CI
YLS/CMI 2.0 Legal History			
YASI Criminal History Static Risk	155	.79**	[.72, .84]
YLS/CMI 2.0 Family/Parenting			
YASI Family Static Risk	151	.39**	[.25, .52]
YASI Family Dynamic Risk	156	.63**	[.52, .72]
YLS/CMI 2.0 Education/Employment			
YASI School Static Risk	155	.32	[.17, .46]
YASI School Dynamic Risk	155	.34**	[.19, .47]
YLS/CMI 2.0 Education/Employment			
YASI Free Time/Employment Static Risk	155	-.04	[-.20, .12]
YASI Free Time/Employment Dynamic Risk	154	.12	[-.04, .27]
YLS/CMI 2.0 Peer Relations			
YASI Social Network Static Risk	150	.34**	[.19, .47]
YASI Social Network Dynamic Risk	156	.66**	[.56, .74]
YLS/CMI 2.0 Substance Abuse			
YASI Substance Use Static Risk	155	.38**	[.24, .56]
YASI Substance Use Dynamic Risk	155	.75**	[.67, .81]

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

* $p < .01$ ** $p < .05$

Table 16 (continued)

Risk Subdomains	<i>N</i>	<i>r</i>	95% CI
YLS/CMI 2.0 Leisure/Recreation			
YASI Free Time/Employment Static Risk	155	.15	[.01, .30]
YASI Free Time/Employment Dynamic Risk	155	-.09	[-.23, .07]
YLS/CMI 2.0 Personality/Behavior			
YASI Social/Cognitive Skills Dynamic Risk	145	.58**	[.46, .68]
YLS/CMI 2.0 Personality/Behavior			
YASI Violence Static Risk	155	.46**	[.33, .58]
YASI Violence Dynamic Risk	154	.66**	[.56, .74]
YLS/CMI 2.0 Attitudes/Orientation			
YASI Attitudes Static Risk	153	.28**	[.13, .42]
YASI Attitudes Dynamic Risk	153	.75**	[.67, .81]

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

* $p < .01$ ** $p < .05$

Research Question 3: Does the YASI demonstrate convergent validity with the PCL:YV?

Convergent validity was examined between measures assumed either to be related or assumed to measure the same thing (DeVellis, 2010; Nunnally, 1967; Walsh & Betz, 2001). Accordingly, convergent validity was examined by correlating the YASI, both the pre-screen and full assessment, with the PCL:YV (See Table 17). These results demonstrate statistically significant and positive correlations, each with large effect sizes, among all measures, which suggest a certain degree of association among measures.

For comparative purposes, correlation analyses were also conducted between the YLS/CMI 2.0 and the PCL:YV to further examine how well the YASI performs in measuring what it is assumed to measure. Results reveal a statistically significant and positive association between the YLS/CMI 2.0 and PCL:YV, which is also similar in magnitude to the association between the YASI full assessment overall risk total and PCL:YV (See Table 17).

Table 17

Pearson's r Coefficients: Convergent Validity between the PCL:YV and the YASI and YLS/CMI 2.0

Measures	<i>N</i>	<i>r</i>	95% CI
The Hare Psychopathy Checklist: Youth Version			
The YASI – Pre-Screen Overall Risk	156	.76**	[.67, .82]
The YASI – Full Assessment Overall Risk	156	.81**	[.75, .86]
The YASI – Full Assessment Dynamic Risk	156	.74**	[.66, .80]
The YASI – Full Assessment Static Risk	156	.69**	[.60, .77]
The YLS/CMI 2.0 Total Risk	155	.80**	[.74, .85]

Note. YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

* $p < .01$ ** $p < .05$

Research Question 4: Is the YASI total risk outcome score postdictive of criminal history?

In order to assess post-diction, three outcome measures were correlated with the YASI full assessment. First, criminal offence history information, as measured by the Pathways coding manual, was classified into one of two offence-type groups to represent two outcome measures, non-violent offence outcome (i.e., theft, mischief, fraud) or violent offence outcome (i.e., murder, assault, robbery with a weapon), using the Cormier-Lang System as a guide for classifying offences according to severity (Quinsey et al., 1998) (See Appendix B). The

YLS/CMI 2.0 Prior and Current Offenses/Dispositions subdomain acted as the third outcome measure (See Table 18 for descriptive information of each outcome measure).

Table 18

Descriptive Information of the Three Offence Outcome Measures

Outcome Measures	N	M (SD)	Observed Range
The YLS/CMI 2.0 Prior/Current Offence Outcome	155	18.51 (6.71)	1-31
The Cormier-Lang Non-Violent Offence Outcome	154	10.58 (10.86)	0-88
The Cormier-Lang Violent Offence Outcome	154	15.08 (15.64)	0-52

Note. YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

In examining postdiction at the total score level, Table 19 demonstrates the correlation estimates among the three previously defined outcome measures with total scores from the YASI, YLS/CMI 2.0, and PCL:YV. Results indicate that the YASI overall risk score and static risk scores are significantly postdictive of the YLS/CMI 2.0 criminal offence outcome measure but not the Cormier-Lang violent offense and non-violent offense outcome measures. In contrast, the YASI dynamic risk score is significantly postdictive of both the YLS/CMI 2.0 criminal offence outcome measure, however, the magnitude of the correlation falls below the medium effect threshold (i.e., $r = .30$; Cohen, 1992). Lastly, the YASI dynamic risk score is also significantly postdictive of the Cormier-Lang non-violent offense outcome measure.

Table 19

Pearson's r Coefficients: Postdictive Validity of the YASI Full Assessment and YLS/CMI 2.0 Total Risk Scores with Measures of Criminal Offence Outcome

Measures	Cormier-Lang Violent Offence			Cormier-Lang Non-Violent			YLS/CMI 2.0 Current		
	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI
YASI Overall Risk ^a	154	.13	[-.03, .28]	154	.15	[.01, .30]	156	.36**	[.22, .49]
YASI Static Risk ^a	139	-.01	[-.18, .16]	139	.07	[-.10, .24]	141	.28**	[.12, .43]
YASI Dynamic Risk ^a	154	.15	[.01, .30]	154	.17*	[-.01, .32]	156	.35**	[.21, .49]
YLS/CMI 2.0 Total Risk ^a	153	.08	[.08, .24]	153	.17*	[.01, .32]	155	.50**	[.37, .61]
PCL:YV Total Score	154	.15	[.01, .31]	154	.17*	[.01, .33]	156	.50**	[.39, .71]

Note. ^aTotal risk scores exclude criminal history information, YASI – Youth Assessment Screening Instrument, YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0

* $p < .01$ ** $p < .05$

In examining postdictive ability for the YLS/CMI 2.0 total risk score, we see a similar trend to that of the YASI dynamic risk score. Specifically, the YLS/CMI 2.0 total risk score is not significantly postdictive of the Cormier-Lang violent offence outcome measure, but is found to be significantly postdictive of both the Cormier-Lang non-violent offence outcome measure and the YLS/CMI 2.0 current offence outcome measure. Notably, the YLS/CMI 2.0 risk total emerges as the strongest correlate with the YLS/CMI 2.0 criminal offence outcome measure. The PCL:YV total score also demonstrates significant correlations with both the YLS/CMI 2.0 offence outcome measure and the Cormier-Lang non-violent offence outcome measure. However, the magnitude of the effect size is “small” with the Cormier-Lang non-violent offence outcome measure.

In examining postdiction at the subdomain score level, Table 20 demonstrates the correlation estimates among the three previously defined outcome measures with subdomain scores from the YASI full assessment. Results indicate that the Cormier-Lang violent offence outcome measure is statistically significantly postdicted by the following YASI full assessment subdomains that exhibit “small” effect sizes: family static risk; social networks dynamic risk; attitudes dynamic risk; skills dynamic risk; and both aggression static risk and dynamic. In examining postdiction of the Cormier-Lang nonviolent offence outcome measure, the YASI peers’ dynamic risk and skills dynamic risk domains are both to statistically significant and exhibit “small” effect sizes. Lastly, the YLS/CMI 2.0 offence outcome measure was found to be statistically significantly postdicted by the following YASI domains that presented “small” to “medium” effect sizes: family dynamic risk; social networks dynamic risk; both substance abuse dynamic and static risk; education static risk; and skills dynamic risk.

Table 20

Pearson's r Coefficients: Postdictive Validity between Measures of Criminal Offense Information and Youth Assessment Screening Instrument Risk Domains

YASI Risk Domain	Cormier-Lang Violent Offence			Cormier-Lang Non-Violent			YLS/CMI 2.0 Current		
	Total			Offence Total			Offenses/Dispositions		
	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI
Family Static Risk	149	-.18*	[-.34, -.02]	149	-.06	[-.22, .10]	151	.10	[-.06, .26]
Family Dynamic Risk	154	.00	[-.16, .16]	154	.12	[-.04, .28]	156	.25**	[.10, .42]
Social Networks Static Risk	148	.03	[-.13, .19]	148	.15	[-.01, .31]	150	.11	[-.05, .27]
Social Networks Dynamic Risk	154	.17*	[.01, .33]	154	.21**	[.05, .34]	156	.38**	[.24, .56]
Mental Health Static Risk	154	-.07	[-.23, .09]	154	.01	[-.15, .17]	156	.07	[-.09, .23]
Substance Abuse Static Risk	154	-.05	[-.21, .11]	154	-.11	[-.27, .05]	151	.31**	[.16, .48]
Substance Abuse Dynamic Risk	154	-.12	[-.28, .04]	154	.08	[-.08, .24]	151	.33**	[.18, .50]
Education Static Risk	153	.10	[-.06, .10]	153	-.05	[-.21, .11]	155	.23**	[.07, .39]
Education Dynamic Risk	153	.07	[-.09, .23]	153	.05	[-.11, .21]	155	.04	[-.12, .20]
Attitudes Static Risk	151	.01	[-.15, .17]	151	-.08	[-.24, .08]	153	.04	[-.12, .20]
Attitudes Dynamic Risk	151	.22**	[.06, .38]	151	.12	[-.04, .28]	153	.15	[-.01, .31]

Note. YASI – Youth Assessment Screening Instrument

** $p < 0.01$ * $p < 0.05$

Table 20 (continued)

YASI Risk Domain	Cormier-Lang Violent Offence			Cormier-Lang Non-Violent			YLS/CMI 2.0 Current		
	Total			Offence Total			Offenses/Dispositions		
	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI
Social/Cognitive Skills Dynamic Risk	145	.21*	[.05, .37]	145	.21*	[.05, .37]	145	.28**	[.13, .45]
Free time/Employment Static Risk	153	.03	[-.13, .19]	153	.10	[-.06, .26]	155	.16	[.00, .32]
Free time/Employment Dynamic Risk	152	-.13	[-.29, .03]	152	-.01	[-.17, .15]	154	.15	[-.01, .31]
Aggression Static Risk	153	.28**	[.13, .45]	153	.12	[-.04, .28]	155	.33	[.18, .50]
Aggression Dynamic Risk	152	.29**	[.14, .46]	152	.12	[-.04, .28]	154	.40	[.26, .58]

Note. YASI – Youth Assessment Screening Instrument

** $p < 0.01$ * $p < 0.05$

In comparison, Table 21 presents the associations between the three outcome measures with each of the YLS/CMI 2.0 subdomains. Results indicate that the Cormier-Lang violent offence outcome measure is statistically significantly postdicted by the following YLS/CMI 2.0 subdomains with “small” effect sizes: peers; personality/behaviour; and attitudes/orientation. In terms of postdicting the Cormier-Lang non-violent offence outcome measure, results also demonstrate that family and attitudes subdomains from the YLS/CMI 2.0 are statistically significant and present “small” effect sizes. Lastly, all the seven YLS/CMI 2.0 domains are statistically significantly postdictive of the YLS/CMI 2.0 current offence outcome measure and present “small” to “medium” effect sizes.

Table 21

Pearson's r Coefficients: Postdictive Validity between Measures of Criminal Offense Information and Youth Level of Service/Case Management Inventory Risk Domains

YLS/CMI 2.0 Risk Domains	Cormier-Lang Violent Offence			Cormier-Lang Non-Violent			YLS/CMI 2.0 Current		
	Total			Offence Total			Offenses/Dispositions		
	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI	<i>n</i>	<i>r</i>	95% CI
Family	154	-.05	[-.21, .11]	154	.21**	[.05, .37]	156	.35**	[.21, .53]
Education /Employment	154	-.02	[-.18, .14]	154	.02	[-.14, .18]	156	.27**	[.12, .44]
Peer Relations	154	.23**	[.07, .39]	154	.09	[.07, .25]	156	.34**	[.19, .51]
Substance Abuse	153	-.14	[-.30, .02]	153	.14	[-.02, .30]	155	.41**	[.28, .60]
Leisure/Recreation	154	-.11	[-.27, .05]	154	.04	[-.12, .20]	156	.27**	[.12, .44]
Personality/Behaviour	154	.23**	[-.07, .40]	154	.11	[-.05, .27]	156	.30**	[.15, .47]
Attitudes/Orientation	154	.26**	[-.11, .43]	154	.16*	[.00, .32]	156	.32**	[.17, .49]

Note. YLS/CMI 2.0 – Youth Level of Service/Case Management Inventory 2.0.

** $p < 0.01$ * $p < 0.05$

Discussion

The field of corrections has witnessed a progression in the assessment and identification of at-risk youth via continued development and psychometric evaluation of risk assessment tools for youthful offenders. To date, many risk assessment tools have either been developed or adapted for use with adolescent offenders including the YLS/CMI 2.0 and the YASI (Hannah-Moffat & Maurutto, 2003; Hoge & Andrews, 2011; Orbis Partners, 2000b). However, as risk assessment tools continue to develop, so must the assessment of their psychometric properties to ensure accuracy in risk identification and, subsequently, resource allocation. Therefore, the purpose of this study was to examine key psychometric properties of the recently developed and implemented YASI risk assessment tool (Orbis Partners, 2000b). This study examined the YASI pre-screen and full assessment with a sample of male Canadian youthful offenders from the province of Ontario. Internal consistency, inter-rater reliability, concurrent validity, convergent validity, and postdictive validity were examined. In conducting the current study, four research questions were explored: 1) Are both the YASI pre-screen and full assessment formats, including their sub-domains, reliable in terms of internal consistency and inter-rater reliability?; 2) Does the YASI display concurrent validity with the YLS/CMI 2.0?; 3) Does the YASI demonstrate convergent validity with the PCL:YV?; and 4) Is the YASI total risk outcome score (excluding criminal offence information) postdictive of criminal history?

Risk Profiles for Risk Assessment Measures

The Youth Assessment Screening Instrument Risk Profile

When examining the risk profiles on both the YASI pre-screen and full assessment, data trends revealed a greater proportion of cases were identified as “high” risk. In line with previous research, youth serving custodial based dispositions are likely to evidence higher levels of risk

(Department of Justice Canada, 2012; Sanders, 1998), thus, this trend is to be expected given the primary custodial composition of the current sample. In contrast, data trends for the dynamic risk total on the YASI full assessment reveal a more equivalent proportion of cases falling across all risk classifications. This is likely due to the scoring nature of dynamic risk items which measures slight changes, if any, in level of risk over time leading to greater dispersion of cases across risk classifications. Furthermore, any evidence of positive change (i.e., reduction in risk), no matter how slight is more likely to be detected by dynamic items.

At the subdomain level for the YASI full assessment, 11 of 18 static and dynamic risk subdomains exhibited a greater proportion of cases falling under “moderate” to “high” risk classifications. As mentioned above, having a greater proportion of cases being classified as higher risk is expected due to the custodial composition of the sample. However, a few exceptions emerged for attitudes static risk and employment/free time static risk where a greater proportion of cases were classified as “no” risk and “low” risk. Notably, these two subdomains each contain a single item making it difficult to determine whether the items are accurately reflective or representative of each respective domain. Implications for future tool development would be to ensure risk subdomains are comprised of more than one item to better assess the quality of the items in measuring the interested characteristic.

In contrast to the two previously mentioned subdomains, the employment/free time dynamic risk and mental health static risk subdomains each demonstrated a more balanced proportion of cases across all risk classifications. As previously mentioned, the scoring nature of dynamic risk items capture slight changes, if any, in level of risk over time leading to greater dispersion of cases across risk classifications. However, in examining mental health specifically, research indicates that mental health issues are pervasive in offending populations (Abram,

Teplin, McClelland, & Dulcan, 2003; Abram, Teplin, Charles, Longworth, McClelland, & Dulcan, 2004; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Timmons-Mitchell, Brown, Schulz, Webster, Underwood, & Semple, 1997). Therefore, a dispersed proportion of cases across all risk levels for the mental health subdomain are likely given that mental health issues are prevalent in the general young offending population.

The Youth Level of Service/Case Management Inventory 2.0 Risk Profile

When examining risk profiles as per the YLS/CMI 2.0, results reveal a trend quite distinct from the YASI risk profile in that the YLS/CMI 2.0 total risk score classifies a significant proportion of cases in the “low” and “moderate” risk classifications. The finding that the YLS/CMI 2.0 total risk score is classifying youth as lower risk in comparison to the YASI total risk score is noteworthy. Plausible hypotheses warrant discussion. First, considering over-classifying risk in offenders is an issue associated with risk assessment (Jones, 2011; Jung & Rawana, 1999; Onifade et al., 2007), it is possible that the current sample is indeed lower risk and that the YASI is over-classifying risk in justice involved youth. The YASI pre-screen may be classifying a substantial greater proportion of youth as high risk in comparison to the YLS/CMI 2.0 because the YASI pre-screen is primarily comprised of static risk items. These items are considered historical and unchangeable (i.e., prior offences) suggesting that any information assessed by these factors is likely to accumulate rather than demonstrate a varying pattern (i.e., increases and decreases in risk) over time. This is problematic because if a youth has an extensive criminal history and was previously classified as high risk but has evidenced change via rehabilitation and treatment, these static risk items will not take into account any change, thereby determining the youth to still be high risk.

Second, perhaps the current sample is higher risk and the YLS/CMI 2.0 is under-classifying risk. In contrast, the YLS/CMI 2.0 total risk score is comprised of both static and dynamic items. Given that dynamic items by their very definition are more likely to change in either direction—good or bad, it is possible that the YLS/CMI 2.0 maybe lowering the overall risk score by incorporating dynamic information. However, these hypotheses can only be tested via multi-wave longitudinal designs that examine if changes occur among the dynamic items and whether any degree of change is substantial enough to reduce the overall risk level.

At the subdomain risk level for the YLS/CMI 2.0, similar findings to that of the YASI full assessment risk subdomains emerged. Specifically, the majority of risk subdomains were classified primarily as “moderate” to “high” risk, whereas, the family risk subdomain presented a greater proportion of cases in the “low” risk classification. Perhaps this sample demonstrated greater frequency in positive familial dynamics, which influenced the assessors in rating the family domain as lower risk. Another notable finding is a more balanced proportion of cases across risk categories for the prior/current offences subdomain. This finding is likely due to the mixed composition of the current sample in terms of disposition where risk level is more likely to vary from “low” to “high”. For instance, offenders who are serving community based dispositions are more likely to present less extensive criminal histories (Department of Justice Canada, 2012; Sanders, 1998), as opposed to offenders serving custodial sentences.

Reliability Analyses across Measures

Internal Consistency

This study illustrates that the YASI pre-screen and full assessment are generally reliable when the index of the reliability is internal consistency. In terms of the YASI pre-screen and full assessment risk total, above “good” degrees of internal consistency (i.e., $\alpha > .80$) emerged.

Furthermore, the YASI full assessment total risk score is comparable to that in Jones (2011), which also demonstrates above “good” degrees of internal consistency. However, the current alpha for YASI pre-screen total risk score (i.e., $\alpha = .82$) presents as more reliable than what Jones reports (i.e., $\alpha = .65$). In examining the internal consistency of the YASI full assessment risk subdomains, the alpha coefficients range from .28 to .78. These alphas emerge as comparable to that in Jones study where YASI risk subdomain alphas ranged from .42 to .86. The risk subdomains that exhibit below “poor” degrees of internal consistency (i.e., $\alpha > .50$) were alcohol/drugs static risk, community/peers static risk, education static risk, employment/free time, family static risk, and mental health. Notably, a plausible explanation for why static risk subdomains are demonstrating poor degrees of reliability, particularly in comparison to the more generally reliable dynamic risk subdomains, is likely attributable to these subdomains are comprised of risk factors that measure other various and unexpected aspects of risk apart from what they are expected to measure. In comparison to Jones’s study, the risk subdomains that exhibited below “poor” degrees of internal consistency were also alcohol/drugs, employment/free time, and mental health providing further similarities.

In contrast to risk, the alpha coefficients for the YASI pre-screen and full assessment total protective scores emerged as significantly different. Specifically, the YASI pre-screen presented a “questionable” alpha (i.e., $\alpha > .60$) for total protective score whereas the YASI full assessment total protective score presented an “excellent” alpha (i.e., $\alpha > .90$). This discrepancy in the YASI total protective factors are likely due to the reduced number of items capturing protective level on the YASI pre-screen as compared to the much greater number of protective items included in the YASI full assessment. Additionally, the protective items selected for assessment on the pre-screen may not be capturing protective factors as well as the protective

items do on the YASI full assessment. In comparison to previous research, Jones (2011) also reports an “excellent” degree of reliability for the YASI full assessment total protective score, however, her study did not examine protective factors on the pre-screen because the New York YASI pre-screen does not contain protective items (Jones, 2011). In examining the internal consistency of the YASI full assessment protective subdomains, the alpha coefficients range from .56 to .86. The protective domains that exhibited below “questionable” alphas (i.e., $\alpha > .60$) are education dynamic protective and employment/free time dynamic protective. Similarly, Jones reports peers, education, and free time as exhibiting below questionable alphas.

In general, the YASI pre-screen is found to measure risk factors more reliably than protective factors. In contrast, the YASI full assessment internal consistency results for both total risk and total protective factors both demonstrate comparable and above “good” degrees of reliability. Although more research is necessary to better understand strength and protective factors, current data suggests that the YASI is able to measure protective factors in a consistent manner. Overall, the results of the current study are consistent with previous research suggesting that the YASI is a reliable tool in assessing the construct of risk for justice-involved youth, although more research on protective factors is necessary.

Inter-Rater Reliability across Measures

Overall inter-rater agreement at both the total and subdomain levels for the YASI pre-screen and full assessment demonstrates “good” degrees of agreement (i.e., ICC $> .75$) across raters. Poor inter-rater agreement, however, did emerge at the subdomain level for attitudes and social networks of the YASI full assessment. To help explain why these results have emerged, current findings were compared to previous inter-rater agreement findings using the YASI tool (Skeem et al., 2011). Consistent with this study, Skeem and colleagues also noted below

adequate levels of inter-rater agreement for both the attitudes and social networks subdomains. This suggests that human bias and subjective interpretation of information presented to raters may account for the discrepancies. Implications associated with these findings include developing scoring guidelines that raters can refer to in order to ensure there is increased consistency in scoring over time and across raters.

In examining inter-rater agreement for the YLS/CMI 2.0 strength domains, percent agreement was used to examine degree of agreement across raters. Overall, two of the seven strength domains (i.e., education/employment and leisure/recreation) exhibited substantial agreement and the rest exhibited almost perfect agreement, as per guidelines provided by Landis and Koch (1977). Such high degrees of agreement are surprising given the limited guidelines on what constitutes a strength factor for a certain area. Nonetheless, the current findings indicate that raters exhibit the ability to rate strengths on the YLS/CMI 2.0 in a consistent fashion.

The PCL:YV total score demonstrates robust agreement among raters, however, individual factors present variable degrees of agreement across raters. Notably, the interpersonal factor produced the weakest degree of agreement across raters with agreement being slightly above “poor.” However, this finding is, in fact, in accordance with previous research conducted on the family of psychopathy checklist tools, which have consistently demonstrated the interpersonal factor as being one that is rated more poorly than the other factors (Edens, Boccaccini, & Johnson, 2010; Forth et al., 2003; Murrie, Boccaccini, Turner, Meeks, Woods, & Tussey, 2009). In addition, research examining inter-rater agreement of individual items demonstrates that the items that comprise the interpersonal factor emerge as the more poorly rated across raters. Research generally indicates that this finding is in part due to interpretation biases, respondent differences, inadequate training, bias inherent to the assessor, and variability

in rapport (Skeem & Cauffman, 2003). In comparison to previous empirical research, the current results are similar to those reported in the PCL:YV manual suggesting that the PCL:YV can be scored in a consistent manner across raters and settings (Forth et al., 2003).

Overall, when examining the inter-rater reliability estimates of the YASI pre-screen and full assessment against the psychometrically sound YLS/CMI 2.0 and PCL:YV assessment measures, comparative analyses reveal high degrees of similarity in inter-rater agreement coefficients. Accordingly, these findings, in conjunction with support from previous research, demonstrate that both the YASI pre-screen and YASI full assessment can be scored in a consistent manner across situations and raters. The data also suggests that the YASI is a well-developed tool with clear and consistent scoring and interpretation guidelines.

Validity analyses

Concurrent Validity between the YASI and YLS/CMI 2.0

First, concurrent validity was examined at the total risk score level between the YASI, using both the pre-screen and full assessment versions, and the gold-standard YLS/CMI 2.0. The four correlation coefficients emerged as statistically significant and demonstrated large effect sizes (i.e., $r = .50$; Cohen, 1992). These results suggest that the YASI pre-screen and YASI full assessment are comparable to the YLS/CMI 2.0 in assessing risk in youthful offenders. In examining concurrent validity at the subdomain level, each risk subdomain from both the YLS/CMI 2.0 and YASI full assessment that purported to examine similar constructs were matched accordingly. A total of 18 correlation coefficients were examined and 13 emerged as statistically significant whereas five did not. Of the 13 risk subdomains that were statistically significantly correlated, seven evidenced large effect sizes (i.e., $r = .50$), five evidenced medium effect sizes (i.e., $r = .30$), and one evidenced a small effect size (i.e., $r = .10$). To note, the

greatest similarity was found between the legal history subdomains of the YLS/CMI 2.0 and YASI full assessment. This finding is likely due to the static nature of the items being coded. For instance, official documents (e.g., police records of criminal history) were involved in the coding of both legal subdomains which reduced assessor interpretation.

In examining the statistically significant correlations more closely, a specific trend emerged with the dynamic risk subdomains. Specifically, associations between the YLS/CMI 2.0 risk subdomains with any YASI dynamic risk subdomains were primarily found to exhibit greater degrees of association and were also greater in effect size. This finding indicates that the YASI full assessment dynamic risk items are more comparable to the YLS/CMI 2.0 risk subdomains. This is not surprising considering the similar scoring timeline that was used in assessing the YLS/CMI 2.0 risk items and the YASI full assessment dynamic risk items. Briefly, the YASI dynamic risk items were scored based on a period of three months prior to the assessment date and similarly the YLS/CMI 2.0 risk items, excluding criminal offenses/disposition domain, were scored based on a period of a year prior to the assessment date.

Notably, non-significant findings did emerge between the YLS/CMI 2.0 education/employment and the YASI free time/employment dynamic risk domain as well as between the YLS/CMI 2.0 leisure/recreation domain and the YASI free time/employment dynamic risk domain. These findings are likely attributable to the multidimensional aspect of each domain (i.e., more than one need area is being assessed). Nonetheless, the current data indicates that the YASI and YLS/CMI 2.0 are not consistent in assessing risk in the following need areas: education; employment; and free time.

Transitioning to strength and protective factors, the four correlations among total strength and protective scores presented weaker associations, in comparison to risk totals, between the YLS/CMI 2.0 strength total and the protective totals of the YASI pre-screen and full assessment. Despite the weaker associations, all four correlation coefficients emerged as statistically significant. Additionally, three correlations were found to exhibit moderate to large effect sizes but the correlation between the YLS/CMI 2.0 strength total and the YASI full assessment static protective total exhibited a small effect size with an $r = .18$.

Generally, the weaker associations for strength and protective factors are likely due to the manner in which strength and protective items are scored on each measure. The YLS/CMI 2.0 allows raters to use more discretion in determining what constitutes a strength factor whereas the YASI provides more specificity in what is considered a protective factor. Additionally, each protective item on the YASI has a multiple response format option (i.e., “++ = very high protective factor” and “+ = high protective factor”) that is accompanied by a brief description of what should be considered when rating these items. Despite these findings, both tools demonstrated comparable degrees in assessing strengths and protective factors.

Overall, in examining concurrent validity between the widely considered gold-standard tool in assessing risk, the YLS/CMI 2.0, and the YASI, current findings indicate that the YASI examines risk to a similar degree to that of the YLS/CMI 2.0. Despite these positive findings, continued research examining similarity of performance with other well validated and reliable risk assessment measures is necessary particularly in examining strengths. The YLS/CMI 2.0 is not considered the gold-standard strengths measure, and as such, examining strengths and understanding the impact that strengths have on risk must be established prior to determining how well the YASI functions in that respect.

Convergent Validity between the YASI and the PCL:YV

Convergent validity was examined by correlating the YASI total risk scores from both the pre-screen and full assessment versions with the total score of the PCL:YV. The results demonstrate statistically significant and large positive correlations between the PCL:YV total score and YASI total risk scores, suggesting that the YASI presents exhibits strong convergence in assessing level of risk. Correlations were also conducted between the PCL:YV total score and the YLS/CMI 2.0 total risk score for comparative purposes to better understand the relationship between the YASI and the PCL:YV. First, the correlations between the YASI total risk scores and the PCL:YV total score display large effects indicating that the YASI examines risk to a similar degree to that of the PCL:YV. Second, results also reveal the degree of convergence between the PCL:YV total score and the YASI total risk score is quite similar to the degree of convergence between the PCL:YV total score and YLS/CMI 2.0 total risk score. This comparison indicates that both the YASI and YLS/CMI 2.0 both converge strongly with the notion of psychopathy. Overall, these results provide support that the YASI is a valid measure in assessing risk.

Postdictive Validity between Total Risk Scores and Measures of Criminal History

Postdictive validity was examined by correlating past criminal offence information with current total scores from the YASI full assessment (i.e., total risk, dynamic risk, static risk), YLS/CMI 2.0, and PCL:YV. The total risk scores did not include criminal history information so as to avoid tautology. Current finding demonstrate that all total risk scores of the YASI full assessment, the total risk score of the YLS/CMI 2.0, and the total score of the PCL:YV were not statistically significantly associated with violent offences, as measured by the Cormier-Lang violent offence outcome measure. However, the YASI full assessment dynamic risk total, the

YLS/CMI 2.0 risk total, and the PCL:YV total score were found to be significantly associated with non-violent, or general, offences, as measured by the Cormier-Lang non-violent offence outcome measure. In contrast, total scores from each measure were found to be significantly associated with general offence information, as measured by the YLS/CMI 2.0 offence outcome measure.

A plausible explanation regarding the poor and non-significant findings with the Cormier-Lang outcome measures, particularly with the violent offence outcome measure, could be simply because the current adapted version of the Cormier-Lang is not effective at classifying criminal offence information thereby presenting a reduced ability in being able to show significant associations with the total scores. It is also important to note that offence information was taken from the Pathways Offence Coding manual, which did not present enhanced specificity among offences. For example, the Pathways manual had only one option for sexual offences whereas the Cormier-Lang violent offence scale detailed six sexual offence severity options. Accordingly, due to the rare occurrence of some offences detailed on the Cormier-Lang Offence Severity scale, offence categories were collapsed into other categories. For example, all six offence classifications for sexual offences were collapsed into one aggregate 'sexual offences' category. Another possible explanation that requires further examination is the possibility that total risk scores are simply not postdictive of violent offences, as per the Cormier-Lang.

In examining the PCL:YV, the significant association between the PCL:YV total score and non-violent/general offences provides supporting evidence that the PCL:YV is a clinical rating scale that exhibits utility in examining general criminal offence information (Campbell, French, Gendreau, 2007, Forth et al., 2003). In sum, the current findings demonstrate the

comparable nature of each assessment tool in postdicting general offence information, which indicates that the YASI evidences some utility in effectively assessing risk and postdicting outcome based on criminal offence data.

Conclusion

Risk assessment informs a variety of critical decisions within the field of corrections and consequently, assessment tools are continually being developed to facilitate risk assessment, case-management, and treatment for optimal outcomes (i.e., reduced risk levels and appropriate treatment interventions) for justice-involved youth. Thus, to ensure that the most accurate decisions are being made, the examination of psychometric properties of tools that purport to systematically and objectively measure level of risk is necessary. The moderate to strong associations between the YASI and the two extensively validated and widely used measures considered as “gold standard” in the field of corrections, that is the PCL:YV and the YLS/CMI 2.0, in addition to the moderate to strong reliability findings, indicate that the YASI is a valid and reliable assessment tool in examining risk in justice-involved youth.

Limitations, Implications, and Future Research

Despite the overall findings indicating that the YASI is a comparable risk assessment tool to other well-validated and reliable tools, limitations must be recognized. This study included a relatively small sample size that consisted only of male justice-involved youth. Subsequently, the current male-only sample composition limits the generalizability of results. Therefore, to generalize across both male and female justice-involved youth, future studies should include a combined sample.

Moreover, the major function of a fourth-generation risk/need assessment tool is to be able to predict future re-offending based on current level of risk. This study did not have any

follow-up data to examine and therefore the lack of predictive data is a limitation. Consequently, the effectiveness of the YASI in predicting future recidivism for Canadian justice-involved youth remains unknown and, as such, requires examination. Despite the lack of predictive data, postdictive results, however, can be used to guide future hypotheses in later research studies.

In terms of reliability, poor internal consistency among certain risk and protective factors on both the YASI pre-screen and full assessment indicates that further examination of reliability is necessary. Further examination of inter-rater reliability is also necessary. Future studies should consider using video-taped interviews rather than audio-recorded files to conduct inter-rater reliability. Another possible option, although not operationally possible for this study, would be to have a second assessor present during the assessment interview. The sample size used for examining inter-rater reliability was also very small and therefore future research should examine inter-rater with a larger and more representative sample of both male and female justice-involved youth.

Overall, many decisions regarding a youth's experience with the criminal justice system are guided by valid and reliable assessment tools that serve primarily to classify justice-involved youth into categories that reflect varying degrees of risk (Hoge, 2011). Therefore, the implications are significant since this study is among the first to present various psychometric properties of a recently developed and implemented risk/need assessment measure, the YASI, with a sample of Canadian male youthful offenders. Despite the necessity for continued research, the results of this study, nonetheless, provide preliminary data that suggest the YASI functions as intended and exhibits promising utility as a new risk/need assessment measure in the field of corrections. This study also adds to the growing body of literature and offers guidance in conducting future psychometric studies examining the YASI pre-screen and full assessment.

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Appendix A

PATHWAYS STUDY: Demographic and Offence Coding Manual

1. **Date completed by researcher:** _____
(dd/mm/yyyy)

2. **Name of researcher:** _____

3. **Sample:**

- a. Marjorie Amos House
- b. Talitha House
- c. Roy McMurtry Youth Centre
- d. William E. Hay Youth Centre
- e. Child, Youth and Family Program
- f. Sherwood
- g. E-Fry Reintegration Worker Program
- h. E-Fry Diversion Program
- i. Other: _____

4. **Last known address (extract from file information)**

5. **Youth's date of birth (dd/mm/yyyy):** _____

6. **Current age:** _____

7. **Gender**

- a. male
- b. female

8. **Ethnicity:**

- a. Aboriginal
- b. African American
- c. Asian
- d. Caucasian
- e. East Indian
- f. Hispanic
- g. Other: _____

9. Current Disposition (i.e., only circle the one option that refers to the youth's current location):

- a. Probation
- b. Open custody
- c. Custody and Supervision Order (currently in custody)
- d. Custody and Supervision Order (currently in the community)
- e. Deferred Custody and Supervision Order
- f. Remand
- g. Conditional Discharge
- h. Intensive Supervision and Support Order (ISSO)
- i. Court ordered assessment (court outcome pending)
- j. Other: _____

10. Current Offence:

- a. Date of offence(s) _____ (date offence occurred or allegedly occurred)
(dd/mm/yyyy)
- b. Date of arrest _____
(dd/mm/yyyy)
- c. Date of conviction _____ (enter -88 if youth is on remand or awaiting sentencing)
(dd/mm/yyyy)

11. Current Disposition Information (enter '-88' for not applicable) (what is the most recent/current reason the youth is currently in custody)

- a. Probation: 0—No 1—Yes
- b. Length of Probation _____ (months)
- c. Date probation started: _____ (dd/mm/yyyy)
- d. Date probation scheduled to end: _____ (dd/mm/yyyy)
- e. Custody and Supervision Order: 0—No 1—Yes
- f. Length of custody order _____ (months)
- g. Date custody order started: _____ (dd/mm/yyyy)
- h. Date custody order scheduled to end or ended: _____ (dd/mm/yyyy)
- i. Length of supervision order _____ (months)
- j. Date supervision order started or scheduled to start: _____ (dd/mm/yyyy)
- k. Date supervision order scheduled to end: _____ (dd/mm/yyyy)
- l. Is this an adult sentence? 0—No 1—Yes
- m. Intensive Supervision and Surveillance Order (ISSO): 0—No 1—Yes
- n. Length of Intensive Supervision and Surveillance Order (ISSO): _____ (months)
- o. Date ISSO started or scheduled to start: _____ (dd/mm/yyyy)
- p. Date ISSO scheduled to end: _____ (dd/mm/yyyy)

- q. Intensive rehabilitative custody and supervision order (IRCS)? 0—No 1—Yes
- r. Date IRCS started or scheduled to start: _____ (dd/mm/yyyy)
- s. Date IRCS scheduled to end: _____ (dd/mm/yyyy)
- t. Remand? 0—No 1—Yes
- u. How long has youth been on remand as of interview date _____ (in days)
- v. Date remand started: _____
- w. Date of next scheduled court appearance: _____ (dd/mm/yyyy)
- x. Additional comments: _____
- y. Conditional discharge? 0—No 1—Yes
- z. Date of conditional discharge _____ (dd/mm/yyyy)
- aa. Court ordered assess. date _____ (dd/mm/yyyy)
- bb. Other sentencing disposition? 0—No 1—Yes
- cc. specify _____
- dd. Length of 'other': _____ (months)
- ee. Date 'other' started or scheduled to start _____ (dd/mm/yyyy)
- ff. Date 'other' scheduled to end _____ (dd/mm/yyyy)

12. # of official offences linked to current disposition (indicate actual number next to each):

- a. _____ Theft
- b. _____ Break and Enters
- c. _____ Narcotics (using/possession)
- d. _____ Narcotics (selling/transporting)
- e. _____ Robbery-no weapon
- f. _____ Robbery-with weapon
- g. _____ Minor assault
- h. _____ Major assault (e.g., aggravated, with bodily harm, with a weapon)
- i. _____ Homicide
- j. _____ Serious driving
- k. _____ Weapons-possession
- l. _____ Weapons-use
- m. _____ Threats
- n. _____ Breaches
- o. _____ UAL
- p. _____ Escapes
- q. _____ Sexual offences
- r. _____ Prostitution
- s. _____ Frauds
- t. _____ Obstruct
- u. _____ Other: _____

13. Aggregate Disposition Information (EXCLUDE current disposition information included above in question 11) /*note—AGGREGATE means all dispositions that the youth is technically still under supervision for—for example—they might have been on probation for 18 months—then, at 6 months they were arrested for homicide and have been remanded to custody pending the trial—while the homicide would be coded above under ‘current disposition’ the outstanding probation would be coded here; if they had successfully completed another probation order PRIOR to the one coded here in the aggregate disposition the prior probation would be coded below*/

- a. Probation: 0—No 1—Yes
- b. Length of probation _____ (months)
- c. Date probation started: _____ (dd/mm/yyyy)
- d. Date probation scheduled to end: _____ (dd/mm/yyyy)

- e. Custody and Supervision Order: 0—No 1—Yes
- f. Length of custody order _____ (months)
- g. Date custody order started: _____ (dd/mm/yyyy)
- h. Date custody order scheduled to end or ended: _____ (dd/mm/yyyy)
- i. Length of supervision order: _____ (months)
- j. Date supervision order started or scheduled to start: _____ (dd/mm/yyyy)
- k. Date supervision order scheduled to end: _____ (dd/mm/yyyy)

Is this an adult sentence? 0—No 1—Yes

- l. Intensive Supervision and Surveillance Order (ISSO): 0—No 1—Yes
- m. Length of Intensive Supervision and Surveillance Order (ISSO): _____ (months)
- n. Date ISSO started or scheduled to start: _____ (dd/mm/yyyy)
- o. Date ISSO scheduled to end: _____ (dd/mm/yyyy)

- p. Intensive Rehabilitative Custody and Supervision Order (IRCS)? 0—No 1—Yes
- q. Date IRCS started or scheduled to start: _____ (dd/mm/yyyy)
- r. Date IRCS scheduled to end: _____ (dd/mm/yyyy)

- s. Remand? 0—No 1—Yes
- t. How long has youth been on remand as of interview date _____ (in days)
- u. Date remand started: _____
- v. Date of next scheduled court appearance: _____ (dd/mm/yyyy)
- w. Additional comments: _____

- x. Conditional discharge? 0—No 1—Yes
- y. Date of conditional discharge _____ (dd/mm/yyyy)
- z. Court ordered assess. date _____ (dd/mm/yyyy)

- aa. Other sentencing disposition? 0—No 1—Yes

- bb. specify _____
 cc. Length of 'other': _____ (months)
 dd. Date 'other' started or scheduled to start _____ (dd/mm/yyyy)
 ee. Date 'other' scheduled to end _____ (dd/mm/yyyy)

14. # of official offences linked to aggregate disposition (exclude current rated in #12):

- a. _____ Theft
 b. _____ Break and Enters
 c. _____ Narcotics (using/possession)
 d. _____ Narcotics (selling/transporting)
 e. _____ Robbery-no weapon
 f. _____ Robbery-with weapon
 g. _____ Minor assault
 h. _____ Major assault (e.g., aggravated, with bodily harm, with a weapon)
 i. _____ Homicide
 j. _____ Serious driving
 k. _____ Weapons-possession
 l. _____ Weapons-use
 m. _____ Threats
 n. _____ Breaches
 o. _____ UAL
 p. _____ Escapes
 q. _____ Sexual offences
 r. _____ Prostitution
 s. _____ Frauds
 t. _____ Obstruct
 u. _____ Other: _____

15. # of official convictions in criminal history (exclude current and aggregate information):

- a. _____ Theft
 b. _____ Break and Enters
 c. _____ Narcotics (using/possession)
 d. _____ Narcotics (selling/transporting)
 e. _____ Robbery-no weapon
 f. _____ Robbery-with weapon
 g. _____ Minor assault
 h. _____ Major assault (e.g., aggravated, with bodily harm, with a weapon)
 i. _____ Homicide
 j. _____ Serious driving
 k. _____ Weapons-possession
 l. _____ Weapons-use
 m. _____ Threats
 n. _____ Breaches
 o. _____ UAL
 p. _____ Escapes
 q. _____ Sexual offences

- r. _____ Prostitution
- s. _____ Frauds
- t. _____ Obstruct
- u. _____ Other: _____

Official details of current 'index' offence(s)—what they are currently in custody for—most recent incident only

16. Number of accomplices: _____ (enter 0 for solo)

17. Relationship to accomplice(s)

- a. Family members _____
- b. Boyfriend/girlfriend
- c. Friends
- d. Acquaintances
- e. Strangers
- f. Other _____
- g. N/A (no accomplice)

18. Degree of planning

- a. Spontaneous (< hour)
- b. Limited (1 – 4 hours)
- c. Deliberate (< 1 day)
- d. Well-planned (more than a day)

19. Intoxicated?

- a. Drugs
- b. Alcohol
- c. Both
- d. No

20. Number of victims: _____

21. Who was the victim(s) (circle all that apply)

- a. Family member _____
- b. Boyfriend/girlfriend
- c. Friend
- d. Acquaintance
- e. Stranger
- f. Other _____
- g. N/A (no victim)

22. Gender of victim(s)

- a. Male
- b. Female
- c. Both

d. N/A (no victim)

23. Extent of physical injuries (most serious)

- a. No injury
- b. Slight injury, no weapon
- c. Slight injury, weapon
- d. Victim treated in clinic/ER and released
- e. Victim hospitalized at least one night
- f. Victim died
- g. N/A (no victim)

24. Degree of force used (most serious)

- a. None
- b. Threaten to use force, no weapon
- c. Threatened to use force, weapon
- d. Physical aggression, minor assault(hit, slap)
- e. Physical aggression, major assault (wounded)
- f. Caused death
- g. N/A (no victim)

25. Weapon used?

- a. Knife
- b. Gun
- c. Other _____
- d. N/A (none/no victim)

26. Apparent motivation (circle all that apply)

- a. Revenge
- b. Jealousy
- c. Rejection
- d. Anger
- e. Heated argument
- f. Face saving/status protection
- g. Economic (\$\$\$)
- h. Thrill/excitement
- i. Other _____

27. Official Version of Aggregate Offence Information

Note discrepancies. What did the victims/police/court say happened versus the youth? Objective is to provide the context of the youth's offence(s)—who were they with, why did they do it, was it planned/spontaneous? Were they drinking? What was the apparent motive? Also, it is important to include the youth's legal standing in this portion—for example, were they on bail at the time of this offence for another incident? In essence, you need to go back as far as you need to capture the youth's complete criminal justice involvement dating back

to the original disposition—e.g., might have gotten probation two years ago, committed a new offence while on probation, then got bail while awaiting their hearing for the new offence committed while on probation, then while on bail could have incurred a new series of charges that resulted in their current remand situation; what you don't count, however, is any 'old/past' criminal disposition information that is not part of this 'aggregate or run-on' criminal justice involvement; for example, if they had been in open custody BEFORE probation and their open custody placement successfully ended before they got probation for a new sentence, you would not count the prior open custody disposition.

Appendix B**Cormier-Lang System for Quantifying Criminal History**Group 1: Violent Offences

Homicide (murder, manslaughter, criminal negligence causing death)
 Attempted murder, causing bodily harm with intent to wound
 Kidnapping, abduction, and forcible confinement
 Aggravated assault, choking, administering a noxious thing
 Assault causing bodily harm
 Assault with a weapon
 Assault, assaulting a peace officer
 Aggravated sexual assault, sexual assault causing bodily harm
 Sexual assault with a weapon
 Sexual assault, gross indecency (vaginal or anal penetration; victim forced to fellate offender)
 Sexual assault (attempted rape, indecent assault)
 Gross indecency (offender fellates or performs cunnilingus on victim)
 Sexual assault (sexual interference, invitation to sexual touching)
 Armed robbery (bank store)
 Robbery with violence
 Armed robbery (not a bank or store)

Group 2: Nonviolent Offences

Robbery (bank, store)
 Robbery (purse snatching)
 Arson and fire setting (church, house, barn)
 Arson and fire setting (garbage can)
 Threatening with a weapon
 Threatening (uttering threats)
 Theft over* (includes car theft and possession of stolen property over)
 Mischief to public or private property over*
 Break and enter and commit an indictable offense (burglary)
 Theft under* (includes possession of stolen goods under)
 Mischief to public or private property under* (includes public mischief)
 Break and enter (includes breaking and entering with intent to commit an offence)
 Fraud (extortion, embezzlement)
 Fraud (forged check, impersonation)
 Possession of a prohibited or restricted weapon
 Procuring a person for, or living on the avails of prostitution
 Trafficking in narcotics
 Dangerous driving, impaired driving (drinking while intoxicated)
 Obstructing a peace officer (including resisting arrest)
 Causing a disturbance
 Wearing a disguise with the intent to commit an offense
 Indecent exposure

Appendix C

The YASI Scoring Manual

Things contained in this document:

Individual field and scoring:

1	Previous referrals for delinquent offenses						NEW
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A01	Integer	0	No				
		1	Yes				
			Maximum scores:				

- Sequence number (in black box at top left)
- Item (“question”) text (in top centre box)
- **NEW: Is Pre-Screen Item** (in orange box at top right)
- Database field name
- Data type
- Response values (assumed “True” for Boolean data type)
- Associated phrase (corresponds to each response value)
- Individual item score contribution (SR, DR, SP, DP)

Aggregate scoring:

Part A: Legal History				Totals			
1	Aggregate Scores for this domain						
			Associated phrase	SR	DR	SP	DP
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS Flag:							
Flag as “area of concern” in Pre-Screen display when:							

- Cutoff levels (Zero, Low, Moderate, High)
- Applicable domains (SR, DR, SP, DP)
- **NEW: Pre-Screen Flag:** A condition which, when met, causes a flag to display for this domain in Pre-Screen results display

Part A: Legal History

1 Previous police contacts for delinquent/criminal offenses: (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A01	Integer	0	No				
		1	Yes				
			Maximum scores:				

2 Age at first police contact for delinquent/criminal offenses:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A02	Integer	15+		0			
		13-14		1			
		<13		3			
			Maximum scores:	3			

3 Number of police contacts:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A03	Integer	0		0			
		1		0			
		2-3		3			
		4+		6			
			Maximum scores:	6			

4 Police contacts for felony offenses: (Category I offenses)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A04	Integer	0	No	0			
		1	Yes	2			
			Maximum scores:	2			

5 Transfers to adult court:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A05	Integer	0		0			
		1		0			
		2+		3			
			Maximum scores:	3			

6 Number of weapon offenses:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A06	Integer	0		0			
		1-2		5			
		3+		6			
Maximum scores:				6			

7 Police contacts for offenses against another person:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A07	Integer	0		0			
		1		0			
		2		3			
		3+		6			
Maximum scores:				6			

8 Police contacts for felony (Category I) offenses against another person:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A08	Integer	0		0			
		1		1			
Maximum scores:				1			

9 Number of placements with children or youth services:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A09	Integer	0		0			
		1-3		1			
		4+		4			
Maximum scores:				4			

10 Number of times admitted to remand:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A10	Integer			0			
Maximum scores:				0			

11 Number of times admitted to custody – either open or secure:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A11	Integer			0			
Maximum scores:				0			

Sum of A10 + A11

Field	Type	Value	Associated phrase	SR	DR	SP	DP
		0		0			
		1-2		2			
		3+		5			
			Maximum scores:	5			

12 Escapes:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A12	Integer	0		0			
		1+		6			
			Maximum scores:	6			

13 Failure-to-appear in court:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A13	Integer	0		0			
		1+		2			
			Maximum scores:	2			

14 Number of Petitions for Violations of Probation or Supervision:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
A14	Integer	0		0			
		1-4		3			
		5+		6			
			Maximum scores:	6			

Part A: Legal History							
Aggregate Scores for this domain							
			Associated phrase	SR	DR	SP	DP
			Low				
			Moderate				
			High				
			Maximum scores:				
PS: If Legal Risk = Moderate or High then display pre-screen flag.							

Part B: Family History

00 Family items do not apply (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B00	Boolean	True					
			Maximum scores:				

1a		Times kicked out of home:					ES
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B01a	Integer						
			Maximum scores:	0			

1b		Times run away:					ES
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B01b	Integer						
			Maximum scores:	0			

Sum of B01a + B01b							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B01		0		0			
		1-6		4			
		7+		6			
			Maximum scores:	6			

2		Has there ever been a family court finding of child neglect:					ES
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B02	Integer	0	No	0			
		1	Yes	2			
			Maximum scores:	2			

3		Compliance with parental rules:					ES
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B03	Integer	1	Youth usually obeys, and follows rules		0		4
		2	Youth sometimes obeys, or obeys some rules		1		0
		3	Youth often disobeys rules		5		0
		4	Youth consistently disobeys, and/or is hostile		6		0
		5	No pro-social rules in place		6		0
		0	Not Applicable		0		0
			Maximum scores:		6		4

4							PS
Circumstances of family members who are living in the household:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B04a1	Boolean	True	MOTHER: Not Applicable		0		
B04b1	Boolean	True	MOTHER: No Problems		0		
B04c1	Boolean	True	MOTHER: Alcohol/Drug Problems		+ 1		
B04d1	Boolean	True	MOTHER: Mental Health Problems		+ 2		
B04e1	Boolean	True	MOTHER: JD/Criminal Record		+1		
B04f1	Boolean	True	MOTHER: Violent JD/Criminal Record		+ 2		
			Maximum scores (Mother):		3		
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B04a2	Boolean	True	FATHER: Not Applicable		0		
B04b2	Boolean	True	FATHER: No Problems		0		
B04c2	Boolean	True	FATHER: Alcohol/Drug Problems		+ 1		
B04d2	Boolean	True	FATHER: Mental Health Problems		+ 2		
B04e2	Boolean	True	FATHER: JD/Criminal Record		+1		
B04f2	Boolean	True	FATHER: Violent JD/Criminal Record		+ 2		
			Maximum scores (Father):		3		
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B04a3	Boolean	True	STEP-PARENT: Not Applicable		0		
B04b3	Boolean	True	STEP-PARENT: No Problems		0		
B04c3	Boolean	True	STEP-PARENT: Alcohol/Drug Problems		+ 1		
B04d3	Boolean	True	STEP-PARENT: Mental Health Problems		+ 2		
B04e3	Boolean	True	STEP-PARENT: JD/Criminal Record		+1		
B04f3	Boolean	True	STEP-PARENT: Violent JD/Criminal Record		+ 2		
			Maximum scores (Step-parent):		3		
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B04a4	Boolean	True	SIBLING: Not Applicable		0		
B04b4	Boolean	True	SIBLING: No Problems		0		
B04c4	Boolean	True	SIBLING: Alcohol/Drug Problems		+ 1		
B04d4	Boolean	True	SIBLING: Mental Health Problems		+ 2		
B04e4	Boolean	True	SIBLING: JD/Criminal Record		+1		
B04f4	Boolean	True	SIBLING: Violent JD/Criminal Record		+ 2		
			Maximum scores (Sibling):		3		
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B04a5	Boolean	True	OTHER: Not Applicable		0		
B04b5	Boolean	True	OTHER: No Problems		0		
B04c5	Boolean	True	OTHER: Alcohol/Drug Problems		+ 1		
B04d5	Boolean	True	OTHER: Mental Health Problems		+ 2		
B04e5	Boolean	True	OTHER: JD/Criminal Record		+1		
B04f5	Boolean	True	OTHER: Violent JD/Criminal Record		+ 2		

			Maximum scores (Other):		3		
			Maximum scores (Entire Item):		15		
Apply cutoff to B04DR Sum.			If sum = 1-2 , B04DR = 1 If sum = 3, B04DR = 3 If sum = 4+ = B04DR = 5				

5 Historic problems of family members ... in the environment in which the youth was primarily raised:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B05a1	Boolean	True	MOTHER: Not Applicable	0			
B05b1			MOTHER: No Problems	0			
B05c1	Boolean	True	MOTHER: Alcohol/Drug Problems	+ 1			
B05d1	Boolean	True	MOTHER: Mental Health Problems	+ 1			
B05e1	Boolean	True	MOTHER: JD/Criminal Record	+ 1			
B05f1	Boolean	True	MOTHER: Violent JD/Criminal Record	+ 1			
Maximum scores (Mother):				3			
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B05a2	Boolean	True	FATHER: Not Applicable	0			
B05b2	Boolean	True	FATHER: No Problems	0			
B05c2	Boolean	True	FATHER: Alcohol/Drug Problems	+ 1			
B05d2	Boolean	True	FATHER: Mental Health Problems	+ 1			
B05e2	Boolean	True	FATHER: JD/Criminal Record	+ 1			
B05f2	Boolean	True	FATHER: Violent JD/Criminal Record	+ 1			
Maximum scores (Father):				3			
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B05a3	Boolean	True	STEP-PARENT: Not Applicable	0			
B05b3	Boolean	True	STEP-PARENT: No Problems	0			
B05c3	Boolean	True	STEP-PARENT: Alcohol/Drug Problems	+ 1			
B05d3	Boolean	True	STEP-PARENT: Mental Health Problems	+ 1			
B05e3	Boolean	True	STEP-PARENT: JD/Criminal Record	+ 1			
B05f3	Boolean	True	STEP-PARENT: Violent JD/Criminal Record	+ 1			
Maximum scores (Step-parent):				3			
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B05a4	Boolean	True	SIBLING: Not Applicable	0			
B05b4	Boolean	True	SIBLING: No Problems	0			
B05c4	Boolean	True	SIBLING: Alcohol/Drug Problems	+ 1			
B05d4	Boolean	True	SIBLING: Mental Health Problems	+ 1			
B05e4	Boolean	True	SIBLING: JD/Criminal Record	+ 1			
B05f4	Boolean	True	SIBLING: Violent JD/Criminal Record	+ 1			
Maximum scores (Sibling):				3			
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B05a5	Boolean	True	OTHER: Not Applicable	0			

B05b5	Boolean	True	OTHER: No Problems	0			
B05c5	Boolean	True	OTHER: Alcohol/Drug Problems	+ 1			
B05d5	Boolean	True	OTHER: Mental Health Problems	+ 1			
B05e5	Boolean	True	OTHER: JD/Criminal Record	+ 1			
B05f5	Boolean	True	OTHER: Violent JD/Criminal Record	+ 1			
			Maximum scores (Other):	3			
			Maximum scores (Entire Item):	15			

6 Youth's current living arrangements: (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B06a	Boolean	True	Mother				
B06b	Boolean	True	Father				
B06c	Boolean	True	Step-Parent				
B06d	Boolean	True	Siblings				
B06e	Boolean	True	Other Relative				
B06f	Boolean	True	Other Adult				
B06g	Boolean	True	Foster/Group Home				
B06h	Boolean	True	Independent				
B06i	Boolean	True	No permanent address/shelter				
B06j	Boolean	True	Other				
B06jText	Text		Other (specify)				
			Maximum scores:				

7 Parental/custodial supervision:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B07	Integer	1	Good supervision		0		2
		2	Some good supervision		2		0
		3	Some inadequate supervision		3		0
		4	Frequently inadequate supervision		4		0
		5	Consistently inadequate supervision		5		0
		0	Not Applicable		0		0
			Maximum scores:		5		2

8 Appropriate consequences for bad behavior:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B08	Integer	1	Consistently appropriate consequences		0		2
		2	Usually appropriate consequences		0		1
		3	Sometimes appropriate consequences		2		0
		4	Usually not appropriate consequences		5		0
		5	Never appropriate consequences		5		0
		0	Not Applicable		0		0

			Maximum scores:		5		2
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9 Appropriate rewards for good behavior:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B09	Integer	1	Consistently appropriate rewards		0		2
		2	Usually appropriate rewards		0		1
		3	Sometimes appropriate rewards		2		0
		4	Usually not appropriate rewards		5		0
		5	Never appropriate rewards		5		0
		0	Not Applicable		0		0
			Maximum scores:		5		2

10 Parental attitude toward youth's maladaptive behavior:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B10	Integer	1	Clearly disapproves...		0		
		2	Some disapproval...		0		
		3	Minimizes, denies, justifies...		6		
		4	Accepts...		6		
		5	Proud of...		6		
		0	Not Applicable		0		
			Maximum scores:		6		

11 Support network for family; extended family and friends who can provide additional support:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B11	Integer	1	Strong family support network				1
		2	Some family support network				0
		3	No family support network				0
		0	Not Applicable				0
			Maximum scores:				1

12 Family member(s) youth feels close to or has good relationship with:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B12a	Boolean	True	Mother/female caretaker				+1
B12b	Boolean	True	Father/male caretaker				+1
B12c	Boolean	True	Female sibling				+1
B12d	Boolean	True	Male sibling				+1
B12e	Boolean	True	Extended family				+1
B12f	Boolean	True	No one				+1
			Maximum scores:				1

13 Family provides opportunities for youth to participate in family activities:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B13	Integer	1	Family engages in regular or frequent ...				3
		2	Engages in some family activities				0
		3	No engagement in activities as a family				0
		0	Not Applicable				0
			Maximum scores:				3

14 Family provides opportunities for youth to learn, grow and succeed:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B14	Integer	1	Ongoing opportunities for growth provided				2
		2	Some opportunities for growth provided				0
		3	No opportunities for growth provided				0
		0	Not Applicable				0
			Maximum scores:				2

15 Parental love, caring, and support of youth:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B15	Integer	1	Consistent love, caring and support		0		2
		2	Usually demonstrates love, caring and...		0		1
		3	Inconsistent love, caring and support		4		0
		4	Usually uncaring, uninterested, unwilling...		5		0
		5	Hostile toward youth, berating and belittling		6		0
		0	Not Applicable		0		0
			Maximum scores:		6		2

16 Level of conflict between parents, between youth and parents, and among siblings:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
B16a	Boolean	<i>True</i>	No conflict		+0		
B16b	Boolean	<i>True</i>	Some conflict that is well managed		+ 1		
B16c	Boolean	<i>True</i>	Some conflict that is distressing		+5		
B16d	Boolean	<i>True</i>	Verbal intimidation, yelling, heated arguments		+ 5		
B16e	Boolean	<i>True</i>	Threats of physical violence		+ 6		
B16f	Boolean	<i>True</i>	Physical violence between parents		+ 6		
B16g	Boolean	<i>True</i>	Physical violence between parent, children		+ 6		
B16h	Boolean	<i>True</i>	Physical violence between siblings		+ 6		

B16i	Boolean	True	Not Applicable		0		
			Maximum scores:		35		

Apply these weights to B16DR – sum: 1-4=1 weight, 5-10=4 weight, 11+=6 weight

Part B: Family				Totals			
B	Aggregate Scores for this domain			SR	DR	SP	DP
			Associated phrase				
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS check if: IF Item 1 (B01a+B01b) = 1 or more OR Item 2 Risk (B02DR) = 3 or more OR Item 3 Risk (B03DR) = 1 or more OR Item 4 (B04x1, B04x2) = 1 or more (Note this is only parent checkboxes – series 1 and 2) then display pre-screen flag							

Part C: School

00i	Highest grade completed (not scored)			SR	DR	SP	DP
Field	Type	Value	Associated phrase				
C00i	Integer						
			Maximum scores:				

00	School items do not apply (not scored)			SR	DR	SP	DP
Field	Type	Value	Associated phrase				
C00	Boolean	True					
			Maximum scores:				

1	Youth's current school enrollment status, regardless of attendance: (not scored)			SR	DR	SP	DP
Field	Type	Value	Associated phrase				
C01	Integer	1	Graduated, GED				
		2	Enrolled full-time				
		3	Enrolled part-time				
		4	Dropped out				
		5	Suspended				
		6	Expelled				
		0	Not Applicable				
			Maximum scores:				

2		Youth's attendance in the last three months of school:					TS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C02	Integer	1	Attends regularly (at least 90% of time)		0		2
		2	Some partial-day unexcused absences		3		0
		3	Some full-day unexcused absences		4		0
		4	Five or more full-day unexcused absences		4		0
		0	Not applicable		0		0
			Maximum scores:		4		2

3		Youth's conduct in the last three months of school:					TS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C03	Integer	1	Positive behavioral adjustment		0		5
		2	No problems reported		0		4
		3	Infractions reported		2		0
		4	Intervention by school administration...		3		0
		5	Police reports filed by school		3		0
		0	Not Applicable		0		0
			Maximum scores:		3		5

4		Youth's academic performance in the last three months of school:					TS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C04	Integer	1	B+ or above		0		5
		2	C or better		0		2
		3	C- or lower		2		0
		4	Failing some classes		3		0
		5	Failing most classes		4		0
		0	Not Applicable		0		0
			Maximum scores:		4		5

5		Youth's current school conduct:					TS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C05	Integer	1	Consistent, stable		0		
		2	Improving		0		
		3	Worsening		5		
		0	Not Applicable		0		
			Maximum scores:		5		

6		Youth's current academic performance: (not scored)					TS
Field	Type	Value	Associated phrase	SR	DR	SP	DP

C06	Integer	1	Consistent, stable				
		2	Improving				
		3	Worsening				
		0	Not Applicable				
			Maximum scores:				

7 [Type of] special education student/learning, behavioural, or other disability, or formal IEP:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C07a	Boolean	True	No special education status	0			
C07b	Boolean	True	Learning	+ 1			
C07c	Boolean	True	Behavioral	+ 1			
C07d	Boolean	True	Mental Retardation	+ 1			
C07e	Boolean	True	ADHDADD	+ 1			
C07f	Boolean	True	Other:	+ 1			
C07fText	Text		Other(specified)	-			
			Maximum scores:	1	0	0	0

8 Youth believes receiving an education is beneficial to him or her:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C08	Integer	1	Believes		0		1
		2	Somewhat believes		4		0
		3	Does not believe		4		0
		0	Not Applicable		0		0
			Maximum scores:		4		1

9 Youth believes school provides a supportive and encouraging environment for him or her:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C09	Integer	1	Believes		0		2
		2	Somewhat believes		3		0
		3	Does not believe		6		0
		0	Not Applicable		0		0
			Maximum scores:		6		2

10a Out-of-school suspensions in last two years:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C10a	Integer						
			Maximum scores:	0			

10b In-school suspensions in last two years:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP

C10b	Integer						
			Maximum scores:	0			

10c	Expulsions since first grade:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C10c	Integer						
			Maximum scores:	0			

Sum of C10a + C10b + C10c							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C10		0		0			
		1		1			
		> 1		2			
			Maximum scores:	2	0	0	0

11	Age at first expulsion:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C11	Integer	0		0			
		1 - 12		2			
		> 12		0			
			Maximum scores:	2			

12	Youth's involvement in school activities during the most recent school year:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C12	Integer	1	Involved in two or more activities		0		1
		2	Involved in one activity		0		0
		3	Interested but not involved in any activities		1		0
		4	No interest in school activities		4		0
		0	Not Applicable		0		0
			Maximum scores:		4		1

13	Teachers/staff/coaches youth likes or feels comfortable talking with:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
C13	Integer	0					0
		1					1
		> 1					1
C13Text	Text		Other (specify)				-
			Maximum scores:				1

Part C: School				Totals			
C	Aggregate Scores for this domain						
			Associated phrase	SR	DR	SP	DP
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS Check if: IF Item 1 Risk (C01DR) = 1 or more OR Item 2 Risk (C02DR) = 2 or more OR Item 3 Risk (C03DR) = 2 or more OR Item 4 Risk (C04DR) = 2 or more then display Pre-Screen flag							

Part D: Community and Peers

1 Associates the youth spends his or her time with:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D01a	Boolean	True	Peers who have a positive pro-social infl...		0		+1
D01b	Boolean	True	No friends or companions, no consistent ...		+0		0
D01c	Boolean	True	Peers who have a negative delinquent...		+1		0
D01d	Boolean	True	Associates or has been seen with gang...		+4		0
D01e	Boolean	True	Family gang member		+3		0
D01f	Boolean	True	Belongs to a gang		+4		0
D01g	Boolean	True	None of the above		0		0
			Maximum scores:		12		1

Apply to D01DR – sum: 1-3=2 weight, 4-8=5 weight, 9+=6 weight

2 Attachment to positively influencing peer(s):							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D02a	Boolean	True	Youth maintains ... responsible ...		0		+1
D02b	Boolean	True	Youth admires or emulates...		0		0
D02c	Boolean	True	Youth has a best friend who is supportive ...		0		+1
D02d	Boolean	True	None of the above		4		0
			Maximum scores:		4		2

3 Admiration/emulation of high risk delinquent peers:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D03a	Boolean	True	Youth does not admire, emulate ...		0		2

D03b	Boolean	True	Youth minimally admires, emulates ...		+ 2		0
D03c	Boolean	True	Youth admires, emulates delinquent peers		+ 6		0
D03d	Boolean	True	Youth is a delinquent leader who is admired...		+6		0
Maximum scores:					6		2

4a	Number of months youth had been associating with negatively influencing/ delinquent peers:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D04a	Integer	<3		0			
		3 - 6		0			
		7 - 17		4			
		18+		5			
Maximum scores:				5			

4b	Number of months youth had been associating with negatively influencing/ delinquent peers:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D04b	Integer	<3		0			
		3+		6			
Maximum scores:				6			

5	Amount of free time youth spends with negatively influencing or delinquent peers:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D05	Integer	0	No negatively influencing or delinquent peers		0		4
		1	Spends one or two hours of free time ...		2		0
		2	Spends three to seven hours of free time ...		5		0
		3	Spends eight to 14 hours of free time ...		5		0
		4	Spends all or nearly all of free time		6		0
Maximum scores:					6		4

6	Strength of negatively influencing or delinquent peer influence:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D06a	Boolean	True	No negatively influencing or delinquent peers		0		4
D06b	Boolean	True	Does not go along with delinquent peers		0		0
D06c	Boolean	True	Sometimes goes along with delinquent peers		+ 1		0
D06d	Boolean	True	Usually goes along with delinquent peers		+ 3		0
D06e	Boolean	True	Leads delinquent peers		+ 3		0
Maximum scores:					7		4

Apply to D06DR – sum: 1=3 weight, 2-4=5 weight, 5+=6 weight

7 Number of existing positive adult relationships in the community:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D07	Integer	0					0
		1					1
		2-3					2
		4+					4
			Maximum scores:				4

8 Pro-social community ties:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
D08	Integer	0	Not Involved				0
		1	Involved				2
		2	Highly Involved				4
			Maximum scores:				4

Part D: Community/Peers				Totals			
D	Aggregate Scores for this domain						
			Associated phrase	SR	DR	SP	DP
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS Check if: If Item 1 Risk (D01DR) = 3 or more then display Pre-Screen flag							

Part E: Alcohol and Drugs

1a Alcohol/Drug Use (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01	Integer	0	No				
		1	Yes				
			Maximum scores:				

1c (Drug) Times Used in Last Three Months							DP
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01(x)2	Integer	raw					
			Maximum scores:				

Apply to E01(x)2DR=e01a2-e01j2 – sum: 1-5=2 weight, 6+=5 weight

1d (Drug) Disrupts Function							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01(x)3	Boolean	True					
Maximum scores:							

Apply to E01(x)3DR= e01a3-e01j3 – any true=4 weight

1e (Drug) Contributes to Behavior							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01(x)4	Boolean	True			1		
Maximum scores:					-		

Apply to E01(x)4DR= e01a4-e01j4 – any true=5 weight

1f (Drug) Age at First Use							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01(x)5	Integer	0 - 10		3			
		11 - 13		2			
		14		1			
		> 14		0			
Maximum scores:				3			

Apply to E01(x)5SR= e01a5-e01j5 – sum: 1-2=2 weight, 3-6=5 weight, 7+=6 weight

1g (Drug) Attempts to Cut Back (not scored)							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E01(x)6	Boolean	True					
Maximum scores:							

The above scoring applies to each drug as follows:

- A Alcohol I02a1 through I02a6
- B Marijuana I02b1 through I02b6
- C Cocaine/Crack I02c1 through I02c6
- D Ecstasy or other club drugs I02d1 through I02d6
- E Heroin I02e1 through I02e6
- F Hallucinogens (LSD, Acid) I02f1 through I02f6
- G Inhalants/Huffing I02g1 through I02g6
- H Amphetamines (Speed) I02h1 through I02h6
- I Prescription drug misuse I02i1 through I02i6
- J Other I02j1 through I02j6

2 Youth is receptive to participation in alcohol/drug treatment:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E02	Integer	0	NA/No problem		0		
		1	Receptive		4		
		2	Not Receptive		6		
Maximum scores:					6		

3 Previous alcohol/drug treatment:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
E03	Integer	0	NA/No problem	0			
		1	No	1			
		2	Yes	0			
Maximum scores:				1			

Part E: Alcohol and Drugs				Totals			
E Aggregate Scores for this domain							
			Associated phrase	SR	DR	SP	DP
Maximum scores:							
PS Check: "Score with existing cutoffs for FA, using only data from #1; M or H gets a flag; DR only." More concisely: IF E01DR > 4 then display Pre-Screen flag							

Part F: Mental Health

1a Mental Health Problems (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F01	Integer	0	No				
		1	Yes				
Maximum scores:							

1b [Drug]							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F01(x)1		True	Diagnosed	+ 2			
F01(x)2		True	Current Treatment		+ 2		
F01(x)3		True	Past Treatment	+ 2			
F01(x)4		True	Current Medication		+2		
F01(x)5		True	Past Medication	+ 2			
F01Text			Other (specify)	-	-		
Maximum scores:				2	2		

The above scoring applies to each Mental Health problem as follows:

- A Psychoses J04a1 through J04a5
- B Bipolar J04b1 through J04b5
- C Other mood disorders J04c1 through J04c5
- E Adjustment Disorders J04e1 through J04e5
- F Other J04f1 through J04f5

Scoring method:

Static and Dynamic scores for all mental health disorders are added together, and sums greater than 2 are treated as 2.

2 Homicidal ideation:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F02	Integer	0	No indications	0			
		1	Has planned or attempted to seriously harm ...	3			
			Maximum scores:	3			

3 Suicidal Ideation:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F03	Integer	0	No indications	0			
		1	Suicidal thoughts	2			
		2	Suicide attempt	2			
			Maximum scores:	2			

4 Sexual aggression: (not scored)							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F04	Integer	0	No indications				
		1	Indications				
			Maximum scores:				

5 History of physical or sexual abuse:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F05a1		True	None: Parent	0			
F05a2		True	None: Sibling	0			
F05a3		True	None: Other family	0			
F05a4		True	None: Outside family	0			
F05b1		True	Physical abuse: Parent	+3			
F05b2		True	Physical abuse: Sibling	+3			
F05b3		True	Physical abuse: Other family	+3			
F05b4		True	Physical abuse: Outside family	+3			
F05c1		True	Sexual abuse: Parent	+3			
F05c2		True	Sexual abuse: Sibling	+3			
F05c3		True	Sexual abuse: Other family	+3			
F05c4		True	Sexual abuse: Outside family	+3			
			Maximum scores:	3			

6 Victimization:							PS
Field	Type	Value	Associated phrase	SR	DR	SP	DP
F06a	Boolean	True	No indications	0			

F06b	Boolean	True	Sexual vulnerability/exploitation	+ 2			
F06c	Boolean	True	Victim of bullying	+3			
F06d	Boolean	True	Victim of physical assault	+3			
F06e	Boolean	True	Victim of property theft or damage	+4			
			Maximum scores:	12			

Apply to F06SR: f06a-f06e – sum: 1-6=3 weight, 7+=4 weight

Part F: Mental Health			Totals				
F	Aggregate Scores for this domain			SR	DR	SP	DP
			Associated phrase				
			Zero				
			Low (0 FLAGS)				
			Moderate (1 FLAG)				
			High (2 FLAGS)				
			Maximum scores:				
PS Check: IF FA check below produces at least 1 flag, then display Pre-Screen flag							
Scoring Mental Health Flags:							
PART A: If any of the following is true, gain 1 point:							
F01a1 through F01f1							
F05b1 through F05b4, F05c1 through F05c4							
F06b through F06e							
PART B: If any of the following is true, score 2 points automatically.							
F02 = 2							
F03 >1							
F04 = 2							
Total up all points, to a maximum of 2.							
0 points: 0 flags							
1 point: 1 flag							
2 points: 2 flags							

Part G: Aggression (and Violence)

I	Violence:			SR	DR	SP	DP	VI
Field	Type	Value	Associated phrase					
G01a	Boolean	True	No reports of violence	0				0
G01b	Boolean	True	Displaying a weapon	+ 6				+1
G01c	Boolean	True	Use of a weapon (illegally)	+ 3				+1
G01d	Boolean	True	Bullying/threatening people	+ 4				+1

G0e	Boolean	True	Violent destruction of property	+ 6				+1
G0If	Boolean	True	Assaultive behavior	+ 3				+1
G01g	Boolean	True	Assault causing serious injury...	+ 1				+ 1
G01h	Boolean	True	Deliberate fire starting	+ 4				+1
G01i	Boolean	True	Animal cruelty	+ 1				+ 1
			Maximum scores:	28				8

Apply to G01SR – g01a-g01i - sum: 1-3=0 weight, 4-9=2 weight, 10+=6 weight

2	Hostile interpretation of actions and intentions of others in a common non-confrontational setting:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP	VI
G02	Integer	0	Can easily tolerate criticism or hostility		0		5	
		1	Shows constraint in dealing with conflict		0		1	
		2	Recognizes that most people do not have		3		0	
		3	Frequently attributes hostile intentions to		5		0	
		4	Attributes almost all neutral actions ...		5		0	
			Maximum scores:		5		5	

3	Tolerance for frustration:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP	VI
G03	Integer	0	Never gets upset over small things or ...		0		4	
		1	Rarely gets upset over small things or ...		0		2	
		2	Sometimes gets upset over small things		3		0	
		3	Frequently gets upset over small things or ...		4		0	
		4	Highly volatile with reputation for fits of anger		4		0	
			Maximum scores:		4		4	

4	Belief in use of physical violence to solve a disagreement or conflict:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP	VI
G04	Integer	0	...rarely appropriate or necessary		0			
		1	...sometimes appropriate or necessary		4			
		2	...often appropriate or necessary		4			
			Maximum scores:		4			

5 Belief in use of verbal aggression to solve a disagreement or conflict:								
Field	Type	Value	Associated phrase	SR	DR	SP	DP	VI
G05	Integer	0	...rarely appropriate or necessary		0			
		1	...sometimes appropriate or necessary		3			
		2	...often appropriate or necessary		4			
			Maximum scores:		4			

Part G: Aggression				Totals				
G	Aggregate Scores for this domain			SR	DR	SP	DP	VI
			Associated phrase					
			Zero					
			Low					
			Moderate					
			High					
			Maximum scores:					
Scoring Violence Flags:								
Each violence response (G01): +1 point								
Legal History #6, #7: (A06) + (A07) > 0: +1 point								
Legal History #8: (A08) = 2: +1 point*								
* A08 and G01 might be redundant, so if G01 gives 1 point, don't add another point for A08 being 2+								
Flag count:								
0 pts = 0 flags; 1 pt = 1 flag; 2+ pts = 2 flags								
PS Check: IF 1 or more selections from G01, then display Pre-Screen flag								

Part II: Attitudes

1 Accepts responsibility for PINS/delinquent/criminal behavior:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H01	Integer	0	Voluntarily accepts full responsibility for...		0		3
		1	Recognizes that he or she must accept ...		0		3
		2	Indicates some awareness of need to ...		0		0
		3	Minimizes, denies, justifies, excuses, or ...		3		0
		4	Openly accepts or is proud of behavior		3		0
			Maximum scores:		3		3

2 Understands the impact of his or her behavior on others:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H02	Integer	0	Fully understands the nature of harm ...		0		2

		1	Indicates awareness that harm has been ...		1		0
		2	Does not understand or fully appreciate ...		5		0
		3	Minimizes or denies harm caused		5		0
		4	Total lack of empathy for harm caused ...		5		0
			Maximum scores:		5		2

3		Willingness to make amends:					
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H03	Integer	0	Eagerly indicates plans for making amends		0		3
		1	Indicates a desire to make amends		0		2
		2	Willing to cooperate with making amends		2		0
		3	Non-committal towards making amends		6		0
		4	Unwilling to make amends		6		0
			Maximum scores:		6		3

4		Optimism:					
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H04	Integer	0	Is very confident the future will be bright		0		2
		1	Looks forward to future with anticipation		0		1
		2	Believes some things matter...		3		0
		3	Believes little matters because ...		3		0
		4	Believes nothing matters, fatalistic		3		0
			Maximum scores:		3		2

5		Attitude when engaged in Delinquent/criminal act(s):					
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H05	Integer	0	Nervous, afraid or worried	0		2	
		1	Uncertain or indecisive	0		1	
		2	Unconcerned or indifferent	0		0	
		3	Hyper, excited, stimulated	1		0	
		4	Confident or brags	2		0	
			Maximum scores:	2		2	

6		Law-abiding attitudes:					
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H06	Integer	0	Clearly positive commitment ...		0		5
		1	Expresses a desire to live in a law-abiding ...		2		0
		2	Expresses neutral attitude toward ...		4		0
		3	Feels law-abiding behavior does not apply ...		6		0

		4	Openly admits unwillingness to ...		6		0
			Maximum scores:		6		5

7 Respect for authority figures:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H07	Integer	0	Indicates respect for the role of authorities		0		3
		1	Appreciates the role of authorities		0		2
		2	Expresses neutral attitude toward authorities		5		0
		3	Expresses resentment toward authorities		6		0
		4	Views all authorities with contempt		6		0
			Maximum scores:		6		3

8 Readiness for change:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
H08	Integer	0	Actively committed to working on change		0		4
		1	Shows cooperation in taking steps ...		0		1
		2	Believes there may be a need to change		4		0
		3	Exhibits only passive or no support for change		6		0
		4	Hostile or unwilling to make positive ...		6		0
			Maximum scores:		6		4

Part H: Attitudes				Totals			
II Aggregate Scores for this domain							
			Associated phrase	SR	DR	SP	DP
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS Check: IF H01DR > 0 then display Pre-Screen flag							

Part I: Skills

1 Consequential thinking skills:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I01	Integer	0	Acts to obtain good and avoid bad ...		0		5
		1	Can identify specific consequences ...		1		0

		2	Understands that there are good and bad ...		4		0
		3	Sometimes confused about consequences ...		4		0
		4	Does not understand there are consequences		4		0
			Maximum scores:		4		5

2 Social perspective-taking skills:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I02	Integer	0	Can accept other points of view ...		0		2
		1	Tries to understand other points of view		0		2
		2	Can reason there are two sides to a situation		3		0
		3	Difficulty understanding there are other ...		6		0
		4	Unwilling to recognize there can be other ...		6		0
			Maximum scores:		6		2

3 Problem-solving skills:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I03	Integer	0	Can apply appropriate solutions to problems		0		5
		1	Can generate different solutions to problems		0		1
		2	Can identify or describe problem behaviors ...		3		0
		3	Can sometimes identify problem behaviors ...		5		0
		4	Cannot identify when problem behaviors ...		6		0
			Maximum scores:		6		5

4 Impulse-control skills to avoid getting in trouble:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I04	Integer	0	Uses self-control techniques to avoid trouble		0		4
		1	Knows some self-control techniques ...		0		1
		2	Can identify triggers ...		4		0
		3	Usually fails to identify triggers		4		0
		4	Cannot identify triggers ...		5		0
			Maximum scores:		5		4

5 Loss of control over maladaptive behavior:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I05	Integer	0	Recognizes problem behavior is ...		0		4
		1	Strives for some control over own behavior		0		2
		2	Recognizes that some problem behavior ...		4		0
		3	Believes that most problem behavior ...		5		0
		4	Believes problem behavior is completely ...		5		0
			Maximum scores:		5		4

6 Interpersonal skills:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I06	Integer	0	Demonstrates social appeal through ...		0		4
		1	Can appropriately express needs and feelings		0		3
		2	Recognizes the need to nurture positive ...		2		0
		3	Has some difficulty in expressing needs ...		4		0
		4	Cannot express needs to others without ...		4		0
			Maximum scores:		4		4

7 Goal-setting skills:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
I07	Integer	0	Carefully sets out realistic goals and plans ...		0		4
		1	Demonstrates skills in developing realistic ...		0		2
		2	Recognizes the need to plan, but may set ...		4		0
		3	Lacks skills and motivation for developing ...		5		0
		4	Exhibits no interest or desire to set goals ...		5		0
			Maximum scores:		5		4

Part I: Skills			Totals				
1	Aggregate Scores for this domain						
			Associated phrase	SR	DR	SP	DP
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
PS Check: 1 or more in item #1 = checkbox							

Part J: Employment and Free Time

1	History of Employment:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J01a	Boolean	True	Currently employed	0		0	+1
J01b	Boolean	True	Never employed	0		0	0
J01c	Boolean	True	Prior successful employment	0		+1	+1
J01d	Boolean	True	Was fired or quit because of poor ...	+1		0	0
J01e	Boolean	True	Was fired or quit because ...	+2		0	0
			Maximum scores:	2		1	1

2	Total number of times youth has been employed:						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J02	Integer	0				0	
		1				1	
		> 1				2	
			Maximum scores:			2	

3	Number of weeks of longest period of employment						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J03	Integer	<4				0	0
		4 to 23				1	1
		> 23				2	2
			Maximum scores:			2	2

4	Positive personal relationship(s) with employer(s) or adult coworker(s):						
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J04	Integer	0					0
		1					0
		> 1					2
			Maximum scores:				2

5 Structured recreational activities:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J05	Integer	0	Involved in two or more activities		0		1
		1	Involved in one activity		0		1
		2	Interested but not involved		2		0
		3	Not interested in any activities		2		0
			Maximum scores:		2		1

6 Unstructured recreational activities: (not scored)							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J06	Integer	0	Involved in two or more activities				
		1	Involved in one activity				
		2	Interested but not involved				
		3	Not interested in any activities				
			Maximum scores:				

7 Challenging/exciting hobbies/activities:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J07	Integer	0	Identifies hobby(s) or activity(s) ...		0		1
		1	Can identify hobby(s) or activity(s) ...		0		1
		2	Cannot identify hobby(s) or activity(s) ...		3		0
			Maximum scores:		3		1

8 Decline in interest in positive leisure pursuits:							
Field	Type	Value	Associated phrase	SR	DR	SP	DP
J08	Integer	0	No change, or never experienced positive ...		0		0
		1	Decline in interest in positive leisure pursuits		2		0
		2	Recent increase in interest in positive ...		0		1
			Maximum scores:		2		1

Part J: Employment and Free Time				Totals			
J	Aggregate Scores for this domain			SR	DR	SP	DP
			Associated phrase				
			Zero				
			Low				
			Moderate				
			High				
			Maximum scores:				
Not a PS domain, so no PS Check condition.							

Appendix D

Consent to Participate in Pathways Assessment Research Study

Informed Consent Form – Guardian Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your (your child's) involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish your child to participate in the study.

Study Title: Assessment study

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University, University of Toronto and Queen's University. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of
Psychology, Criminology and Criminal
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Co-Investigator: Dr. Tracey Skilling, Child
Youth and Family Program, Clinical
Psychologist, Center for Addictions and
Mental Health & Centre for Criminology,
Department of Psychiatry, University of
Toronto
Phone: 416-535-8501 ext. 4578
EMAIL: tracey_skilling@camh.net

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

What is this study about? The purpose of this study is to evaluate our risk assessment measures. Risk assessment measures are commonly used to help decision makers identify who is most likely to come in contact with the criminal justice system in the future. The results of these measures are then used to determine what kind of intervention a youth should receive in order to reduce the risk of future criminal behaviour. Some of these measures have been researched extensively while others have not. It is important to compare the 'tried and true' measures with newer measures that may have clinical support but less scientific support in order to ensure that current assessment methods are state of the art.

What will you be asked to do? This study involves your child taking part in a risk assessment interview that takes approximately 2 to 2.5 hours to complete. The interview questions cover a wide range of areas thought to be related to criminal behavior (e.g., personality, family, friends, school, alcohol/drug use, relationships, mental health, and attitudes). We may also ask to tape record the interview to make sure the interviewers are doing what they are suppose to be doing. We are also asking that you grant us permission to access your child's William Hay files to retrieve additional demographic information, and background information regarding their past or current involvement with the criminal justice system. In the future we will be seeking permission from the Ministry of Children and Youth Services as well as a

Court of Law to obtain your child's official criminal conviction records (youth and adult) to see how the risk assessment measures being evaluated in this study relate to future criminal behavior. In addition, given that the nature of this study requires that we maintain your child's name and date of birth in our research database we must also seek permission from the Ministry of Children and Youth Services as well as a Court of Law to conduct this study.

In recognition of your child's time and participation in the study they will receive a \$10.00 gift card upon completion of the interview.

Potential risk/discomfort. Certain topics covered in the interview may be sensitive or uncomfortable. The topics may also bring up feelings or thoughts that your child hasn't experienced before. If any of the questions make them feel like they would like to discuss anything further it is suggested that they talk directly to someone in the psychology department at their institution. Also, given that this is a research study we will not be able to share individual diagnosis results with participants.

Right to withdraw and confidentiality. Your child's participation in this study is entirely voluntary and he or she has the right to withdraw at any time during the study without penalty. The data that we retrieve from your child's files are confidential. This means that the study information we retrieve will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to your child's answers. The principal research investigator will maintain a separate master file linking names to research identification numbers in a secure location. Your child's name will not appear in any research reports resulting from the study.

I have read the above description of the study entitled "Assessment Study". The data collected will be used in research publications and my child's personal identity will be fully protected. My signature indicates that I agree to allow my child to participate in the study, and this in no way constitutes a waiver of his or her rights.

Full Name (please print): _____

Parental Guardian Signature: _____

Date: _____

Witness Signature: _____

Date: _____

Consent to Participate in Pathways Qualitative Interview Research Study

Informed Consent Form – Guardian Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your (or your child's) involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish your child to participate in the study.

Study Title: Pathways to the criminal justice system: Are there gender differences?

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University and University of Toronto. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of Psychology, Criminology and Criminal Justice Institute, Carleton University
Phone: 613-520-2600 ext.1505 EMAIL: shelley_brown@carleton.ca

Co-Investigator: Dr. Tracey Skilling, Child Youth and Family Program, Clinical Psychologist, Center for Addictions and Mental Health & Centre for Criminology, Department of Psychiatry, University of Toronto
Phone: 416-535-8501 ext. 4578 EMAIL: tracey_skilling@camh.net

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

What is this study about? The purpose of this study is to find out why young females and young males come in contact with the criminal justice system. We are especially interested in hearing about these reasons directly from youth in their own words.

What will your child be asked to do? The study involves your child talking with a researcher for 1 ½ to 2 hours about past events in his/her life about their family life, how they spend free time, experiences with school, their friends, and dating, their thoughts, attitudes, feelings, coping strategies, past behaviours (e.g., drinking and/or drug use, rule breaking behaviours), medical history, mental health and questions about their neighborhood. We are also asking that you grant us permission to review your child's William Hey files to obtain information about his/her demographic information, offence history as well as the nature of his/her offences and official sentence information.

In recognition of your child's time and participation in this study, they will receive a \$10.00 gift card upon completion of the interview.

Potential risk/discomfort. During the course of the interview we may talk about certain topics that are sensitive or uncomfortable and they may bring up feelings or thoughts that your child hasn't experienced before. We will ask each youth throughout the interview about how they are feeling and whether or not they wish to take a break. We will also remind them that they do not have to answer any questions that

you do not wish to discuss. Also, at the end of the interview we provide each youth with list of staff members as well as external anonymous help lines that they can contact directly if they wish to talk further with someone.

Right to withdraw and confidentiality. Participation in this study is entirely voluntary. At any point during the interview each youth has the right to refrain from answering certain questions or to withdraw with no penalty whatsoever. The data collected in this study are confidential. This means that your child's answers will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to the answers. The research team will maintain a separate master file linking names to research identification numbers in a secure location. Your child's name will not appear in any research reports resulting from the study. Only the research team will have access to your child's answers. We will not share your child's answers with you or staff members *UNLESS* your child tell us about plans to harm him/herself or others, information concerning any unknown emotional, physical or sexual abuse of children, or information about any other criminal activities not already known to authorities. If your child tells us about any of these specific things we are required to report this information to the appropriate authorities (i.e., police, Children Aids Society or staff).

I have read the above description of the study entitled "Pathways to the criminal justice system: Are there gender differences?" The data collected will be used in research publications and my child's personal identity will be fully protected. My signature indicates that I agree to allow my child to participate in the study, and this in no way constitutes a waiver of my rights or his/her rights.

Statement of Disclosure. I understand that the information my child provides is confidential, and will never be revealed to anyone except under the following circumstances: if he/she discloses information about plans to harm him/herself or others, information concerning any unknown emotional, physical or sexual abuse of children, or information about any other criminal activities not already known to authorities, the researcher is required to report this information to the appropriate authorities.

Guardian/Parent Name (please print): _____

Guardian/Parent Signature: _____

Date: _____

Witness: _____

Date: _____

Witness Signature: _____

Consent to Participate in Pathways Questionnaire Research Study

Informed Consent Form – Guardian Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your (your child's) involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish your child to participate in the study.

Study Title: Pathways to the criminal justice system: Questionnaire study

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University, University of Toronto and Queen's University. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of Psychology, Criminology and Criminal Justice Institute, Carleton University
Phone: 613-520-2600 ext.1505 EMAIL: shelley_brown@carleton.ca

Co-Investigator: Dr. Tracey Skilling, Child Youth and Family Program, Clinical Psychologist, Center for Addictions and Mental Health & Centre for Criminology, Department of Psychiatry, University of Toronto
Phone: 416-535-8501 ext. 4578 EMAIL: tracey_skilling@camh.net

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

What is this study about? The purpose of this study is to find out why young females and young males come in contact with the criminal justice system in the first place, and why some youth return to the system while others do not. We are interested in examining a number of factors that are thought to be important based on past research, theory and clinical experience. For example, what role does personality, family, friends, school, alcohol/drug use, relationships, mental health, and personal attitudes have in bringing youth to the attention of the criminal justice system in the first place? Can these factors predict which youth will return to system in the future? We are especially interested in learning whether the factors are different or the same for males and females given that little is known in this area. While some of the factors we will be studying have been researched extensively, others have not. It is important to compare the 'tried and true' factors with newer factors that may have clinical support but less scientific support in order to ensure that current assessment methods are state of the art.

What will you be asked to do? This study involves your child completing a number of self-report questionnaires that take approximately 2 hours to complete. The questionnaires cover a wide range of areas thought to be related to criminal behavior (e.g., personality, family, friends, school, alcohol/drug use, relationships, mental health, and attitudes). We are also asking that you grant us permission to access your child's William Hey files to retrieve additional demographic information, and background information regarding your child's past or current involvement with the criminal justice system. In the

future we will be seeking permission from the Ministry of Children and Youth Services as well as a Court of Law to obtain your adolescent’s official criminal conviction records (youth and adult) to see how the various factors mentioned above relate to future criminal behavior. In addition, given that the nature of this study requires that we maintain your child’s name and date of birth in our research database we are also required to seek permission from the Ministry of Children and Youth Services as well as a Court of Law.

In recognition of your child’s time and participation in the study, they will receive a \$10.00 gift card upon completion of the questionnaires.

Potential risk/discomfort. Certain topics in the questionnaires may be sensitive or uncomfortable. The topics may also bring up feelings or thoughts that your child hasn’t experienced before. We will ask your child throughout the process about how they are feeling and whether or not they wish to take a break. We will also remind them that they do not have to answer any questions that they do not wish to discuss. Also, at the end of the study we will give them a list of staff members as well as a list of external anonymous help lines that they can contact directly if they wish to talk further with someone. Given that this is a research study we will not be able to share individual diagnostic results with participants.

Right to withdraw and confidentiality. Your child’s participation in this study is entirely voluntary and he or she has the right to withdraw at any time during the study without penalty. The data that we retrieve from your child’s files are confidential. This means that the study information we retrieve will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to your child’s answers. The principal research investigator will maintain a separate master file linking names to research identification numbers in a secure location. Your child’s name will not appear in any research reports resulting from the study.

I have read the above description of the study entitled “Pathways to the criminal justice system: Questionnaire Study” The data collected will be used in research publications and my child’s personal identity will be fully protected. My signature indicates that I agree to allow my child to participate in the study, and this in no way constitutes a waiver of his or her rights.

Full Name (please print): _____

Parental Guardian Signature: _____

Date: _____

Witness Signature: _____

Date: _____

Consent to Participate in Pathways Assessment Research Study

Informed Consent Form– Youth Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Study Title: Pathways to the criminal justice system: Assessment Study

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University and University of Toronto. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of
Psychology, Criminology and Criminal
Justice Institute, Carleton University,
Ottawa, ON

Phone: 613-520-
2600 ext.1505

EMAIL: shelley_brown@carleton.ca

Co-Investigator: Dr. Tracey Skilling, Child
Youth and Family Program, Clinical
Psychologist, Center for Addictions and
Mental Health & Centre for Criminology,
Department of Psychiatry, University of
Toronto

Phone: 416-535-
8501 ext. 4578

EMAIL: tracey_skilling@camh.net

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

What is this study about? The purpose of this study is to evaluate risk assessment measures. Risk assessment measures are commonly used to help decision makers identify who is most likely to come in contact with the criminal justice system in the future. The results of these measures are then used to determine what kind of intervention a youth should receive in order to reduce the risk of future criminal behaviour. Some of these measures have been researched extensively while others have not. It is important to compare the ‘tried and true’ measures with newer measures that may have clinical support but less scientific support in order to ensure that current assessment methods are state of the art.

What will you be asked to do? If you choose to take part in this research study you will be asked to take part in an interview that takes approximately 2 to 2.5 hours to complete. The interview questions cover a wide range of areas thought to be related to criminal behavior (e.g., personality, family, friends, school, alcohol/drug use, relationships, mental health, and attitudes). We may also ask to tape record the interview to make sure the interviewers are doing what they are suppose to be doing. We are also asking that you grant us permission to access your William Hay files to retrieve additional demographic information, and background information regarding your past or current involvement with the criminal justice system. In the future we will be seeking permission from the Ministry of Children and Youth Services as well as a Court of Law to obtain your official criminal conviction records (youth and adult) to

see how the risk assessment measures being evaluated in this study relate to future criminal behavior. In addition, given that the nature of this study requires that we maintain your name and date of birth in our research database we must also seek permission from the Ministry of Children and Youth Services as well as a Court of Law to conduct this study.

In recognition of your time and participation in the study we will give you a \$10.00 gift card.

Potential risk/discomfort. Certain topics in the risk assessment interview may be sensitive or uncomfortable. The topics may also bring up feelings or thoughts that you haven't experienced before. If any of the questions make you feel like you would like to discuss anything further it is suggested that you talk directly to someone in the Psychology Department. Also, given that this is a research study we will not be able to share individual diagnostic results with participants.

Right to withdraw and confidentiality. Your participation in this study is entirely voluntary and you are free to withdraw at any time without penalty. The data that we retrieve from your files are confidential. This means that the study information we retrieve will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to your answers. The principal research investigator will maintain a separate master file linking names to research identification numbers in a secure location. Your name will not appear in any research reports resulting from the study. Only the research team will have access to your answers. We will not share your answers with your parents or staff members **UNLESS** you tell us about plans to harm yourself or others, information concerning any unknown emotional, physical or sexual abuse of children, or information about any other criminal activities not already known to authorities. If you tell us about any of these specific things we are required to report this information to the appropriate authorities.

Statement of Disclosure. Your answers are private and your name won't be used. Your identity will be a secret but if you tell us about new crimes, or about abuse that you have experienced, or that someone else may be hurt, then we cannot keep this secret. We may have to call the police and/or the Children's Aid Society.

I have read the above description of the study entitled "Pathways to the Criminal Justice System: Assessment Study". The data collected will be used in research publications and my personal identity will be fully protected. My signature indicates that I agree to participate in the study, and this in no way constitutes a waiver of my rights.

Full Name (please print): _____

Participant Signature: _____

Date: _____

Witness Signature: _____

Date: _____

Consent to Participate in Research

Informed Consent Form – Youth Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Study Title: Pathways to the criminal justice system: Are there gender differences?

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University and University of Toronto. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of
Psychology, Criminology and Criminal
Justice Institute, Carleton University

Phone: 613-520-
2600 ext.1505

EMAIL: shelley_brown@carleton.ca

Co-Investigator: Dr. Tracey Skilling, Child
Youth and Family Program, Clinical
Psychologist, Center for Addictions and
Mental Health & Centre for Criminology,
Department of Psychiatry, University of
Toronto

Phone: 416-535-
8501 ext. 4578

EMAIL: tracey_skilling@camh.net

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) OR Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

What is this study about? The purpose of this study is to find out why young females and young males come in contact with the criminal justice system. We are especially interested in hearing about these reasons directly from you in your own words.

What will you be asked to do? The study involves talking with a researcher for 1 ½ to 2 hours about past events in your life ranging from family life, how you spend your free time, school experiences and friends to your thoughts, attitudes, feelings, coping strategies, dating experiences, past behaviours (e.g., drinking and/or drug use, rule breaking behaviours), medical history, mental health and your neighborhood. We will also be reviewing your official files to obtain information about your demographic information, offence history as well as the nature of your offences and official sentence information.

In recognition of your time and participation in the study we will offer you a \$10.00 gift card upon completion of the interview.

Potential risk/discomfort. During the course of the interview we may talk about certain topics that are sensitive or uncomfortable and they may bring up feelings or thoughts that you haven't experienced before. We will ask you throughout the interview about how you are feeling and whether or not you wish to take a break. Remember, you do not have to answer any questions that you do not wish to discuss.

Also, at the end of the interview we will give you a list of staff members as well as a list of external anonymous help lines that you can contact directly if you wish to talk further with someone.

Right to withdraw and confidentiality. Your participation in this study is entirely voluntary. At any point during the interview you have the right to refrain from answering certain questions or to withdraw with no penalty whatsoever. The data collected in this study are confidential. This means that your answers will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to your answers. The research team will maintain a separate master file linking names to research identification numbers in a secure location. Your name will not appear in any research reports resulting from the study. Only the research team will have access to your answers. We will not share your answers with your parents or staff members *UNLESS* you tell us about plans to harm yourself or others, information concerning any unknown emotional, physical or sexual abuse of children, or information about any other criminal activities not already known to authorities. If you tell us about any of these specific things we are required to report this information to the appropriate authorities.

Statement of Disclosure. Your answers are private and your name won't be used. Your identity will be a secret but if you tell us about new crimes, or about abuse that you have experienced, or that someone else may be hurt, then we cannot keep this secret. We may have to call the police and/or the Children's Aid Society.

I have read the above description of the study entitled "Pathways to the criminal justice system: Are there gender differences?" The data collected will be used in research publications and my personal identity will be fully protected. My signature indicates that I agree to participate in the study, and this in no way constitutes a waiver of my rights.

Full Name (please print): _____

Participant Signature: _____

Date: _____

Witness Signature: _____

Date: _____

Consent to Participate in Research

Informed Consent Form – Youth Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Study Title: Pathways to the criminal justice system: Questionnaire study

Who is conducting this study? This study is being conducted by a team of researchers from Carleton University and University of Toronto. Our contact information and additional affiliations are provided below.

Principal Investigator: Dr. Shelley Brown,
Assistant Professor, Department of
Psychology, Criminology and Criminal
Justice Institute, Carleton University,
Ottawa, ON

Phone: 613-520-
2600 ext.1505

EMAIL: shelley_brown@carleton.ca

Co-Investigator: Dr. Tracey Skilling, Child
Youth and Family Program, Clinical
Psychologist, Center for Addictions and
Mental Health & Centre for Criminology,
Department of Psychiatry, University of
Toronto

Phone: 416-535-
8501 ext. 4578

EMAIL: tracey_skilling@camh.net

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What is this study about? The purpose of this study is to find out why young females and young males come in contact with the criminal justice system in the first place, and why some youth return to the system while others do not. We are interested in examining a number of factors that are thought to be important based on past research, theory and clinical experience. For example, what role does personality, family, friends, school, alcohol/drug use, relationships, mental health, and personal attitudes have in bringing youth to the attention of the criminal justice system in the first place? Can these factors predict which youth will return to system in the future? We are especially interested in learning whether the factors are different or the same for males and females given that little is known in this area. While some of the factors we will be studying have been researched extensively, others have not. It is important to compare the ‘tried and true’ factors with newer factors that may have clinical support but less scientific support in order to ensure that current assessment methods are state of the art.

What will you be asked to do? If you choose to take part in this research study you will be asked to complete a number of self-report questionnaires that take approximately 2 hours to complete. The questionnaires cover a wide range of areas thought to be related to criminal behavior (e.g., personality, family, friends, school, alcohol/drug use, relationships, mental health, and attitudes). You can complete the questionnaires on your own using paper and pencil or, if you like, a student researcher will read the questions to you and complete the questionnaires on your behalf. We are also asking that you grant us permission to access your William Hay files to retrieve additional demographic information, and

background information regarding your past or current involvement with the criminal justice system. In the future we will be seeking permission from the Ministry of Children and Youth Services as well as a Court of Law to obtain your official criminal conviction records (adult and youth) to see how the various factors mentioned about relate to future criminal behavior. In addition, given that the nature of this study requires that maintain your name and date of birth in our research database we must also seek permission from the Ministry of Children and Youth Services as well as a Court of Law to conduct this study.

In recognition of your time and participation in the study we will offer you a \$10.00 gift card upon completion of the questionnaires.

Potential risk/discomfort. Certain topics in the questionnaires may be sensitive or uncomfortable. The topics may also bring up feelings or thoughts that you haven't experienced before. We will ask you throughout the process about how you are feeling and whether or not you wish to take a break. Remember, you do not have to answer any questions that you do not wish to discuss. Also, at the end of the study we will give you a list of staff members as well as a list of external anonymous help lines that you can contact directly if you wish to talk further with someone. Given that this is a research study we will not be able to share individual diagnostic results with participants.

Right to withdraw and confidentiality. Your participation in this study is entirely voluntary and you are free to withdraw at any time without penalty. The data that we retrieve from your files are confidential. This means that the study information we retrieve will be stored in an electronic research database with no names or personal identifiers. Only a research identification number will be assigned to your answers. The principal research investigator will maintain a separate master file linking names to research identification numbers in a secure location. Your name will not appear in any research reports resulting from the study. We will not share your answers with your parents or staff members *UNLESS* you tell us about plans to harm yourself or others, information concerning any unknown emotional, physical or sexual abuse of children, or information about any other criminal activities not already known to authorities. If you tell us about any of these specific things we are required to report this information to the appropriate authorities.

Statement of Disclosure. Your answers are private and your name won't be used. Your identity will be a secret but if you tell us about new crimes, or about abuse that you have experienced, or that someone else may be hurt, then we cannot keep this secret. We may have to call the police and/or the Children's Aid Society. Also, if you tell us about plans to hurt yourself we may have to tell staff.

I have read the above description of the study entitled "Pathways to the criminal justice system: Questionnaire Study" The data collected will be used in research publications and my personal identity will be fully protected. My signature indicates that I agree to participate in the study, and this in no way constitutes a waiver of my rights.

Full Name (please print): _____
 Participant Signature: _____
 Date: _____
 Witness Signature: _____
 Date: _____

Appendix E

Debriefing Form for Assessment Study – Guardian Debriefing

We would like to thank you for allowing your child to participate in this research. Their time and effort is greatly appreciated!

Why are we doing this research?

The purpose of this study was to evaluate risk assessment measures. Risk assessment measures are commonly used to help decision makers identify who is most likely to come in contact with the criminal justice system in the future. The results of these measures are then used to determine what kind of intervention a youth should receive in order to reduce the risk of future criminal behaviour.

Previous research on risk assessment measures has shown that most existing measures work very well with males. However, there is mixed evidence about how well these measures work with females. Therefore, one of the goals of this research was to learn more about how risk assessment works with females. We were also interested in testing a relatively new risk assessment measure that hasn't been fully evaluated. This particular measure is particularly promising because there are two different versions—one for males and one for females.

What do we expect to find?

We expect that while all of the measures should work well to some degree for all youth, we expect that the measure developed specifically for females should do the best for females. We also expect that how well a particular measure will perform will depend upon each youth's particular pathway to the criminal justice system. For example, we expect that the risk assessment measure that was developed specifically for females should do very well for female youth who have experienced trauma.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) risk assessment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact any member of the research team including: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca) or Tracey Skilling (phone 416-535-8501 ext 4578).

Any ethical concerns about this research?

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

Still want to know more?

If you would like to talk anonymously about any parenting issues(s) that may have surfaced as a result of your child's participation in this study please contact any one of the numbers below.

List of agencies and resources

Parent Guide: 1-877-645-7342 (toll free) (website: www.parentguide.ca)

Telephone Aid Line Kingston: 613-544-1111

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

AGAIN, THANKS SO MUCH for YOUR SUPPORT!

Debriefing Form for Qualitative Interview Study – Guardian Debriefing

We would like to thank you for allowing your child to participate in this research. Their time and effort is greatly appreciated!

Why are we doing this research?

Previous research based on in-depth interviews with women has concluded that negative family environments cause young women to run away from home and drop out of school. This triggers many other problems such as poverty, reliance on criminal others, mental health problems and homelessness that eventually lead to some form of involvement with the criminal justice system.

Unfortunately, this research is primarily American, somewhat dated, and based almost exclusively on samples of women. Researchers have rarely looked at samples of Canadian youthful females. Nor have they conducted in-depth interviews with males to see if the same model might apply equally well to males as well as females. Also, researchers that have used the in-depth interview method with women have rarely asked questions about factors traditionally linked to male criminal justice involvement (e.g., criminal history, attitudes, criminal friends).

The purpose of this study is to compare the reasons and pathways into the criminal justice system for youthful males and females using in-depth interview techniques that allow each youth to describe in their own words what they think caused them to come in contact with the criminal justice system.

What do we expect to find?

We expect that in some cases the reasons for getting in trouble with the criminal justice system will be the same for both males and females but in other cases, the reasons will be very different. For example, we expect that hanging around with friends who do crime and having attitudes that are supportive of crime will be more common in males than females. In contrast, we expect that mental health and family factors will be more common in females than males.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) treatment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact either member of the research team: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca; or Tracey Skilling (phone 416-535-8501 ext 4578; email: tracey_skilling@camh.net).

Any ethical concerns about this research?

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

Still want to know more?

If you would like to talk anonymously about any parenting issues(s) that may have surfaced as a result of your child's participation in this study please contact any one of the numbers below.

List of agencies and resources

Parent Guide: 1-877-645-7342 (toll free) (website: www.parentguide.ca)

Telephone Aid Line Kingston: 613-544-1111

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

AGAIN, THANKS SO MUCH for YOUR SUPPORT!

Debriefing Form for Qualitative Interview Study – Guardian Debriefing

We would like to thank you for allowing your child to participate in this research. Their time and effort is greatly appreciated!

Why are we doing this research?

Previous research based on in-depth interviews with women has concluded that negative family environments cause young women to run away from home and drop out of school. This triggers many other problems such as poverty, reliance on criminal others, mental health problems and homelessness that eventually lead to some form of involvement with the criminal justice system.

Unfortunately, this research is primarily American, somewhat dated, and based almost exclusively on samples of women. Researchers have rarely looked at samples of Canadian youthful females. Nor have they conducted in-depth interviews with males to see if the same model might apply equally well to males as well as females. Also, researchers that have used the in-depth interview method with women have rarely asked questions about factors traditionally linked to male criminal justice involvement (e.g., criminal history, attitudes, criminal friends).

The purpose of this study is to compare the reasons and pathways into the criminal justice system for youthful males and females using in-depth interview techniques that allow each youth to describe in their own words what they think caused them to come in contact with the criminal justice system.

What do we expect to find?

We expect that in some cases the reasons for getting in trouble with the criminal justice system will be the same for both males and females but in other cases, the reasons will be very different. For example, we expect that hanging around with friends who do crime and having attitudes that are supportive of crime will be more common in males than females. In contrast, we expect that mental health and family factors will be more common in females than males.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) treatment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact either member of the research team: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca); or Tracey Skilling (phone 416-535-8501 ext 4578; email: tracey_skilling@camh.net).

Any ethical concerns about this research?

If you have any ethical concerns about how this study is conducted, please contact Dr. Monique Sénéchal, monique_senechal@carleton.ca (Ethics Chair of the Department of Psychology at Carleton University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

Still want to know more?

If you would like to talk anonymously about any parenting issues(s) that may have surfaced as a result of your child's participation in this study please contact any one of the numbers below.

List of agencies and resources

Parent Guide: 1-877-645-7342 (toll free) (website: www.parentguide.ca)

Telephone Aid Line Kingston: 613-544-1111

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

AGAIN, THANKS SO MUCH for YOUR SUPPORT!

Debriefing Form—Assessment Study – Youth Debriefing

We would like to thank you for participating in this research. Your time and effort is greatly appreciated!

Why are we doing this research?

The purpose of this study was to evaluate risk assessment measures. Risk assessment measures are commonly used to help decision makers identify who is most likely to come in contact with the criminal justice system in the future. The results of these measures are then used to determine what kind of intervention a youth should receive in order to reduce the risk of future criminal behaviour.

Previous research on risk assessment measures has shown that most existing measures work very well with males. However, there is mixed evidence about how well these measures work with females. Therefore, one of the goals of this research was to learn more about how risk assessment works with females. We were also interested in testing a relatively new risk assessment measure that hasn't been fully evaluated. This particular measure is particularly promising because there are two different versions—one for males and one for females.

What do we expect to find?

We expect that while all of the measures should work well to some degree for all youth, we expect that the measure developed specifically for females should do the best for females. We also expect that how well a particular measure will perform will depend upon each youth's particular pathway to the criminal justice system. For example, we expect that the risk assessment measure that was developed specifically for females should do very well for female youth who have experienced trauma.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) risk assessment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact any member of the research team including: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca) or Tracey Skilling (phone 416-535-8501 ext 4578).

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Feeling emotionally drained after participating in the study?

If you are currently in the community and you would like to talk anonymously about any of the topics raised today such as bully, dating, friends, family or health please contact any one of the agency numbers below:

List of agencies and resources

Kids Help Phone: 1-800-668-6868 and www.kidshelpphone.ca

Distress Center of Toronto: 416-408-HELP (4357)

Telephone Aid Line Kingston: 613-544-1111

Girls and Boys Town: 1-800-448-3000

Breaking the cycle's Teen Helpline: 1-888-988-8336

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

Want to talk to a staff member?

If you would like to speak to a staff member please contact _____ in the Psychology Department.

AGAIN, thanks SO MUCH for YOUR SUPPORT

Debriefing Form— Qualitative Interview Study – Youth Debriefing

We would like to thank you for participating in this research. Your time and effort is greatly appreciated!

Why are we doing this research?

Previous research based on in-depth interviews with women has concluded that negative family environments cause young women to run away from home and drop out of school. This triggers many other problems such as poverty, reliance on criminal others, mental health problems and homelessness that eventually lead to some form of involvement with the criminal justice system.

Unfortunately, this research is primarily American, somewhat dated, and based almost exclusively on samples of women. Researchers have rarely looked at samples of Canadian youthful females. Nor have they conducted in-depth interviews with males to see if the same model might apply equally well to males as well as females. Also, researchers that have used the in-depth interview method with women have rarely asked questions about factors traditionally linked to male criminal justice involvement (e.g., criminal history, attitudes, criminal friends).

The purpose of this study is to compare the reasons and pathways into the criminal justice system for youthful males and females using in-depth interview techniques that allow each youth to describe in their own words what they think caused them to come in contact with the criminal justice system.

What do we expect to find?

We expect that in some cases the reasons for getting in trouble with the criminal justice system will be the same for both males and females but in other cases, the reasons will be very different. For example, we expect that hanging around with friends who do crime and having attitudes that are supportive of crime will be more common in males than females. In contrast, we expect that mental health and family factors will be more common in females than males.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) treatment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact either member of the research team: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca) or Tracey Skilling (phone 416-535-8501 ext 4578; email: tracey_skilling@camh.net)

Any ethical concerns about this research?

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Feeling emotionally drained after participating in the study?

If you are currently in the community and would like to talk anonymously about any of the topics raised today such as bully, dating, friends, family or health please contact any one of the agency numbers below:

List of agencies and resources

Kids Help Phone: 1-800-668-6868 and www.kidshelpphone.ca

Distress Center of Toronto: 416-408-HELP (4357)

Telephone Aid Line Kingston: 613-544-1111

Girls and Boys Town: 1-800-448-3000

Breaking the cycle's Teen Helpline: 1-888-988-8336

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

Want to talk to a staff member?

If you would like to speak to a staff member please contact _____ in the Psychology Department.

AGAIN, thanks SO MUCH for YOUR SUPPORT

Debriefing Form—Pathways Questionnaire Study – Youth Debriefing

We would like to thank you for participating in this research. Your time and effort is greatly appreciated!

Why are we doing this research?

Previous research based on in-depth interviews with women has concluded that negative family environments cause young women to run away from home and drop out of school. This triggers many other problems such as poverty, reliance on criminal others, mental health problems and homelessness that eventually lead to some form of involvement with the criminal justice system.

Unfortunately, this research is primarily American, based largely on one research method—the in depth interview, somewhat dated, and based almost exclusively on samples of women. Researchers have rarely looked at samples of Canadian youthful females. Nor have asked whether or not the same model might apply equally well to males as well as females.

The purpose of this study is to see if males and females come in contact with the criminal justice system for different reasons. We also want to compare the results of this study with another study we are conducting that is examining why youth come in contact with the criminal justice system using a different research method that relies on interviews.

What do we expect to find?

We expect that in some cases the reasons for getting in trouble with the criminal justice system will be the same for both males and females but in other cases, the reasons will be very different. For example, we expect that hanging around with friends who do crime and having attitudes that are supportive of crime will be more common in males than females. In contrast, we expect that mental health and family factors will be more common in females than males. We also expect that the most complete understanding of why youth come to the attention of the criminal justice system will come from using different methods that include both interviews and questionnaires.

Why is this research important?

This research has both theoretical and practical importance. Not only will it contribute to existing theories about male and female antisocial activity but it will also inform the development of gender-responsive (e.g., sensitive to the unique needs of males as well as females) treatment approaches for youth in the criminal justice system. Specifically, it will help ensure that all youth are getting the best evidence-based services that take individual differences into account.

Want to know more about this study and the results?

If you have any questions or comments about this research, please feel free to contact any member of the research team including: Shelley Brown (phone 613-520-2600 ext 1505, email: shelley_brown@carleton.ca or Tracey Skilling (phone 416-535-8501 ext 4578).

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University, 613-520-2600 ext. 1155) or Dr. Janet Mantler, janet_mantler@carleton.ca (Chair of the Department of Psychology at Carleton University, janet_mantler@carleton.ca, 520-2600, ext. 4173).

Feeling emotionally drained after participating in the study?

If you are currently in the community and you would like to talk anonymously about any of the topics raised today such as bully, dating, friends, family or health please contact any one of the agency numbers below:

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Distress Center of Toronto: 416-408-HELP (4357)

Telephone Aid Line Kingston: 613-544-1111

Girls and Boys Town: 1-800-448-3000

Breaking the cycle's Teen Helpline: 1-888-988-8336

The Covenant House: 1-800-999-9999

National Eating Disorder Information Center: 1-866-633-4220

Want to talk to a staff member? If you would like to speak to a staff member please contact _____
_____ in the Psychology Department.

AGAIN, thanks SO MUCH for YOUR SUPPORT!

Appendix F

Participant Acknowledgement of Study Payment

(Gift card version)

I hereby acknowledge that on _____ (e.g., Tuesday, May 12, 2011) I received either Tim Hortons, Chapters or Walmart gift cards (circle one) in the amount of \$ _____ (e.g., \$30.00) for participating in the Pathways Research Study.

Participant Signature: _____

Date: _____

Witness signature: _____

Date: _____

Participant Acknowledgement of Study Payment

(Canteen version)

I hereby acknowledge that on _____ (e.g., Tuesday, May 12, 2011) \$ _____ (e.g., \$30.00) was credited to my canteen account for participating in the Pathways Research Study.

Participant Signature: _____

Date: _____

Witness signature: _____

Date: _____

Appendix G

Youth Assessment Screening Instrument:

The Full Assessment and Pre-Screen Level of Risk Classification Cutoff Ranges

Youth Assessment Screening Instrument Pre-Screen Total				
	Overall Risk	Overall Protective	Legal History	Social History
Low	0-15	0-4	0-1	0-10
Moderate	16-38	5-14	2-12	11-27
High	39+	15+	13+	28+

	Static Risk	Dynamic Risk	Static Protective	Dynamic Protective	Overall Protective
Zero			0		0
Low	0-11	0-33	1	0-4	1-15
ModerateLow		34-56		5-10	
Moderate	12-17	57-91	2-3	11-23	16-41
Moderate High		92-121		24-44	
High	18+	122-142	4+	45-67	42+
Very High		143+		68+	

	Legal History				Family				School				Community/Peers				Alcohol/Drugs			
	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP
Zero	-				0	0		0	0	0		0	0		0	0	0	0		
Low	0-1				1	1-3		1-5	1	1-2		1-5	1	1-7		1-2	1	1-6		
Moderate	2-12				2-3	4-16		6-14	2-3	3-18		6-11	2-3	8-16		3-10	2-12	7-11		
High	13+				4+	17+		15+	4+	19+		12+	4+	17+		11+	13+	12+		

	Mental Health				Violence/Aggression				Free Time/Employment				Attitudes/Behaviors				Skills			
	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP	SR	DR	SP	DP
Zero	0					0		0	0	0	0	0	0	0	0	0		0		0
Low	1					1-3		1	-	1-2	-	1-2	-	1-7	-	1-5		1-7		1-8
Moderate	2-5					4-13		2-3	1	3-5	1	3-4	1	7-26	1	6-16		8-25		9-15
High	6+					14+		4+	2+	6+	2	5+	2+	27+	2+	17+		26+		16+

Appendix H**Descriptive Statistics of the Youth Assessment Screening Instrument - Full Assessment Risk Subdomains**

YASI Risk Subdomains	Static Risk		Dynamic Risk	
	<i>Mean (SD)</i>	<i>Observed range (#items)</i>	<i>Mean (SD)</i>	<i>Observed range (#items)</i>
Legal History	21.08 (10.68)	0-42 (12)	-	-
Family	3.68 (3.41)	0-13 (3)	17.01 (8.42)	0-44(8)
School	2.40 (1.30)	0-5 (3)	8.46 (6.36)	0-26(7)
Community/Peers	6.33 (3.65)	0-11(2)	17.64 (7.18)	0-28(5)
Alcohol/Drugs	3.91 (2.32)	0-7 (2)	11.51 (6.26)	0-20(4)
Mental Health	3.21 (3.02)	0-11 (10)	-	-
Aggression	4.57 (2.31)	0-6 (1)	11.53 (4.72)	0-17(4)
Attitudes	0.67 (0.63)	0-2 (1)	21.42 (9.06)	3-35(7)
Skills	19.33 (9.00)	0-34 (7)	-	-
Employment/Free Time	0.38 (0.68)	0-2 (1)	3.38 (2.28)	0-7(3)

Note. – Domain not applicable -- Protective factors are excluded from the following domains

Appendix I

Descriptive Statistics of the Youth Assessment Screening Instrument - Full Assessment Protective Subdomains

YASI Protective Subdomains	Static Protective		Dynamic Protective	
	<i>Mean (SD)</i>	<i>Observed range (#items)</i>	<i>Mean (SD)</i>	<i>Observed range (#items)</i>
Legal History	--	--	--	--
Family	--	--	5.44 (4.26)	1-19 (9)
School	--	--	8.17 (4.83)	0-17 (7)
Community/Peers	--	--	3.20 (3.19)	0-13 (7)
Alcohol/Drugs	--	--	--	--
Mental Health	--	--	--	--
Aggression	--	--	0.67 (1.38)	0-5 (2)
Attitudes	0.33 (0.70)	0-2 (1)	3.35 (3.85)	0-15 (7)
Skills	--	--	3.72 (4.40)	0-17 (7)
Employment/Free Time	2.21 (1.82)	0-5 (3)	2.42 (1.81)	0-8 (6)

Note. -- Protective factors are excluded from the following domains

Appendix J**Descriptive Statistics of the Youth Level of Service/Case Management Inventory 2.0 Risk and Strength Domains**

YLS/CMI 2.0 Subdomains	Risk			Strength		
	<i>Number of items</i>	<i>Observed range</i>	<i>Mean (SD)</i>	<i>Number of items</i>	<i>Observed range</i>	<i>Mean (SD)</i>
Prior/Current Offences	5	0-5	2.36 (1.65)	-	-	-
Family	6	0-6	2.63 (1.59)	1	0-1	0.33 (0.47)
Education	7	0-7	2.72 (1.77)	1	0-1	0.27 (0.44)
Peer Relations	4	0-4	2.77 (1.19)	1	0-1	0.12 (0.33)
Substance Abuse	5	0-5	2.57 (1.62)	1	0-1	0.10 (0.31)
Leisure/Recreation	3	0-3	1.78 (0.89)	1	0-1	0.25 (0.43)
Personality/Behaviour	7	0-7	3.85 (1.76)	1	0-1	0.06 (0.23)
Attitudes/Orientation	5	0-5	2.12 (1.28)	1	0-1	0.12 (0.33)

Note. – Strengths not applicable

Appendix K**The Youth Assessment Screening Instrument - Full Assessment Risk Classifications at the Subdomain Level**

YASI Risk Subdomains	None % (n)	Low % (n)	Moderate % (n)	High % (n)
Legal History Static Risk	-	3.8 (6)	19.2 (30)	76.3 (119)
Family Static Risk	28.8 (45)	10.9 (17)	7.1 (11)	50.0 (78)
Family Dynamic Risk	1.9 (3)	3.8 (6)	42.3 (66)	51.9 (81)
School Static Risk	10.3 (16)	9.6 (15)	66.7 (104)	12.8 (20)
School Dynamic Risk	12.8 (20)	4.5 (7)	73.1 (114)	9.0 (14)
Community/Peers Static Risk	11.5 (18)	-	-	84.6 (132)
Community/Peers Dynamic Risk	3.2 (5)	7.7 (12)	28.2 (44)	60.9 (95)
Alcohol/Drugs Static Risk	-	1.3 (2)	84.0 (131)	-
Alcohol/Drugs Dynamic Risk	9.0 (14)	-	25.6 (40)	52.6 (82)
Mental Health Static Risk	35.9 (56)	-	37.8 (59)	26.3 (41)
Aggression Static Risk	-	-	-	-
Aggression Dynamic Risk	4.5 (7)	5.1 (8)	41.7 (65)	47.4 (74)
Attitudes Static Risk	41.0 (64)	48.7 (76)	-	8.3 (13)
Attitudes Dynamic Risk	-	5.1 (8)	59.0 (92)	34.0 (53)
Skills Static Risk	-	-	-	-
Skills Dynamic Risk	4.5 (7)	5.8 (9)	53.8 (84)	28.8 (45)
Employment/Free Time Static Risk	72.4 (113)	16.0 (25)	-	10.9 (17)
Employment/Free Time Dynamic Risk	16.7 (26)	29.5 (46)	37.2 (58)	15.4 (24)

Note. - Level of risk is not applicable for the following domains

Appendix L**The Youth Level of Service/Case Management Inventory 2.0 Risk Classifications at the Subdomain Level**

YLS/CMI 2.0 Risk Subdomains	Low	Moderate	High
	% (n)	% (n)	% (n)
Prior/Current Offences	20.5 (32)	29.5 (46)	50.0 (78)
Family	46.8 (73)	41.7 (65)	11.5 (18)
Education	12.8 (20)	53.2 (83)	34.0 (53)
Peer Relations	12.8 (20)	45.5 (71)	41.7 (65)
Substance Abuse	12.2 (19)	36.5 (57)	50.6 (79)
Leisure/Recreation	12.2 (19)	16.7 (26)	71.2 (111)
Personality/Behaviour	3.2 (5)	53.2 (83)	43.6 (68)
Attitudes/Orientation	12.2 (19)	71.2 (111)	16.7 (26)

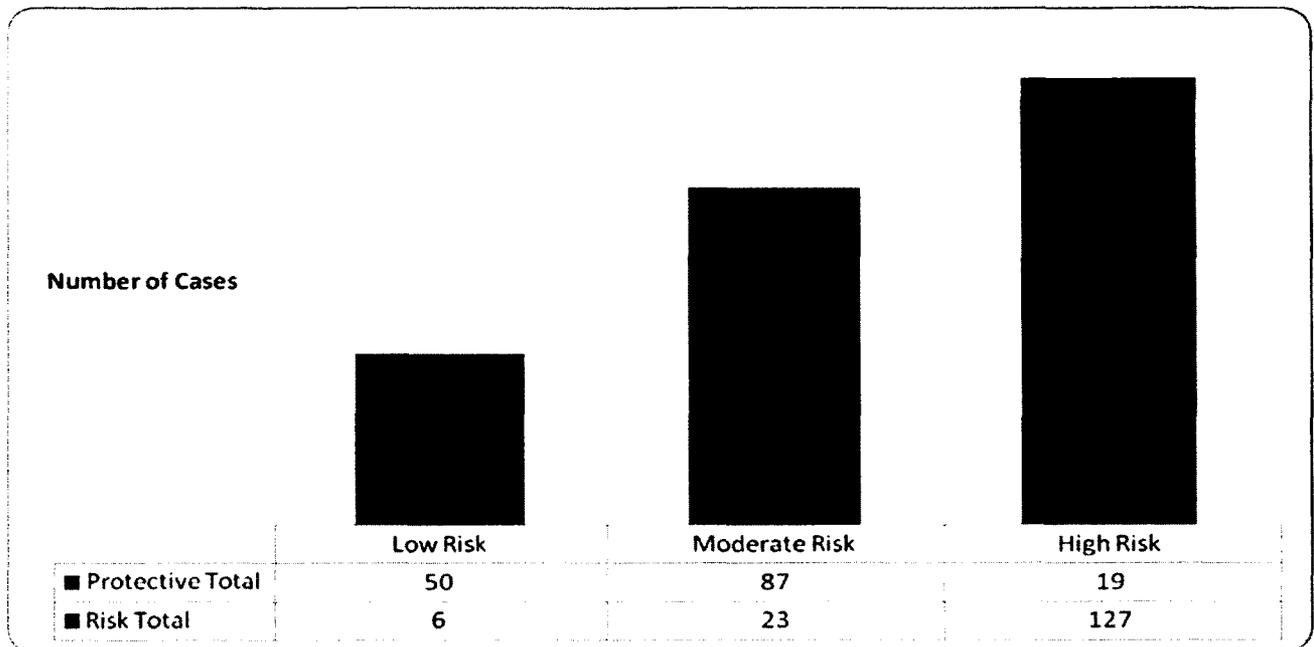


Figure 1. The YASI pre-screen: Number of cases per total risk and total protective classification.

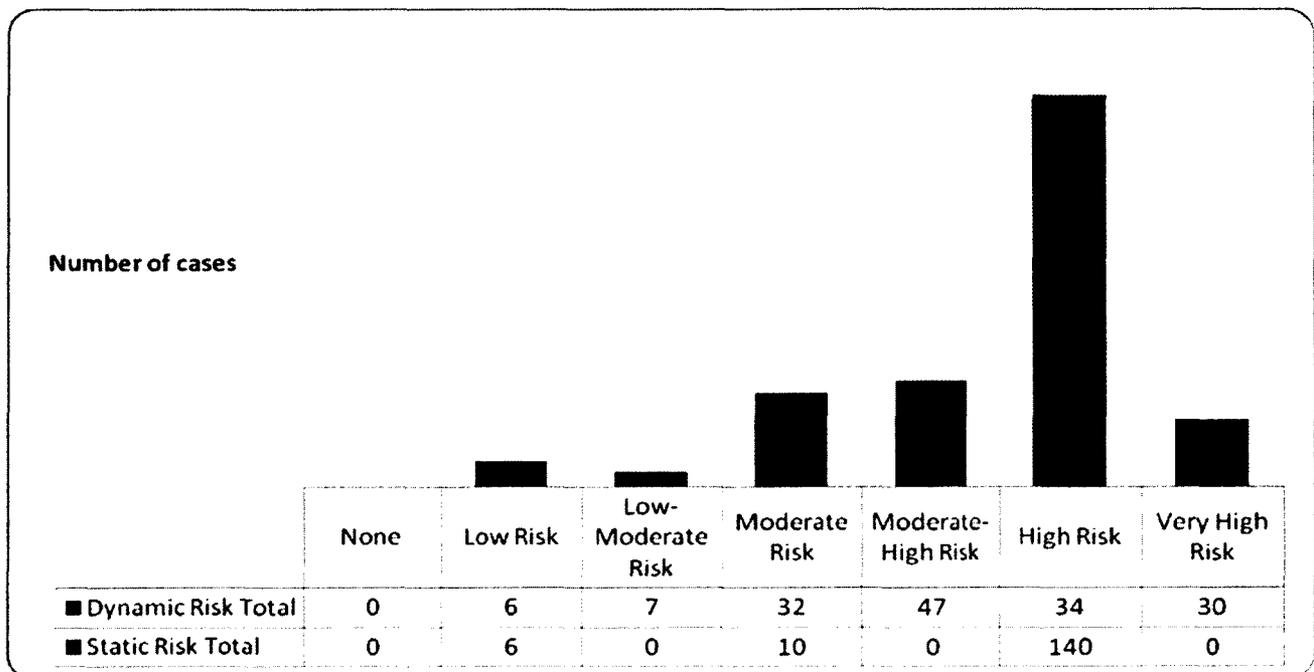


Figure 2. The YASI full assessment: Number of cases per static and dynamic risk and protective classification.

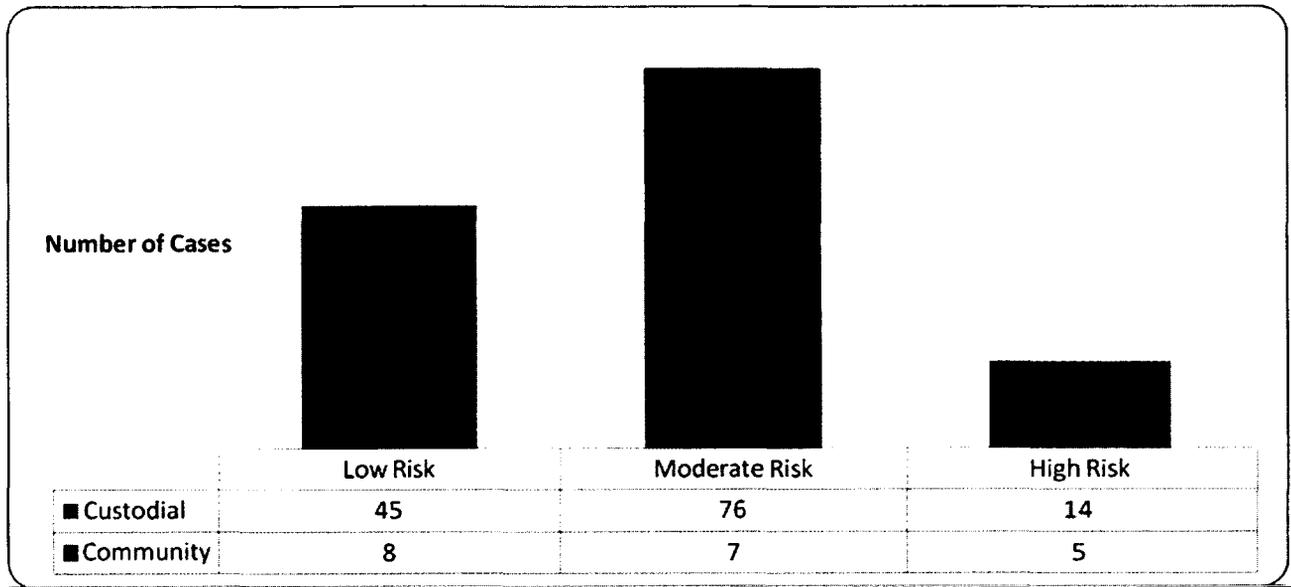


Figure 3. The YLS/CMI 2.0: Number of cases per risk classification for custodial and community males.