

Name of Tool	Early Assessment Risk List for Boys (EARL-20B)
Category	Youth Assessment: General Risk (Validated)
Author / Publisher	Augimeri and Colleagues
Year	2001

Description

- The EARL-20B is 20-item structured clinical risk assessment tool developed for use with boys aged 12 and under. In clinical settings, the age range falls between 6 and 11 years of age (Augimeri et al., 1998; 2001; 2011).
- The purpose of the EARL-20B is to assess risk and assist in the development of risk management plans that may counteract future offending and anti-social behaviour of high-risk boys.
- Items are categorised under three sections: (1) Family, (2) Child and (3) Responsivity. The 'Family' items assess the nature of familial support and other environmental factors (e.g. neighbourhood). The 'Child' items assess individual risk factors associated with the child. The 'Responsivity' items assess the ability and willingness of both the family and child to engage in services. Items are rated on a 3-point scale from 0 for not present, 1 for some presence and 2 for those with a clear presence. There is a 'clinical risk' column allowing clinicians to apply red flags to factors of particular concern
- Assessors have the opportunity to assign an overall clinical judgement rating of 'low,' 'moderate' or 'high' risk (Augimeri et al., 1998; 2001; 2019).

Age Appropriateness

For boys ages 12 and under.

Assessor Qualifications

The EARL-20B should be used by clinicians and other professionals experienced in working with high-risk children.

Strengths

- The EARL-20B is modelled on the structure and content of the HCR-20 (Webster, et al. 1997).
- The tool has been translated into translated into six languages other than English (Swedish, Finnish, Norwegian, French, Dutch, and Japanese) and is adapted for use with other offending populations (i.e. Maori population in New Zealand).

Empirical Grounding



- Developed from adult assessment tools and juvenile offending screening assessments ([Augimeri et al., 2005](#)).
- The EARL-20B is based on research relating to child development and delinquency. Author related peer reviewed studies have shown the EARL assessments to be static and dynamic tools with its component factors having sound empirical grounding (Augimeri et al., 2011).

Inter-Rater Reliability	
a) UK Research	<ul style="list-style-type: none"> • Augimeri et al. (2001) - the composite EARL-20B scores attained a high ICC value of .80. • Hrynkiw-Augimeri (2005) - the EARL-20B composite score achieved an ICC value of .82 from a review of 100 common files. The three subscales attained moderate to high ICC values ranging between .55 and .79. • Enebrink et al. (2006a) - the EARL-20B total scores achieved moderate to large pearson correlation coefficients for proactive and reactive aggression at the 6- and 30-month follow-up periods compared to clinical judgement scores which were largely non-significant.
b) International Research	<ul style="list-style-type: none"> • Enebrink et al. (2006b) looked at a Swedish translation of the EARL-20B, which has some minor adjustments to the original. Poor IRR was obtained for Abuse/Neglect/Trauma and Coping Ability items (kappas of 0.30 and 0.38 respectively). The authors surmise that this could be the result of items being operationalised in a broad manner. The EARL-20B composite score achieved excellent inter-rater reliability (ICC = .92).

Validation History	
General Predictive Accuracy	
a) UK Research	<ul style="list-style-type: none"> • Augimeri et al. (2009) - using cox regression analysis, it was found that the composite scores were significantly related to an increased probability to engage in future criminal offences. • de Ruiter and Augimeri (2012) - the EARL-20B attained strong predictive accuracy between the composite scores (AUC = .77) and final risk judgement (.77) and delinquency reported by teachers. The EARL-20B composite scores also had moderate accuracy in predicting general (AUC = .62) and violent recidivism (AUC = .69) as documented in official police records.

	<ul style="list-style-type: none"> • de Ruiter and van Domburgh (2016) found through a Receiver Operating Characteristic (ROC) analysis that all EARL scales significantly predicted self-reported delinquency at 1- and 2-year follow up, a Disruptive Behavior Disorder (DBD) at 2-year follow up (range AUC = .70 to .79), new police registrations (range AUCs= .58 to .61), and new police registrations for violent offending (range AUCs = .59 to .69). • Enebrink et al. (2006a) found significant moderate to large correlation coefficients between the composite score and the total scores of reactive (hostile or affective) and proactive (goal-orientated, instrumental or predatory) aggression in a 6 month follow-up period (r = .31 and .53 respectively). At the 30-month follow-up period, these correlations had decreased to .20 (ns) for reactive aggression. • Hrynkiw-Augimeri (2005) - the mean composite EARL-20B scores were significantly higher for boys who were found guilty of an offence than for boys who were not found guilty. • Koegl (2011) - the composite EARL-20B score achieved a moderate AUC value of .66 for any conviction.
b) International Research	<ul style="list-style-type: none"> • In a sample of 573 boys, several items on EARL-20B were found to predict risk: Caregiver Continuity, Parenting Style, Onset of Behavioural Difficulties, Likeability, Peer Socialization, Authority Contact, Antisocial Attitudes, Antisocial Behaviour and Family Responsivity (Augimeri et al., 2010a). • In a longitudinal study with 379 boys, EARL-20B total scores significantly predicted conviction status between 15-20 years later (police records) for total offending (AUC = .64) and for three offence subtypes (i.e., property, person, administration of justice) with AUC values ranging between .60 and .63. The strongest predictors for being convicted for any offence were Antisocial Attitudes (OR = 2.64) and low Child Responsivity (OR = 2.20 (Koegl, Farrington and Augimeri, 2019).

Validation History

Applicability: Females									
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The EARL-21G (Levene et al. 2001) has been developed for use with high risk girls under the age of 12 – please refer to the ‘Responsivity’ section of RATED.

Validation History

Applicability: Ethnic Minorities

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No empirical evidence available.

Validation History

Applicability: Mental Disorders

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No empirical evidence available.

Contribution to Risk Practice

- The EARL-20B can aid assessors in identifying risk and responsivity factors specific to the individual's offending behaviours. These factors can also act as targets for change.
- The tool can contribute to the measurement of progress / deterioration in factors related to the individual's offending behaviours.
- The EARL-20B can contribute to the formulation of offence analyses and risk management plans.
- The EARL-20B was used in Edinburgh and is currently being used in Glasgow as part of SNAP® (Stop Now And Plan) pilot programs. The EARL-20B has also been used in New Zealand with the Mauri population and in the United States with both African American and Hispanic children.
- The EARLs were developed in an applied accredited children's mental health centre initially as part of the assessment process for the evidence based SNAP model. The majority of SNAP children experience clinical levels of internalising and externalising behaviour problems associated with mental health issues (e.g., disruptive behaviour problems such as conduct and oppositional disorder; [Augimeri et al., 2017; 2018](#))

Other Considerations

- The EARL-20B does not have a single algorithm for assessing low, medium or high risk levels. Conversely, the final estimate of risk is calculated by weighing EARL-20B items and possible risk or protective factors on a case-specific basis ([Enebrink et al. 2006b](#)).
- The authors caution about the use of cut-off scores to make decisions about a boy's risk potential.
- Koegl (2011) found significant differences in relation to the costs of custodial and probation dispositions as a function of the three clinical risk judgement categories. Boys who were rated as 'high' and 'moderate' risk incurred the highest costs in comparison to boys classified as 'low' risk.
- No validation evidence for UK samples.
- Despite the fact that the assessment has been translated into various languages, there have been no studies looking at the tool's predictive validity in various ethnic groups.
- Other studies have used factor analysis methodology to validate the underlying constructs relating to the tool (e.g., confirmatory factor analysis).
- The majority of the current validation literature has been conducted by the authors of the EARL-20B.

- Fewer studies examining the predictive accuracy of the final judgement ratings.
- The EARL Pre-Checklist (EARL-PC: Augimeri et al., 2010b) has been recently developed as an abbreviated version of the full EARL assessments.
- The EARL-PC is designed to screen for risk factors in children that pose a potential risk of engaging in future antisocial behaviours. It was created in response to the need for a simpler, condensed version of the EARL for use by professionals working in the criminal justice and educational sectors in cases where it may not be feasible to administer a full assessment. There are no validation data available on the EARL-PC at present.

Name of Tool	Youth Assessment and Screening Instrument (YASI)
Category	Youth Assessment: General Risk (Validated)
Author / Publisher	Orbis Partners Inc.
Year	2007

Description

- The YASI includes both pre-screen and full assessment components and is used to assist in making initial service decisions as well as case plan development. Youth are rated as low, medium or high risk to reoffend.
- YASI provides a graphic profile of risk, need, and strength results for each youth including overall static and dynamic scores on risk and protective factors. These items are spread across 10 domains: legal history, family, school, community and peers, alcohol and drugs, mental health, aggression, prosocial and antisocial attitudes, social and cognitive skills and employment/free time.
- The instrument is used in a variety of juvenile justice settings with both males and females. A special version of the instrument is available for high risk youth serving custody sentences for serious offenses.
- YASI is completed by juvenile justice case workers after a file review, interview with the youth and family (where possible), and consultation with other relevant collateral sources.
- The full YASI assessment consists of 90 items spread across 10 subscales. It takes between 30 to 60 minutes to administer.
- The screening version of the tool ('pre-screen') contains 31 items, and is used to identify moderate to high risk youth who require more extensive assessment using the Full Assessment. This takes around 20 to 40 minutes to complete.
- The suggested interview questions are tailored towards the young person being assessed; although these can be adapted for an interview with their parents or to suit the particular circumstances of the young person ([Baird et al., 2013](#)).

Age Appropriateness

12-18

Assessor Qualifications

Assessors must undertake the necessary training in order to administer this tool.

Strengths

- The tool includes items pertaining to mental health, including adverse childhood experiences.
- Also included are evaluation of strengths, which are assigned numerical weights.
- The YASI has been modified for local legal terminology and used with youth in Scotland.
- A pre-screen version is available for planning and triage purposes, with a pre-screen risk score totalled from 33 items ([Scott, Brown and Skilling, 2019](#)).

• Although the YASI is primarily grounded in gender-neutral literature, it features a number of gender-responsive items extrapolated from feminist literature ([Jones et al., 2016](#); [Scott, Brown and Skilling, 2019](#)).

Empirical Grounding



• The YASI is predominantly grounded in the General Personality and Cognitive Social Learning Theory (GPCSL), with eight central factors based on social learning and self-control theory. Nine out of ten of the YASI's global subdomains pertain to the Central Eight ([Scott, Brown and Skilling, 2019](#)). The YASI is a modified version of the Washington State Juvenile Court Assessment (WSJCA; Barnoski, 2004). [Jones et al. \(2015\)](#) states that the quantitative inclusion of strengths is apt to enhance the functions of prediction and case management. Moreover, it is claimed that the identification of a buffering effect of strengths on risk supports a critical elements of the overall YASI assessment model.

Inter-Rater Reliability



a) UK Research

None available at present.

b) International Research

- As reported in Orbis Partners Inc.'s (2018) evaluation of existing research, an inter-rater reliability study was conducted with 76 raters across ten case studies. The scoring agreement amongst juvenile probation staff was 85%; whilst raters of agreement between staff and expert raters was around 80%.
- With a sample of 1919 juveniles on probation, [Baird et al. \(2013\)](#) found an average scoring agreement among 76 probation staff raters approaching .89.
- [Scott, Brown and Skilling \(2019\)](#) applied the YASI to 254 justice-involved youth (148 males, 106 females). Using a subsample of twenty cases, good or excellent IRR was generated for each subdomain of the YASI.

Validation History

General Predictive Accuracy



a) UK Research

None available at present.

b) International Research

- Over a two year period in New York State, an AUC of .65 was found by Orbis Partners in 2007.
- In Illinois, over a one year period, Orbis Partners (2007) found AUCs of .65.

	<ul style="list-style-type: none"> • Baird et al. (2013) reported an AUC of .68 for predictive validity. • In Alberta (Canada), an AUC of .79 was reported. The high predictive risk and strength domains were Legal History (AUC Risk .73), Community and Peers (AUC Risk .72, AUC Strength .67) and Attitudes (AUC Risk .69, AUC Strength .69) (Jones, 2013; Jones et al., 2014). • Orbis Partners Inc. (2018) reported that a new YASI validation study was carried out in Milwaukee County on 2712 youth. An AUC value of 0.76 was achieved and this increased as follow-up extended from 12 to 36 months. Predictive accuracy was also evident for girls and boys, those aged under 12 years old and different ethnic groups. • Looking at a sample of 254 youth from Ontario, it was found that the YASI pre-screen yielded an AUC value for the risk total of .65; whilst the total protective score was .55. In terms of the full YASI assessment, the total score, total risk score and total protective scores generated AUCs of .66, .65 and .64 respectively (Scott, Brown and Skilling, 2019).
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Validation History	
Applicability: Females	
<p>In 2007, Orbis Partners developed YASI-G as a response to the assessment needs of young females. This consists of items extrapolated from feminist and gender-responsive literature about female criminality: nature of one’s relationships, level of emotional expression, self-efficacy, sexual vulnerability, early parenthood and potential mental health issues (Jones et al., 2016). Scott, Brown and Skilling (2019) suggested that its inclusion of gender neutral and gender-responsive items means the YASI may be a particularly good choice for use with justice-involved females.</p>	
a) UK Research	None available at present.
b) International Research	<ul style="list-style-type: none"> • Data indicated that juvenile females were being over-classified by YASI Pre-Screen scores in that high risk girls exhibited lower recidivism than high-risk boys (Orbis Partners Inc., 2007). • After the initial data indicated that females were being over-classified (in that high risk girls were generated a lower recidivism rate than high risk boys), separate cut-off points were devised to address the gender scoring differences (Baird et al., 2013).

	<ul style="list-style-type: none"> • Jones et al. (2016) found there was a moderate degree of predictive accuracy in predicting general reoffending for girls with an AUC of .68 compared to the high levels of accuracy for males yielding an AUC of .82. • AUC's of .78 and .76 for girls and boys respectively in the Milwaukee County study (Orbis Partners Inc., 2018). • A study compared the results of the YASI on 148 males with 106 females in Canada. Results indicated that the pre-screen yielded higher predictive accuracy for males. The risk total and total protective scores were .68 and .61 for males and .62 and .52 for females. For the full assessment, moderate effects were observed for males. The total score, total risk score and total protective score were .70, .69 and .69 respectively for males. This is in comparison to .64, .62 and .62 for total, total risk and total protective scores or females (Scott, Brown and Skilling, 2019).
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Validation History											
Applicability: Ethnic Minorities	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 10%; background-color: #4b0082; color: white;">■</td> <td style="width: 10%; background-color: #4b0082; color: white;">■</td> <td style="width: 10%; background-color: #4b0082; color: white;">■</td> <td style="width: 10%;"></td> </tr> </table>	■	■	■							
■	■	■									
a) UK Research	None available at present.										
b) International Research	<ul style="list-style-type: none"> • A higher score was found for Aboriginal versus non-Aboriginal individuals in Alberta Canada (Jones et al., 2014). • When using the YASI, Baird et al. (2013) found there was moderate discrimination between Whites and Blacks/African Americans. The recidivism rate, however, was only 2.7% higher for high risk Whites than moderate risk Blacks. • Robinson and Jones (2017) found that predictive accuracy levels were similar across various ethnic groups, with an AUC of .76 for African-Americans, .79 for Caucasians and .73 for Hispanic. 										

Validation History											
Applicability: Mental Disorders	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 10%;"></td> </tr> </table>										
No empirical evidence at present.											

Contribution to Risk Practice

- Assessment and re-assessment over a short period (up to six months) has shown risk levels relate to the presence/absence of protective factors.
- The modification of case plans is supported by the use of YASI in monitoring supervision progress.
- Developing an understanding of strengths is appropriate to assessment and service.

Other Considerations

- A separate version of the instrument – (CA-YASI) – has been developed and contains more items. It is geared toward more violent youth and is used with up to 25 years old. For this version, Skeem et al. (2012) reported ICC scores between .51 to .72 from field staff across different sites in California. The original CA version was replaced in 2017 with a streamlined CA-YASI to help increase reliability and reduce the number of assessment items and is now being used with other high-risk custody populations.
- [Scott, Brown and Skilling \(2019\)](#) found the YASI had strong convergent validity with the YLS/CMI.

Name of Tool	Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0)
Category	Youth Assessment: General Risk (Validated)
Author / Publisher	Hoge and Andrews
Year	2011

Description

- The YLS/CMI 2.0 is a 42-item standardised inventory for use with male and female juveniles to assess the risk of future offending. The original YLS/CMI was used in on juvenile probationers in Canada and was updated to a 2.0 version using a normative sample of 17, 000 young individuals who had offended in 2011. The revised version expanded the age range to 12-18 years, added more non-criminogenic needs and responsivity considerations, and included new recommended cut-offs for risk/need levels.
- It assesses eight categories of risk factors associated with recidivism and need factors that assist in case management. Space to record narratives is also included to allow the assessor to record information like special circumstances that are not captured in the risk and needs factor items. Protective factors for the young person are also documented.
- Scoring of risk factors provides an estimate of the risk of reconviction for individuals over a 12-month period. Risk levels are classified as low, moderate, high or very high.
- Provides a profile of criminogenic needs. The authors of the tool caution that although the YLS/CMI can act as an aid to case management and planning, it is not designed to replace professional judgment.
- The authors note that in some circumstances, the assessor might feel that the level of risk/need is different from that provided by the YLS/CMI because of factors that are not represented in the ratings. In those situations, a 'professional override' measure might be used. This feature allows the assessor to provide their own risk level estimate based on the information they hold about the individual.

Age Appropriateness

12-18

Assessor Qualifications

Assessors should possess training and experience in youth assessment.

Strengths

- Meta-analyses of previous empirical research on the YLS/CMI indicated that it is useful in predicting recidivism in both males and females ([Pusch and Holtfreter, 2018](#)).
- The tool incorporates a case management section which can aid case planning and management. Its purpose is twofold in nature: recidivism predictions; addressing programming and service needs

([Anderson et al., 2016](#)). For example, if a young person scores as high risk on the education subscale, this denotes that additional services should target this area ([Barnes et al., 2016](#)).

- The empirical evidence for the YLS/CMI 2.0 has been derived from the LSI-R.
- Measures dynamic variables as well as static ones. This allows for the assessment of change in risk level and also informs intervention needs and targets (Yates, 2005).
- The tool considers vulnerability, care and risk of harm factors, such as marital conflict within the family, poor social skills, victim of bullying, etc.
- Can be used by a variety of professionals with the relevant training to administer and score the assessment.
- Can be less time-consuming to complete than other risk assessments such as the ASSET ([Burman et al., 2007](#)).
- [Vaswani \(2013\)](#) found it was a good predictor of reoffending for both males and females. The authors explained that education, employment, family and circumstances/planning items may be scored as female specific factors to aid with case management (Hoge and Andrews, 2011).

Empirical Grounding

- [Andrew and Bonta's \(1994\)](#) 'Psychology of Criminal Conduct' framework advances individual personality items and social circumstances considered to be indicative of recidivism. These factors are known as the 'Central Eight' and form the basis of the eight items measured in the YLS/CMI ([Cuervo and Vilanueva 2018](#)).
- The authors of the YLS/CMI maintain that the tool fits the 'Risk-Needs-Responsivity' model (see [Andrews et al., 2011](#)), by giving an insight into the risks and needs of individuals and choosing the most appropriate treatment options for them.
- The tool is derived from LSI-R. Studies examining the psychometric properties of the YLS/CMI are presented in the manual (Hoge and Andrews, 2003).
- The YLS/CMI was further developed on the basis of consultation with experienced probation officers and juvenile justice professionals in order to ensure the utility of the measure (Hoge and Andrews, 2003).

Inter-Rater Reliability

a) UK Research

- [Rennie and Dolan \(2010\)](#) found excellent inter-rater reliability for the YLS/CMI (ICC =.95).

b) International Research

- [Onifade et al. \(2008a\)](#) found excellent levels of agreement in the scoring of this instrument (90%). Following training, the inter-rater reliability exceeded 90%.
- [Schmidt et al. \(2006\)](#) found moderate to large inter-rater reliability values for the separate subscales of the YLS/CMI.
- [Vieira et al \(2009\)](#) reported very high (.98) inter-rater reliability.

• [Welsh et al. \(2008\)](#) found good ICC value for the YLS/CMI composite score (.72). ranging from .61 for the peer relations subscale to .85 for education and employment subscale.

• [Latessa et al. \(2016\)](#) found that inter-rater reliability was acceptable for the Total Risk Score at 0.77; however, this fell below acceptable Kappa standards to 0.53 for the Overall Risk Level.

• Testing the YLS/CMI on 254 justice-involved youths of both genders found that the total score generated acceptable inter-rater reliability at .77 ([Scott, Brown and Skilling, 2019](#)).

Validation History

General Predictive Accuracy



a) UK Research

• [Olver, Stockdale and Wong \(2012\)](#) – the YLS/CMI achieved moderate to high accuracy in predicting both youth and adult recidivism (i.e. general, non-violent and violent recidivism) in a sample of male youths with AUC values ranging between .69. and .85.

• [Marshall et al. \(2006\)](#) found moderate AUC values across three offending behaviours: recorded incidents of violence (.61), number of charges and convictions (.71) and assaults (.67).

• A study of the YLS/CMI in Scotland found that the AUCs generated for general recidivism were 0.72 and 0.73 for males and females respectively. The AUCs for serious violence were 0.66 for males and 0.69 for females, suggesting that the tool is more accurate in predicting general recidivism ([Vaswani, 2013](#)).

• [Rennie and Dolan \(2010\)](#) examined males in England and found that the instrument gave significant predictions of non-violent and any recidivism. The AUC from the risk category was found to be greater at predicting general recidivism than the total score. The authors did surmise, however, that the homogeneity of the sample could have resulted in restricted scores and thus be affecting the predictive accuracy.

• [Vaswani and Merone \(2012\)](#) examined 1138 YLS/CMI assessments in Scotland. The composite score achieved moderate to high AUC values in predicting ‘any’ (.73) and ‘serious violent’ recidivism (.68) in a sample of male

	<p>Scottish youth. Results indicated that the tool was also a good predictor for the occurrence, speed and volume of reoffending for males and females. The AUCs for total scores were .73 and .72 for males and females respectively. For males and females in the risk/needs category the score were .68 and .69 respectively.</p>
<p>b) International Research</p>	<ul style="list-style-type: none"> • Chu et al. (2016) found total scores significantly predicted general recidivism for both male and female youth in a Singapore study. • McGrath and Thompson (2012) - in a one-year follow-up the the YLS/CMI obtained an AUC value of .65 for any re-offence in a sample of Australian youth. • Olver, Stockdale and Wormith (2009) - moderate correlation found between the YLS/CMI score and general recidivism ($r = .32$). • Onifade, et al. (2008a) found that the YLS/CMI correctly classified 59% of individuals as either recidivists or non-recidivists. • Salekin (2008) found moderate ROC values of .66 and .64 for general and violent recidivism in a sample of male and female adolescents. • Stockdale (2008) found large ROC values of .79 for general recidivism and .78 for violent recidivism. • Vieira et al. (2009) reported that youths who had less than a third of their identified criminogenic needs met were eighteen times more likely to reoffend in a three year follow up period in comparison to youths for whom the majority of their needs were met. • Viljoen et al. (2009) - the YLS/CMI composite score appeared to have moderate predictive accuracy for non-sexual violent reoffending (.68), any violent reoffending (.61) and 'any' reoffending (.66). • After carrying out AUC analyses, Latessa et al. (2016) found that the YLS/CMI did not predict youth recidivism much better than chance for the overall sample and the sample divided up by gender. • In a sample of 254 youth, Scott, Brown and Skilling (2019) found that the YLS/CMI total risk score was .68 and the total strength score yielded smaller effects at .59.

Validation History

Applicability: Females

a) UK Research

- [Vaswani and Merone \(2012\)](#) - the composite score achieved moderate to high AUC values in predicting 'any' (.72) and 'serious violent' recidivism (.69) in a sample of female Scottish youth.
- [Marshall et al. \(2006\)](#) - the YLS/CMI demonstrated moderate correlations with the number of charges and convictions ($r = .32$) and assaults ($r = .40$) in a sample of females.

b) International Research

- [Olver, Stockdale and Wong \(2012\)](#) observed moderate to high accuracy in predicting both youth and adult recidivism (i.e. general, non-violent and violent recidivism) in a sample of female youth with AUC values ranging between .65. and .75.
- [Bechtel, Lowenkamp and Latessa \(2007\)](#) - small correlations observed between the composite score and recidivism in the total female sample ($r = .17$); however, in community samples, no significant correlations were found.
- A study into juveniles in a Spanish province using a translated version of the YLS/CMI found that gender played a significant role in affecting recidivism risk levels: females assessed by the YLS/CMI as having a low risk level had a higher risk of recidivism than boys ([Jara, García-Gomis and Villanueva, 2016](#)).
- [Anderson et al. \(2016\)](#) claimed that predictive validity of the tool is affected by gender with AUCs of .623 and .565 for boys and girls respectively. In their study, it was found that only the family and personality subscales significantly predicted recidivism for girls compared to all the subscales for boys.
- Using a sample of 440 juveniles in Australia, [McGrath, Thompson and Goodman-Delahunty \(2018\)](#) tested the predictive validity of the Australian adaption of the tool, YLS/CMI-AA (Hoge and Andrews, 1995). Predictive accuracy differed by gender, with AUCs of .694 and .667 generated for males in relation to general and violence recidivism respectively. An AUC of .690 was yielded for general recidivism in females; whilst the AUC for violence recidivism was higher than males at .725.

	<ul style="list-style-type: none"> • Taylor (2018) carried out statistical analyses on 1679 youth looking at various social factors, including gender. It was discovered that females demonstrated significantly higher needs on the personality/behaviour and family circumstances/parenting subcomponents compared to males, indicating that strained and stressed family relationships are a significant area of risk and need for females offending. • The YLS/CMI total risk score showed good predictive accuracy for males and females, with AUCs of .68 for both genders. The total strength score was found to yield a smaller effect for males at .60 compared to .69 for females (Scott, Brown and Skilling, 2019).
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Validation History	
Applicability: Ethnic Minorities	
a) UK Research	None available at present.
b) International Research	<ul style="list-style-type: none"> • A study by the <i>National Council on Crime and Delinquency</i> in the United States found the YLS/CMI did not perform as well for Black/African Americans and Hispanic/Latinos (Baird et al., 2013). • After an examination of 334 YLS/CMI assessments, Perrault et al. (2017) found that race was not a significant factor in predict reoffending; although Black youth did score higher on the official juvenile history scale than White young people. • A study found that Spaniards to indicated a higher level of reoffending than ethnic minorities in the follow-up period. Protective factors, however, negated risk factors across different ethnic groups. To that end, when a youth possessed protective factors, their nationality no longer had an impact on their reoffending (Cuervo and Villanueva, 2018). • Olver, Stockdale and Wong (2012) - observed moderate accuracy in predicting both youth and adult recidivism (i.e. general, non-violent and violent recidivism) in a sample of Aboriginal youth with AUC values ranging between .62 and .67. • Chu et al. (2012) - in a sample of 165 male youths from Singapore, higher mean scores on the YLS/CMI were

observed among individuals affiliated to gangs compared to those who were not affiliated to gangs.

- [Onifade et al. \(2009\)](#) found no significant differences in the predictive validity of the YLS/CMI between racial groups (Caucasian AUC = .66 versus African American AUC = .63).

- [Onifade, et al. \(2008b\)](#) - the tool achieved 60% accuracy in identifying recidivists and non-recidivists in an African-American sample of males. .

- [Bechtel, Lowenkamp and Latessa \(2007\)](#) - small correlations observed between the composite score and recidivism of non-White individuals in community (r= .23) and institutionalised (r =.10).

- [McGrath, Thompson and Goodman-Delahunty \(2018\)](#) utilised a sample of 440 juveniles in Australia to test differences within ethnic subgroups using the Australian adaption of the YLS/CMI. For general recidivism, AUCs were generated of .648, .684 and .716 for indigenous, non-indigenous and ethnic groups respectively. There were similar findings for violence recidivism: indigenous, .623; non-indigenous, .668; ethnic, .715.

- [Villanueva and colleagues \(2019\)](#) administered a Spanish translation of the YLS/CMI to young Spanish individuals, 116 of which were Arab and 140 who were non-Arab. With the inclusion of subtle cultural differences, AUCs of .73 and .76 were generated for the Arab and non-Arab groups respectively. To that end, the YLS/CMI was able to predict the correct outcomes for 73.7% of Arab and 75.9% of non-Arab minor individuals respectively.

Validation History

Applicability: Mental Disorders



a) UK Research

- [Rennie and Dolan \(2010\)](#) found that recidivists attained higher scores than non-recidivists on their past and current offending. The YLS/CMI generated AUCs of .60, .66 and .67 for violent, non-violent and ‘any’ recidivism respectively in a sample of mentally disordered males.

b) International Research

- [McLachlan et al. \(2018\)](#) examined the predictive validity of the YLS/CMI to measure recidivism in 100 youth: half of the sample had ‘foetal alcohol spectrum disorder’ (FASD); the other half did not have FASD or prenatal

alcohol exposure. Results showed the YLS/CMI was able to predict recidivism in youth with FASD; although this group was rated at higher risk across all risk ratings, suggesting a high level of risk and intervention need.

Contribution to Risk Practice

- The YLS/CMI can aid assessors in identifying risk, responsivity and protective factors specific to the individual.
- The dynamic factors included in the YLS/CMI can act as targets for change.
- The tool can contribute towards measuring progress or deterioration in factors related to the individual's level of risk.
- Information obtained from this tool can contribute to risk management strategies.
- Regression analyses found the best predictors of recidivism in the tool were the following risk factors: school or employment problems, criminal friends and personality behaviour ([Cuervo and Villanueva, 2018](#)).
- The YLS/CMI seems to be neutral in terms of gender and race/ethnicity ([Barnes et al., 2016](#)).
- The authors recommend that YLS/CMI measurements are updated every six months to capture the dynamic nature of youth development.

Other Considerations

- [Baird et al. \(2013\)](#) had a few criticisms of a couple of the items within the YLS/CMI. The 'could make better use of time' factor within the leisure/recreation domain is said to be a subjective item that is difficult to reliably score. Within the substance abuse item, there are options to check for 'occasional drug use' and 'chronic drug use,' which would appear to be mutually exclusive. In spite of this, both of these are to be selected when chronic drug use is checked. This is something which always happens in automated versions of the YLS/CMI; yet, it is not consistently applied when the scoring is carried out manually by assessors, something which leads to scoring errors. For instance, in Nebraska commitment cases, workers neglected to comply with this rule in 12.3% of cases.
- [Vaswani \(2013\)](#) found that when the YLS/CMI was used with people aged over 18 it yielded no statistical significance; hence, it was not very accurate in predicting reoffending. It is, thus, recommended that the tool is not used with those aged 18 and over and that the adult version of the tool is instead used ([Vaswani and Merone, 2012](#)).
- Several studies found that usage of the professional override function reduced the accuracy of the YLS/CMI to predict general recidivism, particularly in serious violence cases. For instance, the AUC for serious violence recidivism was .68 when using the YLS/CMI; this was then reduced to an AUC of .54 when the professional override was used ([Vaswani and Merone, 2012](#)). Based on this, it is advised that the 'professional override' function should be used with extreme caution ([Schmidt et al., 2016](#); [Vaswani, 2013](#)).
- [Campbell et al. \(2014\)](#) explored the use of a reduced item YLS/CMI as a brief screener with positive results. In the course of their study, the YLS was confirmed to be gender neutral.
- Qualitative analysis by [Burman and colleagues \(2007\)](#) highlighted the limitations of the YLS/CMI in relation to its inability to discern the type and severity of offending behaviours and the lack of a separate 'Risk of Harm' Section.
- A meta-analysis conducted by [Schwalbe \(2008\)](#) on a number of youth risk assessment tools found small differences in effect sizes for the YLS/CMI between males and females. The author suggests that gender differences observed in individual studies, may evidence '...gender biases in juvenile

justice decision-making and case processing rather than for the ineffectiveness of risk assessment with female offenders...' ([Schwalbe, 2008: 1367](#)).

- The revised version (YLS/CMI 2.0; Hoge & Andrews, 2010) has been published and contains important new developments which include but are not limited to the following: (1) new recommended cut-off scores for different risk/need levels; (2) expanded age range (12-18); (3) inclusion of items addressing gender-informed responsivity factors like pregnancy/motherhood.

- The scoring of the 'Total Risk/Need Score and the eight subcomponents of Part I (Assessment of Risks and Needs) remains unchanged from the YLS/CMI (Hoge and Andrews, 2010: 3).

- An online version is available through the distributors – MHS. For more information on the YLS/CMI 2.0 visit:

<http://www.mhs.com/product.aspx?gr=safandprod=yls-cmi2andid=overview>