

Forensic Psychology And Peace And Justice: Evidence-Based Approaches To Juvenile Offender Rehabilitation, Risk Assessment, And Reintegration



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Abstract:

Sustainable Development Goal 16 (SDG 16) underlines peace, justice, and strong institutions and with focus on fair, effective, and rehabilitative justice systems. Juvenile justice is one of the areas of major concern in this objective since offending among the children is directly associated with developmental, psychological, and social factors. The paper examines how forensic psychology can help attaining SDG 16 by assessing juvenile offenders using evidence-based methods, rehabilitating and reintegrating them. Based on the international literature, the review integrates the results of structured risk assessment tools like 'SAVRY, YLS/CMI, PREVI-A, and PCL:YV', with specific focus on the 'Risk-Need-Responsivity (RNR)' framework. It has been shown that despite moderate predictive validity, structured assessment tools have consistent predictive validity and are better predictive compared to unstructured clinical judgment in pinpointing criminogenic needs and guiding intervention strategies. The paper also discusses successful rehabilitation and reintegration programs; highlighting intervention programs should focus on dynamic risk factors; it should include protective factors and take a developmentally informed, culturally responsive, gender-sensitive approach. Key challenges like implementation fidelity, cultural adaptation and continuity of care, are also addressed. The review finds that forensic psychology can provide viable, evidence-based avenues to minimize recidivism, safeguard vulnerable youth, and enhance institutional efficacy, which in turn can impact positively on the realization of SDG 16 in juvenile justice systems.

Keywords: Forensic psychology; Juvenile justice; Sustainable Development Goal 16; Risk-Need-Responsivity model; Risk assessment; Juvenile rehabilitation; Recidivism prevention; Reintegration.

1. Introduction

1.1 Background and Context (about SDGs and SDG 16):

The 'Sustainable Development Goals (SDGs)' which were adopted by 193 United Nation's members in 2015 include 17 Global Goals and 169 targets as set to achieve by 2030. These are the goals oriented towards the Leaving No One Behind (LNOB). India's being most populous country plays a crucial role in achieving these global SDGs. The Indian government with its motto of "Sabka Saath, Sabka Vikas" is

aligning its sustainable development initiatives with SDGs especially though the SDG India Index that is a part of NITI Aayog which is an index that is inclusive and focuses on the local needs. The Indian strategy is to focus on the SDGs in its own core policy and promote the holistic approach to development, which involves many stakeholders and reliance on sustainable development at the economic, social, and environmental levels, along with a focus on promoting justice and gender equality.



Figure 1. : United Nation's Sustainable Development Goals (SDGs - Adopted globally in 2015 -- Target Year: 2030).

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The adoption of Sustainable Development Goal 16 by the global community to achieve peaceful and inclusive societies, access to justice by all, and effective and accountable institutions has significant implications to the juvenile justice system worldwide (Grana Gomez et al., 2022). Juvenile offending is a sensitive linking of developmental psychology, criminal justice, and social policy. It has long-term consequences for an individual's life trajectory as well as community safety. As a field that provides clinical assessment, risk assessment, and evidence-based intervention, forensic psychology will be instrumental in supporting SDG 16 goals in the context of juvenile justice.

Worldwide, the juvenile justice systems are experiencing ongoing issues like high recidivism, inadequate rehabilitation resources, uneven distribution of treatment provision to different groups of people, and a low implementation of evidence-based practices (Dembo et al., 2024; Dellar et al., 2022). Conventional methods of punishment have been shown to be of limited efficacy to minimize recidivism and usually do not address any underlying developmental, psychological, and social elements that underlie delinquency in juveniles (Reef et al., 2023). Modern forensic psychology, on the contrary, focuses on systematic evaluation, individual intervention planning, and systematic outcome measurement the tenets of which are much

more consistent with SDG 16 concerns of effective, accountable, and inclusive institutions.

1.2 Sustainable Development Goal 16 and Juvenile Justice:

SDG 16 has a number of targets to juvenile justice, some of which are:

Target 16.1: Drastically decrease all types of violence and the associated death levels everywhere.

Target 16.2: put an end to abuse, exploitation, trafficking, and any other violence against children and their torture.

Target 16.3: Advocate the rule of law both nationally and internationally and guarantee equal access to justice by everyone.

Target number 16.a: Empower the relevant institutions nationally, even internationally, in strengthening and capacity building at all levels to prevent violence and fight terrorism and crime.

These goals highlight the significance of such justice systems that not only react to the offending of juveniles but also to prevent violence in the future, safeguard vulnerable youth, provide just treatment, and develop institutional capacity to do so on an evidence-based practice. Forensic psychology can be used to achieve these goals by systematic risk measurement, targeted rehabilitation, and stringent intervention effectiveness measurement.

1.3 The Role of Forensic Psychology:

Forensic psychology in the juvenile justice systems involves some of the fundamental roles:

- Risk Assessment: Organized measures of reoffending risk-related factors, based on validated structured measures.
- Needs Assessment: Dynamic risk factors (criminogenic needs) that lead to offending behaviour are identified.
- Treatment Planning: The individualized intervention plans are developed based on the evaluation of risk and needs.
- Program Evaluation: The Treatment outcomes and institutional effectiveness measures.
- Professional Training: The development of the skills of the evidence-based assessment and intervention.

The Risk-Needs-Responsivity (RNR) model has become the most prevalent theoretical basis of forensic evaluation and intervention (Bonta and Andrews, 2016). According to this model, successful rehabilitation should include: (a) the intervention should be responsive to the risk level assessed (Risk principle), (b) the intervention must address criminogenic needs that cause offending (Need principle), and (c) the intervention should be administered in formats that are responsive towards individual learning styles and characteristics (Responsivity principle).

Table 1. SDG 16 Targets linked to Juvenile Justice

SDG 16 Target	Relevance to Juvenile Justice	Forensic Psychology Contribution	Measurement Indicators
16.1: Reduce violence	Juvenile recidivism represents continued violence; effective rehabilitation prevents future offending	Risk assessment identifies high-risk youth; evidence-based intervention reduces reoffending	Recidivism rates (any offense, violent offense); victimization rates
16.2: End abuse and violence against children	Justice-involved youth often have trauma histories; system responses should not cause additional harm	Trauma-informed assessment and intervention; protection from institutional abuse	Prevalence of trauma histories; rates of institutional abuse/violence; trauma-informed practice adoption
16.3: Equal access to justice	Equitable treatment across demographic groups; due process protections	Structured assessment reduces bias; culturally responsive practice ensures equity	Demographic disparities in adjudication, placement, and outcomes; access to legal representation and services
16.a: Strengthen institutions	Build capacity for evidence-based, accountable juvenile justice practice	Professional training; outcome monitoring systems; quality assurance	Staff training completion; use of validated assessment tools; outcome monitoring system implementation; public reporting

Source: Summarized and compiled by authors, 2025

1.4 Scope and Objectives

The paper gives a synthesis of the existing evidence available on the forensic psychological processes in the evaluation, rehabilitation, and reintegration of juvenile offenders, with a clear emphasis on SDG16 alignment. Particular objectives include -

- ✓ Assessing validated risk assessment tools and their predictive efficiency in different populations.
- ✓ Reviewing evidence based rehabilitation and reintegration programme.
- ✓ Examining the obstacles to implementation, such as cultural adaptation and gender responsive practice.

- ✓ Determining best practices and good programme examples.
- ✓ Identifying gaps in research and future directions of enhancing SDGs 16 goals with the help of forensic psychology.

2. Theoretical Model in Forensic Psychology for Juvenile offender Rehabilitation

2.1 Psychology–SDG Relationship Framework-

In this paper, a conceptual model has been suggested that combines the field of sustainable development with that of forensic psychology and focuses on preventing, rehabilitating, and reforming the system on a systemic basis.



Figure 2: Textual diagrammatic representation of SDG & Psychology framework (Source: Compiled by authors, 2025)

2.2 Conceptual Explanation –

Competency assessment, professional testimony, and rehabilitation design are some of the functions of forensic psychology that guarantee evidence-based justice. Integration of the justice system and SDG 16 can be regarded as -

- Mental Health and Correctional Reform (SDG 3): involves integration of psychological screening and treatment of offenders, decreasing recidivism and enhancing reintegration into community.
- Gender and Social Equity (SDG 5, SDG 10): Strengthens vulnerable populations, in particular women and marginalized groups, by means of trauma-sensitive methods and egalitarian trials.
- Sustainability Outcome: A just society that has a well-adjusted mind eliminates violence and enhances social stability in the long-term.

2.3 The Risk-Needs-Responsivity (RNR) Model –

Risk-Needs-Responsivity model is the most widely tested & validated model of assessing and treating offenders (Bonta and Andrews, 2016; Andrews et al., 2011). It is developed by meta-analytic research indicating consistent principles that are associated with reducing recidivism. The RNR model provides a structured method of intervention to match

individual traits based on these below explained principles.

Risk Principle: The intensity of intervention must correspond to the amount of risk that is assessed (Lad & Mansukhani, 2024). High-risk offenders need intensive and comprehensive services, but offenders at lower risk might be more effectively provided with minimal intervention or diversion. Unnecessary intensive intervention with low-risk youth can lead to increase in recidivism due to the labeling effect and contact with higher-risk peers (Petrosino et al., 2010).

Need Principle: Interventions are recommended to address criminogenic needs i.e. dynamic risk factors that are known to cause offending behaviour (Lad & Mansukhani, 2024). They could be antisocial attitudes, antisocial peer associations, substance abuse, dysfunctional family relationship, deficiency in prosocial recreational activities, poor school/work performance and deficits in problem-solving and self-control (Andrews and Bonta, 2010). Non-criminogenic needs (e.g. low self-esteem, anxiety) should not be the main areas of treatment as they will not lower recidivism.

Responsivity Principle: The service must be provided in forms that are aligned with learning styles, capabilities, and traits of the offender (Lad & Mansukhani, 2024). General responsivity entails the

application of cognitive and social mental health approaches based on cognitive-behavioural and social-learning methods as it has the best evidence base. Specific responsivity involves the adjustment of individual factors such as cognitive ability, motivation, mental health, cultural background, and gender of the offender ((Lad & Mansukhani, 2024; Bonta and Andrews, 2007).

2.4 Operationalizing RNR model in Assessment Instruments -

Modern risk assessment tools have been applied to clearly operationalize the RNR principles by providing structured measurement of risk and protective factors in multiple domains. A good example of RNR-congruent instrument design is the PREVI-A (Risk Prediction and Assessment of Intervention, Re-education and Re-integration), which was designed and tested on 212 detained juveniles in Madrid (Grana Gomez et al., 2022). PREVI-A instrument assess six risk/protection dimensions like criminal behaviour, family environment, social environment, personality and behaviour, substance use, and attitudes/motivation. This multidimensional framework provides direct assistance in intervention planning through the establishment of particular criminogenic needs that need specific intervention. In the same manner, the Structured Assessment of Violence Risk in Youth (SAVRY) conceptualizes risk and protective domains to make informed case formulation and treatment planning in youth probation (Muir et al., 2020). SAVRY evaluates 24 risk factors in historical, social/contextual and individual/clinical domains and six protective factors to create a complete profile that is used in risk management and strength-based intervention planning.

2.5 Developmental Reflections-

The forensic assessment and intervention of the juveniles should consider the developmental processes that are still going on that and make a distinction between the adolescent and the adult. Neurobiological studies also have shown that brain systems related to impulse control, risk evaluation, and long-term planning are still developing into the mid-20s, which is also associated with typical adolescent tendencies of higher risk-taking, vulnerability to peer influence, and poor future orientation (Steinberg, 2013). There are serious implications of such developmental factors on forensic practice as noted below:

- Interpretation of the assessments: The scores of risk assessment need to be interpreted in developmental framework and the understanding is that some of these so-called risk factors (e.g., peer influence, impulsivity) are

normative during adolescence and are likely to reduce with age.

- Therapy/Treatment Strategy: Therapy must take advantage of the developmental plasticity and focus on the development of skills and positive identity formation instead of only reducing deficits.
- Adaptations of responsiveness: The format of the treatment/therapy should be able to support adolescent cognitive-social attributes such as concrete thinking, present orientation, and salience to peer groups.

2.6 Ecological and Systems Perspectives

Juvenile delinquency takes place in embedded ecological frameworks like family, peer, school, community, and society systems (Henggeler and Schaeffer, 2016). The forensic strategies should be effective to evaluate and intervene at different levels of the system and not only at the deficits at personal level. The ecological approach insists on following pointers:

- Family Systems: Evaluation of family functioning, parental supervision, parent/child relationships and family-based intervention wherever necessary.
- Peer Contexts: The assessment of peer associations and providing prosocial peer opportunities.
- School/Vocational Engagement: Aiding the continuity of education and skills.
- Community Resources: Linking youth with community resources, recreation and mentoring.
- Institutional Practices: It is important to make sure that justice system responses do not contribute to risk by themselves through the labeling, trauma, and breaking down of prosocial relationships.

3. Risk Assessment Tools and Recidivism Prediction

Unstructured clinical judgment has been largely substituted by structured risk assessment instruments in the context of juvenile justice driven by overwhelming evidence that shows structured methods are more predictively valid and have lower bias (Egisdottir et al., 2006). The last 20 years have witnessed the creation and validation of several juvenile-specific tools that are aimed at informing decision-making in terms of placement, levels of supervision, and treatment planning for juvenile offender.

3.1 Key Risk Assessment Instruments-

3.1.1 PREVI-A (Risk Prediction and Assessment of Intervention, Re-education and Reintegration)

As mentioned earlier in the paper, the PREVI-A was developed explicitly for Spanish juvenile justice contexts. It operationalizes RNR principles across six dimensions with 64 total items (Grana Gomez et al., 2022). Psychometric validation with 212 detained juveniles demonstrated:

- ✓ Strong internal consistency across dimensions
- ✓ Significant correlations with recidivism outcomes
- ✓ Diagnostic performance supporting risk classification decisions
- ✓ Direct linkage between assessment outputs and intervention planning

The PREVI-A is a classic example of modern instrument design that clearly cuts across assessment and treatment by organizing evaluation on alterable risk/protective factors that then target interventions.

3.1.2 SAVRY (Structured Assessment of Violence Risk in Youth)

The SAVRY is widely validated tool on several international jurisdictions, but especially has strong evidence based on Canadian and U.S. samples (Dembo et al., 2024; Muir et al., 2020). A field study of 744 Canadian youth under probation showed:

- ✓ The overall risk ratings displayed a moderate ability to predict whether a person would reoffend, including both violent and general offending
- ✓ SAVRY was able to predict future offending similarly for both Indigenous and non-Indigenous youth, showing consistent predictive accuracy across groups.
- ✓ There were strong predictive relationships between the recidivism and individual/clinical risk factors (e.g. anger, negative attitudes, empathy deficits).
- ✓ Protective factors added extra explanatory power in predicting outcomes, over and above what risk factors can predict by themselves

A longitudinal cohort study in Mississippi followed the same group of youths over time and showed that SAVRY could reliably predict future outcomes at different follow-up points like:

- ✓ Stable predictive performance across 1-year, 2-year, and 3-year follow-up intervals
- ✓ Measurement invariance across time, supporting use in longitudinal monitoring
- ✓ Consistent predictive validity across gender and racial groups
- ✓ Individual/clinical risk items consistently predicted recidivism across all analyses (Dembo et al., 2024)

3.1.3 YLS/CMI (Youth Level of Service/Case Management Inventory)

The YLS/CMI was originally developed and published in 2002 by Robert Hoge and Donald Andrews based on the RNR model discussed earlier. The revised YLS/CMI 2.0 was published in 2010 by Robert Hoge. The YLS/CMI is one of the most popular and widely adopted risk-need measures of juveniles that is used throughout the world and has been highly validated (Dellar et al., 2022). A massive Australian validation on a large scale that involved 4,653 juvenile offenders revealed below pointers:

- ✓ Good internal consistency ($\alpha = .91$ Cronbach)
- ✓ Two years of recidivism rate 74.8% in a follow up subsample ($n=921$).
- ✓ Moderate predictive validity (AUC 0.65) in Indigenous and non-Indigenous young people. There was no significant difference in predictive performance in demographic groups, but Indigenous youth had a higher mean risk score.

The popularity of the YLS/CMI demonstrates its assessment of eight criminogenic need areas, including prior offences, family circumstances, education/employment, peer relations, substance abuse, leisure/recreation, personality/behaviour, and attitudes/orientation, and its direct relationship to the case management planning.

3.1.4 PCL:YV (Psychopathy Checklist: Youth Version)

The Psychopathy Checklist: Youth Version (PCL:YV) was developed by Adelle E. Forth, David S. Kosson, Robert D Hare. It adapted from Hare's adult PCL-R, and was published around 2003-2005. PCL:YV is a screening tool that assesses early signs of juvenile psychopathy in children and young adults. PCL-R scores are usually used to predict risk of re-offense and also probability of a offender to rehabilitate. The PCL-R categorizes psychopathy into three factors, assessing personality traits, recidivism risk, and correlations with personality disorders

The PCL:YV is a construct that can be adapted to assess adolescents with psychopathy which works on interpersonal, affective and behavioural dimensions of the psychopathic characteristics (Schmidt et al., 2010). A longitudinal study (7 years) on 161 Canadian youth revealed:

- ✓ General, non-violent and violent recidivism was predicted by total PCL:YV scores.
- ✓ They found that predictive validity of youth recidivism was higher than predictive adult outcomes in the same cohort.
- ✓ At the facet level, there were significant differences in pattern of prediction, behavioural facets demonstrated greater prediction than interpersonal/affective ones.
- ✓ Predictive relationships depended on gender, ethnicity and age and so, subgroup analysis is important.

3.1.5 Youth Psychopathic Traits Inventory (YPI)

This is a test designed to assess the psychopathic tendencies of youths aged 12 to 18 years with the objective of identifying the severity of psychopathic tendencies (Lambert et al., 2019). It is a validated self-report scale used to evaluate psychopathic personality traits in adolescents and is based on key dimensions, namely: Grandiose-Manipulative, Callous-Unemotional, and Impulsive-Irresponsible traits (Andershed et al., 2002). In comparison to clinician-rated measures like the PCL:YV, the YPI has provided a low-cost and youth-focused measure of psychopathy that focuses on experience and subjective components of psychopathy in non-clinical and justice-involved samples (Andershed et al., 2002; Pechorro et al., 2016). The recent systematic reviews have developed normative values of the YPI scores in forensic and community populations, which can be used in contextually interpreting the scores (Ramiao et al., 2023). Empirical evidence has consistently indicated that increased YPI scores are linked to increased antisocial behaviour, earlier onset of delinquency, and increased risk of recidivism, thus highlighting its relevance to the assessment of risk in juveniles and the planning of interventions (Leenarts et al., 2017). Additionally, it is reported that the psychometric properties such as internal consistency and convergent validity with already known measures of delinquency and conduct problems, are acceptable. This finding supports the applicability of the YPI in forensic and developmental studies (Ramiao et al., 2023; Pechorro et al., 2016). The YPI will therefore help to screen at risk, and high-risk youths whose psychopathic characteristics would hinder the achievement of rehabilitation unless specifically combined by specially developed interventions.

3.1.6. SAPROF-YV (Structured Assessment of Protective Factors for violence risk – Youth Version).

SAPROF-YV is a structured and professional judgment instrument that assesses the protective factors associated with violence and criminal risk in young individuals and juveniles, such as resilience, motivation, relational support, and positive environmental impacts ("SAPROF - Youth Version," n.d.). The SAPROF-YV is developed to be compatible with risk-oriented assessments like the SAVRY. It emphasizes strengths that aid in preventing future offending and promotes the formulation of balanced risk ("SAPROF - Youth Version," n.d., n.d.; Kleeven et al., 2025). The meta-analytic findings of the SAPROF-YV and its adult version show that the impact of the protective factors plays out a predictive validity increment over the simple risk factors to predict the non-occurrence of violent recidivism beyond traditional risk factors, indicating the necessity of

incorporating dynamic protective constructs to determine holistic risk and protective factors (Burghart et al., 2022). The research using juvenile samples also reports a high inter-rater reliability and implies that SAPROF-YV scores are linked to a lower risk of violent and non-violent recidivism with the establishment of structured assessment of risk (Burghart et al., 2022; Christiansen et al., 2021). The adding of protective factors can be associated with the rehabilitative objectives of Sustainable Development Goals 16, which contributes to the strengths-based approaches, which help to facilitate positive development and effective reintegration of justice-involved youth through the protective factors.

3.2 Comparative Performance and Meta-Analytic Evidence

There are a number of common trends across instruments and studies which are noted below:

- **Moderate Predictive Accuracy:** In the vast majority of cases, validated instruments show moderate discrimination (AUCs range tends to be 0.60-0.70) instead of near-perfect prediction (Dembo et al., 2024; Dellar et al., 2022). This average accuracy is a manifestation of the complexity and multi-determination of human behaviour, effects of post-assessment environmental factors, and the difficulties of measurement. Moderate accuracy by itself might be insufficient but structured instruments are uniformly better than unstructured clinical judgment and can be of considerable practical use in resource allocation and treatment planning decisions.
- **Dynamic Factors Proximal Prediction:** It is common that dynamic risk factors (modifiable characteristics like current attitudes, peer associations and substance use) have a stronger proximal prediction of short-term recidivism, whereas longer-term outcomes are better predicted by the use of static historical factors (e.g., age at first offence, prior adjudications) (Dembo et al., 2024). This trend contributes to the RNR highlighting of focusing on dynamic factors during intervention, which are both favorable variables and possibilities of alteration.
- **Additional Factors of Protection Add Predictive Value:** The instruments used to measure protective factors (e.g., SAVRY) indicate that strengths provide more predictive value than risk factors do (Muir et al., 2020). The result indicates the need to use strength-based interventions which develop competencies instead of merely focusing on shortcomings.

Below table summarizes some of the prominent risk assessment tools and how they relate to help in achieving SDG 16.

Table 2: Comparison of Risk Assessment Instruments:

Instrument	Developer / Origin	Target Population	Core Domains Assessed	Approx. Administration Time	Key Validation Evidence	Relevance to SDG 16
PREVI-A (Risk Prediction and Assessment of Intervention, Re-education and Reintegration)	Spain; Graña Gómez et al.	Juvenile offenders (justice-involved youth)	Risk factors linked to recidivism; intervention and reintegration needs	15–30 min	Demonstrated reliability and predictive validity for juvenile recidivism in Spanish samples	Supports evidence-based rehabilitation and reintegration planning, aligning with SDG 16 targets on effective and fair justice systems
SAVRY (Structured Assessment of Violence Risk in Youth)	Canada/US A; Borum, Bartel & Forth	Adolescents (12–18 years) in forensic or clinical settings	Historical, social/contextual, individual/clinical risk factors; protective items	20–40 min	Strong evidence for predicting violent reoffending; widely validated across jurisdictions	Contributes to violence prevention and public safety (SDG 16.1) while informing proportionate responses
YLS/CMI (Youth Level of Service / Case Management Inventory)	Canada; Andrews & Hoge	Juvenile offenders under supervision or custody	Criminogenic needs: family, peers, education, substance use, attitudes, personality	30–60 min	Extensive international validation for general and violent recidivism; strong RNR model support	Facilitates fair risk classification, targeted intervention, and reduced recidivism (SDG 16.3, 16.6)

PCL:YV (Psychopathy Checklist: Youth Version)	Canada; Hare et al.	Adolescents (12–18 years) in forensic contexts	Interpersonal, affective, lifestyle, and antisocial traits	45–90 min	Robust associations with serious and persistent offending; requires trained assessors	Useful for clinical formulation but requires cautious use to avoid stigmatization, supporting ethical justice practice
YPI (Youth Psychopathic Traits Inventory)	Sweden; Andershed et al.	Adolescents in community and forensic samples	Self-reported affective, interpersonal, and behavioral traits	10–20 min	Validated across cultures; acceptable reliability and predictive associations	Supports early identification and prevention without intensive institutional resources
SAPROF-YV (Structured Assessment of Protective Factors – Youth Version)	Netherlands; de Vogel et al.	Adolescents and young adults (approx. 12–23 years)	Protective and resilience factors: internal strengths, social support, motivation	15–30 min	Evidence for incremental validity when combined with risk tools	Promotes strengths-based, rehabilitative justice and reintegration, central to SDG 16’s rights-based approach

Source: Summarized and compiled by authors, 2025

The risk assessment tools vary in the purpose, depth and ethical implications. In order to support fair, compassionate and effective juvenile justice systems, best practices in SDG 16 concentrate of integrating risk assessment with protective and rehabilitative systems.

The PREVI/A and YLS/CMI are specifically aimed at establishing criminogenic needs and informing the case-management and intervention planning, thus making them directly practical toward the SDG/16 objectives of rehabilitative and fair justice and less recidivism. SAVRY is dedicated to violence risk, which is useful under the conditions when the prevention of violence among youth is in the priority (SDG 16.1: reduce violence). YLS/CMI addresses the criminogenic needs on a broader level, which can be helpful in planning and allocating resources at the system level. The SAPROF-YV and the administering of protective-factor assessments can be used to supplement risk tools and implement a strengths-based, rights-respecting rehabilitation, which is connected to SDG 16 focusing on just, humane

institutions and reintegration. Case plans based on community and family supports and the over-reliance on the deficit models are minimized by using SAPROF with a risk instrument.

It can therefore be concluded that based on the need and the purpose of a particular justice system, an individual can adopt or tailor a certain risk-assessment instrument. For e.g., if purpose is case management along with the RNR model framework, then YLS/CMI is most appropriate, validated and comprehensive tool. On the other hand, if the purpose is just violence specific assessment than SAVRY seems appropriate. Considering protective factors while designing reintegration programs, SAPROF-YV can be a chosen tool. PREVI-A is a new policy tool that has been tested locally (Spanish) and that has priority on prediction of recidivism.

3.3. Equity and Subgroup Performance

A fundamental issue in juvenile justice application is the question of whether risk assessment tools can achieve the same level of demographically-neutral abilities in forecasting risk or they systematically

predict it in a biased fashion, over- or under-predicting the risk of specific populations, which can be a source of disparate treatment.

3.3.1 Indigenous Youth

SAVRY was tested through Canadian validation research that tested the predictive validity of SAVRY among Indigenous and non-Indigenous youth separately (Muir et al., 2020). Key findings of the study included:

- Homogenous predictive precision (AUCs).
- Increased average risk scores in Indigenous youth.
- Qualitative findings indicating that cultural salient risk factors (e.g., inter-generational trauma, community dislocation, system discrimination) might be under-measured by conventional measures.

These results emphasize the role of culturally informed interpretation: the tool predicts both groups of recidivism, but the fact that Indigenous youth scored higher can in part be explained by the systemic injustice and the presence of historical trauma instead of individual risk. Assessors have to incorporate cultural context and history into their case formulations rather than using just scores as a complete summary

3.3.2 Gender Differences

Studies that investigate the use of risk assessment as a tool in female juvenile offenders also demonstrate some significant gender implications (Leon & Bartolome, 2024). A study conducted in Spain which specifically compared the performance of SAVRY using female youth found:

- Female adequate predictive validity.
- Few studies have identified potential issues of under-assessing female-specific risk pathways, such as victimization history, sexual abuse history, self-harm, and relationship-based risk.
- The threat of the so-called gender-neutral instruments to fail to capture the significant factors related to girls.

Such results are relevant to the creation of gender-sensitive assessment protocols that will be used in addition to standardized measures that will assess female-specific risk and protective variables such as trauma history, relationship pattern, mental health (especially internalizing disorders) and pregnancy/parenting status.

3.3.3 Racial and Ethnic Considerations

A study of the Mississippi longitudinal found out the predictive validity of SAVRY in both racial groups (African American and White youth) (Dembo et al., 2024). Results demonstrated:

- Predictive validity is consistent in different racial groups.
- No evidence of prediction bias or differential prediction.
- This is because the measurement structure and factor loading of the groups are similar.

Although these results reinforce the idea of equal prediction, they do not touch on the possible differences in the youth referring to the justice system or existing services that are offered to different groups of people. Equitable assessment is not adequate to equitable justice, but wider systemic influences on referral, adjudication, and resource access should be taken into account.

3.4. Considerations in Practical Implementation

To establish successful risk assessment, it is necessary to consider a number of pragmatic factors like:

- Training and Reliability: Assessors need extensive training in the administration of the instruments, scoring and interpretation. Studies have provided that inter-rater reliability and predictive validity requires adequate training and continuous quality assurance (Bonta et al., 2011).
- Integrated decision making: The outcomes of assessment should be thoughtfully incorporated in the case planning, and treatment decisions. Tools that are based on specific connections between domains of assessment and intervention goals (e.g., PREVI -A, YLS/CMI) can be used to achieve this.
- Re-assessment and Monitoring: Risks and needs are dynamic, and a reassessment of risk and needs is possible on a periodical basis, which will facilitate tracking of change and modify the intensity and focus of intervention. Longitudinal monitoring can be facilitated by instruments that show invariance of measurement over time (e.g., SAVRY) (Dembo et al., 2024).
- Cultural and individual factors: Structured scores are to be comprehended in the greater context of case formulations that include cultural, individual strengths, systemic and clinical judgment. The use of scores gives valuable information that should not be made to mechanically make decisions without professional interpretation.

4. Evidence-Based Rehabilitation and Reintegration Programs

4.1 Principles of Effective Intervention

Some of the characteristics of effective juvenile offender rehabilitation programs as identified consistently by meta-analytic research include (Lipsey, 2009):

- Alignment with RNR framework: interventions adhering to Risk-Needs-Responsivity principles demonstrate significantly larger effect sizes
- Cognitive-Behavioral Approaches: Interventions using cognitive-behavioral and social learning methods show superior outcomes compared to other modalities
- Skill Development: Compared to insight-oriented or strictly punitive approaches, programs that emphasize prosocial skill acquisition like problem-solving, social skills, anger management, etc., reduce recidivism more successfully.
- Family Involvement: Interventions wherein family is also involved have better results, especially for younger teenagers.
- Community-Oriented approach: For lower-risk adolescents, community-based programs typically yield greater results than institutional placement; nonetheless, high-risk youth may need extensive residential care.

4.2 Intensive Forensic Institutional Treatment

A study done in the Netherlands offers solid arguments in favor of intensive and structured institutional treatment of serious juvenile offenders (Reef et al., 2023). A pre-post evaluation was conducted of 178 young offenders in forensic institutions (PIJ/FYCI program). Institutional intervention or treatment components included -

- Comprehensive assessment using Juvenile Forensic Profile (JFP) at both intake and discharge.
- Multidimensional intervention aimed at criminal behavior, family relationships, environmental factors, psychopathology, and social skills.
- Structured intervention with a focus on impulse control, treatment of substance abuse, skills development.
- The process involves gradual reintegration and exposure to community.
- This intervention noted outcomes like -
- The offenders has shown a great improvement in impulse control and alcohol/drug issues during treatment.
- Decrease in psychopathology and behavioral issues.
- Two-year re-incarceration rate of 13.5% which is significantly low compared to comparison groups.
- Indicators of re-incarceration were absence of behavior change in treatment and unproductive behavior at pre-discharge, indicating the need to monitor treatment response.

Some of the important implications of the study is that this study has shown that with intensive and structured treatment, significant change and lower recidivism are possible even in serious juvenile

offenders when interventions assess criminogenic needs and target them, along with systematically monitoring treatment response. The re-incarceration rates are lower as compared to the normal recidivism rates (50-70 per cent) in less intensive or unstructured programmes (Cottle et al., 2001).

4.3 Targeting Criminogenic Needs

A study of criminogenic need profiles in substance-using young people involved in justice system shows significant pattern that can be applied to the intervention strategy (De Somma et al., 2021). YLS/CMI Profiles of youth using substances indicated:

- Substance-use comorbid with other criminogenic needs like antisocial peer group, inadequate family relationships, deficit or failure in school.
- The multimodal intervention of substance abuse in the context of wider criminogenic need patterns is generally required in youth with high levels of substance use.
- Single-focus interventions (e.g., substance treatment alone) might not be adequate with several criminogenic needs.

Such results are in favor of broad based integrated intervention that does not focus on group of risk factors and not just isolated or individual need.

4.4 Specific Intervention Domains-

4.4.1 Substance Abuse Treatment

One of the most common and strongest criminogenic needs among juvenile offenders is the substance use (De Somma et al., 2021). Some of the evidence-based substance-abuse interventions to use with justice-involved youth include:

- Cognitive-Behavioural Therapy (CBT): Focused on substance-use cognitions, refusal skills and coping strategies.
- Motivational Interviewing: Promoting a change in ambivalent youth with substance use.
- The multi-family interventions involve involving families in supporting abstinence and addressing family issues that support substance use.
- Integrated Treatment: A substance use approach should be considered as a component of a broader criminogenic-need intervention as opposed to a treatment of its own.

The study by the Netherlands forensic treatment showed that the change in alcohol/drug issues during institutional treatment was predicted to reduce re-incarceration, which was a direct evidence that effective substance-abuse intervention will lead to a decrease in recidivism (Reef et al., 2023).

4.4.2 Impulse Control and Self-Regulation

Deficits in impulse control, emotional regulation are among the fundamental criminogenic needs, especially in youth with aggressive and violent trajectories of offending (Dembo et al., 2024; Reef et al., 2023). Some of the effective interventions are -

- Anger Management Training: This involves teaching anger triggers, cognitive restructuring of hostile attributions and teaching behavioural coping skills.
- Problem-Solving Skills Training: This involves systematic training of problem definition, generation of alternatives, evaluation of consequences and action on solutions.
- Mindfulness-Based Approaches: The evidence on mindfulness training to enhance self-regulation is new; nevertheless, the studies involving justice-involved youth are scarce.

The Netherlands study has reported that treatment gains in terms of the improvement of impulse control were some of the largest treatment benefits and predicted less re-incarceration (Reef et al., 2023), which supports the significance of self-regulation as an intervention target.

4.4.3 Social, Prosocial Skills & Competencies

Social-skill deficits are thought to cause juvenile delinquency in many ways: peer rejection, which causes antisocial peer attachment; bad conflict resolution skills, which cause aggressive reactions; and inadequate prosocial recreational activities. Evidence-based interventions based on social-skills comprise:

- Structured Social Acts Training: Systematic training, modelling, rehearsal and feedback regarding certain interpersonal skills.

- Perspective-Taking Training: Activities that build the ability to see the perspectives of other people and their emotional conditions.
- Prosocial Recreational Programming: Pioneering activities that allow the practice of prosocial skills in natural settings.

The importance of social skills as a treatment goal was found by the Netherlands forensic treatment research, and, during the course of treatment, the enhancement of this area was associated with the success of reintegrating into society (Reef et al., 2023).

4.4.4 Educational and Vocational Training

Established criminogenic needs include educational deficit and poor performance at school/work (Blomberg et al., 2011). Viable programming entails:

- Educational Continuity: Educational efforts to sustain educational participation in justice involvement by institutional schooling and community-school reintegration planning.
- Vocational Training: Offering marketable skills development at level of development.
- Cognitive Remediation: Overcoming learning disabilities and cognitive impairments that hinder academic achievement.
- Graduated Work Experience: Guided and supervised work experience.

Although the present literature review suggested the presence of educational and vocational aspects as part of an entire forensic treatment programme (Reef et al., 2023), the effect of educational/vocational intervention in view of a particular outcome research has not been effectively studied, which is also a significant research gap.

Below table summarizes key points for effective evidence based programs

Table 3. Evidence Based Intervention approaches

Program/App roach	Target Population	Theoreti cal Basis	Key Components	Evidenc e Level	Key Outcomes
Netherlands PIJ/FYCI	Serious juvenile offenders requiring institutional treatment	RNR model, multidimensional risk-need framework	Comprehensive assessment, targeted treatment (impulse control, substance abuse, social skills), phased reintegration	High (pre-post with 2-year follow-up, n=178)	13.5% re-incarceration rate; significant improvements in impulse control and substance problems
Multisystemic Therapy (MST)	Serious juvenile offenders and families	Ecologica l systems theory	Intensive family and community intervention, multiple system targeting	High (multiple RCTs)	25-70% reduction in recidivism; improved family functioning

Functional Family Therapy (FFT)	Moderate-risk youth and families	Family systems, behavioral theory	Structured family intervention, communication and problem-solving	High (multiple RCTs)	25-60% reduction in recidivism; cost-effective
Cognitive-Behavioral Therapy (CBT)	Various risk levels	Cognitive-behavioral theory, social learning	Cognitive restructuring, skill development, behavioral rehearsal	High (meta-analyses)	Moderate effect sizes for recidivism reduction; most effective when RNR-aligned
Aggression Replacement Training (ART)	Youth with aggressive behavior	Social learning, moral development	Skill streaming, anger control, moral reasoning	Moderate (quasi-experimental studies)	Reduced aggression and improved social skills; mixed recidivism findings

Source: Summarized and compiled by authors, 2025

4.5 Family and Community Engagement

The ecological approaches provide emphasis on the family and community settings as essential resources to aid in rehabilitation and recidivism prevention (Henggeler & Schaeffer, 2016). Evidence-based strategies entail:

- a) Family Interventions:
 - Multisystemic Therapy (MST): Multisystemic Therapy is an intense family- and community-based treatment aimed at various systems that cause antisocial behaviour.
 - Functional Family Therapy (FFT): A well-organized family intervention that responds to the communication, problem-solving, and parenting practices.
 - Family Psychoeducation: Family education about adolescent development, risk factors, and successful parenting.
- b) Community Reintegration:
 - Phased Reintegration: Community exposure with more autonomy and less supervision.
 - Community Mentoring: Linking youth and prosocial adult mentors.
 - Prosocial Peer Opportunities: Providing access to prosocial recreational and educational and vocational opportunities.
 - Wraparound Services: Mobilizing several systems of services (mental health, education, work experience, family support) around individual needs.

Phased reintegration with graduated community furloughs was included in the Netherlands forensic treatment model, which aided in the process of transitioning institutions to community-based environments (Reef et al., 2023). The importance of proper reintegration planning and community assistance cannot be overestimated because

research has shown that some jurisdictions have high community recidivism rates (Dellar et al., 2022).

4.6 Monitoring Treatment Response

It is possible to identify those who are not responding to the intervention and need different approaches by systematic tracking of the treatment response. A study by Netherlands showed that insufficient behavioural progress in the course of the treatment and problematic pre-discharge behaviour were the predictors of re-incarceration (Reef et al., 2023), meaning that by monitoring the response to treatment, youth may be identified as needing more intervention or different strategies.

Effective monitoring system includes:

- Standardized Re-assessment: Risk-need measurement by re-administration of the instruments periodically to measure change.
- Behavioural Indicators: Monitoring the institutional behaviour, participation in the programmes, and demonstration of skills.
- Stakeholder Input: collection of information based on various channels (treatment staff, educators, family, youth self-report).
- Clinical Review: Multidisciplinary case review regularly to monitor progress and make treatment changes.

5. Challenges, Barriers, and Implementation Considerations

Cultural Sensitivity: Standardized risk assessment instruments may fail to capture culturally relevant variables that affect Indigenous youth, which is why it is important to evaluate instruments in a particular cultural context and involve community members in the process (Muir et al., 2020).

Gender-Responsive Assessment: It has been shown that the current tools could not be effective in

assessing the female juvenile offenders because of their unique risk factors, such as the experience of abuse and relationship patterns etc., and the highlighting the need to create specific tailored intervention (Leon and Bartolome, 2024).

Predictive Accuracy: It is true that risk tools have a moderate predictive ability (AUC of 0.65) and require the combination of professional judgment, and consideration of dynamic risk factors to be in place since false positives and false negatives are can be possible and often occur (Dembo et al., 2024; Dellar et al., 2022).

Treatment Continuity: High recidivism highlights the difficulty in reintegrating into the community owing to disruptions in service delivery and insufficient or limited resources, and proposes the perspective of coordinated support services and family engagement (Dellar et al., 2022).

Implementation Fidelity: Effective evidence-based programs face barriers to practical implementation, including; lack of training, resources, thus, requiring fidelity checks and continual maintenance (Fixsen et al., 2005).

Resource Allocation: Intensive treatment programs are expensive; they might lower recidivism rates, but the costs need to be assessed to evaluate their cost-effectiveness to decide about the allocation of resources and policies on youth interventions (Reef et al., 2023).

6. Best Practices and Successful Program Examples

6.1 RNR-Aligned Assessment and Treatment Linkage

The PREVI-A tool is the best example of the combination of risk assessment and intervention planning in the model of Risk-Need-Responsivity (RNR) (Grana Gomez et al., 2022). It assesses six domains that are RNR-consistent, including criminal behavior, family, social environment, personality/behavior, substance use, and attitudes/motivation, so that the result of the assessment can have a direct impact on the choice of treatment goals. Adding risk and protective variables on a cross-domain level, the PREVI-A ensures the balanced case formulation and, at the same time, helps to focus on the criminogenic needs, as well as capitalize on personal strengths. Its reliability and validity in the prediction of recidivism is supported by empirical evidence. Significantly, the instrument incorporates the intervention planning in the framework of its assessment design, which provides a repeatable pattern of transferring the assessment results into practice in rehabilitation.

6.2 Intensive Forensic Institutional Treatment: Netherlands PIJ/FYCI

The mandatory forensic treatment program (PIJ/FYCI) of the Netherlands proves that intensive, organized institutional interventions can achieve significant results even in serious juvenile offenders (Reef et al., 2023). The program combines a multidimensional and criminogenic-focused treatment with integrating a profound assessment of the intake, systematic levels of progress monitoring and gradual re-entry in the community. The assessment has shown that the impulse control and substance-related issues, psychopathology, and behavioral functioning are considerably strong, and the two-year re-incarceration rate is relatively low (13.5). It is important to note that treatment-associated gains in the course of the institutional care predetermine post-release outcomes. Among the key success factors are a systematic assessment at the intake and discharge, sufficient intensity and duration of treatment, needs-specific interventions according to the assessments, gradual reintegration, and long-term outcome monitoring.

6.3 Culturally Informed Implementation of SAVRY

The best practices of culturally responsive risk assessment is demonstrated by the Canadian research on SAVRY application among non-Indigenous and Indigenous young people (Muir et al., 2020). There are standardized administration procedures that are carried to maintain reliability and predictive validity is tested in cultural subgroups. The quantitative risk ratings are reinforced with qualitative case formulation, which takes into account cultural context, such as historical trauma and systemic disadvantage. The interaction with community stakeholders and cultural experts aids in the culturally relevant interpretation and intervention planning. Results support the predictive validity of SAVRY between groups and offer a generalizable framework of balancing between standardization and cultural responsiveness.

6.4 Large-Scale Implementation and Quality Monitoring: Western Australia YLS/CMI

The introduction of the YLS / CMI in Western Australia at the state level signifies the practicability of the massive implementation with the help of systematized quality oversight (Dellar et al., 2022). The validation studies have indicated an excellent internal consistency (.91) and moderate predictive validity that is in line with international standards, and they have also shown similar performance between Indigenous and non-Indigenous youth. Nevertheless, the rates of recidivism are still high, which promotes the necessity of the efficient community-based rehabilitation and reintegration service. All in all, this project emphasizes the role of assessor training, local validation, subgroup analysis,

and ongoing evaluation in terms of accountability and improvement.

7. Future Directions and Research Gaps

The current review identifies a few important gaps that outline the direction for the future studies in the field of juvenile justice so that it is coherent with evidence-based practice and Sustainable Development Goal 16 (SDG16). The lack of SDG 16 specific operationalization in juvenile justice research is one of the major drawback. Even though the current literature deals with outcomes that are relevant to violence reduction, access to justice and institutional effectiveness, none of the research that are currently available systematically convert SDG 16 aims into quantifiable juvenile justice indicators or compare programs to SDG-specific standards. The creation of SDG-aligned indicator frameworks, comparative international research, and measurement instruments that capture youth, family, and community perspectives of justice and protection are all necessary for addressing this gap. Methodologically, even though risk assessment instruments are well psychometrically validated, and a set of high-quality programme evaluations have been chosen, there are a limited number of randomized controlled trials of juvenile justice interventions (Reef et al., 2023). Priority in future research should be rigorous intervention trials, dismantling experiments, comparative effectiveness

research, implementation science, and long-term follow-up research designs to determine long-term outcomes. Cultural and gender adaptation research still has substantial gaps in terms of empirical instructions on how assessments and interventions can be customized to suit various cultural groups and females and LGBTQ+ youth (Leon and Bartolome, 2024; Muir et al., 2020). Another underdeveloped area is technological innovation, which is the application of machine learning, digital interventions, tele-health, and integrated data systems, and which also require careful validation, assessment of bias, and ethical considerations. Also, existing risk assessment instruments offer a moderate predictive accuracy, which indicates the necessity to have integrated, dynamic, and subgroup-specific prediction models (Dembo et al., 2024; Dellar et al., 2022). Economic assessments are also not well developed in literature, even though cost-effectiveness is of importance when it comes to policy and resource allocation (Reef et al., 2023). Lastly, the research regarding restorative justice, diversionary strategies, and trauma-informed care lacks the evidence, which is why a thorough analysis of other forms of justice and trauma-responsive interventions is necessary. Altogether, such gaps reveal the priorities of work on the development of juvenile justice research and practice in accordance with SDG 16.

Table 4: Future Research Directions in Juvenile Justice Aligned With SDG 16 Targets

Research Gap / Future Direction	Key Focus Areas	Relevant SDG 16 Targets	Contribution to SDG 16
Explicit SDG 16 Operationalization	Development of SDG-aligned indicators; program evaluation using SDG metrics; cross-national comparisons	16.1 (reduce violence), 16.3 (access to justice), 16.a (institutional capacity)	Aligns juvenile justice research with global development frameworks and enables systematic evaluation of justice-sector contributions to sustainable peace
Rigorous Intervention Trials	Randomized controlled trials; dismantling studies; comparative effectiveness research; long-term follow-up	16.1, 16.3	Strengthens evidence-based interventions, improving justice outcomes and reducing violence through empirically validated practices

Cultural and Gender Adaptation	Cultural validation of tools; gender-responsive assessment; adaptations for Indigenous, female, and LGBTQ+ youth	16.2 (protection from abuse), 16.3	Promotes equity and inclusion by ensuring justice processes are responsive to diverse pathways, vulnerabilities, and social contexts
Technology and Innovation	Machine learning risk models; digital interventions; tele-health; real-time monitoring systems	16.a	Enhances institutional effectiveness and access to services, particularly for rural and underserved populations, while requiring safeguards against bias
Predictive Improvement Research	Integrated risk models; dynamic and temporal prediction; subgroup-specific tools; protective factor research	16.1	Improves accuracy of violence prevention efforts and supports targeted, proportionate interventions
Economic and Cost-Effectiveness Analysis	Cost-benefit studies; budget impact analyses; prevention vs. intervention modeling	16.a	Informs efficient allocation of public resources and supports sustainable justice system reforms
Restorative Justice and Alternatives	Evaluation of diversion and restorative programs; mechanism studies; long-term outcome research	16.3	Expands access to justice through non-punitive, participatory approaches that promote accountability and reintegration
Trauma-Informed Practice	Trauma prevalence research; trauma-informed assessment; evaluation of trauma-focused interventions; system-level implementation	16.2, 16.3	Addresses victimization and systemic harm, enhancing protection, rehabilitation, and procedural justice

Source: Summarised and compiled by Authors, 2025

8. Policy Implications and Recommendations

The justice systems ought to compel the use of validated and structured risk-need assessment tools to all juveniles with the results informing decisions regarding the placement, level of supervision, and treatment planning. Structured measures have greater predictive validity compared to unstructured clinical judgments and allow systematic identifying of an intervention target (Dembo et al., 2024; Grana

Gomez et al., 2022; Dellar et al., 2022). Developing the instruments that are validated in the relevant groups, training assessors, ensuring their quality, incorporating the results into the decision-making process, and performing a regularly repeated assessment in combination with clinical and cultural formulation is essential to get the results effectively. Services are to be keyed to criminogenic needs that are assessed based on Risk-Need-Responsivity

(RNR) principles. Programmes that are more effective than the non-aligned ones are the ones that address needs (e.g., substance use, antisocial attitudes, peer influence, family dysfunction, impulse control, etc.) (Bonta & Andrews, 2016; Lipsey, 2009). The systems should create need-based portfolios of interventions, educate personnel on RNR-based interventions, oversee treatment response and make sure that it is neither over- nor under-intensive to low-risk and to high-risk youth accordingly.

There must be cultural responsiveness. Despite the overall validity of the standardized tools, culturally-specific risk/protective factors can go unaddressed, and the interventions can fail to conform to the values of the local population (Muir et al., 2020). There is a need therefore to validate within cultural groups, train personnel in cultural competence, engage with communities as well as monitor outcomes regarding disparities.

Gender-responsive methods ought to meet gender-specific pathways, especially in girls, whose risks of trauma and victimization, as well as internalizing problems, may be under-estimated (Leon and Bartolome, 2024). Gender-specific and trauma-informed training of the staff and programming are essential.

Enhancing reintegration into the community with early transition planning, service continuity, family and wraparound support is critical, because of high post-release recidivism (Dembo et al., 2024). Lastly, the systems are supposed to create outcome monitoring and public accountability (Dembo et al., 2024; Reef et al., 2023), invest in professional training (Bonta et al., 2011), and carry out cost-effectiveness assessments to inform effective allocation of resources (Reef et al., 2023).

9. Conclusion

This review explored the methods of forensic psychology in the context of assessing, rehabilitating, and reintegrating juvenile offenders, and especially in the context of sustainable development goal 16 (SDG 16). There are a number of conclusions that have been drawn as below.

To start with, risk-need assessment, which is structured, works effectively. Validated measures such as the SAVRY, YLS/CMI, PREVI-A and PCL:YV show moderate predictive validity that is consistent across populations and jurisdictions. Though they have relatively low accuracy (AUCs approximately 0.65), these tools are evidently superior to unstructured clinical judgments and can also offer systematic grounds to find criminogenic needs and targets of intervention (Dembo et al., 2024; Dellar et al., 2022; Grana Gomez et al., 2022; Muir et al., 2020). Second, the Risk-Need-Responsivity (RNR) interventions are more likely to provide better results. Intensity-calibrated (wherein intensity of

treatment intervention matched risk-level), criminogenic needs-focused, and individualized programs have been proven to be more effective than those that do not comply with the RNR framework (Bonta and Andrews, 2016; Lipsey, 2009).

Third, intensive forensic institutional treatment (especially as shown in Netherlands study) has shown us that with properly designed and needs-based programs, meaningful behavioural change and low recidivism rates can be achieved even in the case of serious juvenile offenders (Reef et al., 2023).

Fourth, cultural and gender responsiveness is a crucial fact. Although predictive tools are standardized, and can predict recidivism in groups, they might not adequately predict culture or gender-specific risks. Such groups like indigenous youth, girls, and other marginalized groups often need extra evaluation and modified, trauma-informed care (Leon and Bartolome, 2024; Muir et al., 2020).

Fifth, the issue of reintegrating in communities is still a significant issue. The issue of high post-release recidivism in some settings highlights the importance of early transition planning, continuity of services, the role of families, and the community (Dembo et al., 2024).

Sixth, the quality of implementation has a robust effect on treatment or intervention outcomes. Coaching or training, quality control, organizational commitment and quality assessment are crucial to actual efficacy of intervention programs. One last gap remains, and it has to be mentioned that juvenile justice research rarely operationalizes SDG 16 indicators and, thus, hinders the alignment between world development objectives and the justice practice.

The role of forensic psychology in contributing to achieve SDG 16 is that it helps to minimize violence by providing successful intervention (Target 16.1), safeguard children through trauma-informed and rights-based care (Target 16.2), ensure equitable access to justice through structured decision-making (Target 16.3), and increase the capacity of institutions through professional training and monitoring outcomes (Target 16.a) (Bonta et al., 2011; Leon and Bartolome, 2024; Reef et al., 2024).

Going forward, advancement would require coordinated efforts in research, policy, practice, training and system reform. It is necessary to mandate evidence-based assessment, align services with the principles of RNR, make sure it is culturally and gender responsive, reinforce reintegration and make accountability mechanisms embedded. In general, the facts indicate that forensic psychology provides effective means to achieve SDG16. The long-term dedication to evidence-based, rights-based practice has the potential to shift juvenile justice to a model that actually fosters rehabilitation, reintegration, and favorable youth development.

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