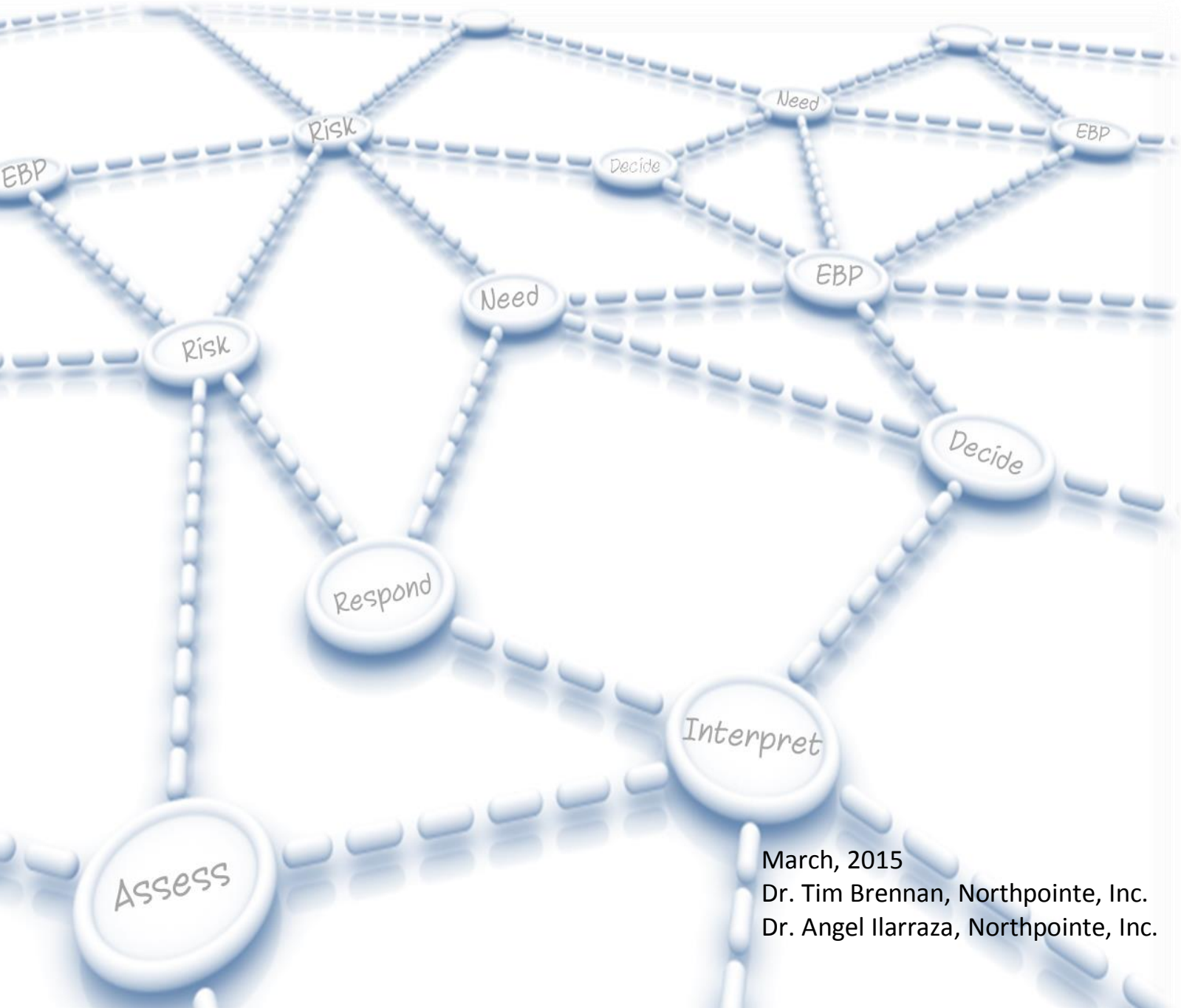
White Paper

Connecting the Dots

Supporting Evidence-Based Sentencing Decisions With Risk-Need-Responsivity Principles



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Introduction

The shift to evidence-based sentencing

"…The returns for better applying technology in criminal justice extend far beyond reducing crime or costs, to something that government officials are sworn to uphold: justice."
Former NJ Attorney General Anne Milgram

In 2011 the Conference of Chief Judges and the Conference of State Court Administrators endorsed a set of principles for incorporating risk and need assessment information into sentencing[1]. As of this writing, the National Center for State Courts (NCSC) has published reports for ten jurisdictions profiling their experiences using validated risk-need assessments (RNA) to inform their sentencing practices.

With decades of research advocating the need for a more scientifically objective approach to sentence decision-making, and with numerous jurisdictions reporting success in using such tools, it is our belief that the trend toward RNA-informed sentencing will continue to gain speed and acceptance.

This paper provides a historical perspective as well as the current thinking on the use of evidence-based practices for judicial case formulation and sentencing design. To help illustrate the benefits of validated RNA and assist the user in "*connecting the dots*", this paper references the COMPAS[2] (Correctional Offender Management Profiling for Alternative Sanctions) RNA system. There are several RNA systems available to justice agencies for this purpose and we encourage the reader's independent investigation of such tools.

Background to an Incarceration Crisis

40-year experiment incarcerates huge number of citizens

After decades of relative stability in incarceration rates from the 1920s to mid-1970s, imprisonment in the U.S. *accelerated and quadrupled* over the next four decades. The U.S. penal population of about 2.2 million adults is now the world's largest and American prisons hold almost one-quarter of the world's prisoners. The U.S. incarceration rate of close to 1 in every 100 adults held in prison or jail, is estimated to be 5 to 10 times higher than rates in Western Europe and other democracies[3].

[1] Conference of Chief Judges and Conference of State Court Administrators 2011
[2] COMPAS is a computerized statistically validated risk-need assessment (RNA) system to support criminal justice decision-making regarding the placement, supervision levels and rehabilitation programming of offenders. It is thus of special relevance to courts, probation, parole, community corrections, and other corrections agencies.
[3] National Research Council/NYT 2014

The rise in incarceration has led to many critiques and scientific studies of the contributing factors that produced this dramatic growth and its negative consequences for prisoners, their families, our communities, and overall society[4]. The general conclusion is that the United States has far exceeded the point where such massive incarceration can be justified by social benefits and that these huge incarceration rates are imposing considerable injustice, economic, and social harms.

A major cause of the unprecedented growth of incarceration was the shift to harsher sentencing during the "tough on crime" and "just dessert" era of the 1980s. This shift has continued long after crime began to fall from the early 1990s, and recent research strongly suggests that *longer sentences are in fact themselves criminogenic and may increase crime rates*. Among the recommendations made by the National Research Council (NRC) is an immediate need to reduce the levels of incarceration in the U.S. by changing sentencing policy[5].

"… even though the political climate has shifted in recent years, many politicians continue to fear appearing to be "soft on crime" even when there is no evidence that imprisoning more people has reduced crime by more than a small amount."
NRC/NYT 2014

Damage Caused by Mass Incarceration

Research identifies negative consequences and ineffectiveness

For more than a decade, researchers have been identifying the widespread societal and economic damage caused by mass incarceration. In 2014 the NRC released a report on The Growth of Incarceration in the United States that aggregates the research on the dramatic rise of incarceration rates and its affects. Such reports provide some of the most comprehensive and compelling proof that mass incarceration itself is "*a source of injustice.*"

Who is locked up: The U.S. prison population is largely drawn from the most disadvantaged segment of the nation's population consisting mostly of men under age 40, disproportionately minorities and poorly educated. These prisoners often carry additional deficits of drug and alcohol addictions, mental and physical illnesses, and a dearth of educational and work preparation or experience. More than half of state prisoners are serving time for nonviolent crimes, and one of every nine, or about 159,000 people, are serving life sentences — nearly a third of them without the possibility of parole[6].

Causes of this massive increase in incarceration: This unprecedented growth is primarily the result of changes to sentencing. These include lengthy mandatory minimums for nonviolent drug offenses that became popular in the 1980s, the "three

[4] National Research Council 2014
[5] The Growth of Incarceration in the United States, NRC 2014
[6] National Research Council 2014

strikes" laws that put people away for life, and constraints or abolishment of parole. While it was broadly understood that prison should be a last resort, it became regarded as a cure-all for social ills, as the country seemed to conveniently ignore the social devastation caused by such punishment policies.

Damage to neighborhoods and families: The severity of this is demonstrated in the devastation wrought on America's poorest and least educated and in the destruction of both neighborhoods and families. From 1980 to 2000, the number of children with fathers in prison rose from 350,000 to 2.1 million. Since race and poverty overlap so significantly, the weight of our criminal justice experiment continues to fall overwhelmingly on communities of color, and particularly on young black men.

Stigma and social exclusion: After prison, offenders are typically sent back to their impoverished neighborhoods, but most remain blocked from re-entering society. Many cannot vote, get jobs, or receive public assistance like subsidized housing — all of which would improve their odds of staying out of trouble. A stigmatizing web of collateral consequences has created what a National Academy of Sciences report calls "a highly distinct political and legal universe for a large segment of the U.S. population."

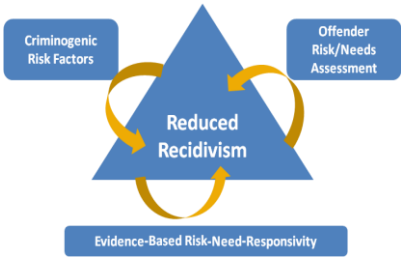
Economic costs: Mass incarceration also comes at an *astounding economic cost*, estimated at $80 billion a year in direct corrections expenses alone, and *more than a quarter-trillion dollars* when factoring in police, judicial, and legal services[7].

Is mass incarceration effective? There is little evidence that imprisoning more people has reduced crime by more than a small amount. *In fact, research is uncontestable -- the American experiment in mass incarceration has been a moral, legal, social, and economic disaster*[8].

Various solutions to the incarceration crisis have been offered, although the political support for the implementation of these solutions often appears intractable. The main recommendations include:

- Reduce sentence lengths substantially.
- Remove the barriers that keep people from rejoining society after release from prison.

[7] Brookings Institution, Hamilton Project 2014
[8] National Research Council/NYT 2014



- Release elderly or ill prisoners, who are the least likely to re-offend.
- Include a "crime reduction/rehabilitation" and treatment component into sentencing design – follow the RNR principles in specifying this sentencing component.
- Rate all prisons in their re-arrest rates and return to prison (RTP) rates (since about 95% of inmates are eventually released, we should rate prisons on their outcomes on whether released inmates are returning).

Nationwide Acceptance of Evidence-Based Practice

Risk-Need-Responsivity Principles

Since the original 1990 publication of the risk-need-responsivity (RNR) principles (Andrews, Bonta, and Hoge) these guidelines have been consistently validated in dozens of outcome and meta-analytic studies. They have been adopted nationwide in numerous criminal justice agencies and by most major correctional associations including the International Community Corrections Association (ICCA), the American Correctional Association (ACA), American Probation and Parole Association (APPA), and the National Institute of Corrections (NIC), as well as other professional associations in the criminal justice fields. The principles are straightforward:

Criminogenic needs are those risks and needs that significantly correlate with recidivis and are changeable through treatment.

The risk principle: This principle requires a validated assessment of the risk of reoffending to classify offenders into high, medium and low risks for recidivism. It specifies that *only high-risk offenders should receive high intensity treatment interventions, intense supervision, and/or long incarcerations*. In contrast, low risk offenders should have minimal or zero treatments and preferably be assigned to community placements.

The need principle: This principle requires a *comprehensive criminogenic needs assessment for identifying (and subsequently treating) the salient criminogenic needs of an offender*. It is noted here that certain specific critical criminogenic factors have been recurrently identified over the last four decades by many evaluation and meta-analytic studies, and are included at the end of this document.

The responsivity principle: This principle states that a "one-size-fits-all" approach is inappropriate and that offenders with different "patterns" of risks and needs should be *carefully matched* to rehabilitation plans that are well aligned with their treatment goals and with their responsiveness to the specific treatment environment.

How RNA Tools Support Evidence-Based Decision-Making

Three stages of case formulation

Evidence-Based Decision-Making

Judgment
+ Data
+ Statistics
+ Actuarial Research
+ Intuition & Prior Experience

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EBDM

Risk and need assessment (RNA) and the RNR principles provide practical tools and techniques for judges and other court decision-makers to support improved approaches to judicial decision-making and criminal justice processing. The effective implementation of RNA is critically important for objectively informing the key decisions that impact public safety:

- length of sentence
- security placements within jails and prisons
- identification and targeting of high and low risk populations
- identification of specific criminogenic needs to target for treatment intervention
- specification of eligibility and supervision levels for offenders entering community corrections
- the design of a rehabilitation crime reduction component of sentencing.

Currently, in most jurisdictions such decisions are made on a daily basis without the support of RNA and RNR guidelines by judges, probation officers, parole boards, prison counseling and treatment staff, and other sentencing stakeholders.

A robust implementation of RNA should effectively support the three basic stages of case formulation in sentencing decision-making:

1. ***Assessment/Case Description***
   Effective case description requires the selection, organization, and systematic presentation of all relevant risk and need information into the report for each person. Given time and caseload pressures, the resulting report should be brief, systematic, and focus on critically important factors, while omitting irrelevant information. An effective RNA tool can improve the case description phase in the following ways:

Brief but comprehensive coverage of what matters most: A Profile Bar Chart (like that found in COMPAS) is a one page summary of all major risk and need factors that have been identified through current research. This includes the actuarial risk assessments (red scales) followed by statistical scores for the levels of all well-established criminogenic needs (green scales) identified through prior predictive research.

Risk levels are designated by the standard metric of Decile Scores: Decile scores vary from 1 through 10, from lowest risk to the highest risk, in equal 10% intervals. Thus, a score of 1 represents the lowest risk 10% of the offender

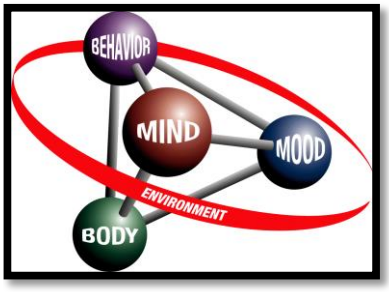
population, while 10 refers to the top 10% of risks of the population. These more precise scores can be transformed into the widely used "low/medium/high" labels, since typically, scores of 1-4 identify the low-risk group; 5-7 identify medium risks, and 8-10 identify high-risks. However, respective cut points can be altered (normed) to meet the needs of a particular jurisdiction.

Theory-guided selection and comprehensive coverage of relevant factors: Particularly for the needs assessment, the selection of factors is guided by prior predictive research and also by criminological theory. Such assessment tools are most relevant when they incorporate widely accepted core causal factors from major explanations of crime and by empirically-based research evidence. These core causal factors must be empirically supported by the research literature as valid and relevant correlates/predictors of crime.

2. *Case Interpretation*

This critical task represents the cognitive and "critical thinking" work of the judge, counselor, or supervision officer. The goal is to "make sense" of the often large amount of information collected for a case in aiming to achieve an "understanding" of a case. This is often referred to as *connecting the dots* so that key causal or explanatory patterns are identified. This identification of a coherent understanding is a critical pre-requisite before reaching treatment or sentencing decisions. Case interpretations can occur in several ways:

Once a case interpretation is reached, you can proceed to the decision process. However, without a reasonable data-supported understanding of a case any choice of interventions may do as much harm as good.



By simply *considering the risk level*: In this simple method the judge, counselor, or supervision officer simply uses the actuarial risk assessment, (1-4 low-risk; 5 -7 medium risk, and 8-10 high-risk), to formulate their understanding of the case. This is usually a simple decision unless challenged by other stakeholders. It is worth noting however, that this statistical approach will typically make fewer false positive errors when compared to human judgment alone, (e.g., without the use of the risk scores), and thus, typically results in fewer cases incorrectly designated as high risk.

By *considering the extreme criminogenic needs*: This method of case interpretation uses the results of the criminogenic needs assessment to identify the high need profile, (e.g., for many agencies, factor scores in the 8+ range). The set of high scoring factors are then prioritized for treatment interventions. In this simple approach the identified needs are taken one at a time with no attempt to integrate or interpret the overall *pattern* of needs.

By identifying a case as a representative of a *Prototypical case type*: many cases will exhibit a specific "risk/need patterning" that has been repeatedly noted among offenders. Several common "kinds/types" of offenders have been recurrently identified in over 50 years of research (e.g., socially functional non-violent drug users, young violent socially marginalized offenders, and situational-accidental "normal" offenders). The pattern-matching algorithms in COMPAS can statistically identify whether any new case is a good "match" to any of these well-known standard prototype offender categories. The computer algorithm uses the results of the risk/need assessment to determine the most likely prototype and indicate its general pattern and how a case differs from the prototype.

By invoking *theory-based interpretations*: Each major criminological theory posits its own pattern of risk and need factors that may indicate whether an offender reflects that specific causal pattern. It is important to acknowledge that there may be profound gender differences in the underlying causes of crime. This is explored in more detail in our paper "Women's Pathways to Crime[9]". For example, Strain Theory (social exclusion) is reflected by a pattern of poverty, poor educational-vocational resources, unemployment, and unstable residence. Routine Activity Theory is indicated by a combination of anti-social associates, high risk/opportunity lifestyle, and co-defendants. Several such patterns reflect other theoretical causal processes.

[9] Brennan et al, 2012

The RNR approach allows decision-makers to deviate from any rigid application of the principles.

*"**Professional discretion**" must prevail as appropriate.*

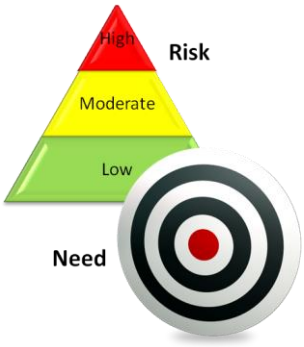
3. Case Decision-Making - Using RNR Principles for Targeting & Matching

The final stage moves from interpretation to decision-making to achieve certain crime reduction goals and the sanctioning component of sentencing. It is at this stage that the RNR principles discussed above come into play. Armed with a coherent data-based case interpretation and guided by the Profile Bar Chart, the main sentencing and case management decisions can be approached using the RNR principles.

The implications of a **risk score** are clear. High risk offenders – particularly violent and habitual offenders – should be given higher intensity treatment programming, more incarceration and supervision levels that are consistent with considerations of public safety and proportionality. In contrast, low risk offenders – particularly non-violent low risk offenders – ideally should be given community alternatives or shorter sentences.

Treatment should focus on the **criminogenic need** domains that have high scores, (e.g., need factors in the COMPAS bar chart). These should be prioritized as the targets for treatment interventions when developing a case plan).

Case "matching" is integral to the sentencing design – particularly the crime reduction component – and to the overall risk/needs pattern of the offender and other relevant factors such as personal strengths and characteristics. Such matching should maximize an offender's ability to benefit from the **treatment plan**. It is not enough to simply target higher risk offenders with the right interventions. This needs to be done in a manner that supports them as they learn new skills and can be accomplished with appropriate matching to help offenders to productively participate in particular programs shown through research evidence to be effective for rehabilitation and crime reduction.



The following examples from research on treatment and outcome effectiveness indicate the importance and need for careful matching:

- Cognitive skills programs are less successful with offenders of below-average intelligence than with offenders of average to high intelligence.
- Offenders with high anxiety often fail to benefit and may react negatively to treatment strategies centered on aggressive confrontation and boot-camp challenges.
- Offenders generally benefit when matched to counselors and case managers who have compatible personality traits and with whom they can establish a trusting therapeutic alliance.

How Validated RNA Systems Can Help

Actuarial evidence supporting professional judgment

Errors of classification, particularly false positive errors (over-classification) are generally lower with statistical procedures. This is one of the reasons for their superiority over human judgment.

An important feature of statistically validated risk and needs assessments is that they generally reduce errors in case processing decisions compared to human professional judgment. Statistically-based RNAs are now regarded as established and valid methods for effectively synthesizing critical information to provide more accurate statistical support for correctional decision-making[10]. Objective statistical risk assessments, in dozens of studies over the last several decades, have been unequivocally shown to be superior to human expert judgment[11]. Errors of classification, particularly false positive errors (over-classification) are generally lower with statistical procedures. This is one of the reasons for their superiority over human judgment[12].

In regard to sentencing, the last several years has seen many state legislative bodies pass statutes requiring that validated RNA be available as background support for judicial sentencing decisions. The RNA procedures in the COMPAS system, for instance, are explicitly designed to fulfill these requirements and to support correctional and judicial decision-makers in applying the RNR principles and RNA procedures to criminal justice cases.

In addition to providing statistically validated risk assessment, COMPAS also includes a statistically generated offender classification (*Prototypical case type)* based on the total risk/need pattern of each offender. These objective "prototype" patterns are qualitatively different from each other and are strongly reminiscent of previously determined offender prototype classes that have been proposed for responsivity matching[13]. Each offender is assigned to the prototype pattern to which they are best "matched". These prototype patterns exist for both male and female offenders.

The following Profile Bar Charts illustrate 4 of the 8 prototypical case types and help underscore the significance of *validated* RNA and the importance of good case interpretation and responsivity matching.

For additional information on offender typologies, please see:
Treatment Relevant Typologies in COMPAS Core and *Women Typology Descriptions, Gender Responsive* available for download at www.northpointeinc.com/ebp-rnr-download.

[10] Quinsey et al, 1999
[11] Grove and Meehl, 1996; Swets et al, 2000
[12] Gottfredson, 1987
[13] Lykken, 1995; Van Voorhis, 1995;Warren, 1971

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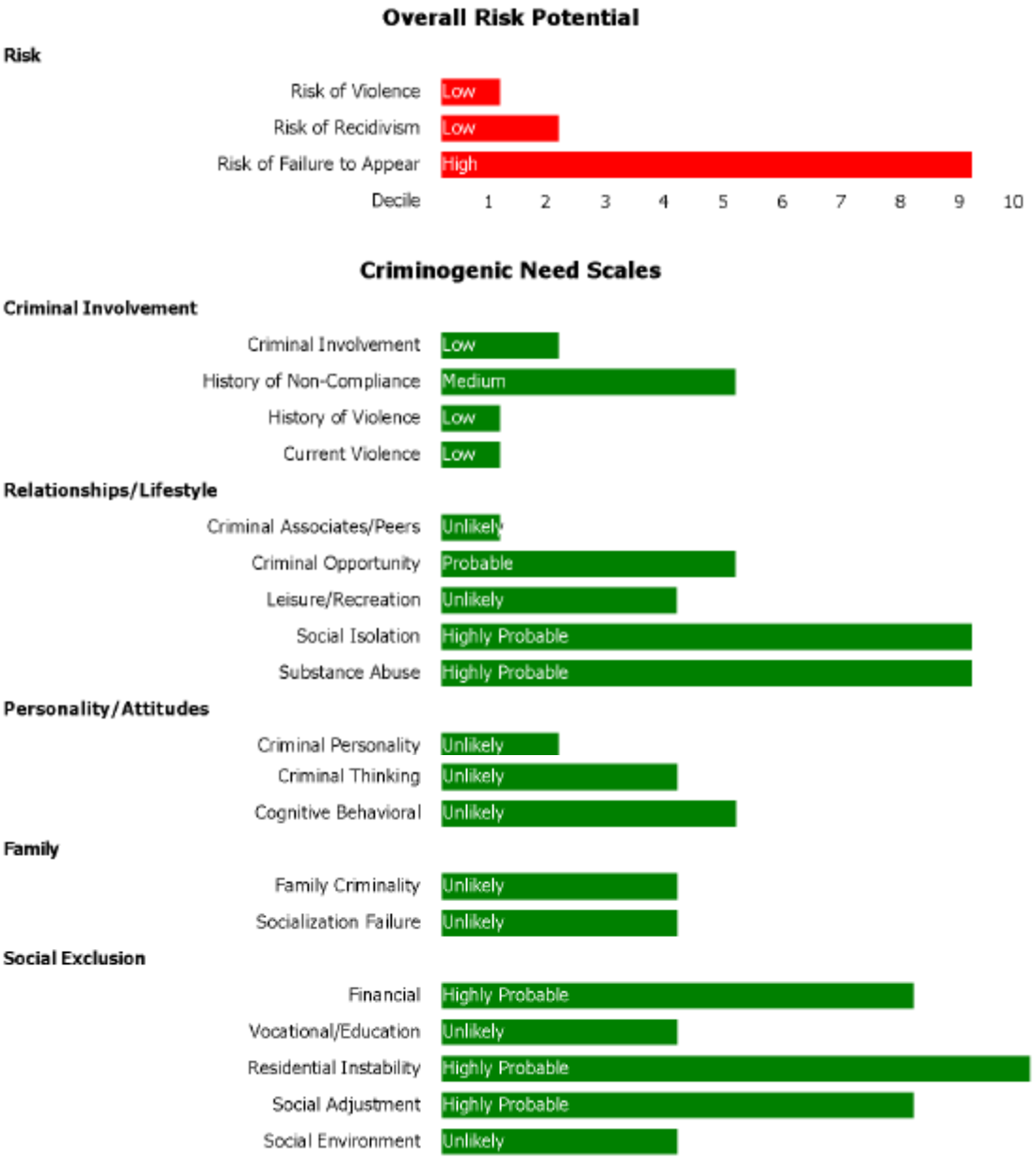
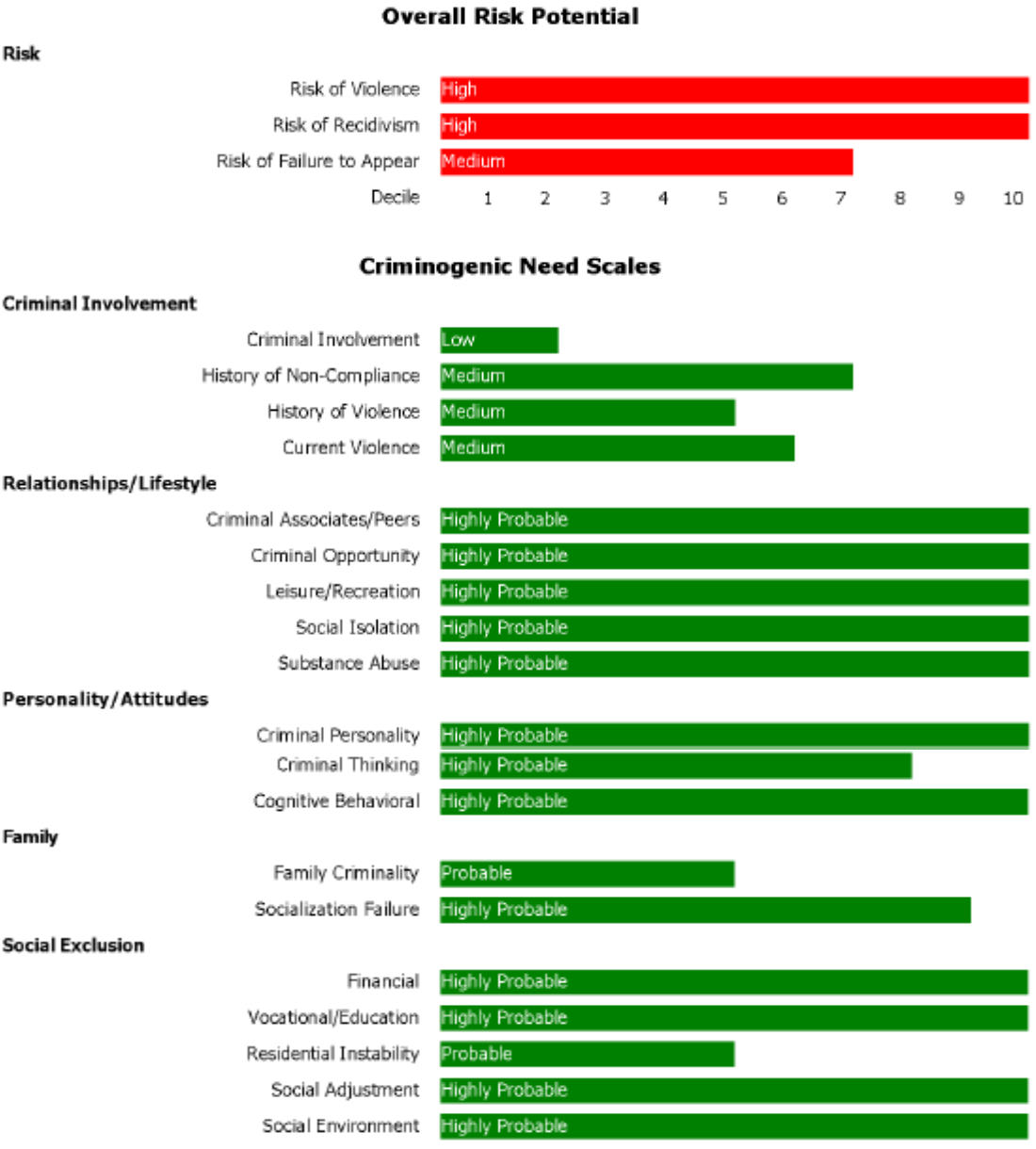
Normal socially functional (mostly) non-violent / drug users, DUI, domestic violence (Male)

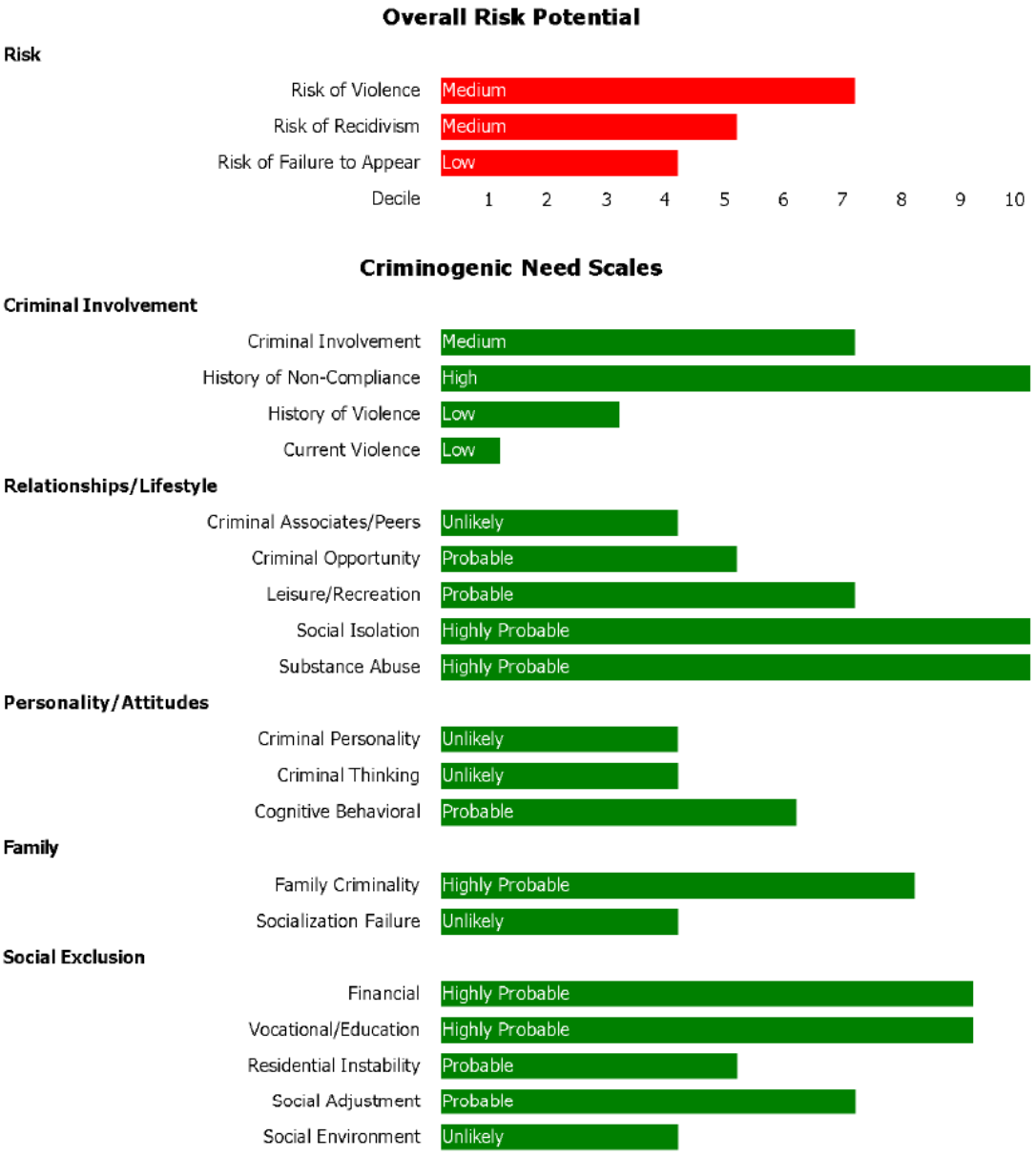
Non-violent chronic drug - social isolates, social adjustment problems, poor marginalized, check MH problems (Female)



High risk chronic violent criminals - multiple factors: socially marginalized, violent neighborhood, sociopathic/psychopathic (Male)



Chronic drugs - older, social isolates, poor, transient, extremely marginalized (Male)



APPENDIX A
BRIEF MEANINGS OF EACH RISK AND NEED SCALE IN COMPAS

A. Descriptions of validated COMPAS Risk Assessments

Most COMPAS scales are named using descriptive titles so that they are easily understood; however we offer the following short descriptions explaining the meaning of each scale. This list provides judges and other court personnel a basic understanding of the main validated factors that research has shown to explain and predict criminal behavior. Knowledge of these scales is helpful for users in achieving a basic case interpretation of each offender and for understanding their profile charts. It is noted that these factors are present in every COMPAS offender's basic profile bar chart.

1. Risk Potential for Recidivism
This assesses risk of general recidivism using the 1 – 10 decile score. The primary factors making up this scale involve age at first offense, age at booking, and other variables representing prior criminal history, criminal associates, drug involvement, and early indicators of juvenile delinquency problems. Additional details of the regression equation can be obtained by requesting appropriate technical documents from Northpointe. All of the risk factors used in this assessment are well established prior predictors of recidivism. Its predictive accuracy is equal or superior compared to most other well designed and validated recent risk assessment models. It has been validated in several diverse states and by independent researchers.

2. Risk Potential for Violence
This assesses the risk of violent recidivism on the 1 - 10 decile risk score of the group into which each offender is classified. This COMPAS risk assessment scale has also been repeatedly validated in several state systems, and across different age, racial and gender groups. It has been re-validated by several independent teams of both university-based and state department researchers. It is based on well-established factors such as age at first offence, current age, criminal history, drug and education/vocational problems, and others.

3. Risk Potential for Failure to Appear (pretrial risk)
This predictive risk scale is also scored on a 1 - 10 point metric. It is based largely on prior history of failure to appear, current charges for failure to appear, prior recidivism while on community placement, general criminal involvement, and unstable residential ties. High-scorers would exhibit multiple combinations of such risk factors. More specific details on the precise equation can be obtained by requesting technical documents from Northpointe.

B. Descriptions of the major criminogenic needs in COMPAS

Criminal career patterns
The following scales provide a reliable understanding of each offender's current and past criminal behaviors. It may be augmented by single questions that inform the age of onset, history of incarceration and juvenile crime and drug involvement. All of these scales are scored using the decile scores 1 – 10. For most of these scales High = 8+; Medium = 5-7; and Low = 1-4.

1. Criminal History/Extent and frequency:
This assesses the overall extent of criminal involvement. It has consistently emerged as a major risk factor in predicting ongoing and future criminal behavior in meta-analytic studies. High decile scores indicate persons with multiple arrests, convictions, and prior incarcerations. Low scores identify persons with either first-time arrests or a minimal criminal history. Early juvenile delinquency involvement (e.g. early onset, serious or violent behavior, early drug use) has also been linked to ongoing criminal behaviors.

Sentencing Implications: Scores of 8 and greater suggest a high risk of recidivism. Typically, offenders with high criminal history scores will offer certain specific patterns of risk and needs scores. These need patterns should be examined since they will usually suggest treatment goals. An extremely high criminal history - especially if it involves violence - may also suggest referral for a more in-depth psychological and personality evaluation.

2. History of Non-Compliance
A high history of non-compliance is a strong indicator of future crimes, future revocations, or returns to prison for technical violations. High scores (e.g. 8+) may indicate a need for stronger supervision and greater frequency of contact. This scale is based on the number prior failures when the offender was placed into a community status, the number of times probation has been suspended or revoked, the number of times the offender has failed to appear for a court hearing and other failures.

Implications: Scores of 7 or 8 and above, indicate a high likelihood of rules violations if placed in the community. Higher intensity of supervision may be warranted if the offender is given community placement.

3. History of Violence

A history of violent offenses is a predictor of future violence[14]. A history of juvenile violence is also a predictor of adult violence[15]. This scale focuses on the frequency of prior violent felony offenses, violent offenses as a juvenile, use of weapons, and frequency of injuries to victims. The frequency of several specific violent offenses is also included (e.g., robbery, homicide, and assaultive offenses).

Implications: Multiple priors may suggest the need for psychological evaluation. If the offender is to be released to the community, victim notification is important. Anger management training and problem-solving skills may also be relevant.

4. Current Violence

While not a notable predictor of future violence this scale for current violence is useful in conceptualizing cases (particularly first time offenders). It measures the degree of violence in the present offense. Central items include whether the present offense is an assaultive felony, whether or not a weapon was used, and victim injury.

Implications: These will vary based on the overall pattern of other risk and need factors. Anger management may be important if current offense is accompanied by prior violent offenses.

Scales describing lifestyle factors

The following scales address factors that are related to lifestyle circumstances, known to influence levels of criminal involvement:

5. Anti-social Associates/Friends

An involvement with anti-social friends and associates is one of the "big five" risk factors of criminality predictors from the major meta-analytic studies[16]. This scale assesses the degree to which a person associates with others who are involved in drugs, criminal offenses, gangs who may also have a history of arrests, and incarceration.

Implications: High score would identify persons who have a network of delinquent friends and associates. Such scores suggest the causal processes of

[14] Farrington, 1991; Parker and Asher, 1987; and others
[15] Farrington, 1995
[16] Gendreau et al, 1996

social learning theory and sub-cultural theories of crime[17] and have strong implications for treatment and prevention. An important goal may be to disallow such associations when released, or counseling on cognitive strategies such as refusal skills, de-glamorization of drug dealers, and other strategies to buffer the impact of anti-social peers.

6. Anti-social Opportunity and Social Controls

This higher order scale assesses several facets of criminal opportunity. First, it assesses presence or absence of routine daily activities and the occupation of positive social roles (marriage, parenting, being an employee, etc.) that structure a person's daily activities in a pro-social manner. Second, it reflects social control theory and the importance of emotional bonds that may inhibit crime (e.g., bonds to family, marriage, job, etc.). A related criminal career theme is the "life cycle" theory of Sampson and Laub [1993] that asserts the occurrence of age-related desistance from crime resulting from life cycle changes plus more mature social roles that strengthen pro-social bonds (wives, children, jobs, family. High scores identify persons with few social ties who spend more time in risky situations often with high risk associates. Uggen [2000], and Horney et al [1995] provide evidence of the importance of age and role related changes in leisure behavior, in informal social controls, and social bonding in reducing crime.

Implications: Case management strategies for high scorers would focus on structuring daily activities, minimizing idle time, and emphasizing employment, school, training programs, time with family, etc. These may be coordinated with frequent client contacts, day reporting and/or electronic monitoring.

7. Leisure and Recreation Scale (Boredom and Aimlessness)

This COMPAS scale assesses boredom, restlessness, feeling scattered and having difficulty maintaining interest in a single activity for any length of time. Aimlessness and boredom appear in several crime theories[18]. The scale has a psychological dimension (boredom proneness) and also an environmental dimension (lack of constructive opportunities).

Sentencing implications: High scores may require values clarification or vocational counseling to clarify potential bonding or affiliative directions for the offender, as well as structured participation in various pro-social activities

[17] Andrews and Bonta 1998, 2006
[18] Social control theory/weak social bonds; the General Theory of Crime (low self-control/boredom); routine activities theory ("Idle hands are the devils workshop" - Osgood et al 1996)

8. Substance Abuse

Substance abuse is a significant risk factor for both general criminal behavior and violent behavior. Substance abuse is one of the major risk factors in meta-analytic studies of Gendreau et al 1996. The present scale is a general indicator of substance abuse. The items cover prior treatment for alcohol or drug problems, drunk driving arrests, whether the person blames drugs or alcohol for their present problems, using drugs as a juvenile, and others. A high score suggests a person who has longer term drug or alcohol problems and who may need treatment.

Sentencing Implications: Given the high incidence of alcohol and drug problems in offender samples, it is likely that offenders with scores have serious alcohol or drug problems. It will be important to assess the extent of previous treatments, current attitudes to treatment, and the responsivity of the offender to treatment. Relapse prevention plans may be critical for such offenders.

9. Social Support vs. Social Isolation

Positive social supports act as a protective buffer that may reduce crime, drugs, and violence[19] even in high-risk environments[20] and also to lower the likelihood of recidivism. The COMPAS social isolation scale ranges from persons with strong social supports at one end to social isolates and loners at the other. A high score reflects weak supports, social isolation, and loneliness. Key items include feeling close to friends, feeling left out of things, companionship, close best friends, feeling lonely, etc.

Sentencing implications: High scores may require treatment to rebuild or strengthen bonds to family, pro-social peers and community relations (church, support groups, work companions, etc.). Social skills instruction and cognitive therapies to address negative social cognition and feelings of rejection may be important.

10. Social Environment (High Crime Neighborhood)

Living in a high crime neighborhood is a well-established correlate of both delinquency and adult crime[21]. This factor is a core element in several causal theories of crime (e.g., social disorganization, social learning, and subculture theories). The COMPAS scale assesses levels of crime, disorder, and victimization risk as indicated by the presence of gangs, ease of obtaining drugs, likelihood of being victimized, having a weapon for protection, and so on. This

[19] National Research Council, 1993
[20] Stevenson, 1998
[21] Thornberry et al 1995; Sampson and Lauritson 1994

scale links to several other high risk factors such as unstable residence, poverty, and criminal opportunity.

Sentencing implications: Offenders with scores may require relocation to lower risk areas (if possible). Multi-modal approaches may be necessary to change residential arrangements, lifestyle issues, and to upgrade job opportunities. Cognitive skills may be needed to refuse the temptations of street life.

Scales representing socio-economic exclusion and marginalization

Major theories of crime involve social exclusion and economic/educational failure and a variety of background reasons for such failure:

11. Financial problems and Poverty

Poverty is a moderate risk factor for recidivism[22]. This COMPAS scale focuses on the struggle to survive financially, problems paying bills, conflicts with friends/family over money, worry about financial survival, and other problems reflecting a shortage of money. Decades of research have established a link between poverty, crime, and high crime rates. Homicides for example are disproportionately found in high poverty areas. Many social factors also link poverty, crime and high crime rates (e.g. residential mobility, family disruption, single parent families, crowded housing conditions, higher opportunity for violence, etc.)[23].

Sentencing implications: Medium and High scores often suggest a need for treatment for such issues as: financial management, finding and keeping jobs, negotiating social assistance, welfare, understanding the use of food stamps, unemployment compensation, and other ways of negotiating government social assistance. Counseling on child support payment issues may be required. Coupled with vocational/employment information, the case plan may call for priority in stabilizing the person's income and residence. An indigent status may also suggest offender sanction options such as electronic tether, drug testing, etc., in the case plan.

12. Vocational Educational Problems (Social Capital/Social Achievement)

This *is* an important risk factor in predicting recidivism[24]. Offenders with higher social capital have more "life chances" compared to others who are severely blocked regarding success. This COMPAS factor combines educational attainment, vocational skills, job opportunities, record of stable employment, and levels of legitimate economic opportunity. Family and parenting are often

[22] Gendreau et al, 1996
[23] Sampson and Lauritson, 1994
[24] Gendreau et al, 1996

critical in transmitting positive social capital to their children. Social Capital is a dynamic risk factor since it can be built or destroyed (e.g. a serious criminal record, or high school dropout, can diminish life chances and social resources, while adding job skills, obtaining a GED, getting and maintaining gainful employment may increase these chances).

Sentencing Implications: Medium to High scores suggest that vocational, employability or educational skills are needed, as well as help in job seeking, job maintenance and attitudes to work. It is important to specify the kind of training required. Obtaining an HS diploma or GED may require educational programs.

13. Family Criminality Scale

Delinquency and adult crime are both significantly linked to parent and family criminality[25]. Children may see and learn violent and deviant behavior in the context of their family. Additionally, genetic factors may transmit criminality[26]. This COMPAS measure of family criminality focuses on the criminality, incarceration history, and alcohol and substance abuse of mother, father, and siblings.

Sentencing Implications: A high score may indicate a need to limit contact with certain family members to minimize adverse sibling or parental influence or exposure to antisocial behaviors and substance abuse. If the overall pattern also exhibits anti-social attitudes and thinking, these would also suggest cognitive restructuring.

Scales representing personal traits that may be criminogenic

Aside from social background and community environments that may link to crime, several "personal factors" can be highly criminogenic and may require interventions:

14. Antisocial Attitudes/Criminal Cognitions

Antisocial attitudes are identified as one the "big five" risk predictors[27]. They involve thinking styles and attitudes to criminal justice, excuses, tolerance for law violation, and cognitive justifications, etc. These topics may warrant a referral for a longer "in-depth" inventory to fully and reliably assess *all* such cognitions[28]. However, given the need for a briefer instrument COMPAS includes a short revised existing inventory[29] that assesses cognitions that justify,

[25] Lykken, 1995
[26] National Research Council, 1993; Lykken, 1995
[27] Gendreau et al, 1996; Bandura et al, 1996
[28] Walters, 1995
[29] Bandura et al 1996

excuse, or minimize the offender's crime. This 10-item scale (1st principal component of Bandura's inventory) reflects core anti-social cognitions: moral justification, refusal to accept responsibility, victim blaming and rationalizations (excuses) to minimize the seriousness of their criminal activity. It includes items such as: seeing drug use as harmless because it doesn't hurt anybody else, excusing criminal behavior because of social pressures, viewing the criminal justice system as biased against poor people, etc.

*Sentencing implications: Medium to High s*cores suggest a need for cognitive restructuring, referral for a more specialized inventory, and close supervision. Cognitive therapy to rebut self-serving cognitions and relapse prevention may be jointly embedded within treatment programs for substance abuse, violence, and drunk driving.

15. Antisocial Personality

Personality was second among the "big 5" factors for predicting recidivism[30]. A highly similar concept of low self-control is central to the "General Theory of Crime"[31]. The COMPAS scale addresses impulsivity, no guilt, selfishness, dominance, risk-taking, and aggression. It was the first principle component of a larger personality inventory[32].

Sentencing implications: Extreme scores may reflect a psychopathic tendency that is often resistant to treatment[33]. Referral for an in-depth psychopathic inventory such as Hare's PCL may be warranted if other features of psychopathic offenders are also present. Strong supervision and control are often recommended. However, effective interventions have been reported for programs that focus on modifying thoughtless or impulsive decision-making. The general importance of this scale may be its explanatory power in helping case workers understand this kind of offender.

[30] Gendreau et al 1996; Quinsey et al 1998
[31] Gottfredson and Hirschi 1990
[32] Bandura et al 1996
[33] Andrews and Bonta 1994; Hare 1996

16. Social Adjustment and social skill problems

This higher order scale assesses inter-personal problems across several social institutions (family, school, work, etc.). It is linked to several causal theories of crime (e.g. erosion of attachment bonds (Hirschi 1969), stress (Gendreau et al 1996), cognitive models of negative inter-personal relations (Dodge 1986, 1991) and erosion of social capital (Hagan 1998). It assesses recurring problems and conflicts in multiple social institutions [school, work, family, marriage, relationships, financial]. High scoring 7+ persons may have been fired from jobs, had failures and conflict at school, conflicts with family, family violence, failure to pay bills, and conflicts over money. The common theme is recurring social adjustment problems, conflicts, and stress in several social settings.

Sentencing Implications: High scores may signal needs for interventions to develop social skills and social supports. Social skill training is often advocated to prevent further violence and crime[34] . New social supports must involve pro-social friends and activities (e.g. work, sports teams, teachers, family members).

17. Early (Juvenile) Socialization Failure

This higher order factor assesses several early socialization problems such as inadequate parenting, early delinquency onset, school problems (e.g., dropout, suspensions, fighting) and early drug use[35]. The COMPAS scale synthesizes several factors discussed by Lykken linked to his theory of poor family socialization and sociopathy orientations. High scores present a long-term mix of family criminality and drugs, family disorganization, school problems (expelled, failing grades, truancy, fighting) and juvenile felonies or incarceration.

Sentencing implications: High scoring cases may require higher levels of control and supervision. Multiple long-term risk factors of high scorers may require multi-systemic treatment approaches.

[34] National Research Council, 1993
[35] Chaiken et al 1994, Lykken 1996

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