

## Recidivism

*Recently, the challenge for decision makers to assess accurately the risk of releasing incarcerated offenders has become particularly germane in light of increased public scrutiny. The concern for public safety is paramount for decision makers in the criminal justice system, but must be balanced against individuals' rights. Increasingly, mental health professionals are asked by correctional and parole decision makers to identify those offenders who are unsafe to be released.*

*Actuarial risk scales have been developed using information that is readily available (e.g., type of offence, age of first arrest) to attempt to differentiate offenders who fail on release from those who succeed. The scales are empirically derived; that is, the variables used in the scale are chosen based on their ability to predict outcome as opposed to scales that use clinical factors, such as a childhood history of cruelty to animals, which are often believed to be important predictors but may not be very useful with a large group of offenders.*

*Nuffield<sup>(3)</sup> developed and validated an actuarial risk assessment scale for use with offenders in Canada. Now renamed the General Statistical Information on Recidivism (SIR) Scale, case management staff administer the scale to all federal offenders.*

*Nuffield<sup>(4)</sup> noted that variables predicting<sup>(4)</sup> general recidivism are different from those that predict violent recidivism. While violent recidivism is the greater concern for correctional decision makers, there is some confusion in Canadian federal corrections in that only risk scales for **general recidivism** are standard practice in the decision-making process. Furthermore, risk is rarely differentiated in terms of general versus violent recidivism.*

With the high proportion of violent offenders in the federal corrections system, simply relying on a past history of violence to make judgments about future violence would result in an unacceptably high false-positive error rate. That is, the number of offenders predicted to reoffend violently would greatly exceed the number who actually did, and many offenders who would have otherwise been released safely into the community would be held back.

The Level of Supervision Inventory (LSI)<sup>(5)</sup> is an actuarial scale that is unique in that it incorporates both dynamic (changeable) and static (unchangeable) variables (e.g., offenders' adherence to procriminal attitudes versus their criminal history). Moreover, the LSI has demonstrated predictive validity,<sup>(6)</sup> and many of its items are now reflected in the Correctional Service of Canada's Offender Intake Assessment Process.<sup>(7)</sup>

The Psychopathy Checklist-Revised (PCL-R)<sup>(8)</sup> is also emerging as a good predictor of recidivism.<sup>(9)</sup> More important, the PCL-R and specifically its Factor 1, which reflects callous disregard for others, appears to be a better predictor of violent recidivism than a history of violence, perhaps because it reflects both clinical and historical information. 10 The differential predictability of the PCL-R factors, however, requires replication.

No risk assessment scales perfectly predict all failures and successes. The issue, then, is how best to

incorporate various research findings into clinical practice. Such practice should balance the need to protect society with the need to avoid preventing release unnecessarily because of overly restrictive release criteria.

This article highlights some specific issues raised by the use of risk scales as part of the decision-making process. The specific scale studied was the PCL-R." To illustrate the issues, we present data from a five-year follow-up study of federal offenders for whom PCL-R scores were available. Suggestions for improved practices are then discussed.

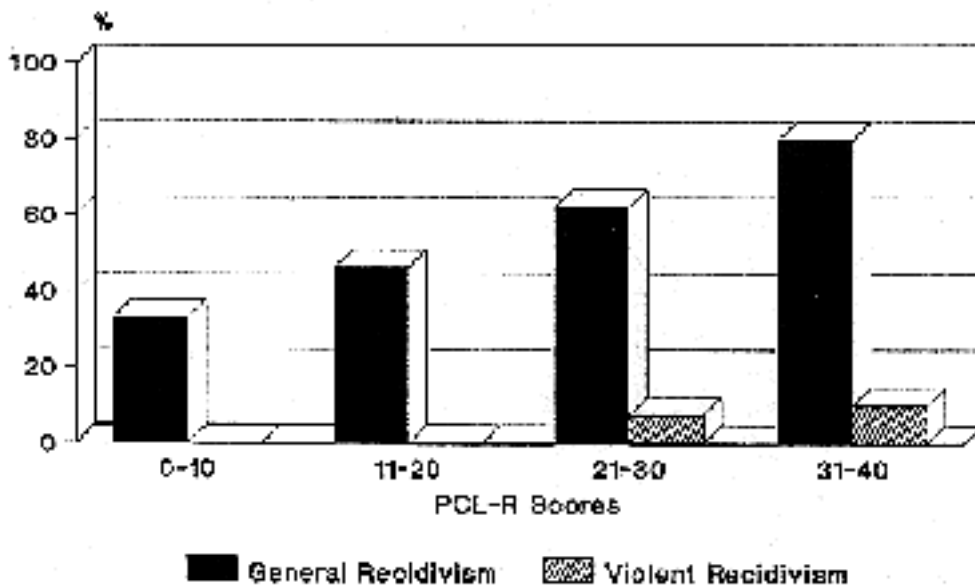
## Recidivism

A sample of 81 male federal offenders were followed up for an average of 29.7 months, with a maximum of 67 months. They had an average (mean) PCL-R score of 22.1 with a standard deviation of 6.7. Psychopaths (P) were defined as offenders with a PCL-R total score of 30 or more (N=10); non-psychopaths (NP) were those with PCL-R scores less than 17 (N=51); and the mixed group (M) comprised the remainder, i.e., those with scores between 17 and 29 (N=20).

The general recidivism rate for the sample was 57%: 80% for P, 59% for M and 40% for NP. The violent recidivism rate for the sample was 10%: 25% for P, 8% for M and 0% for NP. General and violent recidivism rates, as a function of PCL-R scores, are presented in Figure 1. This figure shows that reoffence rates increased as PCL-R scores increased.

**Figure 1**

**Figure 1**  
Recidivism as a Function  
of Psychopathy



## Decision Issues

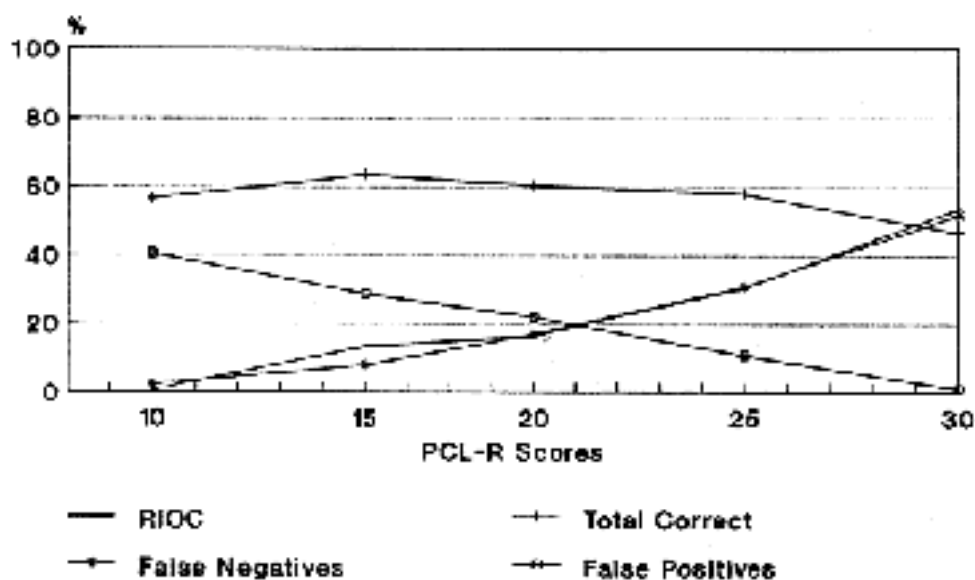
As stated, the likelihood of recidivism increased as the PCL-R score increased. Many psychopaths failed, whereas the non-psychopaths were clearly more likely to be released successfully and less likely to recommit a violent offence.

The PCL-R scores used as cutoffs in this study (i.e., the scores used to divide the sample into groups) were chosen arbitrarily, in accordance with commonly accepted practice and suggestions from past research.<sup>(12)</sup> However, if we were in a real-life situation - for example, if we were using an offender's score on the PCL-R to make a decision on releasing that offender - then it may be important to choose cutoff scores on a more rational or empirical basis to reduce the number of decision errors. However, Figure 2 illustrates the problems in making such a choice.

Figure 2 plots the rate of false positives (the likelihood of an offender succeeding when he or she is predicted to fail on release) and of false negatives (the likelihood of an offender failing when he or she is predicted to succeed) for various PCL-R cutoff scores. Also plotted on the graph is the relative improvement over chance (RIOC), a measure of predictive efficiency which considers both base-rate and cutoff scores.

**Figure 2**

**Figure 2**  
**Decision Issues Using the**  
**Psychopathy Checklist-Revised**



As Figure 2 shows, choosing higher cutoff scores on the PCL-R reduces the proportion of false positives to zero and maximizes the RIOC. However, choosing lower cutoff scores reduces the proportion of false negatives to zero because no offenders in this sample with a PCL-R score of 10 or less recidivated. Also, the cutoff score chosen affects the efficiency of the predictions (i.e., the RIOC).

There is another issue to consider here which concerns the number of offenders who would be released depending on the cutoff chosen. If we said, for example, all offenders who score under 30 on the PCL-R can be released, we would be releasing many more offenders than if we said that only those who scored below 10 could be released.

Higher cutoff scores will let more offenders be released, thus reducing the number of false positives (those who are predicted to reoffend but do not), but increasing the number of false negatives (those who are predicted to succeed but do not). From the public's perspective, it may be better to choose a lower cutoff score when making a release decision, because this allows fewer offenders to be released, and decreases the number of false negatives released. However it also increases the number of false positives kept in custody. In choosing a cutoff score, we must decide how we can balance these two conflicting concerns.

A compromise would be to choose a cutoff score that achieves some kind of balance between releasing offenders who end up recidivating and holding back offenders who would have done well on release. That is, we are looking for a cutoff score that will balance the number of false negative errors with the number of false positive errors. For example, Figure 2 shows that the two errors intersect at a cutoff of 21, meaning that using a cutoff of 21, 20% of our decisions would result in false positives and 20% in false negatives, with a combined error rate of 40%. Although these findings are somewhat tentative and should be tested with a larger sample, they are nevertheless illustrative for clinicians and decision makers in the criminal justice system.

A comparison of the three groups of offenders reveals some interesting additional findings concerning how cutoffs may be used. Having different rates of failure, non-psychopaths, the mixed group and psychopaths are different with respect to their likelihood of reoffending. The NP are seen to be a relatively low-risk group with a 40% failure rate, while the P are a very high-risk group with an 80% failure rate. The M group are somewhere in the middle with a failure rate of 59%. Therefore, for decision purposes, it would perhaps be best to use the PCL-R to identify both high-and low-risk offenders. For low-risk offenders (NP), release should be expedited unless there is compelling contrary information, because most NPs succeed. For high-risk offenders (P), early release should be considered only in the face of compelling evidence and, when released, they would require stringent risk management conditions because most Ps fall.

## Summary

By using risk assessment scales, we can anchor a case in terms of the likelihood of recidivism, and the particular scale we employ highlights the issue of general or violent recidivism. Reliance on clinical information alone is less accurate than combining actuarial information with clinical judgment.<sup>(13)</sup> Also, the standardized use of actuarial risk scales provides offenders with more concrete information on their status, making the system appear less arbitrary.

Although the PCL-R has shown some effectiveness in predicting violent recidivism in this study, there is some concern that its use of the label "psychopath" may have an unwarranted effect on how an offender

is managed. Despite this, however, the PCL-R could be used to direct, as opposed to dictate, intervention and risk management strategies. It may be worth noting, too, that the PCL-R has been incorporated into a broader actuarial risk scale for violent recidivism which shows considerable promise.<sup>(14)</sup>

Clinical information, including that which may be dynamic or changeable, might be used to refine an estimate of risk that has been based solely on an actuarial scale. For instance, an offender may be considered to have a 40% likelihood of reoffending based on a score on a particular risk assessment scale, but clinical information - such as refusal to participate in treatment and the maintenance of procriminal beliefs - may suggest that the risk may actually be higher than estimated.

Conversely, an offender may be considered to have a 60% likelihood of reoffending, but there is no evidence of cognitive distortions regarding aggression, the offence was unplanned and participation in a prescribed treatment program has been positive. In such a situation, the estimate of risk of violent reoffending might be lowered slightly.

However, the clinical information used in making a decision about release should be restricted to factors that have been proven to be related to criminality, including violence, treatability and criminal sentiments. Clinicians should be prepared to defend their revision of an individual offender's degree of risk and to enunciate the reasons for their revision in their report. Clinical skills remain important in completing risk assessments, but decision makers can then use these risk assessments in an informed manner, rather than relying on some vague concept such as clinical acumen.

At this point, it is probably unduly optimistic to expect clinicians to provide estimates of risk in terms of percentages, but the standardized use of terms denoting risk levels -such as low (less than 20%), low to moderate (20 to 40%), moderate (40 to 60%), high (60 to 80%) and very high (greater than 80%) - may be helpful. Clinicians and decision makers must also be aware of base rates of recidivism for their particular setting and group of offenders, thereby placing the risk estimate for a particular offender in context.

Once the risk assessment is completed and the case is anchored, it is imperative to develop individualized strategies to manage the risk of recidivism.<sup>(15)</sup> These strategies should be related to risk so that higher-risk cases are provided with more intensive supervision and treatment, as both a prerequisite to release and a condition of continued release.<sup>(16)</sup> Providing treatment to low-risk offenders when unwarranted, however, has been shown to be harmful.<sup>(17)</sup> The research presented here highlights the merits of adopting conservative release practices for high-risk cases, and using estimates of low risk to manage an offender's timely release more effectively.

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<sup>(1)</sup>*Ralph Serin, Ph.D., Psychologist, Joyceville Institution, P.O. Box 880, Highway 15, Kingston, Ontario K7L 4X9.*

<sup>(2)</sup>*Howard Barbaree, Ph.D., Department of Psychology, Queen's University, Kingston, Ontario K7L 3N6.*

<sup>(3)</sup>*J. Nuffield, Parole Decision-Making in Canada: Research Towards Decision Guidelines (Ottawa: Solicitor General of Canada, 1982).*

- (4)Ibid.
- (5)*D.A. Andrews, The Level of Supervision Inventory (LSI) (Toronto: Ontario Ministry of Correctional Services, 1982).*
- (6)*J. Bonta and L.L. Motiuk, "Utilization of an Interview-Based Classification Instrument," Criminal Justice and Behavior, 12 (1985): 333-352.*
- (7)*L.L. Motiuk. Personal communication.*
- (8)*R.D. Hare, Manual for the Revised Psychopathy Checklist (Ontario: Multi-Health Systems, Inc., 1991).*
- (9)*G.T. Harris, M.E. Rice and CA. Cormier, "Psychopathy and Violent Recidivism," Law and Human Behavior, 15 (1991): 625-637. See also S.D. Hart, P.R. Kropp and R.D. Hare, "Performance of Male Psychopaths Following Conditional Release From Prison," Journal of Consulting and Clinical Psychology, 56(1988): 227-232. And see R.C. Serin, R. DeV. Peters and H.E. Barbaree, "Predictors of Psychopathy and Release Outcome in a Criminal Population," Psychological Assessment: A Journal of Consulting and Clinical Psychology, 2 (1990): 419-422. And see R.C. Serin, "Violent Recidivism in Criminal Psychopaths," Law and Human Behavior, in press.*
- (10)*Serin, "Violent Recidivism in Criminal Psychopaths."*
- (11)*Comparable results were found using three other risk scales.*
- (12)*Hare, Manual for the Revised Psychopathy Checklist.*
- (13)*D.M. Gottfredson, L.T. Wilkins and P.B. Hojynan, Guidelines for Parole and Sentencing: A Policy Control Method (Toronto: Lexington Books, 1978). See also G. T. Harris, M.E. Rice and V.L. Quinsey, "Violent Recidivism of Mentally Disordered Offenders," Research Report, IX, 1 (Penetang, Ontario: Penetanguishene Mental Health Centre, 1992). And see R. C. Serin, "A Clinical Model for the Assessment of Dangerousness in Prisoners." Manuscript submitted for publication, 1992.*
- (14)*Harris, Rice and Quinsey, "Violent Recidivism of Mentally Disordered Offenders."*
- (15)*V.L. Quinsey and W.D. Walker, "Dealing With Dangerousness: Community Risk Management Strategies With Violent Offenders" in R. DeV. Peters, R.J. McMahon and V.L. Quinsey (eds.), Aggression and Violence Throughout the Lifespan (Newbury Park, Calif: Sage, in press).*
- (16)*Harris, Rice and Quinsey, "Violent Recidivism of Mentally Disordered Offenders."*
- (17)*D.A. Andrews, J. Bonta and R.D. Hoge, "Classification of Offenders for Effective Rehabilitation: Rediscovering Psychology," Criminal Justice and Behavior, 17(1990): 19-52.*