

Sex offender risk predictors: A summary of research results

Both correctional professionals and the public are greatly concerned about the appropriate management of high-risk sex offenders. However, to manage these offenders, it is first necessary to identify them accurately. Not all sex offenders are high-risk. In fact, most sex offenders are never convicted of another sexual crime.⁽²⁾ Therefore, how do we separate sex offenders likely to reoffend from other sex offenders?

It is always difficult to predict an individual's behaviour, since people and their circumstances change. Nevertheless, predictable patterns of criminal behaviour do exist. For example, most robberies are committed by young men. Similarly, certain characteristics increase the probability that a sex offender will commit further sexual crimes.

These risk factors can be identified through follow-up studies. Follow-up studies assess the various characteristics of a group of sex offenders, such as age and previous criminal history. The offenders are monitored for several years after release. The researchers then look for any initial characteristics that differentiate subsequent recidivists from non-recidivists.

Many sex offender follow-up studies have been conducted but, although they have all produced useful information, the studies have not all obtained the same results. Given that risk assessment errors can have serious consequences for victims and offenders, it is important that the variables used to assess risk should withstand intensive scrutiny. Greater confidence should, therefore, be placed in findings that are replicated across many studies.

With that in mind, this article examines the existing research to identify the factors most frequently associated with sex offender recidivism. To be included in the review, a study had to identify a group of male sex offenders, include a follow-up period and report sufficient statistical information (such as sample size and recidivism rate). Study results were then summarized using standard statistical procedures.⁽³⁾

To increase the reliability of the findings, only variables examined in at least 10 different research studies are presented in this article. Procedure Studies were identified through searches of computerized databases, recent journals and references lists, and by contacting researchers active in the field. This review drew information from 98 different reports (41% of which were unpublished) covering 61 unique data sets.⁽⁴⁾

Half the studies were completed after 1989, with a range from 1943 to 1995. The studies examined a total of 28,805 different sex offenders, although the number available for any specific comparison was considerably smaller (ranging from 2,828 to 15,218). The average follow-up period was roughly five years. Each study was coded by two raters.

The correlation coefficient r was used to measure the extent to which each variable was associated with recidivism. This statistic can range from -1 to +1, with higher values indicating greater predictability. When r is positive, offenders with the particular characteristic are more likely to recidivate. When r is negative, offenders with the characteristic are less likely to recidivate. The statistic r can be roughly

understood as the percentage difference in the recidivism rate between those who have a particular characteristic and those who do not.

For example, if the correlation between blue eyes and recidivism was 1.0, 100% of those with blue eyes and none of those without blue eyes would recidivate. Similarly, if the overall recidivism rate was 25% and the correlation between blue eyes and recidivism was 0.20, the recidivism rate for blue-eyed offenders would be 35%, compared with 15% for other offenders ($0.35 - 0.15 = 0.20$). Results Overall recidivism rates across all studies should be interpreted with caution, since the findings were based on different follow-up periods and used different measures of recidivism (such as charges, readmissions to custody and self-reports). These rates also probably underestimate recidivism, since most of the studies used official records and many sex offences (particularly sex offences against children) are never officially detected.⁽⁵⁾

These numbers do, however, provide some valuable information. For example, sexual recidivism is much less common than general recidivism (see Table 1). The overall sexual recidivism rate was only 13% over the five-year follow-up period, compared with the 36% general recidivism rate. Further, rapists were at significantly greater risk of general and non-sexual violent recidivism than child molesters.

Table 1

Average Sexual, Non-sexual Violent and General Recidivism Rates			
	Recidivism type		
	Sexual	Non-sexual violent	General
Rapists	18%	24%	47%
Child molesters	13%	10%	37%
Total	13%	12%	36%

This review identified 10 potential predictors of sexual recidivism that had been examined in the requisite minimum 10 independent studies (see Table 2). Due to large sample sizes, all correlations greater than 0.03 were statistically significant. However, correlations less than 0.10 can be interpreted as having little practical significance.

Table 2

Sexual Recidivism Predictors		
Predictor	Average r	Number of Studies
Previous sex offences	0.19	28
Female child victim	-0.14	16
Past criminal history	0.13	19

Youth	0.13	21
Related child victim	-0.11	20
Male child victim	0.11	18
Married	-0.09	10
Exhibitionism	0.09	13
Rapist	0.07	24
Child molester	-0.03	24

The strongest predictor of sexual recidivism was, not surprisingly, a previous sex offence(s). Sex offenders who had committed sex offences in the past had a subsequent sexual recidivism rate of 30%, compared with just a 7% rate for sex offenders with no history of sex offences. Sexual recidivism was also related to a criminal history of any kind, which in most cases involved non-violent property offences.

There were also reliable differences in sexual recidivism rates based on the age and sex of victims.

In general, sex offenders whose victims were boys or adult females were more likely to recidivate sexually than those whose victims were related girls. Sexual recidivism rates were also lower for older offenders (the average age was 31).

As for general recidivism, young sex offenders with previous convictions (sexual or non-sexual) were most likely to recidivate (see Table 3).

Table 3

General Recidivism Predictors		
Predictors	Average r	Number of Studies
Past criminal history	0.25	14
Youth	0.16	14
Previous sex offences	0.12	15
Related child victim	-0.12	15
Married	-0.08	10
Child molester	-0.08	14
Rapist	0.05	19
Male child victim	0.03	11
Female child victim	-0.01	12

The age and sex of victims tended to have little connection to general recidivism. However, similar to sexual recidivism, incest offenders had the lowest general recidivism rates.

Violent non-sexual recidivism (such as robbery) was rarely used as an outcome criterion in the studies reviewed. Therefore, only one predictor variable was examined in at least 10 studies - history of rape. The average correlation, across 10 studies, between a history of rape and violent non-sexual recidivism was 0.23. Discussion This review identified factors that can be reliably used to assess risk of sex offender recidivism. The sex offenders most likely to recidivate sexually are those with a history of sex and non-sex offences, who are young and who victimized adult woman or extrafamilial boys. The offenders most likely to recidivate generally are also young sex offenders with a history of sex and non-sex offences.

Although each factor identified in this study was reliably related to recidivism, none of the effects were strong enough to justify using any single predictor on its own. Sex offender risk assessment is most accurate when it considers a range of relevant factors.

Unfortunately, the design of this review did not allow for the calculation of the predictive power of a combination of the best individual predictors. However, other research⁽⁶⁾ suggests that when the best predictor variables are combined, it is possible to identify both a high-risk group (with a probability of sexual or violent reoffending greater than 80%) and a low-risk group (with a long-term recidivism rate of less than 20%).

All the factors associated with sexual recidivism were stable, historical variables. Such static risk factors are useful and easy to assess, but provide little information about when recidivism will occur or how it can be reduced. To answer such questions, more information is needed about dynamic (changeable) risk factors.

The factors associated with sex offender non-sexual recidivism (such as youth and previous offences) appear similar to those associated with overall offender general recidivism. As such, general risk prediction scales designed for non-sex offenders seem equally valid for predicting sex offender non-sexual recidivism.⁽⁷⁾ Unfortunately, not enough empirical evidence is available to establish common dynamic risk factors for sexual recidivism. Without such empirical factors, assessments of changes in an offender's risk of sexual recidivism can be based only on a reasoned analysis of the particulars of the individual case.

(1)11th Floor, 340 Laurier Avenue West, Ottawa, Ontario K1A 0P8.

(2)R. K. Hanson, R. A. Steffy and R. Gauthier, *Long-term Follow-up of Child Molesters: Risk Prediction and Treatment Outcome*, User Report No. 1992-02 (Ottawa: Solicitor General of Canada [Corrections Branch], 1992).

(3)L. V. Hedges and I. Olkin, *Statistical Methods for Meta-analysis* (Orlando: Academic Press, 1985). Each finding was also corrected for recidivism base-rate variances using formula 12:8 from P. Ley, *Quantitative Aspects of Psychological Assessment: An Introduction* (London: Duckworth, 1972).

(4)The complete list of studies is available from the author upon request.

(5)J. Bonta and R. K. Hanson, *Gauging the Risk for Violence: Measurement, Impact and Strategies for Change*, User Report 1994-09 (Ottawa: Solicitor General of Canada, 1994).

(6)Hanson, Steffy and Gauthier, *Long-term Follow-up of Child Molesters: Risk Prediction and Treatment*

Outcome. See also V. L. Quinsey, M. E. Rice and G. T. Harris, "Actuarial prediction of sexual recidivism," *Journal of Interpersonal Violence*, 10 (1995): 85-105.

(7) J. Bonta and R. K. Hanson, *Violent Recidivism of Men Released from Prison*, Presentation at the 103rd meeting of the American Psychological Association, New York, 1995. See also L. L. Motiuk and S. L. Brown, *Survival Time Until Suspension for Sex Offenders on Conditional Release* (Ottawa: Correctional Service of Canada, 1995).