Chapter 3

Sex Offender Risk Assessment

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INTRODUCTION

Last year, you saw Mr Smith for three sessions of couples counselling. Mr Smith has just pleaded guilty to his second attempted rape, for which he could face life imprisonment. His lawyer now wants you to testify at his sentencing hearing.

You are working with a mother and her two daughters as part of child protection services. The eldest daughter has recently disclosed being sexually abused by a neighbour. You learn that the mother's new boyfriend was convicted 15 years ago for molesting his step-daughter. You have no power to prevent him from moving in. Should you remove the children from the home?

You are a probation officer with a specialized caseload of 60 sexual offenders. Two of your cases worry you. Yesterday, a 50-year-old repeat child molester began talking openly about his sexual attraction to a particular boy. Today, you learn that a 22-year-old date rapist was evicted from treatment for denying he had done anything wrong. You have the opportunity to make one more home visit this week. Which one would you choose?

The need for accurate risk assessment permeates clinical practice. Given the serious consequences of sexual victimization (Hanson, 1990; Koss, 1993), special care is justified in the evaluation of sexual offenders. Evaluators are most often concerned about new sexual offences, but sexual offenders also have considerable potential for inflicting other forms of damage. Sexual offenders, particularly rapists, are as likely to recidivate with a non-sexual violent offence as with a sexual offence (Hanson & Bussière, 1996, 1998). The predictors of sexual offence recidivism, however, appear to be different from the predictors of violent non-sexual recidivism (Hanson & Bussière, 1998; Hanson, Scott, & Steffy, 1995). Consequently, the careful clinician should evaluate separately the risk for sexual and for non-sexual recidivism. Given that the assessment of general, violent recidi-

vism is addressed elsewhere (Bonta, Law, & Hanson, 1998; Quinsey, Harris, Rice, & Cormier, 1998), the present chapter will focus only on assessing the risk for sexual recidivism.

PREDICTORS OF SEXUAL RECIDIVISM

Future behaviour can never be predicted with certainty. Nevertheless, a growing body of research indicates that well-informed evaluators can predict sexual offence recidivism with at least moderate accuracy (Hanson, 1998; Quinsey, Lalumière, Rice, & Harris, 1995). Risk assessments consider two distinct concepts:

1. enduring propensities, or potentials, to reoffend
2. factors that indicate the onset of new offences.

These offence triggers are not random, but can be expected to be organized into predictable patterns (offence cycles), some unique to the individual and some common to most sexual offenders (see Laws, 1989).

Different evaluation questions require the consideration of different types of risk factors. Static, historical variables (e.g. prior offences, childhood maladjustment) can indicate deviant developmental trajectories and, as such, enduring propensities to sexually offend. Evaluating changes in risk levels (e.g. treatment outcome), however, requires the consideration of dynamic, changeable risk factors (e.g. cooperation with supervision, deviant sexual preferences) (Bonta, 1996). Although age is sometimes considered a dynamic factor, the most important dynamic factors are those that respond to treatment. Dynamic factors can be further classified as stable or acute. Stable factors have the potential to change, but typically endure for months or years (e.g. personality disorder), and, as such, represent ongoing risk potential. In contrast, acute factors (e.g. negative mood) may be present for short durations (minutes, days) and can signal the timing of offending. Most risk decisions require consideration of both static and dynamic risk factors.

Follow-up Studies of Sexual Offenders

The strongest evidence for identifying risk factors comes from follow-up studies (Furby, Weinrott, & Blackshaw, 1989). Even the best study, however, is insufficient to establish that a characteristic is (or is not) a risk factor. Knowledge advances through orderly replication (Lakatos, 1970; Schmidt, 1996). When the same factor is identified in many independent studies, evaluators can be reasonably confident that the risk factor is reliable. Consequently, rather than discuss individual follow-up studies in detail, this section relies heavily on our meta-analysis (quantitative summary) of sexual offender recidivism studies (Hanson & Bussière, 1998; for an earlier version see Hanson & Bussière, 1996).

Our meta-analysis examined 61 different follow-up studies including a total of

28 972 sexual offenders. Table 3.1 presents the risk factors that were examined in at least four independent settings and correlated with recidivism at $r = .10$ or greater. Overall, the strongest predictors of sexual offence recidivism were factors related to sexual deviance. Sexual offenders were more likely to recidivate if they had deviant sexual interests, had committed a variety of sexual crimes, had begun offending sexually at an early age, or had targeted boys, strangers, or unrelated victims. Sexual interest in children as measured by phallometric testing (Launay, 1994) was the single strongest predictor of sexual offence recidivism.

After sexual deviance, the next most important predictors were general criminological factors, such as any prior offences, age, and antisocial personality disorder. These factors mark a dimension common to many criminal populations that has been variously referred to as "low self-control" (Gottfredson & Hirschi, 1990), psychopathy (Hare et al., 1990), or lifestyle instability (Cadsky, Hanson, Crawford, & Lalonde, 1996). There is extensive research linking general criminological factors to non-sexual recidivism among both sexual and non-sexual offender populations (Bonta et al., 1998; Gendreau, Little, & Goggin, 1996; Hanson & Bussière, 1998). Although criminal lifestyle is, in itself, only moderately related to sexual offence recidivism, there is some evidence that the combination of deviant sexual preferences and psychopathy places offenders at particularly high risk for committing further sexual offence crimes (Rice & Harris, 1997).

One of the more interesting findings was that offenders who failed to complete treatment were at higher risk than those who completed treatment ($r = .17$). Offenders' verbal reports of treatment motivation had little or no relationship to

Table 3.1 Predictors of sexual offence recidivism from Hanson & Bussière (1998)

Risk factors	Average *r*	Sample (studies) size
Sexual deviance		
Sexual interest in children as measured by phallometry	0.32	4 853 (7)
Any deviant sexual preference	0.22	570 (5)
Prior sexual offences	0.19	11 294 (29)
Any stranger victims	0.15	465 (4)
Early onset of sex offending	0.12	919 (4)
Any unrelated victims	0.11	6 889 (21)
Any boy victims	0.11	10 294 (19)
Diverse sex crimes	0.10	6 011 (5)
Criminal history/lifestyle		
Antisocial personality disorder/psychopathy	0.14	811 (6)
Any prior offences (non-sexual/any)	0.13	8 683 (20)
Demographic factors		
Age (young)	0.13	6 969 (21)
Single (never married)	0.11	2 850 (8)
Treatment history		
Failure to complete treatment	0.17	806 (6)

recidivism (average r = .01 based on three studies), but those offenders who actively engaged in treatment recidivated less often than treatment drop-outs. Such findings have sometimes been attributed to the effectiveness of treatment (e.g. Hall, 1995), but could also indicate that the highest risk offenders fail to complete treatment. In particular, it is well known that antisocial personality, lifestyle instability, and general impulsiveness are reliable predictors of treatment attrition (Cadsky et al., 1996; Wierzbicki & Pekarik, 1993).

Notably absent from the list of risk factors were any measures of subjective distress or general psychological symptoms (e.g. low self-esteem, depression). Overall, the average correlation with recidivism for general psychological variables was virtually zero (average r = .01, with 95% confidence interval of –.02 to +.04) (Hanson & Bussière, 1998). As will be discussed later, this does not mean that subjective distress plays no role in the recidivism process. Mood could be an acute, but not a long-term, risk factor. Because sexual offenders recidivated years after the assessments, rapidly changing factors, such as mood, would not be expected to predict long-term recidivism.

In summary, follow-up studies have identified a number of static (e.g. prior offences) or highly stable factors (e.g. deviant sexual preferences) that can usefully identify an enduring propensity for sexual offending. Much less is known about how changes on risk factors are associated with changes in recidivism risk potential. Early research suggested that decreasing sexual deviance reduced recidivism (Quinsey, Chaplin, & Carrigan, 1980), but with extended follow-up, recidivism was predicted by pre-treatment, not post-treatment, deviance scores (Rice, Quinsey, & Harris, 1991).[1]

Dynamic Risk Factors

If evaluators wish to maintain high levels of certainty, the discussion of dynamic risk would be extremely short: there are no well-established dynamic risk predictors for sexual offence recidivism. Dynamic factors, however, are too important to ignore. Consequently, the next section will provide some discussion of variables that could potentially be useful dynamic risk factors.

My suggestions regarding dynamic risk factors were guided by social cognitive theory (e.g. Bandura, 1977; Fiske & Taylor, 1991) as has been applied to general criminal behaviour (e.g. Andrews & Bonta, 1994) and sexual offending (Johnson & Ward, 1996; Laws, 1989). In this model, recidivistic sexual offenders would be expected to hold deviant schema, or habitual patterns of thought and action, that facilitate their offences. The likelihood that an offender will invoke such schema would increase if the schema were well rehearsed, were triggered by common circumstances, were considered socially acceptable, and were consistent with the offender's personality and values. Each offender's crime cycle

[1] In general, the reduced variability in post-treatment scores would be expected to restrict the extent to which they could predict recidivism.

would be somewhat unique. Nevertheless, certain characteristics would be expected to provide fertile ground for the development and maintenance of deviant sexual schema. An outline of some of these potential dynamic risk factors is presented in Table 3.2.

Among the more promising dynamic risk factors are problems with intimacy and attachment (Marshall, 1993; Seidman, Marshall, Hudson, & Robertson, 1994;

Table 3.2 Potential dynamic predictors of sexual offence recidivism

Predictor	Level
Intimacy deficits	low: a stable romantic relationship with an appropriate partner, and several constructive long-term friendships moderate: some intimate relationships, but short-term or unsatisfying high: no intimate relationships, or relationships only with wholly inappropriate partners (e.g. children)
Negative peer influences	low: all significant people are positive influences moderate: a mixture of positive and negative influences high: overtly deviant peer groups (e.g. paedophile exchange members, bike gang)
Attitudes tolerant of sexual assault	low: identifies no situations in which sexual assault is justified. Consistently views sexual offending as wrong moderate: generally disapproves of sexual crimes, but occasionally will express excuses/justifications (e.g. mature child, victim asked for it) high: sees little wrong with sexual offending; able to justify in many situations (e.g. age of consent laws are "arbitary")
Emotional/sexual self-regulation	low: has consistently coped with stressful situations without resorting to sexual fantasies or high-risk behaviour moderate: occasionally lapses into sexual fantasies (deviant or otherwise) and/or high-risk behaviour when stressed high: negative mood/stress consistently trigger sexual imagery, and feels urge to act upon them. Frequently feels sexually frustrated and is unable/unwilling to delay gratification
General self-regulation	low: consistently cooperative with supervision and/or treatment. Avoids high-risk situations, even when it involves personal sacrifices moderate: recognizes need to self-regulate, but little commitment or weak implementation. Attends treatment but not highly motivated. Occasional missed appointments/rescheduling high: disengaged, or overtly manipulative in supervision. Feels no need to change/self-monitor or feels "out of control". Frequent non-attendance or treatment drop-out. Commonly exposed to high-risk situations

Ward, Hudson, & McCormack, 1997). Normative sexuality involves mutually consenting behaviour within a relationship of trust. In contrast, the social interactions connected with sexual offending are, by definition, problematic. The victims are either incapable of mutuality (child molesting), or the contact is overtly hostile (rape), or extremely detached (voyeurism, exhibitionism). Such problems with the initiation and development of sexual relationships has been referred to as courtship disorder (Freund, Seto, & Kuban, 1997) or as heterosexual social skills deficits (McFall, 1990).

Recidivism studies provide some evidence that relationship deficits increase recidivism risk. In general, the closer the pre-existing relationship with the victim, the lower the recidivism rate (incest < acquaintances < strangers) (Hanson & Bussière, 1998). As well, offenders who have never been married/common-law are at increased risk for sexual offence recidivism compared to married offenders. Frisbie's (1969) follow-up study similarly found that "grave difficulties in establishing meaningful relationships with adult females" (p. 163) was one of the most important recidivism risk factors.

Group comparisons between sexual offenders and non-sexual offenders also support the importance of intimacy deficits. In comparison to non-sexual offenders, sexual offenders receive little satisfaction from their intimate relationships (Seidman et al., 1994), lack empathy for women (Hanson, 1997b), and prefer sex in uncommitted relationships (Malamuth, 1998).

A careful examination of the full range of sexual offenders' personal relationships is not only useful for identifying intimacy deficits, but may also reveal direct social support for sexual offending (e.g. paedophile rings; peer support for rape). There is extensive research indicating that having criminal companions is a strong predictor of criminal behaviour (Gendreau et al., 1996). Similarly, there is some evidence that sexual offenders are likely to have friends and relatives who are sexual offenders (Hanson & Scott, 1996). In a recent study of sexual offenders on community supervision (total, $n = 408$), we found that the recidivists were more likely than the non-recidivists to have predominantly negative social influences (43% versus 21%, respectively, Hanson & Harris, 1998, 2000).

Attitudes or values tolerant of sexual assault should also be considered potential dynamic predictors. Among community samples, there is consistent evidence that men who admit to sex offending also endorse "rape myths" or attitudes that condone such behaviour (Dean & Malamuth, 1997; Malamuth, Sockloskie, Koss, & Tanaka, 1991). The research with convicted sexual offender samples has not always been consistent, but there is some evidence that deviant sexual attitudes are common among both child molesters and rapists (Bumby, 1996; Hanson, Gizzarelli, & Scott, 1994). Typically, sexual offenders state that sexual offending is wrong but provide justifications and excuses that mitigate the seriousness of their own crimes. Those rare offenders who directly challenge the morality of existing sexual laws should be considered particularly high risk (e.g. paedophile club members).

According to relapse prevention theory, a common trigger for sexual offending is negative mood or stress (Pithers, Beal, Armstrong, & Petty, 1989). Offend-

ers are considered to cope with stress through sexual fantasies, which may eventually be acted upon. In support of this position, repeated assessments of inpatient sexual offenders has found that deviant sexual fantasies tended to follow stressful events (McKibben, Proulx, & Lusignan, 1994; Proulx, McKibben, & Lusignan, 1996). Cortoni, Heil, and Marshall (1996) similarly found that sexual offenders reported using sexual fantasies (both deviant and non-deviant) as coping mechanisms much more often than did other types of offenders. Given that sexual offenders may feel justified or entitled to act out their sexual feelings with little "courtship" (Freund et al., 1997; Hanson et al., 1994), it is easy to imagine how sexual responses to stress could be an important risk indicator. The overall level of subjective distress does not appear to be important in predicting recidivism (Hanson & Bussière, 1998): what seems more important are the mechanisms used by sex offenders for regulating their emotional and sexual feelings. In particular, sexual offenders should be considered at high risk to reoffend if (a) many circumstances, including negative affect, arouse sexual imagery; and (b) offenders feel deprived or frustrated if they are unable to quickly satisfy their urges.

In addition to problems with emotional/sexual self-regulation discussed above, offenders may also have problems with general self-regulation or self-control strategies. Offenders who are motivated to prevent reoffence and can effectively manage their own behaviour should be able to reduce their recidivism risk. This dimension overlaps with the criminal lifestyle variables previously discussed, but includes additional indicators. In our recent study we found that some of the best predictors of recidivism while on community supervision related to poor self-management strategies. In particular, recidivists, in comparison to non-recidivists, were perceived as failing to acknowledge their own potential for reoffence, exposing themselves to high-risk situations, being unmotivated for treatment, and being uncooperative with community supervision (Hanson & Harris, 2000).

Combining Risk Factors

Since no single factor is sufficient to determine whether offenders will or will not recidivate, evaluators need to consider a range of relevant risk factors. There are three plausible methods by which risk factors can be combined into overall evaluations of risk:

1. empirically guided clinical evaluations
2. pure actuarial predictions, and
3. clinically adjusted actuarial predictions.

The empirically guided clinical evaluation begins with the overall recidivism base rate, and then adjusts the risk level by considering factors that have been empirically associated with recidivism risk. The risk factors to be considered are explicit, but the method for weighing the importance of the risk factors is left to the judgement of the evaluator (e.g. Boer, Wilson, Gauthier, & Hart, 1997).

Actuarial approaches, in contrast, explicitly state not only the variables to be

considered, but also the precise procedure through which ratings of these variables will be translated into a risk level. In the pure actuarial approach, risk levels are estimated through mechanical, arithmetic procedures requiring a minimum of judgement. The "adjusted" actuarial approach begins with a pure actuarial prediction, but then raises or lowers the risk level based on consideration of relevant factors that were not included in the actuarial method. As research develops, actuarial methods can be expected to consistently outperform clinical predictions (Grove & Meehl, 1996). With the current state of knowledge, however, both actuarial and guided clinical assessment approaches can be expected to provide risk assessments with moderate levels of accuracy (Hanson, Morton, & Harris, in press).

Actuarial Risk Scales for Sexual Offence Recidivism

The starting point for all risk prediction should be the expected recidivism base rate. The rate at which sexual offenders are reconvicted for sexual offences is much lower than is commonly believed. In our meta-analytic review (Hanson & Bussière, 1998) 13.4% of the sexual offenders recidivated with a sexual offence (n = 23393; 18.9% for 1839 rapists and 12.7% for 9603 child molesters) during the average four-to-five-year follow-up period. These rates should be considered underestimates since many sexual offences, particularly those against children, are never reported (Bonta & Hanson, 1994). With longer follow-up periods, the rate increases to 35%–45% after 15–25 years (Hanson et al., 1995; Prentky, Lee, & Knight, 1997; Rice & Harris, 1997). The long-term rate for child molesters is similar to that of rapists, although there is a tendency for rapists to recidivate somewhat earlier after release.

Actuarial scales further refine base-rate predictions by estimating the recidivism rates for sub-groups of sexual offenders (e.g. first-time incest offenders, boy-object child molesters with prior sexual offence convictions). Efforts to develop actuarial risk scales for sexual offenders have been the focus of considerable research in recent years.

The most well-established risk scales for sexual offenders are the Rapid Risk Assessment for Sexual Offence Recidivism (RRASOR; Hanson, 1997a); Static-99 (Hanson & Thornton, 2000); the Violence Risk Appraisal Guide (VRAG) and Sex Offender Risk Appraisal Guide (SORAG; Quinsey et al., 1998). Each of these scales has moderate predictive accuracy in predicting sexual recidivism, although the VRAG and SORAG appear better at predicting general violent recidivism than either the Static-99 or RRASOR. The Static-99 and RRASOR, however, have the advantage of being relatively easily scored from commonly available information (official criminal history, victim characteristics, age).

The Minnesota Sexual Offender Screening Tool (SOST; Epperson, Kaul, & Huot, 1995) was the first instrument specifically designed to assess the risk of

sexual recidivism. The original version contained 21 items related to sexual and non-sexual criminal history, substance abuse, marital status, and treatment compliance. The revised version, the MinSOST-R, showed moderately high correlations with sexual recidivism in samples from Minnesota (Epperson, Kaul, & Hesselton, 1998), but the results from other jurisdictions has been less encouraging (Barbaree, Seto, Langton, & Peacock, 2001).

The Rapid Risk Assessment for Sexual Offence Recidivism, or RRASOR, was constructed by re-analysing the data from eight different follow-up studies (total sample of 2,604) (Hanson, 1997a). It contains four items: prior sexual offences, age less than 25, any male victims, and any unrelated victims.

David Thornton developed a risk scale for Her Majesty's Prison Service, entitled the Structured Anchored Clinical Judgement (SACJ; Grubin, 1998). The scale categorises offenders into three risk levels (low, medium, high) based on sexual and nonsexual criminal convictions, and the type of victim in the sexual offences (males, strangers). The initial results have been encouraging, although the SACJ has now been largely replaced in the UK by the revised version, entitled Risk Matrix 2000 (David Thornton, personal communication, August 17, 2002).

Each item is worth one point, except for prior sexual offences, which can be worth up to three points. Overall, the RRASOR showed moderate predictive accuracy (average r = .27, area under ROC curve = .71), with relatively little variability between the development and validation samples.

Static-99 was developed by combining 10 non-redundant items from the SACJ and RRASOR (Hanson & Thornton, 2000). Static-99 shows slightly better predictive accuracy than the RRASOR, both of which have been examined in more than 15 replication studies, including samples from Canada, the US, the UK, and Sweden (Hanson, Morton, & Harris, in press). Those who score in the lowest Static-99 category show a sexual recidivism rate of about 5% after five years, compared to a rate of about 40% for those in the highest category. A scoring guide is available online (see *www.sgc.gc.ca*; Phenix, Hanson, & Thornton, 2000).

The VRAG and SORAG were both developed of the prediction of general violence (Quinsey et al., 1998). The SORAG, however, was designed specifically to predict violent reoffending among sexual offenders. It contains 14 items, the most heavily weighted items being the Psychopathy Checklist – Revised (Hare et al., 1990) and age at index offence. Direct comparisons between the SORAG and Static-99 have found that they predict sexual recidivism equally well (e.g., Barbaree et al., 2001).

The available research suggests that it is possible to assess an offender's long-term risk potential using brief actuarial scales. The predictive accuracy of these scales is only moderate, however, and none are comprehensive. Consequently, the prudent evaluator would start with the rates estimated by the actuarial scales, and then consider whether important factors have been omitted. Evaluators should be exceedingly cautious, however, about adjusting actuarial predictions given the poor track record of clinical risk evaluation (Grove & Meehl, 1996).

SUMMARY AND CONCLUSIONS

Different risk assessment contexts call for different combinations of static and dynamic risk predictors. The follow-up research has identified a number of reliable risk factors related to sexual deviance, criminal lifestyle, and treatment compliance. Almost all of the identified risk factors are static or highly stable. Such factors are useful for assessing enduring propensities to reoffend, but they cannot be used to assess treatment outcome or monitor risk on community supervision. Although the research support is tentative, there are several factors that may be useful dynamic risk factors, including intimacy and attachment deficits, deviant peer groups, poor emotional/sexual self-regulation, and general self-regulation problems.

All risk evaluations should be grounded in the expected recidivism base rates. Evaluators can then adjust their predictions based on the presence or absence of relevant risk factors. Several actuarial scales have been developed that may be useful for assessing long-term risk potential. There are no validated scales, however, for assessing changes in the risk for sexual offence recidivism. Consequently, the available information is better at identifying high-risk offenders than it is at determining how to intervene, or whether the interventions have been effective.

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REFERENCES

Andrews, D. A., & Bonta, J. (1994). *The psychology of criminal conduct*. Cincinnati, OH: Anderson.

Bandura, A. (1977). *Social learning theory.* Englewood Cliffs, NJ: Prentice-Hall.

Barbaree, H. E., Seto, M. C., Langton, C. M., & Peacock, E. J. (2001). Evaluating the predictive accuracy of six risk assessment instruments for adult sex offenders. *Criminal Justice and Behavior*, *28*, 490–521.

Boer, D. P., Wilson, R. J., Gauthier, C. M., & Hart, S. D. (1997). Assessing risk for sexual violence: Guidelines for clinical practice. In C. D. Webster & M. A. Jackson (Eds.), *Impulsivity: Theory, assessment, and treatment* (pp. 326–342). New York: Guilford.

Bonta, J. (1996). Risk–needs assessment and treatment. In A. T. Harland (Ed.), *Choosing correctional options that work* (pp. 18–32). Thousand Oaks, CA: Sage.

Bonta, J., & Hanson, R. K. (1994). *Gauging the risk for violence: Measurement, impact and*

strategies for change (User Report No. 1994-09). Ottawa, Canada: Department of the Solicitor General of Canada.

Bonta, J., Law, M., & Hanson, R. K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin*, *123*, 123–142.

Bumby, K. M. (1996). Assessing the cognitive distortions of child molesters and rapists: Development and validation of the MOLEST and RAPE scales. *Sexual Abuse: A Journal of Research and Treatment*, *8*, 37–54.

Cadsky, O., Hanson, R. K., Crawford, M., & Lalonde, C. (1996). Attrition from a male batterer treatment program: Client-treatment congruence and lifestyle instability. *Violence and Victims*, *11*, 51–64.

Cortoni, F., Heil, P., & Marshall, W. L. (1996, November). Sex as a coping mechanism and its relationship to loneliness and intimacy deficits in sexual offending. Presentation at the 15th Annual Conference of the Association for the Treatment of Sexual Abusers, Chicago.

Dean, K., & Malamuth, N. M. (1997). Characteristics of men who aggress sexually and of men who imagine aggressing: Risk and moderating variables. *Journal of Personality and Social Psychology*, *72*, 449–455.

Epperson, D. L., Kaul, J. D., & Hesselton, D. (1998). *Minnesota Sex Offender Screening Tool – Revised (MnSOST-R): Development, performance, and recommended risk level cut scores*. Iowa State University/Minnesota Department of Corrections.

Epperson, D. L., Kaul, J. D., & Huot, S. J. (1995, October). *Predicting risk for recidivism for incarcerated sex offenders: Updated development on the Sex Offender Screening Tool (SOST).* Poster session presented at the annual conference of the Association for the Treatment of Sexual Abusers, New Orleans, LA.

Fiske, A., & Taylor, S. (1991). *Social cognition* (2nd ed.). New York: McGraw-Hill.

Freund, K., Seto, M. C., & Kuban, M. (1997). Frottuerism and the theory of courtship disorder. In D. R. Laws & W. O'Donohue (Eds.), *Sexual deviance: Theory, assessment, and treatment* (pp. 111–130). New York: Guilford.

Frisbie, L. V. (1969). *Another look at sex offenders in California.* (California Mental Health Research Monograph No. 12). California: State of California Department of Mental Hygiene.

Furby, L., Weinrott, M. R., & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin*, *105*, 3–30.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology*, *34*, 575–607.

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime.* Stanford, CA: Stanford University Press.

Grove, W. M., & Meehl, P. E. (1996). Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The clinical–statistical controversy. *Psychology, Public Policy, and Law*, *2*, 293–323.

Grubin, D. (1998). *Sex offending against children: Understanding the risk*. Police Research Series Paper 99. London: Home Office.

Hall, G. C. N. (1995). The preliminary development of a theory-based community treatment for sexual offenders. *Professional Psychology: Research and Practice*, *26*, 478–483.

Hanson, R. K. (1990). The psychological impact of sexual victimization on women and children. *Annals of Sex Research*, *3*, 187–232.

Hanson, R. K. (1997a). *The development of a brief actuarial risk scale for sexual offense recidivism* (User Report No. 1997-04). Ottawa, Canada: Department of the Solicitor General of Canada.

Hanson, R. K. (1997b). Invoking sympathy: Assessment and treatment of empathy deficits among sexual offenders. In B. K. Schwartz & H. R. Cellini (Eds.), *The sex offenders: New insights, treatment innovations and legal developments* (Vol. 2, pp. 1:1–1:12). Kingston, NJ: Civic Research Institute.

Hanson, R. K. (1998). What do we know about sexual offender risk assessment. *Psychology, Public Policy, and Law*, *4*, 50–72.
Hanson, R. K., & Bussière, M. T. (1996). *Predictors of sexual offender recidivism: A meta-analysis* (User Report 96-04). Ottawa, Canada: Department of the Solicitor General of Canada.
Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, *66*, 348–362.
Hanson, R. K., Gizzarelli, R., & Scott, H. (1994). The attitudes of incest offenders: Sexual entitlement and acceptance of sex with children. *Criminal Justice and Behavior*, *21*, 187–202.
Hanson, R. K., & Harris, A. J. R. (1998). *Dynamic predictors of sexual recidivism*. (User Report 1998-01). Ottawa, Canada: Department of the Solicitor General of Canada.
Hanson, R. K., & Harris, A. J. R. (2000). Where should we intervene? Dynamic predictors of sex offense recidivism. *Criminal Justice and Behavior*, *27*, 6–35.
Hanson, R. K., Morton, K. E., & Harris, A. J. R. (in press). Sexual offender recidivism risk: What we know and what we need to know. In R. Prentky, E. Janus, & M. Seto (Eds.), *Understanding and managing sexually coercive behaviour.* New York: Annals of the New York Academy of Sciences.
Hanson, R. K., & Scott, H. (1996). Social networks of sexual offenders. *Psychology, Crime, & Law*, *2*, 249–258.
Hanson, R. K., Scott, H., & Steffy, R. A. (1995). A comparison of child molesters and non-sexual criminals: Risk predictors and long-term recidivism. *Journal of Research in Crime and Delinquency*, *32*, 325–337.
Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior*, *24*(1), 119–136.
Hare, R. D., Harpur, T. J., Hakstian, A. R., Forth, A. E., Hart, S. D., & Newman, J. P. (1990). The Revised Psychopathy Checklist: Reliability and factor structure. *Psychological Assessment*, *2*, 338–341.
Johnson, L., & Ward, T. (1996). Social cognition and sexual offending: A theoretical framework. *Sexual Abuse: A Journal of Research and Treatment*, *8*, 55–80.
Koss, M. P. (1993). Rape: Scope, impact, interventions, and public policy responses. *American Psychologist*, *48*, 1062–1069.
Lakatos, I. (1970). Falsification and the methodology of scientific research programs. In A. Musgrave & I. Lakatos (Eds.), *Criticism and the growth of knowledge* (pp. 91–195). New York: Cambridge University Press.
Launay, G. (1994). The phallometric assessment of sex offenders: Some professional and research issues. *Criminal Behaviour and Mental Health*, *4*, 48–70.
Laws, D. R. (Eds.) (1989). *Relapse prevention with sexual offenders.* New York: Guilford.
Malamuth, N. M. (1998). An evolutionary-based model integrating research on the characteristics of sexually coercive men. In J. Adair & D. Belanger (Eds.), *Advances in psychological sciences (Vol. 1): Personal, social and developmental aspects*, 151–184. Hove, UK: Psychology Press.
Malamuth, N. M., Sockloskie, R., Koss, M. P., & Tanaka, J. (1991). The characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology*, *59*, 670–681.
Marshall, W. L. (1993). The role of attachment, intimacy, and loneliness in the eitology and maintainance of sexual offending. *Sexual and Marital Therapy*, *8*, 109–121.
McFall, R. M. (1990). The enhancement of social skills: An information-processing analysis. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and the treatment of the offender* (pp. 311–330). New York: Plenum.
McKibben, A., Proulx, J., & Lusignan, R. (1994). Relationships between conflict, affect and deviant sexual behaviors in rapists and child molesters. *Behaviour Research and Therapy*, *32*, 571–575.

Phenix, A., Hanson, R. K., & Thornton, D. (2000). *Coding rules for the Static-99*. Corrections Research: Manuals and Forms. Ottawa: Department of the Solicitor General of Canada.

Pithers, W. D., Beal, L. S., Armstrong, J., & Petty, J. (1989). Identification of risk factors through clinical interviews and analysis of records. In D. R. Laws (Ed.), *Relapse prevention with sex offenders* (pp. 77–87). New York: Guilford.

Prentky, R. A., Lee, A. F. S., & Knight, R. A. (1997). Recidivism rates among child molesters and rapists: A methodological analysis. *Law and Human Behavior*, *21*, 635–659.

Proulx, J., McKibben, A., & Lusignan, R. (1996). Relationships between affective components and sexual behaviors in sexual aggressors. *Sexual Abuse: A Journal of Research and Treatment*, *8*, 279–289.

Quinsey, V. L., Chaplin, F. C., & Carrigan, W. F. (1980). Biofeedback and signaled punishment in the modification of inappropriate sexual age preferences. *Behavior Therapy*, *11*, 567–576.

Quinsey, V. L., Harris, G. T., Rice, M. T., & Cormier, C. A. (1998). *Violent offenders: Appraising and managing risk*. Washington, DC: American Psychological Association.

Quinsey, V. L., Lalumière, M. L., Rice, M. E., & Harris, G. T. (1995). Predicting sexual offenses. In J. C. Campbell (Ed.), *Assessing dangerousness: Violence by sexual offenders, batterers, and child abusers* (pp. 114–137). Thousand Oaks, CA: Sage.

Rice, M. E., & Harris, G. T. (1997). Cross-validation and extension of the Violence Risk Appraisal Guide for child molesters and rapists. *Law and Human Behavior*, *21*, 231–241.

Rice, M. E., Quinsey, V. L., & Harris, G. T. (1991). Sexual recidivism among child molesters released from a maximum security psychiatric institution. *Journal of Consulting and Clinical Psychology*, *59*, 381–386.

Schmidt, F. L. (1996). Statistical significance testing and cumulative knowledge in psychology: Implications for training of researchers. *Psychological Methods*, *1*, 115–129.

Seidman, B. T., Marshall, W. L., Hudson, S. M., & Robertson, P. J. (1994). An examination of intimacy and loneliness in sex offenders. *Journal of Interpersonal Violence*, *9*, 518–534.

Ward, T., Hudson, S. M., & McCormack, J. (1997). Attachment style, intimacy deficits, and sexual offending. In B. K. Schwartz & H. R. Cellini (Eds.), *The sex offenders: New insights, treatment innovations and legal developments* (Vol. 2, pp. 2:1–2:14). Kingston, NJ: Civic Research Institute.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice*, *24*, 190–195.