

**Age and Sexual Recidivism:
A Comparison of Rapists
and Child Molesters**

2001 – 01

By

**R. Karl Hanson
Department of the Solicitor General Canada**

This document is available in French. Ce rapport est disponible en français sous le titre: *L'âge et la récidive sexuelle – Une comparaison des violeurs et des agresseurs d'enfants*

Also available on the Solicitor General Canada's Internet Site <http://www.sgc.gc.ca>

ISBN: 0-662-65737-3

Author note

The views expressed are those of the author and do not necessarily reflect those of the Portfolio of the Solicitor General of Canada. I would like to thank Marnie Rice, Grant Harris, Jean Proulx, Larry Motiuk, Marylee Stephenson, John Reddon, Lea Studer, Janice Marques, Roxanne Lieb and Lin Song for access to their original data sets.

Table of Contents

Abstract.....	iii
Age and sexual recidivism: A comparison of rapists and child molesters	1
Method	3
Samples	3
Analysis	6
Results.....	7
Discussion.....	10
Deviant sexual interests.....	12
Low self-control	13
Opportunity	14
An interpretation of the age-recidivism findings	15
References.....	18

Abstract

This study examined the relationship of age to sexual recidivism using data from 10 follow-up studies of adult male sexual offenders (combined sample of 4,673). Rapists were younger than child molesters and the recidivism risk of rapists steadily decreased with age. In contrast, extrafamilial child molesters showed relatively little reduction in recidivism risk until after the age of 50. The recidivism rate of intrafamilial child molesters was generally low (less than 10%), except for the intrafamilial offenders in the 18 to 24 year old age group, whose recidivism risk was comparable to that of rapists and extrafamilial child molesters. The results are discussed in terms of developmental changes in sexual drive, self-control, and opportunities to offend.

Age and sexual recidivism: A comparison of rapists and child molesters

The public is justifiably concerned about the risk posed by sexual offenders. Although the observed sexual recidivism rates are only 10% to 15% after five years (Hanson & Bussière, 1998), the rates continue to increase gradually with extended follow-up periods (Hanson, Steffy & Gauthier, 1993a). Do sexual offenders remain at risk throughout their life or is there some age limit after which their risk for recidivism is substantially reduced? How much of a threat is a 60 year old child molester or a 60 year old rapist?

The association between age and general criminal behaviour is well established. Most crimes are committed by young people and the rate of criminal behaviour gradually decreases with age. For crimes reported to the police, the most common age of the offender is late adolescence (16 to 18 years), with the age of violent offenders being somewhat older than for non-violent offenders (Gottfredson & Hirshi, 1990). Longitudinal studies, however, indicate that the rate of aggressive behaviour actually peaks in the pre-school years (ages 3-4) and declines steadily thereafter (Tremblay, 2000). The apparent rise in violent crime during adolescence is simply the function of a change in community response to persistent aggressive behaviour. Nagin and Tremblay (1999) did not find any group of persistently violent boys for whom the onset of aggression was later than age six.

Less is known about the relationship between age and sexual crime. Based on data from 179 Canadian police departments, 81% of accused sexual offenders were 18 years of age or older (Canadian Centre for Justice Statistics, 1999). On average, accused sexual offenders are substantially older than other offenders and slightly older than the general population. The age distribution for sexual offenders is markedly bimodal, however, with the largest peak at age 13, a dip in the early twenties, and a second peak in the mid to late thirties (Canadian Centre for Justice Statistics, 1999). The reason for the bimodal distribution is unknown but it does suggest that there may be a qualitative difference between adolescent and adult sexual offenders. The peak at age 13 may be attributed to generally antisocial, aggressive youth becoming sexually

active. The peak in the late thirties may be related to increased opportunities for certain types of sexual offences during these years (e.g., father-daughter incest, child molestation).

Age differences are also noted among adult sexual offenders. It has long been observed that those who victimise adult women (rapists) tend to be younger than those who target children (child molesters) (Apfelberg, Sugar & Pfeffer, 1944; West, 1983).

The distribution of the age of accused sexual offenders does not necessarily indicate their relative recidivism risk. Although there may be few sexual offenders over the age of 50, the older offenders may be more (or less) persistent than younger sexual offenders. Hanson and Bussière's (1998) review of 21 follow-up studies ($n = 6,969$) found an overall negative relationship between age and risk for sexual recidivism (average $r = -.13$). The relationship, however, was not large, and there was considerable variability across studies.

It is possible that the relationship between age and sexual recidivism is different for different types of sexual offenders. Of all the sexual offenders, rapists show the greatest similarity to non-sexual criminals (West, 1983). Rapists are likely to have non-sexual criminal histories and are more likely than child molesters to recidivate with non-sexual crime (Hanson & Bussière, 1998). Consequently, it is likely that the recidivism rate of rapists steadily decreases with age.

The extent to which the recidivism rates of child molesters decreases with age is unknown. Given that most antisocial behaviour declines with age, it is likely that the sexual recidivism rates of child molesters would similarly decline. It is possible, however, that the decline could be minimal. Extrafamilial child molesters are the sexual offenders most likely to have deviant sexual preferences (Marshall, 1997). The presence of such deviant sexual preferences may contribute to a sustained level of risk well into late adulthood.

Child molesters who only target intrafamilial victims (incest offenders) have consistently lower recidivism risk than other sexual offenders (Hanson & Bussière, 1998). Although incest offenders would be expected to be older than other child molesters (it takes time for one's own children to mature), it is unclear whether the recidivism rates of incest offenders should substantially decrease with age. The disclosure process for the index offence may block access to the children in their current family, but the subsequent arrival of grandchildren may provide new opportunities.

In order to examine the relationship between age and sexual recidivism, secondary analyses were conducted on 10 samples of sexual offenders (total sample of 4,673). These samples were drawn from diverse settings in Canada ($k = 7$), the United States ($k = 2$) and the United Kingdom (one sample).

Method

Samples

An overview of the samples can be found in Table 1. All the offenders were released from institutions with the exception of about half of the offenders from the Washington SSOSA sample, who received community sentences. Racial ethnicity was not recorded for most samples, but given the demographics of the provinces, states and countries from which they were selected, the offenders can be expected to be predominantly white. The sample sizes are slightly smaller than the numbers reported in the original studies because the current samples were restricted to those for whom information was available on both age and sexual recidivism. All offenders were adult males (18 years old or older at time of release).

Canadian Federal Recidivism Study - 1983/1984 Releases (Bonta & Hanson, 1995a; see also Bonta & Hanson, 1995b). This study examined the 316 sexual offenders included in the complete sample of 3,180 federal offenders released by the Correctional Service of Canada (CSC) in the fiscal year 1983/1984. Sexual offenders were defined as those who were released following any sexual conviction. Recidivism information was collected in 1994 using national criminal history records maintained by the Royal Canadian Mounted Police (RCMP).

Canadian Federal 1991 to 1994 Releases (Motiuk, 1995; see also Motiuk & Brown, 1993; Motiuk & Brown, 1996). This study followed a group of sexual offenders released by CSC between 1991 and 1994. The offenders in this group were those who were reviewed in 1991 (see Motiuk & Porporino, 1993) while they were still incarcerated. Follow-up information was coded from 1994 RCMP records.

Canadian Federal – Pacific Region (CS/RESORS Consulting, 1991; Hanson, Broom & Stephenson, 2001). This study followed sexual offenders released in British Columbia between

1976 and 1992. The original aim of the study was to compare offenders who received mandatory community counselling (n = 401) and those released in earlier years without the

Table 1

Study characteristics.

Sample	Total Sample Size	Age (SD)	Offender Type Rape/EX/IN (%)	Sample Size for Type	Average Years of Follow-up	Sexual Recid. Rate	Recidivism Criteria
Canadian Federal 1983/84 releases	315	31 (8.7)	-- / -- / --	0	10	19.7	Convictions
Canadian Federal 1991 to 1994 releases	241	37 (11)	53 / 19 / 28	208	2	7.1	Charges
Canadian Federal Pacific Region	689	38 (11)	36 / 30 / 33	362	11	24.7	Charges
Millbrook, Ontario	186	33 (10)	00 / 82 / 18	186	3	35.5	Convictions
Institut Philippe Pinel	363	36 (11)	30 / 43 / 27	349	4	16.3	Convictions
Alberta Hospital Edmonton	363	36 (10)	27 / 27 / 46	363	5	5.5	Convictions
SOTEP (California)	1,137	38 (8.9)	29 / 40 / 31	1,130	4	13.3	Charges
Oak Ridge Penetanguishene, Ontario	263	31 (9.4)	52 / 26 / 22	246	10	36.1	Charges/ readmissions
HM Prison Service (UK)	529	36 (12)	53 / 32 / 15	325	16	25.7	Convictions
Washington State SSOSA	587	36 (13)	10 / 41 / 49	582	5	7.5	Charges

Note: EX = Extrafamilial child molesters; IN = Intrafamilial child molesters

benefit of this post-release program (n = 288). Offenders released in the 1983/84 fiscal year (n = 38) were removed from this sample to avoid overlap with the other CSC cohort described above. Recidivism information was coded in 2000 from RCMP records.

Alberta Hospital Edmonton - Phoenix Program. (Reddon, 1996; see also Studer, Reddon, Roper & Estrada, 1996). The sexual offenders in this study were drawn from those treated at the Phoenix (Alberta Hospital Edmonton) program between 1987 and 1994. The Phoenix program is an eclectic inpatient treatment program that receives many of its referrals from federal correctional facilities. Recidivism information was collected in 1995 using RCMP records.

California's Sex Offender Treatment and Evaluation Project (SOTEP). (Marques & Day, 1996; see also Marques, Day, Nelson & West, 1993; Marques, Nelson, West & Day, 1994). The primary aim of this ongoing study is to examine the efficacy of treatment. The sample used in the current study included sexual offenders randomly assigned to treatment (n = 172), matched volunteer controls, treatment refusers, as well as a general sample of sexual offenders from the California correctional system (total sample of 1,137). Men who had offended only against their biological children were not included. Subjects were admitted to this study between 1985 and 1995; follow-up information was collected in 1995 based on local and national criminal records, as well as local police and probation reports.

Institut Philippe Pinel (Montreal). (Proulx, Pellerin, McKibben, Aubut & Ouimet, 1995; see also Proulx, Pellerin, McKibben, Aubut & Ouimet, 1997; Pellerin et al., 1996). This study focused on sexual offenders treated at a maximum security psychiatric facility between 1978 and 1993. The Institut Philippe Pinel in Montreal provides long term (1-3 years) treatment for sexual offenders referred from both the mental health and correctional systems. Recidivism information was collected in 1994 from RCMP records.

Millbrook Recidivism Study (Hanson, Steffy & Gauthier, 1993b; see also Hanson, Scott & Steffy, 1995; Hanson, Steffy & Gauthier, 1992; Hanson et al., 1993a). This study collected long-term recidivism information (15-30 years) for child molesters released between 1958 and 1974 from Millbrook Correctional Centre, a maximum security provincial correctional facility located in Ontario, Canada. About half of the sample went through a brief treatment program.

Recidivism information was coded from RCMP records in 1989 and 1991.

Oak Ridge Division of the Penetanguishene Mental Health Centre. (Rice & Harris, 1996; see also Quinsey, Rice & Harris, 1995; Rice & Harris, 1997; Rice, Harris & Quinsey, 1990; Rice,

Quinsey & Harris, 1991). The Oak Ridge study followed sexual offenders referred between 1972 and 1993 for treatment and/or assessment to a maximum security mental health centre located in Ontario, Canada. The majority of the referrals came from the mental health systems or the courts (e.g., pretrial fitness examinations), with a minority of cases coming from provincial or federal corrections. Follow-up information was based on RCMP records as well as mental health records (i.e., new admissions for sexual offenses, whether or not new charges were laid).

Her Majesty's Prison Service (UK). (Thornton, 1997). The study provided a 16 year follow-up of all sexual offenders released from Her Majesty's Prison Service (England and Wales) in 1979 (n = 573). Recidivism information was based on Home Office records collected in 1995. Very few of the offenders in this sample would have received specialised sexual offender treatment.

Washington SSOSA. (Berliner, Schram, Miller & Milloy, 1995; Song & Lieb, 1995). This data set was created to evaluate Washington State's Special Sex Offender Sentencing Alternative (SSOSA), which allows judges to sentence sex offenders to community treatment. To be eligible for SSOSA, offenders must be facing their first felony conviction for sexual crimes other than first or second degree rape. The sample consisted of 287 offenders who received SSOSA and 300 who were statutorily eligible for SSOSA but did not receive it. The majority of the sample was White (85%). Offenders were convicted between January 1985 and June 1986, with follow-up data collected in December, 1990.

Analysis

The analyses were conducted on a data set that combined the above samples. Age was measured at the time of release from institution, except for the Washington SSOSA sample where age was measured at time of sentencing. Sexual recidivism was measured using the definitions used in the original reports, which, in most cases was either charges (k = 4) or convictions (k = 5). The Oak Ridge sample also included readmissions to psychiatric facilities among their recidivism criteria.

Preliminary analyses were conducted that examined the association between age and recidivism in each sample. The meta-analysis of the individual samples found the same pattern of results as the analysis of total sample. For simplicity, only the results from the total sample are presented.

The primary statistical procedure used to measure the association between age and sexual recidivism was logistic regression (Neter, Kutner, Nachtsheim & Wasserman, 1996). Logistic regression is preferable to ordinary least square regression when the outcome variable is dichotomous. In comparison to correlation coefficients, the logistic regression coefficients are less influenced by recidivism base rates and variability in the predictor variables. One way to interpret logistic regression coefficient is as the rate of change in recidivism rates for each year age increase; more specifically, e^B is an odds ratio. For example, if B was -.04, the odds ratio would be $(2.714)^{(-.04)} = .96$. This value of .96 can be interpreted to mean that if Jack is one year older than Frank, Jack's recidivism rate would be expected to be 96% of Frank's expected recidivism rate (a 4% reduction). For small values of B, the percentage change in recidivism rates is approximately equal to the absolute value of B (i.e., B = -.04 corresponds to a 4% reduction; B = .10 corresponds to a 10.5% increase).

Curvilinear effects can be tested by entering the square of the predictor variable (Y^2) after entering the predictor variable (Y). Readers should be cautioned, however, that when Y and Y^2 are considered simultaneously, the value of their respective regression coefficients (and their significant tests) can be influenced by arbitrary features of scaling. Consequently, the resulting regression coefficients do not provide a test of the relative magnitude of the linear and curvilinear effects. The regression coefficients for the curve components are presented, nonetheless, to indicate the direction of any potential curvilinear effects.

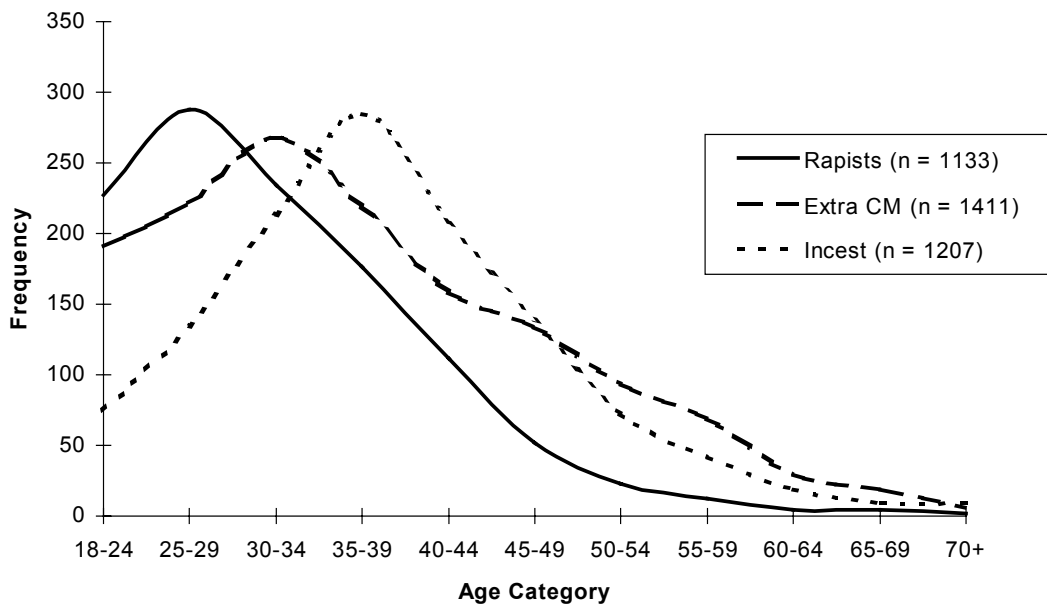
Results

The combined sample included 4,673 sexual offenders. Based on the offenders' predominant victim choice, the sample was divided into those who sexually victimised adult women (Rapists, n = 1,133), child molesters who victimise any unrelated children (Extrafamilial child molesters, n = 1,411), and child molesters who victimised only related children (Incest offenders, n = 1,207). Excluded from the classification were 47 offenders who victimised both adult women and unrelated children and 875 offenders for whom victim information was not available. The classification, however, was based on limited information and the cross-over between victim types would likely be greater than that implied by the current classification.

As can be seen in Figure 1, the rapists (mean = 32.1, SD = 8.9) were younger than the extrafamilial child molesters (mean = 37.1, SD = 11.5) and incest offenders (mean = 38.9, SD = 9.9). Due to the large sample sizes, differences between all the groups were statistically significant at $p < .001$ even though the average age difference between the two child molesters groups was only 1.8 years.

Figure 1

Age Distribution of Sexual Offenders



The sexual recidivism rate for the total sample was 17.5% (820/4,673). In the total sample, the recidivism rate declined steadily with age (logistic regression, $B = -.036$, $SD = .004$, $p < .001$). The association was linear; the addition of a curvilinear component did not significantly improve the fit of the regression line (chi-square change = 0.18, $df = 1$, $p > .50$). The correlation between age and sexual recidivism was $-.13$ ($p < .001$) and the ROC area was .60 (95% confidence interval of .58 to .62).

The groups recidivated at different rates (logistic chi-square change = 57.91, $df = 2$, $p < .001$), with incest offender recidivating less often (8.4%) than rapists (17.1%) and extrafamilial child molesters (19.5%). Without controlling for age, the difference in recidivism rates for the rapist and extrafamilial child molesters was not statistically significant (logistic chi-square = 2.21, $df = 1$, $p > .10$). Controlling for age, however, resulted in a significant difference between the extrafamilial child molesters and rapists (logistic chi-square = 7.71, $df = 1$, $p < .005$), with the child molesters recidivating more often than the rapists. The incest offenders had significantly lower recidivism rates in all the comparisons ($p < .001$).

Even though the effect of age was linear in the total sample, the relationship with age was different for the rapists, extrafamilial child molesters and incest offenders (see Figure 2; interaction between groups and age² [age-squared]: logistic chi-square change = 6.81, $df = 2$, $p < .05$). The separate analyses for the three groups are displayed in Table 2. The recidivism rate for rapists steadily decreased with age (logistic $B = -.040$, $SD = .010$). In contrast, the highest risk age period for extrafamilial child molesters was not between the years of 18 to 24, but between the ages of 25 and 35. The recidivism rate of the extrafamilial child molesters showed relatively little decline until after age 50.

Incest offenders showed a different pattern. The recidivism rate for the incest offenders was generally low (less than 10%) except for the incest offenders in the 18 to 24 age group who showed a much higher recidivism rate (30.7%).

There were very few recidivists among the sexual offenders released after age 60 (5/131 or 3.8%). The “over-60” recidivists included 2 extrafamilial child molesters (2/45 or 4.4%) and 3 unclassified offenders (3/37 or 8.1%). None of the incest offenders ($n = 39$) or rapists ($n = 10$) who were over 60 at time of release recidivated. The oldest recidivist in the sample was released at age 72 and was reconvicted for a sexual offence the following year.

Figure 2

Recidivism Rates by Age Category

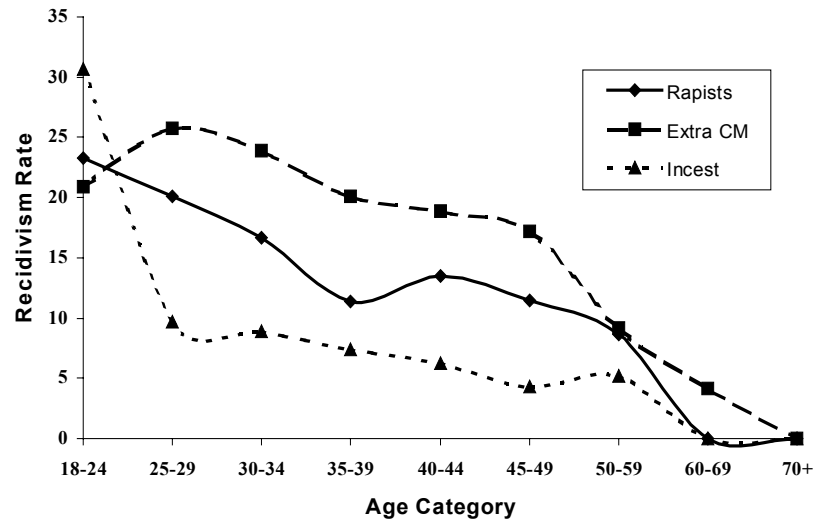


Table 2

The relationship between age (years) and sexual recidivism (1 = yes; 0 = no).

Sample	Sample size	Step	Logistic regression coefficients			χ^2 change	χ^2 model
			intercept	linear	curvilinear		
Rapists	1,133	1	-.334 (.319)	-.040 (.010)	-	-	16.82***
		2	-.585 (.995)	-.024 (.060)	.00023 (.00088)	.073	17.37***
Extrafamilial Child Molesters	1,411	1	-.411 (.232)	-.028 (.006)	-	-	20.65***
		2	-2.344 (.778)	.082 (.043)	-.00144 (.00056)	7.44**	27.98***
Incest Offenders	1,207	1	-.069 (.448)	-.064 (.013)	-	-	28.88***
		2	1.359 (1.154)	-.144 (.061)	.00108 (.00079)	1.59	30.38***
Total	4,673	1	-.324 (.140)	-.035 (.004)	-	-	84.68***
		2	-.489 (.410)	-.026 (.023)	.00013 (.00030)	.19	84.87***

*p < .05; **p < .01, ***p < .001.

Note: Standard deviations in parentheses.

Discussion

As with other criminal behaviour, the rate of sexual offending decreased with age. The rate of decline was rather gradual, however, and there were significant differences between types of sexual offenders. Rapists were younger than other sexual offenders (45% less than 30) and their recidivism risk steadily decreased with age. Extrafamilial child showed little decline in their recidivism risk until after the age of 50. The highest risk period for extrafamilial child molesters was between the ages of 25 and 35. In contrast, the young (18-24 year old) incest offenders were substantially higher risk than incest offenders from other age groups.

The average recidivism rate for the incest offenders (8%) was lower than the average recidivism risk for extrafamilial child molesters (19%) and rapists (17%). Although the recidivism rates for extrafamilial child molesters and rapists were similar, extrafamilial child molesters were, on average, older than rapists. When age was controlled, the extrafamilial child molesters were at significantly higher risk for sexual recidivism than the rapists.

Among the various factors linked to sexual offending, the three broad factors most relevant to the current study are deviant sexual interests (motivation), opportunity, and low self-control. The distribution of these factors across offender types can help explain the age distribution of the offenders and the variation in their recidivism rates.

Deviant sexual interests

Although all sexual offenders engage in sexually deviant behaviour, most do not have an enduring preference for illegal sexual activities. Sexual preferences have some degree of elasticity, such that men typically prefer consensual activities with adult females, but they show some arousal to less physically mature females (Freund & Blanchard, 1989) and to depictions of forced sex (Eccles, Marshall & Barbaree, 1994). Offenders may act on these less-than-preferred sexual objects/activities for any number of reasons, including peer pressure (e.g., Kanin, 1967), impulsivity, and opportunity.

Deviant sexual interests are more common among extrafamilial child molesters than incest offenders (Marshall, 1997). It is difficult to directly compare the rate of deviant sexual interest among rapists with the rate among child molesters. Sexual interests exist on a continuum

and it is not clear what level of sexual interest in violence corresponds to an equivalently deviant level of sexual interest in children. Nevertheless, rapists, on average, sexually respond more to violent erotic stimuli than to depictions of consensual sexual activities (Lalumière & Quinsey, 1994), suggesting that a significant proportion of rapists hold deviant sexual interests. Deviant sexual interests are likely to be more common among rapists than among incest offenders; whether rapists are more or less sexually deviant than extrafamilial child molesters is unknown.

Previous research has suggested that deviant sexual interest is an important risk factors for sexual recidivism (Hanson & Bussière, 1998). To the extent that deviant sexual interests are an integral part of an offender's sexual life, then the persistence of sexual offending should mirror the persistence of the offender's sexual drive.

Research on normal populations has found that male sexual drive declines steadily with age, although the reduction is relatively limited until after age 50 (Kinsey, Pomeroy & Martin, 1948; Panser et al., 1995; Trocki, 1992). Fewer than 1% of men aged 40-49 reported "no sex drive" compared to 26% of men over the age of 70 (Panser et al., 1995). Among the factors that can contribute to reduced sexual drive are disease and age related decreases in testosterone (Gray, Feldman, McKinlay & Longcope, 1991).

Low self-control

The second major factor associated with sexual offending is low self-control or criminal lifestyle. Low self-control refers to the tendency to respond impulsively to short-term temptation, have little consideration for future consequences, and engage in high risk behaviours, such as drinking, driving fast, and sexual promiscuity. The association between low self-control and criminal behaviour is sufficiently strong that Gottfredson and Hirshi (1990) consider it to be the cause of crime. It is not uncommon for researchers to include measures of antisocial behaviour in their definitions of impulsivity or low constraint (e.g., Prentky, Knight, Lee & Cerce, 1995; Wright, Caspi, Moffitt & Silva, 1999).

Self-control increases dramatically from childhood to adulthood. The extent to which it continues to develop in the adult years is less well established. Gottfredson and Hirschi (1990) believe that an individual's level of self-control changes little after it is initially formed in the family of origin. However, the age related decline in almost all impulsive, risky behaviour (e.g.,

fast driving, substance abuse, theft, assault) suggests that self-control and constraint continue to develop well into the adult years.

Previous research with sexual offenders has found that impulsivity and crime lifestyle are related to the risk of sexual recidivism (Hanson & Bussière, 1998; Prentky et al., 1995). Low self-control is more common among rapists than child molesters. Rapists share many of the features of lifestyle instability found among general offenders (West, 1983), and are more likely to recidivate with non-sexual crime than are child molesters (Hanson & Bussière, 1998). The research has yet to establish whether incest offenders and extrafamilial child molesters differ in lifestyle instability. Miner and Dwyer (1997) found that incest offenders reported less problems with immediate gratification than extrafamilial child molesters, whereas Symbaluk (1998) found the reverse: incest offenders had more problems with low self-control than extrafamilial child molesters. The incest offenders and extrafamilial child molesters from Firestone et al.'s samples (1999, 2000) displayed similar levels of self-control on indicators such as low education, substance abuse, aggression and psychopathy.

Opportunity

The third factor related to sexual offending is opportunity. Unlike problems with self-control, which should diminish in early adulthood, and deviant sexual drives, which should diminish in later adulthood, the opportunities for child molesting should increase in middle adulthood. Most child molesters exploit a relationship of trust with a known or related victim. The opportunities for establishing relationships with children are greatest between the late twenties and mid forties. It is during this age period that men are most likely to have their own children, and to associate with friends and family who have children.

The opportunities for rape, in contrast, should gradually decrease with age. Most rape victims are young women known to the offender. People tend to associate with people their same age; consequently, as men age, they would be expected to encounter fewer potential victims, and fewer circumstances in which rape is an easily available option (e.g., bars, college parties).

An interpretation of the age-recidivism findings

The three factors of sexual deviancy, self-control, and opportunity are consistent with the age-recidivism findings for the rapists and extrafamilial child molesters. For the rapists, all three factors should decline with age. Self-control should increase in young adulthood, deviant sexual drives should decrease in late adulthood, and the opportunities should gradually decline throughout. If these factors are indeed important, then it is not surprising that most rapists are young and that their recidivism risk steadily declines with age.

For extrafamilial child molesters, competing factors may be influencing recidivism risk during early to middle adulthood. Self-control should improve during the transition from the twenties to the thirties, but the opportunities for child molesting should increase. It is not until late adulthood that the opportunities for relationships with children decline, and, combined with a reduction in sexual drive, contribute to a reduction in recidivism risk. This theory is consistent with the findings that child molesters are older than rapists, and that the recidivism rate of extrafamilial child molesters is relatively constant during the early and middle years of adulthood.

The theory outlined above provides only a partial fit to the finding for incest offenders. The peak frequency of incest offenders in the late thirties is consistent with increased opportunity for incestuous abuse during middle adulthood. As well, the low recidivism rates of incest offenders is consistent with their relatively low levels of deviant sexual interests (compared to extrafamilial child molesters), moderately stable lifestyles (compared to rapists), and reduced opportunity compared to other sexual offenders (their available victim pool is restricted to family members).

The high recidivism rates of the young incest offenders, however, was unexpected. There were relatively few incest offenders in the 18 to 24 year age group ($n = 75$), but their recidivism rate was among the highest for any offender type (31%). These findings suggest that the young incest offenders may be a group distinct from the typical father/daughter incest offender. In the current study, the victims of the younger incest offenders were unknown, but were unlikely to be their own children. Instead, they most likely victimised their siblings, step-siblings or nieces/nephews. The extent to which these young incest offenders resemble other sexual offenders (e.g., rapists, extrafamilial child molesters) remains to be explored. All the offenders in the sample, however, would have been expected to have used overt force or selected

a victim much younger than themselves. Relatively consensual sexual behaviour among siblings rarely invokes the serious criminal justice sanctions that were imposed on most offenders in this study.

There were few sexual offenders of any type in the advanced age categories (11% of the total sample was over 50), and their recidivism rates were generally low (< 10%). This decline in late adulthood can be attributed to the confluence of decreasing sexual drive and decreasing opportunity. Perhaps the most salient factor for the oldest age groups, however, would be increasing ill health and eventual death. Medical records were not available for any of the samples analysed in this study; consequently, research has yet to examine the extent to which reductions in sexual recidivism risk should be expected for older offenders who remain in good health. In the normal population, decreases in sexual interest and activities in later years are closely linked to concomitant illness (Panser et al., 1995).

In summary, this study found that the recidivism risk for sexual offenders decreased with age, but the overall effect was not large and the pattern of decline was different for rapists, extrafamilial child molesters and incest offenders. Extrafamilial child molesters show relatively little decline in their recidivism risk until after the age of fifty. Sexual offenders released after the age of 60 showed very low recidivism rates (3.8%).

Although the factors of deviant sexual drive, low self-control and opportunity provide a plausible explanation for the findings, other explanations need to be considered. All of the data was cross-sectional rather than longitudinal; consequently, an apparent age-related decline in sexual offending could be explained by cohort effects. Given that there are strong cohort effects in sexual behaviour (e.g., almost all [95%] of those born after 1964 had intercourse prior to age 18 compared to half [51%] of those born before 1949; Trocki, 1992), it is possible that there are also cohort effects in the rates of sexual offending.

Another consideration is that offenders' ages were measured at time of release and not the onset of offending. Consequently, the finding that child molesters were older than rapists could be attributed to a greater delay in the detection and prosecution of offences against children than for offences against adults.

Much of the age decline in sexual offending could also be attributed to a simple learning effect. With experience, men can learn that sex offending is not an effective route to happiness,

or, more disturbingly, they can learn new and better ways to avoid detection. Disentangling these various explanation requires, of course, further research.

References

- Apfelberg, B., Sugar, C., & Pfeffer, A. Z. (1944). A psychiatric study of 250 sex offenders. American Journal of Psychiatry, 100, 762-770.
- Berliner, L., Schram, D., Miller, L. L., & Milloy, C. D. (1995). A sentencing alternative for sex offenders: A study of decision making and recidivism. Journal of Interpersonal Violence, 10, 487-502.
- Bonta, J., & Hanson, R. K. (1995a). [10-year recidivism of Canadian federal offenders]. Unpublished raw data.
- Bonta, J., & Hanson, R. K. (1995b, August). Violent recidivism of men released from prison. Paper presented at the 103rd annual convention of the American Psychological Association: New York.
- Canadian Centre for Justice Statistics. (1999). Sex offenders. Juristat Catalogue no. 85 -002-XIE Vol. 19, no. 3. Ottawa: Statistics Canada.
- CS/RESORS Consulting. (1991). An evaluation of community sex offender programs in the Pacific Region. Report presented to the Correctional Service of Canada Regional Headquarters (Contract no. 21803-0-A602/01-XSB). Vancouver, B.C.: Author.
- Eccles, A., Marshall, W. L., & Barbaree, H. E. (1994). Differentiating rapists and non-offenders using the rape index. Behavior Research and Therapy, 32, 539-546.
- Firestone, P., Bradford, J. M., McCoy, M., Greenberg, D. M., Curry, S., & Larose, M. R. (2000). Prediction of recidivism in extrafamilial child molesters based on court-related assessments. Sexual Abuse: A Journal of Research and Treatment, 12, 203-221.
- Firestone, P., Bradford, J. M., McCoy, M., Greenberg, D. M., Larose, M. R., & Curry, S. (1999). Prediction of recidivism in incest offenders. Journal of Interpersonal Violence, 14, 511 -531.
- Freund, K., & Blanchard, R. (1989). Phallometric diagnosis of pedophilia. Journal of Consulting and Clinical Psychology, 57, 100-105.
- Gottfredson, M. R., & Hirschi, T. (1990). A general theory of crime. Stanford, CA: Stanford University Press.
- Gray, A., Feldman, H. A., McKinlay, J. B., & Longcope, C. (1991). Age, disease, and changing sex hormone levels in middle-aged men: Results of the Massachusetts Male Aging Study. Journal of Clinical Endocrinology and Metabolism, 73, 1016-1025.

Hanson, R. K., Broom, I., & Stephenson, M. (2000). [Updated recidivism information on sexual offenders in the CSC Pacific Region]. Unpublished raw data.

Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. Journal of Consulting and Clinical Psychology, *66* (2), 348-362.

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*(3), 325-337.

Hanson, R. K., Steffy, R. A., & Gauthier, R. (1992). Long-term follow-up of child molesters: Risk prediction and treatment outcome. (User Report No. 1992-02.) Ottawa: Corrections Branch, Ministry of the Solicitor General of Canada.

Hanson, R. K., Steffy, R. A., & Gauthier, R. (1993a). Long-term recidivism of child molesters. Journal of Consulting and Clinical Psychology, *61*, 646-652.

Hanson, R. K., Steffy, R. A., & Gauthier, R. (1993b). [Long-term recidivism of child molesters]. Unpublished raw data.

Kanin, E. J. (1967). Reference groups and sex conduct norm violations. The Sociological Quarterly, *8*, 495-504.

Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). Sexual behavior in the human male. Philadelphia: W. B. Saunders.

Lalumière, M. L., & Quinsey, V. L. (1994). The discriminability of rapists from non-sex offenders using phallometric measures: A meta-analysis. Criminal Justice and Behavior, *21*, 150-175.

Marques, J. K., & Day, D. M. (1996). [SOTEP follow-up data for 1995]. Unpublished raw data.

Marques, J. K., Day, D. M., Nelson, C., & West, M. A. (1993). Effects of cognitive-behavioral treatment on sex offenders' recidivism: Preliminary results of a longitudinal study. Criminal Justice and Behavior, *21*, 28-54.

Marques, J. K., Nelson, C., West, M. A., & Day, D. M. (1994). The relationship between treatment goals and recidivism among child molesters. Behaviour Research and Therapy, *32*, 577-588.

Marshall, W. L. (1997). Pedophilia: Psychopathology and theory. In D. R. Laws and W. O'Donohue (Eds.), Sexual deviance: Theory, assessment and treatment (pp. 152-174). New York: Guilford.

Miner, M. H., & Dwyer, S. M. (1997). The psychosocial development of sex offenders: Differences between exhibitionists, child molesters, and incest offenders. International Journal of Offender Therapy and Comparative Criminology, 41, 36-44.

Motiuk, L. L. (1995). [Sex offender recidivism information for case load and new releases: March, 1991 to July, 1994]. Unpublished raw data.

Motiuk, L. L., & Brown, S. L. (1993). Survival time until suspension for sex offenders on conditional release. (Research Report No. R-31). Ottawa, Canada: Correctional Service of Canada.

Motiuk, L. L., & Brown, S. L. (1996). Factors related to recidivism among released federal sex offenders. (Research Report No. R-49). Ottawa, Canada: Correctional Service of Canada.

Motiuk, L. L., & Porporino, F. J. (1993). An examination of sex offender case histories in federal corrections. (Research Report No. R-30). Ottawa, Canada: Correctional Service of Canada.

Nagin, D., & Tremblay, R. E. (1999). Trajectories of boys' physical aggression, opposition, and hyperactivity on the path to physically violent and non violent juvenile delinquency. Child Development, 70, 1181-1196.

Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). Applied linear statistical models (4th ed.). Chicago: Irwin.

Panser, L. A., Rhodes, T., Girman, C. J., Guess, H. A., Chute, C. G., Oesterling, J. E., Lieber, M. M., & Jacobsen, S. J. (1995). Sexual function of men ages 40 to 79 years: The Olmsted County study of urinary symptoms and health status among men. Journal of the American Geriatrics Society, 43, 1107-1111.

Pellerin, B., Proulx, J., Ouimet, M., Paradis, Y., McKibben, A., & Aubut, J. (1996). Étude de la récidive post-traitement chez des agresseurs sexuels judiciairisés. Criminologie, 29, 85-108.

Prentky, R. A., Knight, R. A., Lee, A. F., & Cerce, D. D. (1995). Predictive validity of lifestyle impulsivity for rapists. Criminal Justice and Behavior, 22, 106-128.

Proulx, J., Pellerin, B., McKibben, A., Aubut, J., & Ouimet, M. (1997). Static and dynamic predictors of recidivism in sexual offenders. Sexual Abuse, 9, 7-28.

Proulx, J., Pellerin, B., McKibben, A., Aubut, J., & Ouimet, M. (1995). [Static and dynamic predictors of recidivism in sexual aggressors]. Unpublished raw data.

Quinsey, V. L., Rice, M. E., & Harris, G. T. (1995). Actuarial prediction of sexual recidivism. Journal of Interpersonal Violence, 10(1), 85-105.

Reddon, J. R. (1996). [Phoenix Program for Sex Offender Treatment: An evaluation update with recidivism data obtained in September, 1995]. Unpublished raw data.

Rice, M. E., & Harris, G. T. (1996). [Recidivism information on 288 sexual offenders released from the Oakridge Mental Health Centre, Penetanguishene, Ontario]. Unpublished raw data.

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., Harris, G. T., & Quinsey, V. L. (1990). A follow-up of rapists assessed in a maximum-security psychiatric facility. Journal of Interpersonal Violence, 5(4), 435-448.

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

Song, L., & Lieb, R. (1995). Washington State sex offenders: Overview of recidivism studies. Olympia, WA: Washington State Institute for Public Policy.

Studer, L. H., Reddon, J. R., Roper, V., & Estrada, L. (1996). Phoenix: An inpatient treatment program for sex offenders. Journal of Offender Rehabilitation, 23, 91-97.

Symbaluk, D. G. (1998). An application of the general theory of crime to sex offenders. Unpublished doctoral dissertation. University of Alberta, Edmonton, Alberta.

Thornton, D. (1997). [A 16-year follow-up of 563 sexual offenders released from HM Prison Service in 1979.] Unpublished raw data.

Tremblay, R. E. (2000). The origins of youth violence. Isuma: Canadian Journal of Policy Research/Revue canadienne de recherche sur les politiques, 1(2), 19-24.

Trocki, K. F. (1992). Patterns of sexuality and risky sexuality in the general population of a California county. Journal of Sex Research, 29(1), 85-94.

West, D. J. (1983). Sex offenses and offending. In M. Tonry & N. Morris (Eds.), Crime and justice: An annual review of research (pp. 183-233). Chicago: University of Chicago Press.

Wright, B. E., Caspi, A., Moffitt, T. E., & Silva, P. A. (1999). Low self-control, social bonds, and crime: Social causation, social selection, or both? Criminology, 37, 479-514.