

Juvenile sex offenders and institutional misconduct: the role of thought psychopathology

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ABSTRACT

Background Little is known about the institutional behaviour of incarcerated sex offenders.

Aim To study the relationships between juvenile sex offending, thought psychopathology and institutional misconduct.

Method We applied negative binomial regression and Area Under Curve Receiver Operating Characteristic (AUC-ROC) analyses to self-report and records data from institutionalised delinquents ($N = 813$) committed to the California Youth Authority to explore the links between sex offending and institutional misconduct, controlling for offender demographics, institution, index offence, and self-reported and official criminal history.

Results Juvenile sex offending was associated with six forms of institutional misconduct (sexual, general and total misconduct as reviewed by parole board) over 12 and 24 months prior to rating. Two measures of thought psychopathology, which were related to psychosis-like thought, were significantly associated with juvenile sex offender status. These constructs did not, however, mediate the independent predictive effects of adolescent sex offending on institutional misconduct.

Conclusion Interventions to help incarcerated young offenders are likely to be particularly important for those with a sex offending history as they are otherwise likely to persist with antisocial behaviours of all kinds within and beyond the institution. Attention to their thought processes may be particularly useful. Copyright © 2008 John Wiley & Sons, Ltd.

Introduction

Feared by the general public, popularised by media outlets and capitalised on by politicians, sex offenders have become the focus of a major public policy debate

in the USA. Comprehensive crime control policies are often developed in the wake of single heinous criminal acts perpetrated by criminal offenders whose criminal histories contain sexually based offences, such as rape, child molestation and other forms of sexual assault (Reese, 2008). Some criminal justice policies specifically target sex offenders. For instance, if they are deemed to present a continued threat to public safety, sex offenders can be civilly committed as psychiatric patients subsequent to their confinement as prisoners. Sex offenders, especially those who begin their criminal careers during adolescence, have also been the focus of public policy-driven research (Sample and Bray, 2003).

In the USA, approximately one in five sexual offences is perpetrated by a juvenile (Federal Bureau of Investigation, 2007). In addition to the victimisation and societal costs resulting from this violence, juvenile sex offending is itself often a risk factor for continued involvement in antisocial behaviour throughout the life course. More than 50% of adult sex offenders began sexually offending prior to adulthood (Veneziano and Veneziano, 2002). Although several typologies of juvenile sex offenders have been developed, most research indicates that their sex offending is commonly just one antisocial behaviour in a midst of generalised criminal behaviour (Awad and Saunders, 1988; Weinrott, 1996; Hanson and Bussiere, 1998; Simon, 2000; Butler and Seto, 2002; Veneziano and Veneziano, 2002; Sample and Bray, 2003; Terry, 2006).

The psychosocial profile of adolescent sex offenders evinces a multitude of serious risk factors for continued delinquent involvement. In terms of family dynamics, adolescent sex offenders have commonly experienced high levels of neglect, physical abuse and sexual abuse; frequent separation from parents; lax and ineffective parental monitoring and discipline; low affection and cohesion sometimes coupled with high conflict and hostility; and exposure to severe trauma and familial dysfunction. At school, adolescent sex offenders are generally low in social competence, have weak social skills, are prone to disruptive school behaviours and truancy, have academic difficulties and low verbal IQ (intelligence quotient), and have high rates of learning disabilities and attention deficit disorders (Veneziano and Veneziano, 2002). They also tend to be characterised by psychiatric problems, favourable attitudes towards antisocial behaviour and cognitive biases, which attribute hostile intentions to others (Borduin and Schaeffer, 2001).

A recurrent theme in the juvenile sex offender literature centres on the role of psychiatric disturbance specifically related to thought psychopathology. Thought psychopathology is broadly defined as impairment in thinking and perception, which contributes to a distorted view of reality. Thought disturbances can range from minor symptoms of alienation in interpersonal relations to full psychoticism. As a form of reality distortion, severe thought disturbance psychopathology is indicative of schizotypal and schizophrenic disorder (American Psychiatric Association, 2000). In the context of juvenile sex offending, thought psychopathology could contribute to an offender's rationalisations for offending

and their rationale for victim selection through unusual beliefs about the victim and themselves. Coupled with the often abusive and chaotic family background of adolescent sex offenders, thought psychopathology is also purported to be related to other behavioural problems too and a risk factor for recidivism (Boyd et al., 2000; Moriarty et al., 2001).

Current focus

Given the salience of sex offenders to criminal justice policy, we sought to further the understanding of sex offenders using data from institutionalised delinquents committed to the California Youth Authority (CYA). We had four goals: (1) to explore the relationship between adolescent sex offending and institutional misconduct; (2) to examine these relationships for diverse types of institutional misconduct (e.g. sexual misconduct, general misconduct and total misconduct as reviewed by the parole board) while controlling for offender demographics, institution, index offence, and self-reported and official criminal history; (3) to assess the role of thought psychopathology in the aetiology of juvenile sex offending; and (4) to examine whether thought psychopathology mediated the independent effects of sex offending on institutional behaviour.

Methods

Sample and procedures

Data were derived from a cohort of 813 serious delinquents committed to the CYA between 1997 and 1999 who were originally studied to assess mental health problems among institutionalised delinquents (Haapanen and Steiner, 2006). The original study was conducted to explore the usefulness of the instruments used in the CYA's Treatment Needs Assessment (TNA) battery. A total of 836 detainees who completed screening questionnaires were followed up to determine whether they were subsequently placed in mental health programmes, were prescribed medications used to treat serious mental health problems, and/or were identified by staff as requiring these services. (Twenty-three cases were omitted because of missing data.) The TNA battery included four self-report assessments that were administered with 8 to 15 detainees at a time by casework staff at the reception centre during the educational testing phase of the clinic process. Assessments were machine scored using Scantron technology and were used to supplement official mental health records maintained at the institutions and in the CYA central office. In addition to psychiatric information, data included demographics, prior juvenile history and juvenile justice system involvements, commitment and sentencing information, and official records of misconduct handled through the Disciplinary Decision-Making System.

Measures

Juvenile sex offending

Juvenile sex offending was treated as an additive measure containing prior arrests for rape, child molestation and other sexual offences (mean = 0.27, standard deviation [SD] = 1.17, range = 0–19). The continuous measure was used for regression analyses. For Receiver Operating Characteristic (ROC) analysis, a dichotomous juvenile sex offender measure was used (0 = No, $n = 728$, 89.5%; 1 = Yes, $n = 85$, 10.5%).

Institution

Prior research has shown facility-level effects on inmate misconduct from both the deprivation and administrative control models of inmate behaviour (Clemmer, 1940; Sykes, 1958; DiIulio, 1987; Huebner, 2003). These institutional effects have also been shown to be associated with serious forms of inmate violence, including homicide and rioting (Useem and Reisig, 1999; Huebner, 2003). Three CYA facilities were included: Northern Clinic ($n = 321$, 39.5%), Southern Clinic ($n = 339$, 41.7%) and Ventura ($n = 153$, 18.8%).

Index offence

The offence resulting in this period of incarceration was coded for seriousness (mean = 32.19, SD = 20.11, range = 1–42); where there had been more than one index offence, coding was for the most serious. This was done because of a previously reported relationship between seriousness of index offence and inmate misconduct (cf. Flanagan, 1983; Wooldredge, 1991; DeLisi et al., 2004). The offences ranged from murder or manslaughter (30 detainees), robbery or carjacking (184 detainees), attempted murder (20 detainees), and aggravated assault (113 detainees) down to technical violations of probation (see also Haapanen and Steiner, 2006). The original continuous measurement was used in regression analyses because alternative coding schemes (e.g. dummy codes for violent/non-violent crimes) did not yield significant or substantively different results from the original coding scheme (Haapanen et al., 2007).

Demographics

Prior research consistently indicates that non-Whites, males and young inmates are more likely to amass records of institutional misconduct than Whites, females and older offenders (Wooldredge, 1991; Harer and Steffensmeier, 1996; Hochstetler and DeLisi, 2005; Berg and DeLisi, 2006; Walters, 2007). The relationships between race/ethnicity, gender and inmate misconduct are equivocal because of evidence for differential enforcement by correctional staff. The inverse relationship between age and inmate misconduct, however, is strong and unequivocal. Younger inmates are more disruptive and prone to violations of prison order than

older inmates (see Walters, 2007). The sample composition is: age (mean = 16.88, SD = 1.11, range = 12.6–20.4 years), male ($n = 660$, 81.2%), female ($n = 153$, 18.8%), Hispanic ($n = 375$, 46%), African American ($n = 226$, 28%), White ($n = 140$, 17%), Asian, Pacific Islander, American Indian or other ($n = 72$, 9%). The original continuous measurement of race/ethnicity (White = 1, Hispanic = 2, African American = 3, Asian = 4, Native American = 5, Filipino = 6, Pacific Islander = 7, Other = 9) was used in regression analyses. Alternative specifications of race/ethnicity (e.g. dichotomous measure of White/non-White, multiple dummy variables for Hispanics, African Americans and Whites) were calculated but did not yield significant or substantively different results from the original coding scheme, thus the continuous measurement was preserved.

Prior offending

The importation model of inmate behaviour (Irwin and Cressey, 1962) asserts that offender characteristics, traits and behaviours are imported into prison, and thus, institutional misconduct is a reflection of individual-level risk factors and correlates. The strongest evidence for the importation model relates to the robust relationship between prior criminal history and subsequent violations of prison rules and prison offending (Cao et al., 1997; Gendreau et al., 1997; Gaes et al., 2002; DeLisi, 2003; Byrne and Hummer, 2007; Walters, 2007; cf. Graeve et al., 2007). Two measures of prior offending were used. An official measure contained all police contacts accumulated before confinement (mean = 8.75, SD = 5.51, range = 1–34). A self-report of total delinquency from the Achenbach Child Behaviour Checklist: Youth Self Report (Achenbach, 1996) was also used (mean = 7.49, SD = 3.98, range = 0–19).

Thought psychopathology

The Massachusetts Youth Screening Instrument-Second Version (MAYSI-2; Grisso et al., 2001) Thought Disturbance Scale (median = 0.30, SD = 0.65, range = 0–2) was used to measure serious mental disorder involving problems with reality orientation. The scale has five items, four of which refer explicitly to altered perceptions in reality that are frequently associated with psychotic disorders. The remaining item refers to a condition of de-realisation (i.e. 'things do not seem real') that is a more general abnormality of perception and consciousness. It is sometimes an early indication of a psychotic state, but it may simply arise in anxiety or dissociative states as well. The MAYSI-2 Thought Disturbance Scale has been found to be correlated with institutional misconduct in severe institutionalised offenders (Butler et al., 2007).

The Achenbach Thought Problems Scale from the Youth Self-Report Questionnaire (Achenbach et al., 1991) was also used. It contains items related to the inability to control one's thoughts, hearing, saying, and seeing strange things, and strange behaviours (mean = 3.81, SD = 2.94, range = 0–14). The use

of two thought psychopathology measures enhances the convergent validity of our research design and both have been previously used to study psychopathology in institutionalised delinquent populations (Karnik et al., 2006).

Institutional misconduct

Six cross-sectional, retrospective count measures of institutional misconduct were used. These are sexual misconduct in the prior 12 months (mean = 0.13, SD = 0.97, range = 0–25), sexual misconduct in the prior 24 months (mean = 0.22, SD = 1.87, range = 0–51), other misconduct in the prior 12 months (mean = 2.04, SD = 2.92, range = 0–22), other misconduct in the prior 24 months (mean = 2.94, SD = 4.36, range = 0–39), total misconduct reviewed by the parole board in prior 12 months (mean = 2.45, SD = 3.74, range = 0–45), and total misconduct reviewed by the parole board in prior 24 months (mean = 3.65, SD = 5.88, range = 0–82).

Analyses

The analytical strategy involved a series of steps. First, incidents of prison misconduct are count data which are bound by zero, have heteroscedastic error terms, are positively skewed and are overdispersed. These conditions necessitate negative binomial regression, which has become the preferred method for analysing count data in correctional and forensic psychology (Walters, 2007). Baseline negative binomial regression models were run for all six dependent variables. Second, to help ensure reliable estimates, sensitivity analyses with bootstrap resampling (50 replications) were calculated for all negative binomial regression models and are presented in Tables 1–6. Third, we explored aetiological factors for juvenile sex offending status using AUC-ROC analysis (Figure 1) for the MAYSI-2 Thought Disturbance Scale and Achenbach Thought Problems Scale as predictors of juvenile sex offenders status (0 = no, 1 = yes). Fourth, to assess whether these thought psychopathology measures mediated the predictive power of juvenile sex offending, new negative binomial regression models were calculated with all variables entered as controls.

Results

As shown in Table 1, adolescent offenders with prior sex offences ($b = 0.38$, $z = 2.34$) were significantly likely to commit sexual misconduct while residents in CYA facilities in the prior 12 months. Younger detainees and those who reported more antisocial behaviours before confinement also engaged in more sexual misconduct during confinement. There were no significant relationships between institution, ethnicity, index offence, or official record of prior offences and sexual misconduct in the previous 12 months.

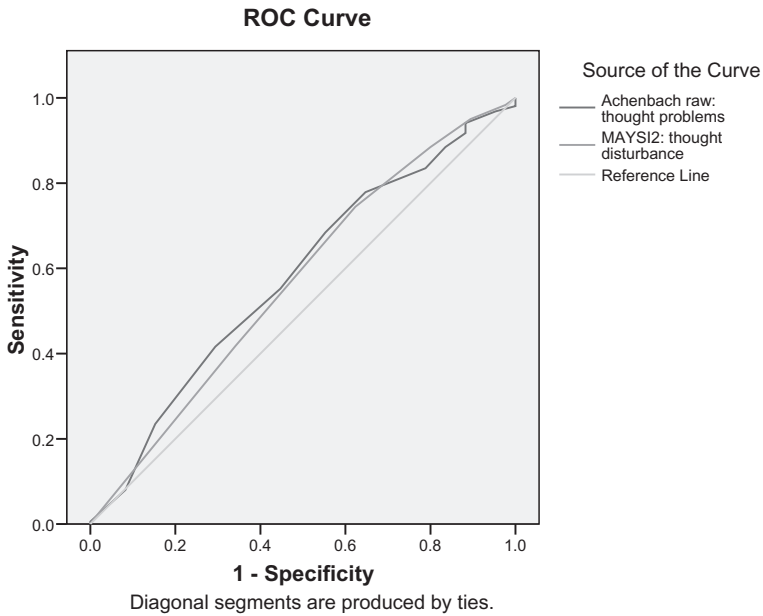


Figure 1: ROC curve for Achenbach thought problems and MAYSI-2 thought disturbance variables predicting juvenile sex offender ($n = 85$)

Table 1: Negative binomial regression model for sexual misconduct in prior 12 months ($N = 813$)

Variable	<i>b</i>	Standard error	<i>z</i> -score
Sex offender	0.38	0.16	2.34***
Institution	0.26	0.36	0.73
Sex	-4.99	6.95	-0.72
Ethnicity	0.06	0.09	0.06
Commitment offence	0.04	0.05	0.93
Age	-0.57	0.10	-5.98***
Prior offences	0.03	0.03	1.26
Achenbach self-report priors	0.03	0.01	2.65***
Wald χ^2	65.14***		
Log likelihood	-249.96		

*** $p < 0.01$

There was a similar pattern of results for sexual misconduct in the prior 24 months (Table 2). Offenders with prior arrests for sex offences were significantly more likely to engage in sexual misconduct while in custody ($b = 0.37$, $z = 2.40$). Younger detainees and those with extensive official and self-reported prior delinquency were significantly more likely to have shown sexual misconduct in the

Table 2: Negative binomial regression model for sexual misconduct in prior 24 months ($N = 813$)

Variable	b	Standard error	z -score
Sex offender	0.37	0.15	2.40***
Institution	0.30	0.28	1.09
Sex	-5.89	5.31	-1.11
Ethnicity	0.06	0.08	0.78
Commitment offence	0.04	0.03	1.22
Age	-0.55	0.09	-5.84***
Prior offences	0.04	0.02	1.96**
Achenbach self-report priors	0.03	0.01	2.29**
Wald χ^2	106.54***		
Log likelihood	-340.99		

** $p < 0.05$ *** $p < 0.01$ Table 3: Negative binomial regression model for other misconduct in prior 12 months ($N = 813$)

Variable	b	Standard error	z -score
Sex offender	0.10	0.05	2.01**
Institution	0.26	0.11	2.46***
Sex	-5.19	2.13	-2.44***
Ethnicity	-0.01	0.03	-0.40
Commitment offence	0.02	0.01	1.12
Age	-0.29	0.04	-6.73***
Prior offences	0.02	0.01	2.81***
Achenbach self-report priors	0.01	0.01	2.70***
Wald χ^2	65.05***		
Log likelihood	-1513.82		

** $p < 0.05$ *** $p < 0.01$

previous two years. No significant effects were found for institution, sex, ethnicity and index offence.

As shown in Tables 3 and 4, sex offenders were significantly more likely to be cited for other forms of institutional misconduct in both the prior 12 months ($b = 0.10$, $z = 2.01$) and prior 24 months ($b = 0.10$, $z = 2.08$). These results suggest that younger sex offenders are not only significantly involved in sexual forms of misconduct at two points of recall but are also involved in misconduct more generally. With the exception of ethnicity and index offence, which were unrelated to other misconduct during both the prior 12 and 24 months, all other

Table 4: Negative binomial regression model for other misconduct in prior 24 months (N = 813)

Variable	<i>b</i>	Standard error	z-score
Sex offender	0.10	0.05	2.08**
Institution	0.31	0.11	2.86***
Sex	-6.00	2.10	-2.86***
Ethnicity	-0.03	0.03	-0.75
Commitment offence	0.02	0.02	0.85
Age	-0.31	0.05	-6.89***
Prior offences	0.02	0.01	2.93***
Achenbach self-report priors	0.02	0.01	2.57***
Wald χ^2	94.03***		
Log likelihood	-1744.31		

p* < 0.05*p* < 0.01

Table 5: Negative binomial regression model for total misconduct reviewed by parole board in prior 12 months (N = 813)

Variable	<i>b</i>	Standard error	z-score
Sex offender	0.13	0.07	2.05**
Institution	0.26	0.12	2.21***
Sex	-4.89	2.24	-2.18**
Ethnicity	-0.02	0.04	-0.54
Commitment offence	0.01	0.02	0.74
Age	-0.31	0.04	-7.51***
Prior offences	0.02	0.01	2.76***
Achenbach self-report priors	0.01	0.01	2.57***
Wald χ^2	95.72***		
Log likelihood	-1619.98		

p* < 0.05*p* < 0.01

variables in the models were significant. Being male, younger, having a more extensive delinquent record and reporting more delinquency were all associated with more types of other misconduct. Significant institutional differences were also found, with greater misconduct in the Southern CYA facility.

Tables 5 and 6 present the results of regression analyses for total misconduct as reviewed by the parole board in the prior 12 and 24 months. These outcomes encompass all types of institutional misconduct, including assaults against staff and other detainees, other criminal violations, and many types of non-compliance that are used to evaluate a detainee's readiness for aftercare. Again,

Table 6: Negative binomial regression model for total misconduct reviewed by parole board in prior 24 months ($N = 813$)

Variable	b	Standard error	z -score
Sex offender	0.13	0.06	2.16**
Institution	0.30	0.09	3.32***
Sex	-5.74	1.74	-3.30**
Ethnicity	-0.03	0.03	-0.97
Commitment offence	0.01	0.02	0.77
Age	-0.33	0.05	-7.03***
Prior offences	0.03	0.01	2.66***
Achenbach self-report priors	0.02	0.01	2.65***
Wald χ^2	132.86***		
Log likelihood	-1879.40		

** $p < 0.05$ *** $p < 0.01$

adolescents with prior arrests for sex offences totalled more official misconduct at both 12 ($b = 0.13$, $z = 2.05$) and 24 months ($b = 0.13$, $z = 2.16$). In addition, being male, in the Southern CYA facility, younger, and having a more extensive official and/or self-reported record of delinquency were associated with more parole board reviewed misconduct. In both models, neither ethnicity nor index offence was related to the outcome.

Thus far, the analyses indicate significant relationships between juvenile sex offending and six institutional misconduct measures, regardless of institution, sex, ethnicity, index offence, age, official record of prior offences and self-reported prior delinquency. From a policy and applied criminal justice perspective, however, more useful information relates to what dynamic – or changeable – factors contribute to this. The final two stages of analysis explore this question.

Figure 1 displays an ROC curve for the Achenbach Thought Problems Scale and the MAYSI-2 Thought Disturbance Scale in predicting a dichotomous outcome of detainees who had at least one sex offence during adolescence ($n = 85$). Both the Achenbach Thought Problems (sensitivity = 0.58, $p = 0.02$) and MAYSI-2 (sensitivity = 0.57, $p = 0.04$) significantly predicted the sex offender criterion. To explore if thought problems and thought disturbances confounded the earlier relationships between sex offender status and institutional misconduct, the Achenbach and MAYSI-2 measures were introduced into the negative binomial regression models for all six outcomes (see Table 7). The sensitivity analyses indicated that juvenile sex offending continued to exert significant predictive power for diverse forms of misconduct. In fact z -scores increased for sexual misconduct in prior 12 months ($z = 4.62$, $p < 0.001$) and 24 months ($z = 5.17$, $p < 0.001$), other misconduct in prior 12 months ($z = 2.48$, $p < 0.01$) and 24 months

Table 7: Juvenile sex offender coefficients for sensitivity analyses with Achenbach Thought Problems and MAYSI-2 Thought Disturbance in negative binomial regression models ($N = 813$)

Variable	<i>b</i>	Standard error	<i>z</i> -score
Sexual misconduct in prior 12 months	0.36	0.08	4.62***
Sexual misconduct in prior 24 months	0.35	0.07	5.17***
Other misconduct in prior 12 months	0.09	0.04	2.48**
Other misconduct in prior 24 months	0.09	0.04	2.42**
Total misconduct reviewed by parole board in prior 12 months	0.13	0.04	3.55***
Total misconduct reviewed by parole board in prior 24 months	0.13	0.04	3.54***

** $p < 0.01$

*** $p < 0.001$

($z = 2.42$, $p < 0.01$), and total misconduct reviewed by the parole board in prior 12 months ($z = 3.55$, $p < 0.001$) and 24 months ($z = 3.54$, $p < 0.001$).

Discussion

Sex offenders are a major concern to American society and often serve as the impetus to crime control policies. Our study examined juvenile sex offenders specifically, using data from a large cohort of institutionalised delinquents committed to the CYA. Overall, the analyses indicated that juvenile sex offending is not only a severe form of delinquency, but is also a robust predictor of continued antisocial behaviour in youth offender institutions. Detainees with prior arrest histories for rape, molestation and analogous sexual violations were significantly more likely to engage in sexual misconduct, generalised misconduct, and total misconduct reviewed by the parole board at two points of recall than those without antisocial sexual histories. In addition, both official and self-reported histories of delinquency were consistently related to institutional misconduct, suggesting considerable support for the importation model of inmate behaviour (Irwin and Cressey, 1962) and related research (Cao et al., 1997; Gendreau et al., 1997; Gaes et al., 2002; DeLisi, 2003; Berg and DeLisi, 2006; Walters, 2007).

The ROC and regression analyses indicated that at least part of the origins of adolescent sex offending is rooted in thought psychopathology. Detainees with elevated scores on the MAYSI-2 Thought Disturbance Scale and Achenbach Thought Problems Scale were significantly more likely than not to be juvenile sex offenders. Again, this is concordant with prior research which suggests that a range of psychiatric problems, including psychosis, subclinical psychosis, callous and unemotional traits, and/or distorted thinking may contribute to sexual aggression among adolescents. Confidence in our results was bolstered by the use of a rich sample of institutionalised delinquents, multivariate models with

multiple controls for institutional misconduct, preliminary models comparing the effects of diverse coding schemes (e.g. continuous vs dichotomous) to ensure valid estimates, sensitivity analyses with bootstrap re-sampling (50 replications) for all negative binomial regression models, and sensitivity models that assessed whether the effects of juvenile sex offending were mediated by thought psychopathology.

An emerging consensus in criminology centres on the importance of crime control policies to incapacitate the most recalcitrant offenders (see DeLisi, 2001, 2005; Loeber and Farrington, 2001; Farrington and Welsh, 2007) when prevention and treatment efforts have failed. Indeed, the long-term prospects for juvenile sex offenders are distressing in terms of the likelihood of continued involvement in multifarious antisocial behaviours. Hanson and Harris (2000) found that one of the most powerfully discriminating variables that distinguished sex offender recidivists from non-recidivists was juvenile sex offending. Nearly 38% of recidivists had committed sexual offences as adolescents whereas just 22% of non-recidivists had. Vandiver (2006) conducted a prospective analysis of recidivism patterns among a cohort of males that had committed sexual offences during adolescence. During the follow-up period, 53% were rearrested with 10.3% of the sample accumulating four or more arrests. In other words, they were chronic delinquents after serving a sentence for an adolescent sex offence. Nearly 10% of the sample was subsequently arrested for violent crimes, including capital murder, aggravated robbery, aggravated and simple assault, retaliation and violation of a protective order.

If treatment opportunities for juvenile sex offenders are missed and their antisocial behaviours develop into decades-long criminal careers, what is to be done? Nagin et al. (2006) found that although the general public is supportive of punitive juvenile justice policies, they are more supportive and even willing to pay for rehabilitation programmes for serious antisocial youths. However, Welsh et al. (2008) found that a cohort of 503 boys from the Pittsburgh Youth Study imposed a cost burden on society in the range of \$89–\$110 million in terms of victimisation and related costs. Thus, it is unclear whether the general public will indeed prefer to favour rehabilitation over retribution for the antisocial behaviour of serious delinquents.

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