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On Corrections Research

FORUM



FEATURE ISSUE

*Early Indicators of
Future Delinquency*

Trends in Juvenile Crime

Risk Factors of Antisocial
Behaviour

Violent Boys: Development
and Prevention

International Overview

Profile of the United States
Federal Bureau of Prisons
Office of Research and
Evaluation



Correctional Service
Canada

Service correctionnel
Canada

FORUM ON CORRECTIONS RESEARCH is published quarterly in both English and French for the staff and management of the Correctional Service of Canada.

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Forum on Corrections Research

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This issue of FORUM looks at early indicators of future delinquency. Those of you who deal with adult corrections may be tempted to dismiss this issue as irrelevant to your work and interests. In fact, it is quite relevant because, as Rolf Loeber states in one of the feature articles, offenders do not “spring out of the cabbage” when they commit their first criminal act. Rather, criminality is one of the end-products of a pattern of problems and problem behaviours.

And as we are also beginning to realize, with research to back it up, problem behaviours can start when an individual is very young – even as early as the preschool years. Richard Tremblay and colleagues, in another feature article, describe some of the findings from an important Canadian longitudinal study being conducted in Montreal with boys who showed aggressive and disruptive behaviour as early as kindergarten. Tremblay and his colleagues also describe a prevention-oriented intervention program they have developed for these children.

We asked the Canadian Centre for Justice Statistics to present a profile of young offenders sentenced in Canada under the young offender legislation. Perhaps most significant is the finding that a 12-year-old young offender is just as likely as a 17-year-old to have a violent offence as his or her major charge. What this in effect means is that some very “young” young offenders have serious problems. It does not bode well for adult corrections of the next century.

In our financially strained and distressed single-parent families, in our abusive families and in our hectically ambitious two-career families, our youth obviously face serious problems and challenges. As Tremblay and colleagues point out, it is time we made a serious commitment to, and investment in, our youth – particularly those at risk. This involves identifying what puts a child at risk, what can offset the influence of those risks and when is the best time to intervene with these children.

This also involves all of us taking an interest in research in this area. We must broaden our vision and our focus beyond our small, specific mandates, realizing that the children at risk today may indeed be the offenders of tomorrow. Moreover, left untreated, our adult offenders of today will go on to create the kind of unstable and disturbed family environments that produce the young offenders of tomorrow.

This cycle must be broken. And it can be broken, but only with a better understanding of the dynamics that create it.

We hope you enjoy this issue.



Frank J. Porporino, Ph.D.
Director General
Research and Statistics Branch
Correctional Service of Canada

Research is often communicated only in academic publications in a specialized language, making it inaccessible to practitioners who must put research findings into action. In this section of FORUM, we hope to overcome the rift between researcher and practitioner by providing brief descriptions of findings from recently published studies.

We begin with a light glossary of research terms that we hope will make the interpretation of research findings somewhat easier. We then present findings from research focused on the theme of this issue of FORUM: early indicators of future delinquency. This begins with a discussion of a pressing current issue: is abuse and neglect in childhood related to delinquency and criminality in adulthood? The next article offers a recommendation for an integrated model of preventive program development. We then present research findings on various factors, such as substance use during childhood, that are thought to affect the development of anti-social behaviour. The influence of peer delinquency, attachment to friends and attitudes toward school is finally discussed. More information about the research reported here is available from the Research and Statistics Branch or by consulting the references provided.

We welcome contributions from researchers in the field who wish to have their findings profiled in the Research in Brief section.

"Canonical Correlations" and Other Mystifying Research Terms

Researchers, like other professionals, often get caught up in their own lingo, forgetting that by doing so they exclude much of their potential audience.

This article attempts to demystify some of the more common terms used to report research findings.

- **applied research** Research aimed at solving practical problems. For example, auto mechanics do applied research, in a sense, when they perform tests to determine the cause of the "clunkitty-clunk" in your car.
- **variable** Any factor or characteristic that can take on different values (e.g., one's stress level). Research is aimed at defining the relationship between variables, for example, between one's level of stress and the height of one's in-basket.
- **dependent variable** The variable that is measured in an experiment, for example, stress level. The dependent variable is thought to be affected by the independent variable.

- **independent variable** Any variable in research that is thought to affect the dependent variable. For example, the number of times one is put on "hold" in a day (the independent variable) may affect one's stress level (the dependent variable).
- **experimental design** A structured study wherein subjects are assigned randomly without bias to groups or conditions, and all appropriate control procedures are used. The researcher controls the experiment, to try to ensure that unusual events do not affect the results.
- **experimental group** A group that is subjected to particular conditions in an experiment. The experimental group is usually compared with a control group. In a study of the effectiveness of a particular medical treatment, for example, the experimental group is subjected to the treatment.
- **control group** A group of subjects used as a standard against which the experimental group is compared.

The ideal control group is similar to the experimental group on all variables except that it is not subjected to the experimental treatment. Using the above example of the treatment-effectiveness study, the control group would have the same characteristics as the experimental group except that its members would not receive the treatment being studied.

- **individual differences** Natural differences between people on any variable. Individual differences between people on a dependent measure tend to obscure the effects of an independent variable on that measure. For example, individuals' different abilities to cope with potentially stressful factors would obscure the effects that the height of the in-basket alone would have on their stress levels.
- **random sampling** An unbiased procedure used to select subjects to be included in a study where each member of the population has an equal chance of being selected. One method of random selection is to draw names from a hat.
- **representative sample** A sample of subjects that adequately reflects the characteristics of the total population that the study is describing. For example, since it would be too time-consuming to survey every correctional staff member, a smaller number may be chosen to represent all correctional staff. The sample is representative of the whole population of correctional staff if its characteristics (e.g., age, gender, years of experience) are similar to those of the population.
- **central tendency** The average, or typical, score in a distribution (group of scores). Three measures of central tendency are the mean, median and mode.
- **mean** The most common measure

of central tendency. It is the arithmetic average of scores, calculated by adding a set of measurements and then dividing by the number of measurements in the set. If the distribution of scores was "1, 1, 2, 3, 3, 4, 4, 4, 5," the mean would be 3 (the total score of 27 divided by the number of scores, 9).

- **median** The middle score in a distribution. For the distribution described above, the median would be 3 – half the scores fall above it and half fall below it.
- **mode** The most frequent score in a distribution. The mode for the above distribution is 4.
- **causally related** Two variables are causally related if a change in one variable results in a predictable change in the other, and this change occurs as a direct result of the change in the first variable.
- **correlation** The degree of relationship between two or more variables. A correlation coefficient (a measure of the strength of a correlation) ranges from +1.00 to -1.00.
- **perfect correlation** A correlation

of +1.00 (perfect positive correlation) or -1.00 (perfect negative correlation). When two variables are perfectly correlated, knowing the score on one variable allows you to predict the exact score on the other.

- **positive correlation** A relationship between two variables where one variable increases as the other variable increases. To use the original example again, the height of an individual's in-basket and his or her level of stress may be positively correlated: as one increases, so does the other.
- **negative correlation** A relationship between two variables where one variable increases as the other variable decreases. Some believe that the rate of inflation and their bank balance are negatively correlated.
- **confounding variable** An uncontrolled variable that intrudes on the relationship between the variables being measured. This "intrusion" makes it difficult to discern which variable is having an effect on the dependent variable. A confounding variable in the stress/

in-basket example might be a sudden and dramatic change in some individuals' physical work environment.

- **generalizability** The extent to which the findings of a research study are applicable to the outside world. The question is, "If I did this study in the real world, outside my nice laboratory, would I get the same results?"
- **reliability** An index of the consistency of a measuring instrument in repeatedly providing the same score for a given subject. The question here is, "If I gave my subjects the same test next week, would I get the same results?"
- **validity** In a general sense, validity refers to the methodological or conceptual soundness of research. In the case of an experiment, a question regarding validity is "Does this experiment really test what it is supposed to test?" ■

Source of definitions: Anthony M. Graziano and Michael L. Raulin, *Research Methods: A Process of Inquiry*. New York: Harper & Row, 1989.

The Cycle of Violence: Is There Evidence?

Abused and neglected children are more likely to be delinquent and to exhibit criminal and violent criminal behaviour as adults. This was one of the findings of a recent comparison of abused and neglected children and children with no history of abuse and neglect.

The cycle-of-violence hypothesis, or the notion of an intergenerational transmission of violence, holds that abused children become abusers, and victims of violence become violent offenders. However, a recent review of research found surprisingly little empirical evidence to support

this hypothesis.

Despite widespread belief in the cycle of violence, problems of methodology in previous studies have made it difficult to draw conclusions about the long-term consequences of early childhood victimization. These problems include the lack of a control group against which the abused and neglected group could be compared. Another problem is the retrospective design of the studies, requiring the researcher to rely on delinquents' ability to remember details about their early childhood.

Improving on past work, this

study included a relatively clear definition of abuse and neglect; a prospective design in which the development of children was followed rather than traced backward in time; a large sample group; a control group matched as closely as possible in age, sex, race and approximate social class background; and an assessment of the long-term consequences of abuse and neglect beyond adolescence and juvenile court and into adulthood.

From official records of a metropolitan area in the United States, the study identified a large sample of cases of child abuse and neglect from about 20 years ago, and established a matched control group of non-abused children. The objective was to determine the extent to which both groups

subsequently engaged in delinquent, adult criminal and violent criminal behaviour.

All cases of physical and sexual abuse and neglect validated and substantiated by the county juvenile court and adult criminal courts from 1967 to 1971 were initially included. Of 2,623 cases, 908 were retained for the study.

The term "physical abuse" refers to cases in which an individual had "knowingly and willfully inflicted unnecessarily severe corporal punishment" or "unnecessary physical suffering" upon a child.

"Sexual abuse" refers to charges ranging from the relatively nonspecific ones of "assault and battery with intent to gratify sexual desires" to more specific and detailed charges.

"Neglect" refers to cases in which the court found a child to have no

proper parental care or guardianship, or to be destitute, homeless or living in a physically dangerous environment.

Children for the control group were selected from county birth-record information and records of more than 100 elementary schools. They were matched as closely as possible with those in the abused and neglected group on age, sex, race and approximate family socio-economic status during the period under study. Altogether, the researchers were able to find matches for 73.7% (or 667) of the abused and neglected children.

In both the control group and the abused and neglected group, there were about equal numbers of males and females and about twice as many whites as blacks. The mean age of subjects in both groups was approximately 26, with 85% between the ages of 20 and 30.

Official records were used to gather information about the children's delinquent behaviour, adult criminal behaviour and violent criminal behaviour.

Results

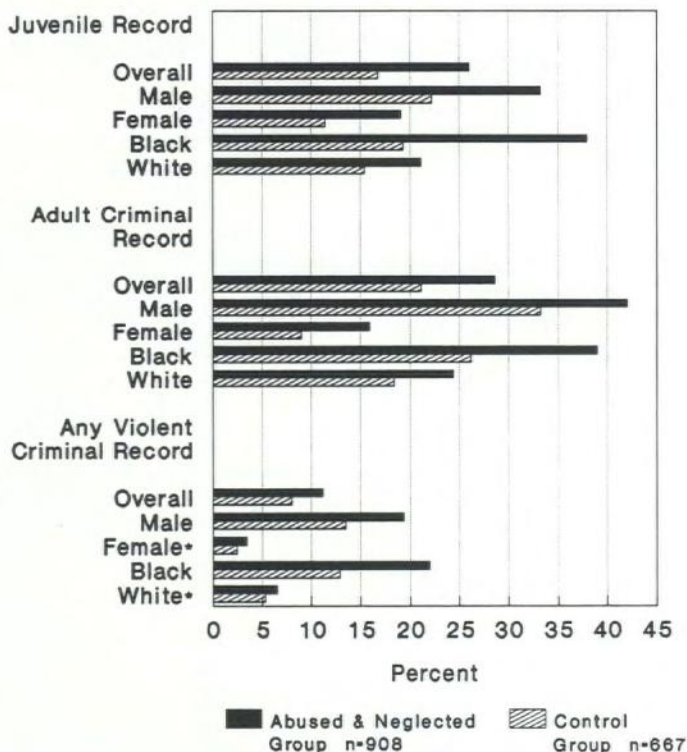
Generally, abused and neglected children were significantly more likely than their counterparts in the control group to be arrested for delinquency, adult criminality and violent criminal behaviour (see figure). Overall, abused and neglected children had more arrests as juveniles (26% versus 17%), as adults (29% versus 21%) and for any violent offence (11% versus 8%).

These differences were statistically significant for all groups (males and females, blacks and whites) and all types of antisocial behaviour, with two exceptions. The rate of violent criminal behaviour among women who had been abused and neglected as children was not significantly different from that of their control group. Nor did the factors of abuse or neglect among white male and female subjects significantly increase their risk of an arrest for violent criminal behaviour.

Overall, though, in comparison to the control group, abused and neglected children had a significantly greater average number of offences (2.43 versus 1.41), committed their first offence at a younger age (16.48 versus 17.29), and had a higher proportion of chronic offenders or individuals charged with five or more offences (17% versus 9%).

It seems that abused and neglected children differ from non-abused and non-neglected children on several but not all indices of delinquency, adult criminality and violent behaviour. In one area in particular, the two groups did not differ. Non-abused and non-neglected children were just as likely as abused and neglected individuals to continue criminal activity once they had begun. Of those with juvenile records, roughly the same proportion of abused and neglected children as the control group went on to commit offences as adults (53%

Extent of Involvement in Delinquency and Criminal Behaviour



*Differences between groups not statistically significant.

versus 50%). As well, of those who had committed violent offences as juveniles, about the same proportion went on to commit violence as adults (34.2% of the abused and neglected group and 36.8% of the control group).

Early childhood victimization does not appear to increase one's risk of continuing in a life of crime. However, it does seem to increase the probability of committing a criminal act in the first place and at a young age.

The study also examined whether individuals who were only physically abused as children were more violent than individuals victimized by other forms of abuse and neglect. As

expected, victims of physical abuse, followed by victims of neglect, had the highest levels of arrest for violent criminal behaviour.

Of those who had only been physically abused, 15.8% had a record for a violent offence; of those who had been neglected, 12.5% had a record for a violent offence. This compares with 7.9% of the control group. It is interesting to note that those who suffered only sexual abuse as children had lower rates of arrest for a violent offence, at 5.6%, than any other group, including the control group.

Conclusion

In support of the cycle-of-violence hypothesis, these results indicate that

abused and neglected children were more likely to become delinquents, adult criminals and violent criminals than children who had not been abused or neglected.

However, these results do not imply that every abused or neglected child will become a delinquent or a criminal. Although 26% of victims of child abuse and neglect had juvenile offences, 74% did not. Similarly, 11% had been arrested for a violent offence while 89% had not. ■

Cathy Spatz Widom, "The Cycle of Violence," *Science*, 244 (1989): 160-166.

Early Indicators: How Early, and What Indicators?

Early antisocial behaviour is one of the best predictors of later antisocial behaviour, even when the behaviour is measured as early as the preschool years. This was one of the findings of a longitudinal study of 1,037 children (about half boys and half girls) in the Dunedin Multidisciplinary Health and Development Study in New Zealand. This longitudinal study examined the health, development and behaviour of children born in 1972-73 in Dunedin, New Zealand.

The study looked at a number of characteristics of the typical preschool child, measured at ages 3 and 5, to see whether they could be used to predict antisocial behaviour at ages 11 and 15.

It is important to establish the earliest age at which serious problem behaviours can be predicted in order to take preventive measures before such behaviours are firmly established. Therefore a primary goal of the study was to determine whether serious antisocial behaviour at age 11 could be predicted as early as the preschool years.

The second goal was to find out whether the best preschool predictors

of behavioural problems at age 11 were also strong predictors of later delinquency at age 15.

Extensive psychological, social and physical data were collected for the children every two years from age 3 to 15.

More than 30 indicators of the children's behaviour and development at ages 3 and 5 were examined, including physical health, cognitive and motor abilities, behavioural problems and language development.

At age 11, the children were assessed for antisocial behaviour, which was established against three criteria.

First, the child, at age 11, had to have the symptoms of antisocial disorders, as determined by diagnostic tests and ratings by parents and teachers.

Second, this disorder had to be present across middle childhood for at least two out of three ages: 9, 11 and 13.

Third, the children had to be pervasively antisocial. This meant that subjects had to be rated in the top 15% on antisocial behaviour scales

(the most serious cases) by at least two out of five possible raters: the child, the parent or any of three teachers at the child's age of 9, 11 and 13.

These criteria ensured that only children who displayed the most serious antisocial behaviour were included in the group called "antisocial disordered" or AD. In all, 50 children (5.4% of the sample) met the above criteria and were classified as AD subjects.

The rest of the sample was divided into two other groups: non-disordered (ND) subjects (n=837) and subjects with other diagnoses (OD) (n=37). The latter group included children who had been diagnosed at age 11 as having other disorders such as phobias, depression and anxiety disorders.

All three groups, AD, ND and OD, were compared on measures of preschool characteristics (at ages 3 and 5) and antisocial outcome (at ages 11 and 15).

Results

Of the 33 measures used to assess the children's health factors, cognitive abilities and behaviour at ages 3 and 5, five variables were found to differentiate antisocial-disordered subjects from the other two groups.

Two of the significant variables

were "difficult to manage" and "externalizing behaviours." The difficult-to-manage measure was the mother's response to a simple question when her child was 3 years old: "Has your child been an easy baby or a difficult baby?" Externalizing behaviours (aggression and hyperactivity) were assessed by two research staff who observed the child for about one hour at age 3.

The other three significant variables were the McCarthy Motor Scales, the Draw-A-Man test and the parent's Rutter checklist. The McCarthy Motor Scales measure the child's motor skills, specifically leg co-ordination. The Draw-A-Man test also measures motor skills, specifically perceptual- and visual-motor integration. The Rutter checklist provides the parent's report of problem behaviours at age 5.

Not only did parent-reported behavioural problems at age 5 significantly differentiate between the two disordered groups (antisocial and other), they also significantly differentiated between the group with other disorders and the group with no disorders.

The five preschool variables were then analysed to determine the strength of their ability to predict which children would have antisocial disorders at age 11 and which would not. For this analysis, the non-disordered group and the group with other disorders were combined to form a non-antisocial disordered group. The test was whether the five variables could be used to classify each subject correctly into one of the two groups.

Of all the children, 81% were classified correctly using the five preschool variables. Specifically, about 70% of the antisocial disordered cases and 81% of the non-antisocial cases were classified correctly. These findings indicate that the five-variable combination had a strong predictive ability.

Of the five variables, parent-reported behavioural problems at age 5 (the Rutter checklist) was the

single, most useful variable for prediction. On their own, parent-reported behaviour problems correctly classified 80% of the non-antisocial group and 64% of the antisocial group.

The second stage of the study was to see if the five preschool variables that predicted antisocial behaviour at age 11 could also predict delinquency in adolescence, at age 15. Adolescent delinquents were defined as children who were in the top 25% of most serious self-reported delinquency and who had had at least one contact with police by age 15. According to these criteria, 38 children were classified as delinquent.

The groups defined at age 11, namely the non-disordered group (ND), the group with other disorders (OD) and the antisocial-disordered group (AD), differed significantly in the types of delinquency they reported at age 15. In particular, the OD and AD groups reported having engaged in many more, different, illegal, delinquent acts than the ND group.

These two groups were also more likely to have had at least one contact with the police. For example, by age 15, almost 33% of the AD group had had at least one police contact. This compares with 19% of the OD group and 10% of ND subjects.

Antisocial subjects were 3.5 times more likely than subjects from either of the other two groups to have had two or more contacts with the police (14% of AD, 3% of OD and 4% of ND).

These findings suggest that children who display stable and pervasive antisocial behaviour at age 11 are at the greatest risk for recidivistic juvenile delinquency by age 15.

Using the five preschool variables, 65% of subjects were correctly classified as being delinquent or non-delinquent at age 15. More specifically, only 55% of eventual delinquents and 67% of eventual non-delinquents were accurately classified. These figures suggest that the usefulness of preschool variables to predict antisocial outcome in adolescence is somewhat limited.

Conclusion

Early antisocial behaviour appears to be the best predictor of later antisocial behaviour. For at least some children, antisocial behaviour appears early and remains stable.

Although the five preschool variables were useful in predicting antisocial behaviour at age 11, their usefulness at age 15 was limited.

It is important to note, however, that although early antisocial behaviour as a predictor correctly classified a large proportion of eventual antisocial-disordered children, it also tended to overclassify children into this group. Parent-reported problem behaviours at age 5 were used as a tool to classify which children would end up at age 11 with antisocial disorders and which would not. In all, 209 children were predicted to have antisocial disorders. In fact, a much smaller number actually had such behavioural problems at age 11. Almost 85% of these children did not develop stable and pervasive antisocial behaviour.

Put simply, the 209 subjects included almost two thirds of the true antisocial subjects, but they also included a large number of children who did not end up showing serious and pervasive antisocial behaviour. The usefulness of preschool behavioural predictors in selecting children for early intervention may therefore be limited at this time. ■

J.L. White, T.E. Moffitt, F. Earls, L. Robins and P.A. Silva, "How Early Can We Tell?: Predictors of Childhood Conduct Disorder and Adolescent Delinquency," *Criminology*, 28, 4 (1990): 507-533.

An Integrated Model for the Prevention of Emotional and Behavioural Problems

A potential decrease in future juvenile delinquency is one of the benefits of an integrated model for primary prevention programs developed in 1989 for the Ministry of Community and Social Services (MCSS) of Ontario.

Primary prevention programs provide social services to children and their families in a community context. They are designed to prevent young children living in economically disadvantaged communities from developing emotional and behavioural problems.

To reduce the risk for children living in poor communities, the MCSS decided to support a number of well-evaluated primary prevention research demonstration projects. In 1988, the Ministry drafted terms of reference for the Coordinated Primary Prevention Initiative.

The project proceeded with a strong recommendation to develop guidelines for community involvement and research. One of the biggest problems in the field of primary prevention is the great gap between the well-researched programs known in academic circles and the grass-roots programs with small budgets supported by the community.

With this in mind, the Ministry formed a Technical Advisory Group to evaluate the current state of primary prevention programming for young children in low-income communities. Consisting of 25 prominent researchers and program directors from across Ontario, the group provided a broad cross-section of disciplines and specialization relevant to the field of children's mental health. It included educators, community workers, psychiatrists, psychologists, public health nurses and social workers.

The advisory group extensively reviewed literature and programs on primary prevention. Based on the findings, it developed *Better Beginnings, Better Futures*, an integrated model of primary prevention of emotional and behavioural problems. This report provides program directors, agencies and communities with information on the current status of primary prevention programming.

Components of the Model

1. Integrated systems and program components

Within a community, services to children and families must blend and unite. Conceptually, the integrated model moves beyond "co-ordination of service" to a full integration of service planning and delivery. Since poverty and early childhood risk factors such as poor nutrition and family stress are closely associated, programs aimed at a number of risk factors should produce better long-term results than programs aimed at just one risk factor.

2. Two types of integration

Two types of integrated systems are recommended:

- a. prenatal through preschool (five years)
- b. preschool through primary school (five years)

The systems providing the prenatal/infant development programs (i.e., public health or MCSS-sponsored infant-stimulation programs) must integrate with the system providing the preschool program, which in turn must integrate with the primary school system (i.e., education).

3. Comprehensive programs

The integration of education and community services can be tailored to meet a community's specific needs with the addition of complementary programs. Examples include nutrition and diet-supplement programs, family planning, parent training, child development education, parent support groups, drop-in centres, employment training and parent-child resource centres.

4. Inclusion of important discrete stages of childhood development

Together, both integrated systems (prenatal through preschool and preschool through primary school) permit analysis of the growth and development of children in prevention programs from the prenatal period through to age 7. This includes all of the critical transition periods of social development in early childhood from prenatal development, birth, assimilation into family, infancy, entry into child care or preschool (if applicable), entry into junior kindergarten or kindergarten, and entry into grade one.

5. Services for five years of children's lives

The five-year program is supported by indications that one-, two- and three-year programs are probably inadequate to produce large enough (or long-term) positive results to justify their cost. For example, one- or two-year programs apparently do not have lasting effects for the children after they leave the program.

6. Quality programming, with community support and careful evaluation

Effective programs are ones of quality rather than ones of quantity. The best research demonstration projects will not try to provide every known component. Each program component should be of the highest quality and carefully matched to community needs. The best projects will have several excellent components, with committed cross-professional collaboration, community

involvement and detailed attention to evaluation and research.

7. Six years for program implementation and evaluation

The first year is one of development including planning, start-up, establishment of integrating mechanisms and testing research measures. Five years of program implementation and evaluation follow. One group of children would be tracked through the entire five years of each integrated system.

8. Long-term follow-up research through the teen years

Children in the program as well as a control group of children must have long-term follow-up to determine whether prevention programs in the early childhood years actually prevent emotional and behavioural problems in adolescence and young adulthood.

9. Fielding projects for generalizability

Projects should be fielded in different types of economically disadvantaged communities to establish the applicability of the model to different situations.

10. Adhesion to community and research guidelines

Reviews of both the research literature and the Ontario programs emphasize the importance of involving the community and conducting good research. Although some underdeveloped communities may need resources and time to develop leadership and infrastructure, primary prevention research demonstration projects must hold both community involvement and research as fundamental.

Programs and Community Projects

Below are some examples of well-researched and documented infant, preschool and primary school programs and community projects.

Infants

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- Lally, R.J. "More Pride, Less Delinquency: Findings From the Ten-Year Follow-up Study of the Syracuse University Family Development Research Program," *Zero to Three*, April (1988): 13-18.

- Olds, D.L. "The Prenatal/Early Infancy Project," in E. Cowan (Ed.). *Model Prevention Programs*. Washington, D.C.: American Psychological Association, 1987.

Preschool

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Substance Use by Adolescents and Subsequent Adult Criminal Activity

The relationship between adolescent substance use and adult criminal behaviour has been a continuing issue for researchers. The central question is whether a teenager's frequent use of drugs or alcohol affects the extent, type and variety of crimes committed as an adult.

In a recent study on the subject, the Research and Statistics Branch of the Correctional Service of Canada examined a sample of 503 inmates who had completed the Computerized Lifestyle Screening Instrument (CLSI). The CLSI gathers information from offenders about their drug and alcohol use. It has been implemented as a standard tool for assessing, at reception, inmates who are admitted to federal institutions.

Certain sections of the CLSI focus on the extent of offenders' substance use before age 18. These data were analysed in relation to the inmates' criminal files, obtained from the Canadian Police Information Centre (CPIC). (CPIC files contain information on all adult offences for which an offender has ever been found guilty and on the dispositions given by the courts.)

Only inmates who were 27 years of age or older were considered for the sample, since it was felt that the adult criminal profile of younger offenders might not yet be fully developed. As a result of this selection, 270 offenders (53% of the total sample), whose average age was 29, were included in the study.

Drug Use

A total of 166 offenders (61.5%) answered that they had used drugs at some point in their lives. Of these inmates, 28.3% did not use drugs before they were 18, 29.5% used drugs irregularly (i.e., less than once a week), and a sizeable 42.2% (70 offenders) reported using drugs regularly (i.e., once a week or more) before the age of 18.

As Figure 1 shows, cannabis products, such as marijuana or hashish, were the most commonly used (93.7%) illicit drugs. Almost three quarters of those who reported regular drug use as adolescents had used hallucinates, and about one third had used stimulants such as cocaine. Only 11.4% had regularly used opiates such as methadone or heroin.

Total numbers of convictions were compared between offenders who reported no drug use, those who reported irregular drug use (less than once a week) and those who used drugs regularly (once a week or more) as teenagers. The findings were surprising. All three groups had a similar average number of convictions: 18.4 for those who reported no drug use as teenagers, 17.7 for irregular drug users, and 18.6 for those who regularly used drugs before they were 18.

The exact opposite result had been expected – that offenders who frequently took drugs would be involved in a greater number of crimes than those who did not. It seemed that level of drug use before age 18 did not

relate to amount of adult criminal activity. In fact, adult offenders who reported no drug use and those who reported regular drug use as teenagers had almost the same average number of convictions.

The percentage of offenders who had been convicted of at least one violent crime was compared for each of the three groups (non-users, irregular users and regular users). About 66% of offenders who reported no drug use before age 18 had committed at least one violent offence. This compares with about 83% of irregular users and 72.8% of regular users of drugs. This finding suggests that rate of conviction for violent crime was not strongly associated with level of drug use as a teenager.

Levels of substance use were also studied in relation to six, more specific offence categories: violent, robbery, drug, alcohol, property and other non-violent offences.

Figure 2 shows the percentage of offenders who committed crimes within the different offence groupings. Two patterns emerged. Non-users, irregular users and regular drug users had relatively similar conviction rates for violent, drug and alcohol offences. Although the rate of violent

Figure 1
Type of Regular Drug Use
Before Age 18

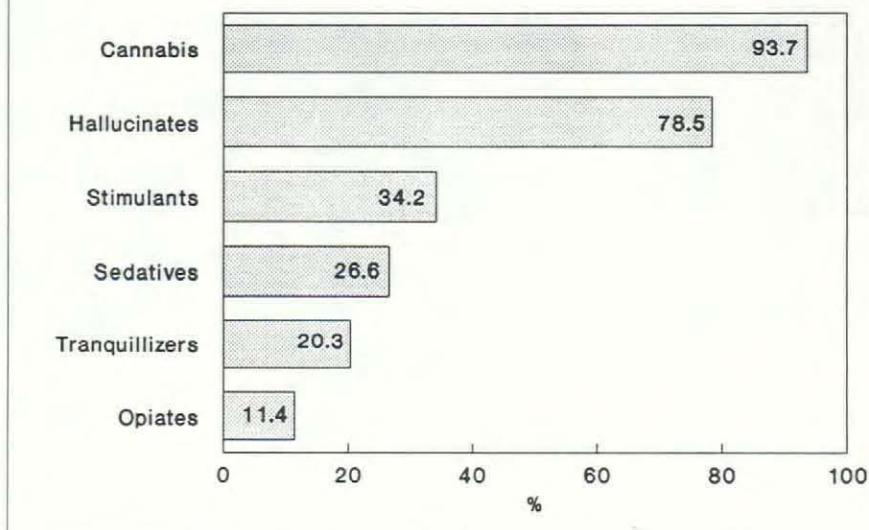
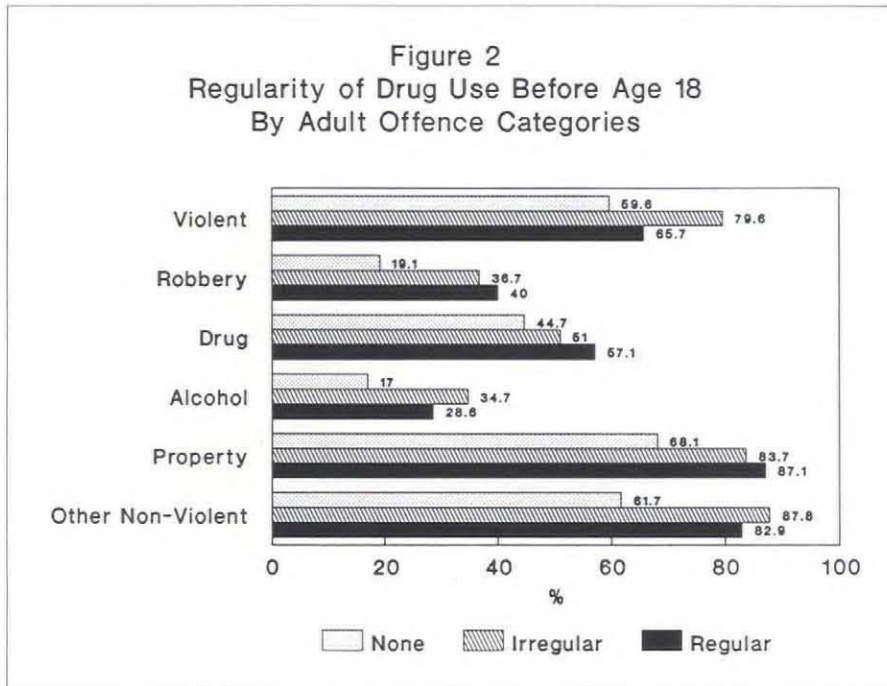


Figure 2
Regularity of Drug Use Before Age 18
By Adult Offence Categories



convictions was noticeably higher for offenders who irregularly used drugs, subsequent statistical analyses showed that the differences between the groups were not significant. Conviction levels for these types of offences were apparently unrelated to juvenile drug use.

A different pattern emerged when the other three offence groupings were examined. There were significantly more convictions for robbery, property and other non-violent offences among inmates who reported either irregular or regular drug use as teenagers (see Figure 2).

According to the above findings, offenders who used drugs as teenagers, regardless of the level of use, were convicted at a significantly higher rate for economically oriented crimes as opposed to violent offences.

It was also important to understand the variety of crimes committed by the three groups. Offenders who did not use drugs as teenagers had, on average, at least one conviction in 2.7 (45%) of the six offence categories. For the irregular and regular drug users, the averages were significantly higher at 3.7 (61.7%) and 3.6 (60%), respectively, out of the six possible categories. It appears that offenders

who used drugs before age 18, regardless of the level of use, were convicted of a greater variety of adult crimes than offenders who did not use drugs at all as teenagers.

Alcohol Use

The vast majority of offenders in the sample (84% or 228) indicated that they had used alcohol at some point in their lives. Of these, 14% reported that they did not drink alcohol before they were 18, while 49.1% consumed alcohol irregularly (i.e., less than once a week) and 36.9% drank regularly (i.e., once a week or more) as teenagers.

In a comparison of the average number of adult convictions for each of the three groups, offenders who reported no alcohol use as teenagers had an average of 15.7 convictions while the figure for irregular users was almost identical at 15.6. Regular alcohol drinkers had a significantly higher average at 23.2 adult convictions.

This was the expected pattern: it appears that regular alcohol use during the teenage years was related to a greater number of adult convictions.

Rate of conviction for at least one violent crime was compared among the three groups. Of those who did

not consume any alcohol as teenagers, 59.4% had committed a violent crime. This compares with more than two thirds (66.9%) of those who consumed alcohol irregularly. For those who drank alcohol on a regular basis as teenagers, the rate of conviction for violent crimes was significantly higher at 86.5%. This finding indicates that alcohol consumption during the teenage years is related to adult conviction rates for violent offences.

Figure 3 shows the percentage of offenders who committed crimes within the different offence categories. Regular alcohol consumers had significantly higher conviction rates within all six offence categories when compared with offenders who did not drink and those who drank alcohol irregularly before age 18. In sum, regular alcohol use during the teenage years was significantly related to conviction rates for both violent and non-violent crimes.

The variety of crimes committed by regular alcohol consumers was also found to be significantly greater. Offenders who reported no alcohol use before age 18 had, on average, at least one conviction in 2.4 (40%) of the six offence categories, compared with the irregular drinkers at 2.9 (48.3%). For the regular drinkers, this number was significantly higher at 3.8 (63.3%). This finding was expected since the regular alcohol users had a higher conviction rate for both violent and non-violent crimes.

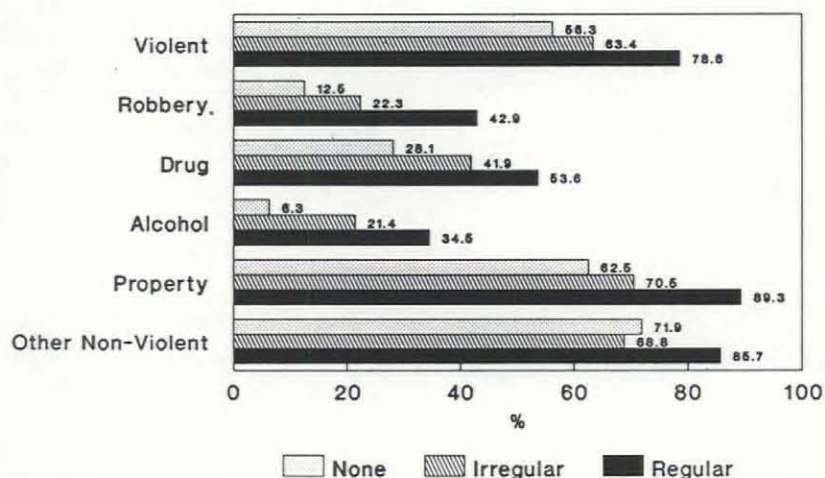
Conclusion

Three noticeable patterns were discovered in the adult criminal activity of offenders who reported varying levels of drug and alcohol use as teenagers. First, offenders who used drugs before the age of 18 had higher conviction rates for economically oriented crimes than those who did not use drugs as teenagers.

Second, offenders who regularly drank alcohol as teenagers had a higher rate of conviction for violent and non-violent crimes than irregular alcohol users and non-users.

And third, offenders who reported

Figure 3
Regularity of Alcohol Use Before Age 18
By Adult Offence Categories



a high level of drug or alcohol use as teenagers were convicted of a wider variety of crimes than those who consumed smaller amounts of either substance.

The findings presented here still do not clarify whether the relationship between early substance use and adult criminal behaviour is causal in nature. It may be that drug or alcohol use during the teenage years is simply correlated with other more influential factors in fuelling delinquent and adult criminal activity. ■

The full report on "Patterns of Alcohol and Drug Use Among Federal Offenders as Assessed by the Computerized Lifestyle Screening Instrument" is available from the Research and Statistics Branch of the Correctional Service of Canada.

Is There a Link Between Health and Later Criminality?

Several physical and psychiatric characteristics are thought to be related to later criminal activity. The preliminary findings of a recent study found a relationship between criminal involvement and contact with health agencies for behavioural and emotional problems. Contrary to past research, the findings do not support an association between physical illness and juvenile involvement in crime.

The study by the Regional Psychiatric Centre (Prairies) of the Correctional Service of Canada and the Department of Psychiatry of the University of Saskatchewan examined physical and psychiatric childhood characteristics that may lead to future delinquency. Specifically, the study looked at the type and number of contacts children had with health service agencies and their link with subsequent delinquent involvement.

A review of the few studies that have focused exclusively on health factors and their link to future criminality suggests that five major

factors are related to subsequent criminal behaviour: perinatal difficulties (problems at about the time of birth), epilepsy, head injuries, child abuse and psychiatric diagnoses.

The findings of past research have been inconsistent. For example, some studies link aggressive, assaultive behaviour in delinquents with a history of abuse during childhood. However, other research contradicts this finding, reporting that emotionally and physically abused children will be withdrawn, placid and docile, rather than aggressive.

Overall, the literature suggests that criminal behaviour is not the result of one particular medical problem but of a combination of inter-related factors.

For example, the series of studies by Dorothy Lewis and associates suggests that the interaction of medical problems throughout childhood (particularly head injuries), a history of abuse and a record of psychiatric diagnoses are associated with delinquency.

The present study compared the health histories of a group of young offenders and a control group of non-offenders. The two groups were matched on age, gender, ethnicity and area of residence.

The group of 2,280 young offenders was selected from records supplied by the provincial (Saskatchewan) department of social services. This group consisted of young offenders processed through the Young Offenders Program Division who were 17 years of age in 1987 or 1988. The control group of non-offenders was obtained through the provincial Health Insurance Registration File computer program.

There were more males than females in the total sample. Each group (delinquent and non-delinquent) consisted of 1,828 (80.2%) males and 452 (19.8%) females. Ethnicity was indicated simply as "Registered Indian" or "other." Approximately one quarter of each group was Registered Indian and three quarters was "other."

Extensive health histories of the subjects were reconstructed by "linking" data on hospital discharges (in-patient data), physician billings

(out-patient data) and mental health services (mental health contacts) from a number of the Department of Health agencies. Various coding systems, but primarily the International Classification of Diseases (Eighth and Ninth Revisions), were used to record these histories.

The study focused on five health categories: trauma to the central nervous system, perinatal problems, psychiatric contacts, indicators of child abuse and a general history of illness. Each instance of health service use was referred to as one "contact."

Hospital Contacts (In-patient Data)

Between 1969 and 1987, there was little difference in hospital contacts by the offender and non-offender groups. Each group accounted for approximately half of the total number of hospital contacts.

It is interesting to note that while Registered Indians accounted for 45.5% (n=6,941) of hospital contacts, this group represented only 6.8% of the province's total population.

Following Lewis's suggestion that accidents and injuries, as possible indicators of abuse, are more prevalent in young offenders, health contacts for injuries and poisonings were investigated. Contrary to Lewis's findings, little difference was found between the two groups in the number of these types of contacts. It should be noted, however, that abuse is generally extremely difficult to measure.

Mental disorders was the only health category that showed any significant difference between the two groups. Here, between two thirds and three quarters (depending upon which instrument was used to code the information) of all hospital contacts for mental disorders were made by the offender group. Upon closer examination of the data, however, we see that the most apparent differences in the number of contacts between the two groups were found in contacts for behavioural and emotional problems, such as adjustment reaction (coping poorly with a stressor), conduct disturbance and emotional disturbance.

Hospital contacts for alcohol- and drug-related problems were also more prevalent among offenders. This group accounted for all hospital contacts for alcohol dependence and three quarters of contacts for drug abuse.

Physician Billings (Out-patient Data)

As with hospital treatments, there was an almost even split among offenders and non-offenders in the total number of out-patient contacts with physicians. (Registered Indians accounted for 27.8% of these contacts, an amount not as disproportionate as the number of hospital contacts found among Registered Indians.)

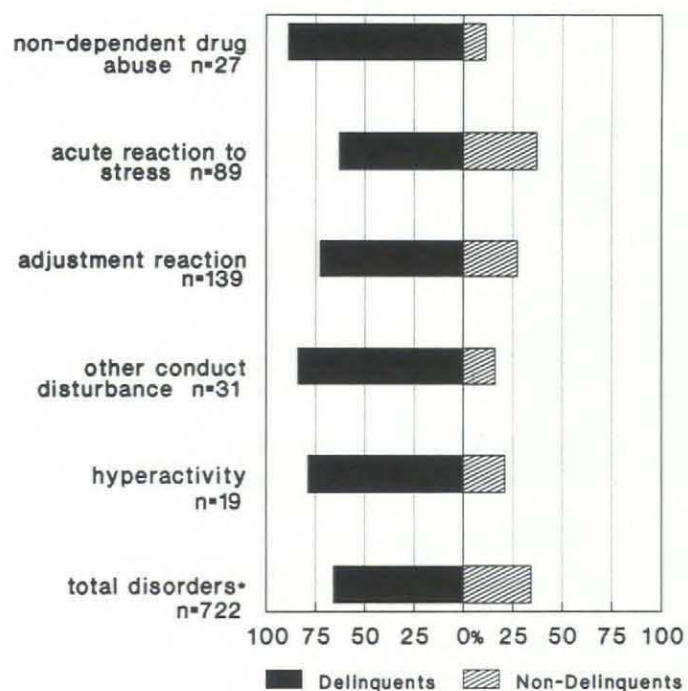
As with the in-patient data, there was virtually no difference in the types of contacts between the offender

and non-offender groups. But again, the single category with the greatest difference between the two groups was mental disorders. Of the 4,924 out-patient contacts for mental disorders, 63% were by offenders and 37% by non-offenders. The data presented in the study do not allow a closer examination of these "mental disorders." It may well be that, as with the hospital contacts, the differences between offenders and non-offenders were mainly in the area of behavioural and emotional problems, and not in the more traditional categories of mental disorders.

Mental Health Contacts

As the previous in-patient and out-patient data indicate, offenders and non-offenders showed distinct

Contacts with Mental Health Services by Select Behavioural/Emotional Problem



*Only select diagnoses are listed here. However, the figures for "total disorders" include all diagnoses presented in the original research.

differences with respect to mental disorders. Information was also taken from the Saskatchewan Mental Health Services Branch, an agency dedicated specifically to the treatment of mental disorders. These data also indicated that offenders had significantly more contacts than non-offenders for behavioural and emotional problems.

As seen in the figure, some of the greatest differences were found in such specific categories as non-dependent abuse of drugs, adjustment reaction (coping poorly with a stressor), conduct disturbance, hyperkinetic syndrome (hyperactivity) and acute reaction to stress.

Furthermore, of the total number of contacts for drug and alcohol abuse ($n=78$), approximately 81% were by offenders and 19% by non-offenders. This is consistent with the literature, which finds that young offenders are more likely to be regular users of drugs and alcohol.

Conclusion

This study found little evidence of an association between physical ill health and juvenile delinquency. However, a correlation was found between criminal involvement and contacts with health service agencies for emotional and behavioural problems.

It was also found that young offenders were diagnosed much more often than non-offenders for disorders related to drug and alcohol abuse.

This project is still collecting criminal offence information to examine the causal relationships between health and criminality. Follow-up reports are expected. ■

K. Kendall, G. Andre, K. Pease and A. Boulton, "Health Antecedents to Juvenile Criminal Justice Sanctions in Saskatchewan, Canada." Unpublished report, 1991.

Peer Delinquency, Attachment to Friends and Deviant Behaviour

Peer influence and peer pressure are considered crucial in the development of delinquent behaviour. Nearly all researchers agree that an individual is more likely to show delinquent behaviour when his or her peers engage in such activities.

A recent study examining the relationship between attachment to peers, peer delinquency and delinquent behaviour supports this finding. This study also found that males with higher levels of delinquency had lower levels of trust in, and respect for, their friends.

Review of Research

Most research has found delinquency more likely among individuals with strong, rather than weak, attachment to their peers. Some research, however, discovered that as attachment to peers decreased, delinquency increased.

Some of the most detailed and interesting research on the nature of relationships among delinquents comes from studies of gangs. In contrast to the majority opinion among researchers on individual delinquent behaviour, the research on gangs tends to find little or no attachment among gang members.

Adolescents may resort to joining a gang because they lack the social

skills necessary to develop close, personal relationships. Indeed, some research has found that loyalty within delinquent gangs is externally created. Relationships within a gang were so poor that the gang would not stay together without outside pressure from, for example, other gangs or the police.

Methodology

This study examined the association between peer delinquency, attachment to peers and self-reported delinquency. Data was taken from the Seattle Youth Study, conducted at the University of Washington. Information was collected on 847 white males from questionnaires and interviews.

The study used Hirschi's index of self-reported delinquency which asks such questions as "Have you ever banged up something that did not belong to you on purpose?" Responses to these questions were broken out into the following categories: no delinquent acts, one delinquent act, and two or more delinquent acts. Unfortunately, this categorization meant that individuals who committed dozens of delinquent acts were included in the same category as those who committed only two offences.

In examining the nature of

relationships between respondents and friends or peers, the study distinguished between items measuring the respondent's relationship with a single best friend and those assessing relationships with friends (or "best friends") in general.

Findings

Consistent with virtually all previous research, peer involvement in delinquency was associated with self-reported delinquency. That is, significantly more individuals who had committed delinquent acts, as opposed to those who had not, had friends who were also delinquent.

Among those who said that at least one of their best friends had been picked up by the police, 89.1% reported having committed two or more delinquent acts. Only 56.6% of those whose best friends were not delinquent reported having committed two or more delinquent acts.

As to delinquency involvement of the best friend, more than 90% of those who said that their single, best friend had been picked up by the police reported having committed two or more delinquent acts. This compares with about 66% of those who claimed that their best friend had never been in police custody.

Next, the study looked at the link between attachment to peers and delinquency. Four measures of attachment were used, two assessing attachment

to a best friend and two assessing attachment to friends in general. These measures were: identification with best friend, sharing of feelings with best friend, trust in friends and respect for friends.

Attachment to a single, best friend was not significantly associated with delinquency while attachment to friends in general was.

More specifically, both trust in, and respect for friends (not a best friend) were related to lower delinquency rates. Those who agreed with the statement that friends could be trusted to tell the truth were significantly less likely to have committed two or more delinquent acts than those who disagreed (71.9% versus 82.2%).

Respondents were also asked to agree or disagree with the statement "I have lots of respect for my friends." Eighty-five percent of those who disagreed, compared with 76.4% of those who agreed, reported having committed two or more delinquent acts.

Attachment to peers seemed to have a modest, inhibiting effect on delinquency.

The study then examined the consequences of attachment to peers through a closer analysis of the relationship between peer delinquency, individuals' own delinquency and attachment to peers. Four such analyses were done.

The first two analyses looked at the relationship between peer delinquency, self-reported delinquency and attachment to friends in general. As expected, a significant relationship was found between self-reported delinquency and peer delinquency.

When delinquency of peers was accounted for, no significant relationship was found between an individual's attachment to friends and that individual's delinquency.

However, attachment to peers and peer delinquency were significantly associated. That is, only about half (51.4%) of those with delinquent friends said they trusted their friends. This compares with about two thirds of those who had no delinquent friends. Similarly, fewer of those with

delinquent friends (18%), compared to those with non-delinquent friends (24.7%), claimed they had "lots of respect for [their] friends."

From these findings, it appears that delinquents have less trust or respect for one another than non-delinquents.

The last two analyses looked at the relationship between peer delinquency, self-reported delinquency and attachment to a single, best friend. These analyses gave the same results as the previous ones, with one major difference: no significant relationship was found between attachment to a best friend and delinquency of that best friend (peer delinquency). It is interesting to note that attachment to a best friend did not seem to be affected by that friend's delinquency or non-delinquency. This may be because a best friend is by definition the object of a close, personal relationship, sometimes regardless of that best friend's behaviour.

Summary

Consistent with prior research, the study found that delinquency of peers was strongly and positively associated with an individual's own delinquency.

Attachment to peers was less strongly associated with delinquency. Specifically, attachment to a single, best friend was not significantly related to an individual's own delinquency.

However, delinquency seemed to go with weak attachment to friends in general. Those who trusted and respected their friends reported lower levels of delinquency. Furthermore, those with higher levels of respect and trust for their friends were less likely to have friends who were delinquent. ■

D. Brownfield and K. Thompson, "Attachment to Peers and Delinquent Behaviour," *Canadian Journal of Criminology*, January (1991): 45-60.

Testing Some Aspects of Control Theory With Female Delinquents and Non-Delinquents

Female delinquency varies with the strength of the social bond as measured by attachment to school and commitment to education, a recent Swedish study found. However, the relationship between delinquency and social bond is not strong enough to allow accurate prediction of future delinquency or to "explain" differences in the delinquency of various groups of individuals.

Despite the limitation of this relationship, risk of becoming delinquent was found to decrease as the level of social bonding increased. This finding supports social control theory which holds that the absence of bonds to conventional society, such as attachment to others or commitment to school, allows an individual to deviate.

Data for this study were part of

Project Metropolitan, a major Swedish longitudinal study of all boys and girls born in 1953, regardless of where they were born as long as they lived in the Stockholm area on 1 November 1963. Information was collected from birth to age 30, mainly through records but also through surveys, on 15,117 individuals.

A number of past and current studies have used data from Project Metropolitan.

Information on delinquency, crime and drug use, as well as structural background and social bond aspects, was based on official records.

Of the 7,398 females in the original sample, 791 (10.8%) had criminal, delinquency or drug records.

For this study, females were divided into four categories according to the seriousness of delinquent

behaviour. The first was the non-delinquent, control group (n=6,607). These females had no record of delinquency, crime or drug use.

The second group consisted of females handled by the Child Welfare Committees because of delinquent but not criminal behaviour, such as truancy, running away and occasional mild drug use (n=218). This was the DEL1 group.

Third were females with either police-recorded crimes or more serious and frequent drug use (n=506). This was the DEL2 group.

The fourth, and smallest, category, DEL3 included females with both criminal records and records of hard drug use (n=67).

The study concentrated on two factors that had previously been established as indicators of conventional bonding: attachment to school, which deals primarily with the immediate school situation (interests, attitudes and behaviours), and commitment to education, which focuses on educational plans for the future.

Several items in the study measured the degree of attachment to school. Delinquents tended to have lower scores on attachment, no matter which group they were in.

The DEL3 group, assumed to contain the most serious delinquents, included the highest proportion (28%) who said that they spent from no time at all to less than half an hour a day doing homework. This compares with less than 10% of non-delinquents.

Another item measured attitudes to smoking in school. Two to three times as many delinquents as non-delinquents thought that pupils ought to be allowed to smoke in school (17% to 26% versus 9%).

Similarly, 23% to 35% of individuals from the three delinquent subgroups found all or almost all school subjects boring, compared to 13% of the control group.

Not surprisingly, delinquents reported higher rates of truancy. About 40% of the most serious delinquents (DEL3), compared to about 25% of the non-delinquents, said they

had been truant some times. As well, a higher proportion of the delinquents said they frequently missed school.

More delinquents than non-delinquents reported having been sent out of class for misbehaviour (almost half of the DEL1 and DEL3 subgroups, compared to less than a third of the non-delinquents). The DEL1 individuals also reported being frequently sent from class almost twice as often as the other, presumably more serious, delinquent groups and about three times as often as non-delinquents.

The study also found that delinquents had a lower commitment than the control group to the second factor, education.

This is clearly illustrated by the actual applications for secondary school. Only 16% of DEL3 girls, compared with almost 66% of non-delinquents, ever applied.

At one point, subjects were asked whether they intended to later apply for admission to secondary school. Although only 25% of the DEL3 group said no, in the end, a far greater number, 83.6%, actually did not apply. In comparison, about 11% of non-delinquents said they did not intend to apply to secondary school, and just over 33% ended up not applying.

The majority (81%) of non-delinquents who entered secondary school completed it. Most delinquents also completed secondary school, although the proportion was smaller than for the non-delinquents (61% of the DEL1 and DEL2 categories, and 80% of the DEL3 group).

There were telling responses to the question "If school was completely voluntary and you could quit tomorrow or stay if you wanted to, what would you do if you had to decide all by yourself?" The delinquent girls were less committed than the non-delinquents: among the DEL3 girls, about 36% said they would leave "at once" or "after this grade." This compares to 27% and 21% of the DEL1 and DEL2 girls, and only 12% of the non-delinquents who said they would leave.

As to school marks, approximately 33% of the DEL3 girls, compared to 23% of the DEL1, 17% of the DEL2 and 8% of the control group, did not get a final certificate of elementary school.

In a similar vein, the average marks in grade nine of more than 40% of the DEL3 group were in the lowest range. In fact, it appears that the marks of the DEL3 girls got progressively worse: in grade six, only 16% of girls in this category had marks in the lowest range. Conversely, the grade nine marks of more than 40% of the non-delinquent control group were in the second highest range.

These results imply that low achievement in school is probably related to the strength of at least two aspects of the social bond: attachment to school and commitment to education.

The figures show that the most serious delinquents probably are the least committed, but also that those in the non-criminal category (the DEL1 group) deviate more extensively than those in the DEL2 group, who were thought to have more serious delinquency patterns.

In a further analysis, it was found that no more than 7% of differences between groups in levels of crime and delinquency could be accounted for by social bonding. This means that even with knowledge of individuals' levels of social bonding, the ability to predict future delinquency is limited.

Despite this, findings indicated that the risk of becoming delinquent varies with levels of social bonding and ability: for example, the risk of developing criminal behaviour and using drugs (the DEL3 category) was almost four times higher for those who skipped school frequently than for those who never were truant. ■

Marie Torstensson, "Female Delinquents in a Birth Cohort: Tests of Some Aspects of Control Theory," *Journal of Quantitative Criminology*, 6, 1 (1990): 101-115.

The first feature article in this series traces developments in the area of juvenile crime in Canada and discusses their relevance to federal corrections.

With this context set, our attention can turn to an in-depth discussion of the theme of this issue of FORUM – early indicators of future delinquency. The second feature article summarizes knowledge on factors that increase the risk of a child developing antisocial and delinquent behaviour and discusses how this behaviour develops. The third article brings the theme of this issue into more concrete terms, presenting findings from a major Canadian longitudinal study of aggressive children and effects of a treatment program for these youngsters.

A Profile of the Young Offender

by Dianne Hendrick and
Marc Lachance
Senior Analysts, Youth Court Survey
Youth Justice Program, Canadian
Centre for Justice Statistics

This article¹ profiles young persons appearing in youth courts and the types of charges they face. It also describes how the courts deal with them. To gain a better understanding of the nature of the young offender² returning to youth court, trends in recidivism among youths are examined. Finally, the immediate influence of youths being transferred to ordinary (adult) court and the possible impact this may have on federal correctional services are discussed.

The data were taken from the Youth Court Survey (YCS) conducted by the Youth Justice Program of the Canadian Centre for Justice Statistics (CCJS). The survey is a census of the *Criminal Code* and other federal statute charges heard in the youth courts of participating provinces and territories.

Unfortunately, Ontario and the Northwest Territories did not participate in the survey until just recently. Consequently, Ontario is excluded from this study. The Northwest Territories is included in the profile of the current year (1989-90) but excluded from historical comparisons.

In addition, some participating jurisdictions may be under-reporting. The data presented here should therefore not be considered definitive.

Caseload Factors

The number of youths appearing in youth courts each year is influenced by several factors: the charging practices of police, the precourt screening policy of the province or territory, the availability of resources for the criminal justice sector, the backlog of cases before the courts, and the volume of cases proceeding or not proceeding to trial.

Precourt screening practices are particularly influential in determining the numbers and types of cases heard in each province and territory. However, the criteria to determine which cases go to court and which do not are not uniform across Canada.

Accused by Age

In 1989-90, approximately 37,000 young persons³ appeared in youth

courts. Eighty-three percent of these young persons were male. Most (57%) were 16 years of age or older; another 32% were 14 or 15, and 11% were 12 or 13 years of age. These patterns have been consistent since 1986-87.

From 1986-87 to 1989-90, the number of young persons appearing in youth courts rose by 4%. It is interesting to note that the largest increase occurred among the youngest age group, those aged 12 to 14 while the increase for those aged 15 to 17 was less than 1%.

Accused by Type of Offence

Property offences were the most serious charge facing most young persons (62%) appearing in youth courts in 1989-90. For about 18%, a violent offence was the most serious charge. Young persons charged with other *Criminal Code* offences accounted for about 10% of the total, charges under the *Young Offenders Act* (YOA) for 6%, and drug-related charges for 4%.⁴

As a result of a 1986 amendment to the YOA, which made failure to comply with a community disposition a chargeable offence, the proportion of youths facing a YOA offence as their most serious charge has risen substantially (466% since 1986-87).

Increases were also registered for violent-offence charges (19%) and other *Criminal Code* charges (4%) since 1986-87.

¹ The findings presented in this article were previously published in the Canadian Centre for Justice Statistics' Juristat series of bulletins.

² In 1984, the Young Offenders Act replaced the Juvenile Delinquents Act. The new legislation resulted in, among other things, a change in the definition of young offender (or juvenile delinquent). Previously, the minimum age of a young offender was 7 and the maximum ranged from 16 to 18, varying among the different jurisdictions in Canada. With the new legislation, the minimum age was set at 12, and one year later the maximum was set uniformly at 17. At 18, an individual is considered an adult.

³ The YCS defines a person as a youth having one or more charges disposed of during the fiscal year. A youth with charges disposed of by the court in the same province more than once during the year is counted only once. The data reported in this profile are preliminary, and final 1989-90 person counts will be about 3% higher.

⁴ The YCS categorizes charges for young persons by most serious charge. Thus, an individual charged with more than one offence in a given case would appear only in the category of the most serious charge.

In contrast, the proportion of youths facing a drug-related charge as their most serious offence dropped 30%, while property offences dropped 10%.

Youth Court Decisions

In 1989-90, approximately four of every five young persons appearing in youth courts were found guilty of at least one charge.⁵ About 16% had proceedings stayed or withdrawn, and 4% were found not guilty or had the charges dismissed. Less than 1% were transferred to adult court or incurred other decisions.

From 1986-87 to 1989-90, the proportion of youths who had proceedings stayed or withdrawn rose by 22%. The proportion of youths found not guilty or dismissed increased by 5%. In contrast, the proportion of youths found guilty decreased by 4%.

Young Persons Found Guilty

In 1989-90, young persons whose most serious charge was a drug-related

offence or an "other" federal statute offence were more likely to be found guilty than those who had some other type of offence as their most serious charge. For example, the conviction rate for young persons charged with drug-related offences was 86%. This compares with 65% for those charged with a YOA offence.

Young persons whose most serious charge was a YOA offence were more likely to have their charges stayed or withdrawn than those whose most serious charge was some other type of offence (32% as compared to 11%-16%). This pattern has generally been consistent over the past four years.

As shown in Figure 1, the proportion of young persons found guilty of a violent offence as their most serious charge was similar across the different age groups from age 12 to 17. More specifically, among all young persons charged with an offence, 12-year-olds were just as likely as 17-year-olds to have a violent offence as their most serious charge. This implies that

some very young offenders are just as violent as young offenders who are almost adults. It should be noted, though, that we are referring to small numbers of 12-year-old offenders.

The proportion of young offenders found guilty of property offences decreased as age increased. For example, 79% of 12-year-old offenders were found guilty of a property offence. With 17-year-olds, this proportion dropped to 55%.

"Older" young offenders (those 17 years of age) were more likely to be found guilty of other *Criminal Code* offences. This included impaired operation of a vehicle, failure to appear in court and disorderly conduct.

Cases with Guilty Findings

Person counts or case counts may be used to examine sentencing patterns of youth courts. The case is selected here as the preferred unit of analysis since a person may appear in court in more than one case during a year (1.6 cases per person in 1989-90). Person counts would therefore be underestimations of incidents of guilty findings.

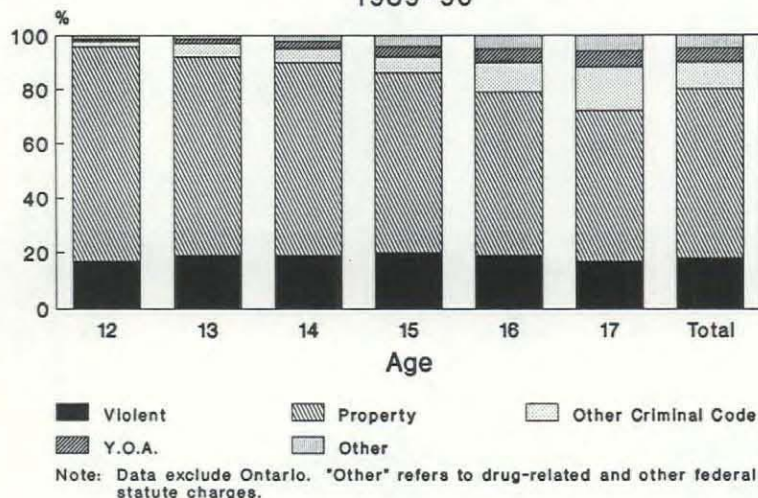
For this analysis, a "case" refers to all charges laid against the same person that were disposed of by the court on the same day. Again, this analysis excludes Ontario and the Northwest Territories.

In 1989-90, 52,432 cases were heard in youth courts. Seventy-one percent had a guilty finding.

From 1986-87 to 1989-90, the total number of cases heard in youth courts rose by 9%. At the same time, the number of decisions with guilty findings increased, but only by 4%, from 35,872 to 37,430 cases. In total, the proportion of all cases resulting in a guilty finding decreased from 75% to 71%.

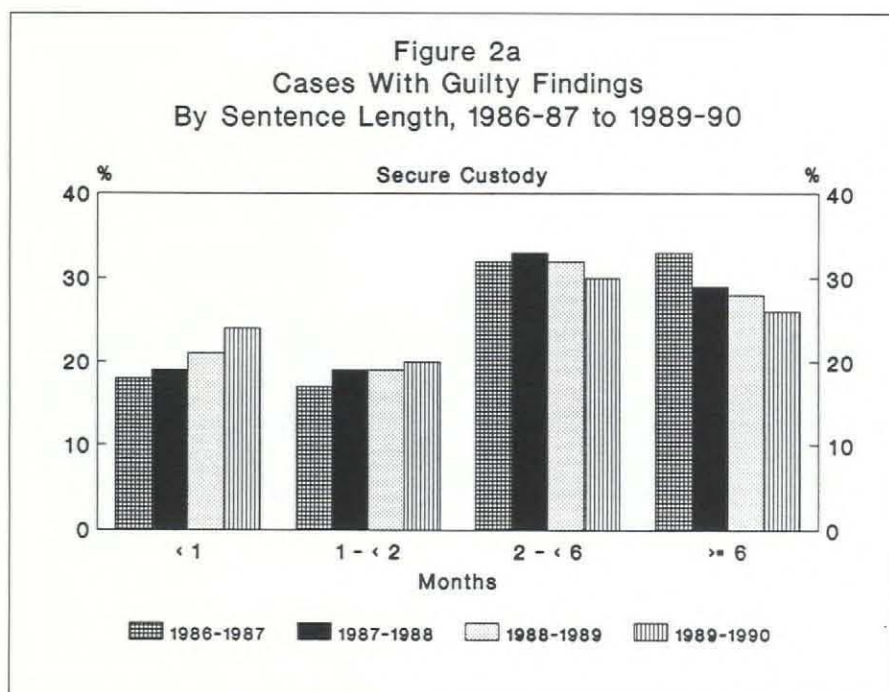
For males, the decrease in the proportion of guilty findings was comparable to the overall trend (from 75% to 71%). For females, the proportion of guilty findings decreased from 71% to 67%. Females tended to be somewhat less likely than males to be found guilty of their charge.

Figure 1
Young Persons Found Guilty in Youth Courts By Most Serious Charge and Age 1989-90



⁵ Court decisions for young persons are categorized by most serious decision. Hence, an individual who received both a not guilty and a guilty decision in the same year would appear only in the guilty category.

Figure 2a
Cases With Guilty Findings
By Sentence Length, 1986-87 to 1989-90



Types of Dispositions in Youth Court⁶

In 1989-90, approximately half of all most serious dispositions ordered in youth courts were terms of probation. Another quarter (23%) involved terms of custody, either secure or open; 14% were fines and 8% ordered the performance of community services. Four percent were absolute discharges, and 3% were other dispositions.

A comparison of all most serious dispositions ordered in 1989-90 shows that males were more likely to receive harsher penalties than females.

For example, males were more than twice as likely as females to receive terms of secure custody (12% versus 5%). Males also received a higher proportion of open custody orders (12% for males and 9% for females) and fines (14% versus 13%).

Conversely, females had a higher proportion of dispositions involving probation (52% for females and 48% for males), community service (11% versus 8%), absolute discharges (8% versus 4%) and other dispositions (3% versus 2%).

The different types of offences committed by males and females may account for differences in sentencing.

Overall, the patterns of

dispositions varied little from 1986-87 to 1989-90. However, the lengths of custody sentences decreased noticeably.

Changing Sentence Lengths
• Secure Custody

As Figure 2a illustrates, from 1986-87 to 1989-90, youth courts ordered more short-term secure custody sentences and fewer long-term sentences.

For example, the proportion of secure custody orders of less than one month increased from 18% in 1986-87 to almost 25% of total secure custody orders in 1989-90.

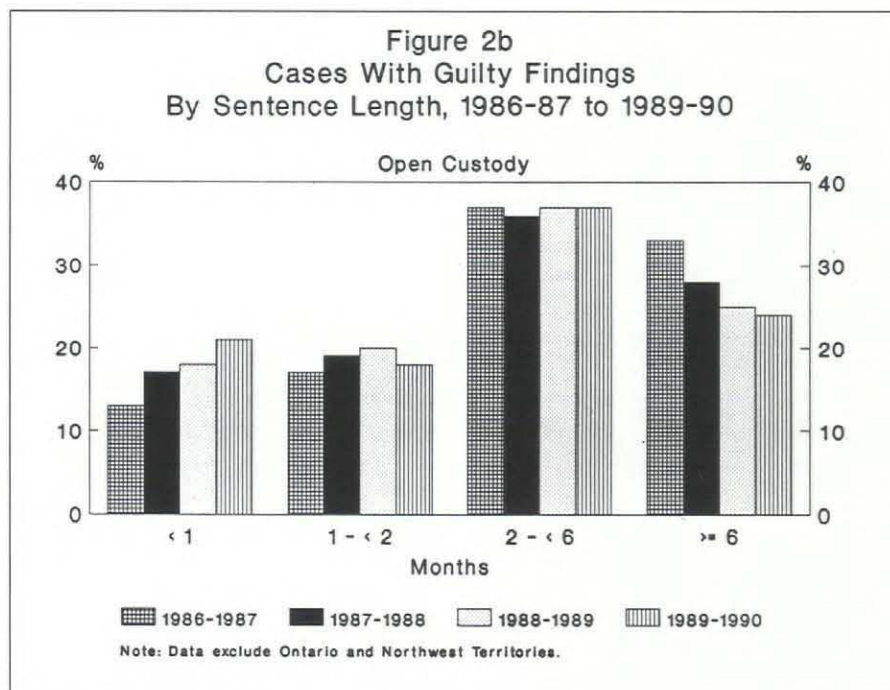
During that same time, the proportion of dispositions of six months or more decreased from one third in 1986-87 to about one quarter in 1989-90.

• Open Custody

A similar pattern was found for sentences of open custody. The proportion of open custody orders involving short-term sentences increased between 1986-87 and 1989-90 as those with longer terms decreased.

As Figure 2b illustrates, the proportion of open custody orders of less than one month increased from 13% in

Figure 2b
Cases With Guilty Findings
By Sentence Length, 1986-87 to 1989-90



⁶ "Disposition" refers to the most significant disposition in a case. The seriousness of the disposition is determined by the effect it has on the young offender. "Total dispositions" refer to the sum of the most serious (significant) dispositions.

1986-87 to 21% of total open custody orders in 1989-90.

The proportion of orders of six months or more decreased from one third to just less than one quarter during that time.

Dispositions by Type of Offence

From 1986-87 to 1989-90, the majority (63%) of most serious dispositions ordered in youth courts were in connection with property offences, primarily break and enter and theft under \$1,000.

Violent offences accounted for 13% of most serious dispositions. Assaults were the most frequent in this group.

Other *Criminal Code* offences represented 13% of all dispositions. The majority were escape from custody, failure to appear in court and impaired operation of a motor vehicle.

Offences under the *Young Offenders Act* accounted for 7% of all dispositions and were mostly for charges of failure to comply with a community disposition of youth court.

Narcotic Control Act offences accounted for 4% of all dispositions, whereas those associated with the *Food and Drugs Act* and other federal statutes accounted for less than 1% of all dispositions.

Custodial Sentences and Offence Types

From 1986-87 to 1989-90, custodial dispositions (secure and open custody) accounted for 22% of all most serious dispositions ordered. These dispositions were most frequent for such offences as murder and manslaughter (88%), attempted murder (81%), escape from custody or failure to appear (61%) and robbery (51%).

The average (median⁷) sentence length was highest for murder and manslaughter (three years) and attempted murder (one year), followed by an average sentence length of six months for sexual assault, robbery, other violent offences and arson.

The lowest average sentence length was one month. It was handed out for offences under the *Young Offenders Act* and most offences

falling under the category of other *Criminal Code* offences.

Recidivists in Youth Court

The nature of the repeat young offender was investigated in a special study using 1988-89 YCS data. These findings are the first on the topic of young offender recidivism.

An analysis of the 1988-89 data suggests that 39% of young offenders convicted that year had a previous conviction in youth court.⁸ The vast majority of recidivists were males (88%).

As expected, recidivists tended to be older than first-time offenders. For example, 41% of male recidivists (compared with 29% of male first-time offenders) were 17 years old. However, the proportions were lower for females: 29% of recidivists and 25% of first-time offenders were 17 years of age.

In 1988-89, most recidivists (56%) were convicted of a property offence as their most serious charge, while 12% were convicted of a violent offence. About one third were convicted of other types of offences, the majority being the YOA charge of failure to comply with a community disposition.

In comparison, 64% of first-time offenders were convicted of a property offence as their most serious offence, 16% of a violent offence, and 20% of all other types of offences (the majority being the impaired operation of a vehicle).

It is interesting to note that about the same proportion of first-time offenders and repeat offenders were convicted of violent and property offences. It would appear that persistent young offenders were not more likely to be violent than first-time offenders.

Almost half of all recidivists (46%) had one prior conviction, 22% had two prior convictions, 13% had three prior convictions, 8% had four prior convictions and 11% had five or more prior convictions.

In 1988-89, recidivists aged 12 to 14 averaged one prior conviction, whereas those 15 years of age and over averaged two prior convictions.

As Figure 3 indicates, recidivists in 1988-89 were three times more likely than first-time offenders to be ordered to serve custodial dispositions (31% compared with 9%).

As well, recidivists were less likely to be ordered to serve a term of probation as their most serious disposition (38% compared with 57% for first-time offenders).

Regardless of age, recidivists were more likely than first-time offenders to receive harsher penalties. In 1988-89, more than two thirds of young offenders who were ordered to serve a term of secure custody were recidivists. As well, two thirds of those ordered to serve a term of open custody were recidivists.

In contrast, first-time offenders accounted for 70% of those ordered to serve a term of probation, about 60% of those ordered to pay a fine or perform community services, and about 75% of those ordered to comply with other types of dispositions.

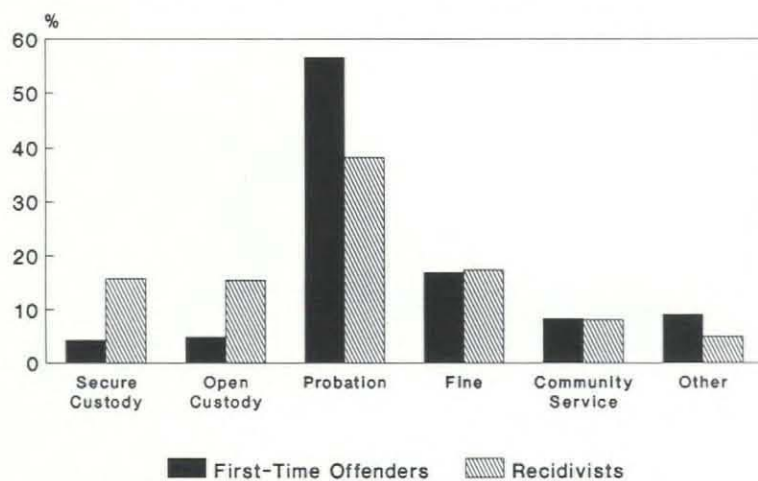
In addition, 16- and 17-year-olds, both first-time offenders and recidivists, received harsher penalties than younger offenders.

With recidivists, the severity of the disposition usually increased with the number of convictions. For example, at first conviction, the recidivist had a two-in-three chance of receiving a probation order as the most serious disposition. By the fourth conviction,

⁷ The median is defined as the midpoint of the distribution, meaning that an equal number of sentences fall below and above the median value.

⁸ The scope of this investigation was limited to young persons found guilty of at least one federal statute charge during 1988-89 and who had received a prior conviction in the same jurisdiction either during 1988-89 or during the years since the proclamation of the YOA in 1984. The recidivist study excluded Nova Scotia, for technical reasons, Ontario and the Northwest Territories.

Figure 3
First-Time Offenders and Recidivists
By Most Serious Disposition, 1988-89



Note: Data exclude Nova Scotia, Ontario and Northwest Territories.

probation had declined to a one-in-three likelihood.

Similarly, by the fourth conviction, the young offender had a two-in-five chance of being ordered to custody, a much higher likelihood than with fewer convictions.

However, the number of prior convictions generally did not increase the length of time a recidivist was ordered to serve in custody, the term of his or her probation or the size of the fine imposed. Furthermore, the longest terms of custody were ordered for the first rather than subsequent convictions.

This trend may reflect the overall pattern of longer sentences imposed during the early years of the YOA (which is when the recidivists in this study may have received their first conviction) as compared with the more recent experience.

Influence on Federal Corrections

Few youths are transferred to ordinary court. In fact the number of youths transferred has decreased substantially from 77 persons in 1986-87 to 26 in 1989-90 (excluding Ontario and the Northwest Territories). This means that the number of young persons eligible to have their sentences

supervised by federal correctional authorities has also decreased.

About three quarters of young persons transferred to adult court in 1989-90 were charged with a violent offence. Approximately one quarter were charged with a property offence. This differs markedly with past years when the proportion of transferred young persons charged with a violent offence was much lower, and the proportion charged with a property offence was higher.

For example, in 1986-87, 45% of transferred young persons were charged with a violent offence and 43% with a property offence. For 1987-88, the figures were 36% for violent offences and 58% for property offences. In 1988-89, 38% were charged with a violent offence and 40% with a property offence.

Summary

The profile of the young offender has changed little in recent years. The majority of young offenders were found guilty of property offences.

"Younger" young offenders were as likely as "older" young offenders (16 and 17 years of age) to be found guilty of a violent offence. This implies that with some of our young

offenders, violent tendencies were established at a very young age.

Older offenders generally received harsher penalties than younger offenders.

A study of 1988-89 offenders indicated that the majority of recidivists are older, and the majority of offenders receiving a custodial disposition were recidivists. These recidivists receive harsher penalties for successive convictions in youth courts (for example, a term of custody rather than a term of probation) but not longer sentences.

However, the profile of young persons transferred to adult court does appear to be changing. A smaller proportion is transferred for property offences, while a larger percentage is transferred for violent crimes. Although the number of young offenders being transferred to adult court has decreased overall, it is important to note that a larger proportion of those who are transferred is charged with violent offences. This would suggest that federal corrections may in the future have to deal with some young offenders who have more serious criminal tendencies. ■

Dianne Hendrick and Marc Lachance are senior analysts with the Youth Justice Program of the Canadian Centre for Justice Statistics. They are primarily involved in guiding and monitoring the operations of the Youth Court Survey, analysing and interpreting data from the survey and reporting on the findings. The latter role involves the production, for public release, of numerous reports and bulletins, called *Juristats*, on a variety of selected topics. The Youth Justice Program now has youth court statistics for 1990-91 available.

The Youth Justice Program has also begun some exciting and much-needed research on recidivism among young offenders. Findings from this research have been presented in the above article. Their work in this area is expected to continue.

Risk Factors and the Development of Disruptive and Antisocial Behaviour in Children

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Although some advances have been made in the treatment of antisocial behaviour, many professionals acknowledge the difficulty of turning youngsters around once their behaviour has become serious. Moreover, improved youngsters sometimes relapse after they are released from structured therapeutic environments.¹ This paper summarizes knowledge of developmental and risk factors that influence the course of antisocial and delinquent behaviour over time.

Risk Factors for Later Antisocial Child Behaviour

The term "risk" as used here has two elements. First, it implies that a child has been exposed to a risk factor, for example, delinquent acts by peers. Second, it implies that this exposure increases the likelihood that there will be a negative outcome, such as delinquency. Risk factors refer to earlier events, including children's early problem behaviour, that influence a later outcome, but this does not necessarily mean that the risk factor causes the outcome.

Overall, causation can be best demonstrated through experimentation, but there is limited opportunity for proper experimental research on antisocial child behaviour. Nevertheless, reviews of available intervention research² have found that when parents were trained to improve their poor child-rearing practices, aggressive child behaviour often decreased significantly. Moreover, if family influences have a causal effect, one can expect that more than one child in the family will be affected. This is borne out by research findings showing that antisocial behaviour is common among siblings of a known antisocial child.

The Development of Different Manifestations of Problem Behaviours

Disruptive, antisocial and delinquent behaviours can be a variety of acts that may vary in seriousness and may or

may not violate criminal laws. What is striking is that the behaviours can present themselves in so many different forms at different ages.³ Figure 1 shows the different manifestations of these behaviours in childhood and the approximate order in which they may occur.

Even though disruptive and antisocial behaviours are presented differently at different ages, they may continue over time. This implies that, to some extent, those with disruptive problems at an early age are the same individuals who display problem behaviour of a different kind at a later age.

Rather than the different problem behaviours replacing one another as a child ages, they may be thought of as being "stacked." Figure 2 shows the hypothesized stacking of problem behaviours in a hyperactive and inattentive youngster who has been exposed to unfavourable conditions. Early risk factors associated with later hyperactivity and inattentiveness include exposure to neurotoxic substances (such as lead),⁴ early malnutrition,⁵ low birth weight,⁶

¹ M.M. Wolf, C.J. Braukmann and K.A. Ramp, "Serious Delinquent Behavior May Be Part of a Significantly Handicapping Condition: Cures and Supportive Environments," *Journal of Applied Behavior Analysis*, 20 (1987): 347-359.

² D.P. Farrington, "Randomized Experiments on Crime and Justice," in N. Morris and M. Tonry (Eds.), *Crime and Justice*, Vol. 4. (Chicago: University of Chicago Press, 1982). See also R. Loeber, "Experimental Studies to Reduce Antisocial and Delinquent Child Behavior: Implications for Future Program and Optimal Times for Intervention," in Proceedings of the ADAMHA/OJJDP Research Conference on Juvenile Offenders with Serious Drug, Alcohol and Mental Health Problems. (Washington, D.C.: U.S. Government Printing Office, 1985), and see R. Loeber and M. Stouthamer-Loeber, "Family Factors as Correlates and Predictors of Juvenile Conduct Problems and Delinquency," in N. Morris and M. Tonry (Eds.), *Crime and Justice: An Annual Review of Research*, Vol. 7. (Chicago: University of Chicago Press, 1986).

³ R.O. Bell, "Age-Specific Manifestations in Changing Psychosocial Risk," in D.C. Farran and J.D. McKinney (Eds.), *Risk in Intellectual and Psychosocial Development*. (Orlando, Fla.: Academic Press, 1986).

⁴ H.L. Needleman and D.C. Bellinger, "The Epidemiology of Low-Level Lead Exposure in Childhood," *Journal of Child Psychiatry*, 20 (1981): 496-512.

⁵ J.R. Galler, F. Ramsey, G. Solimano and W.E. Lowell, "The Influence of Early Malnutrition on Subsequent Behavioral Development. II. Classroom Behavior," *Journal of the American Academy of Child Psychiatry*, 24 (1983): 16-22.

⁶ J. Astbury, A.A. Orgill, B. Bajuk and V.Y.H. Yu, "Neonatal and Neurodevelopmental Significance of Behaviour in Very Low Birthweight Children," *Early Human Development*, 11 (1985): 113-121. See also N. Breslau, N. Klein and L. Allen, "Very Low Birthweight: Behavioral Sequelae at Nine Years of Age," *Journal of the American Academy of Child and Adolescent Psychiatry*, 67 (1988): 605-612.

Figure 1 Approximate Ordering of the Different Manifestations of Disruptive and Antisocial Behaviours in Childhood

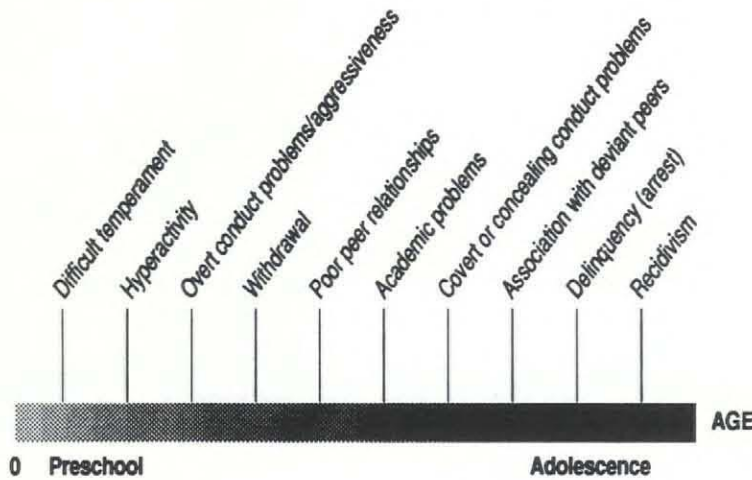
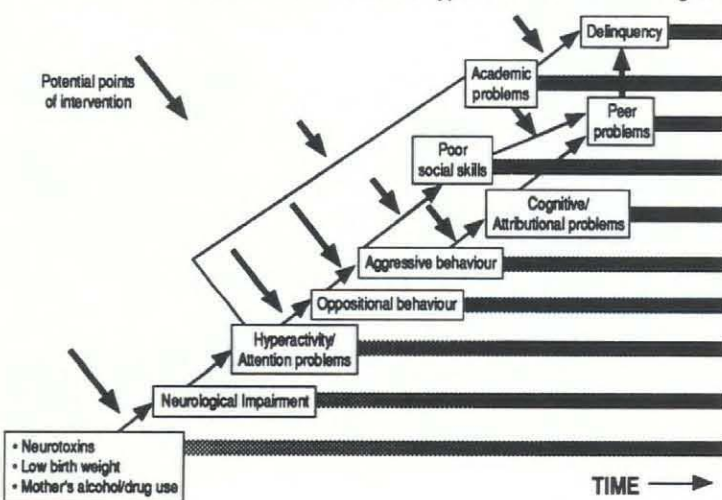


Figure 2 Hypothesized Maximum Developmental Sequence of Stacking of Problem Behaviours in Hyperactive/Inattentive Youngsters



youngsters to perceive more threats to themselves in the social environment (and therefore to be more aggressive) than other youngsters.⁸

The combination of aggression, poor social skills and cognitive problems predisposes such a child to poor peer relationships and rejection by peers. In addition, the impulsiveness and attention problems associated with hyperactivity put such a youngster at risk for underdeveloped reading abilities and academic failure.⁹ Truancy may result and, coupled with other deficits, probably increases the likelihood that a child will initiate delinquent acts.

In an extreme form, the developmental stacking would include all of the problem behaviours listed. However, less extensive stacking is more common. Few children progress to the most serious levels or accumulate the greatest variety of behaviours. More often, youngsters follow this sequence of deviant behaviours to a lesser degree, reach a plateau or reverse to a less serious level.

Among the strongest predictors of delinquency in boys are aggression, drug use and stealing.

Empirical Evidence for Risk Factors in Early Child Behaviour

Some of the behaviours of youngsters are clear risk factors for later delinquency.¹⁰ Among the strongest predictors of delinquency in boys are aggression, drug use and stealing.

and mother's substance use during pregnancy.⁷

These factors likely result in some neurological damage or impairment. Such a youngster is at risk of developing negative behaviour, including aggressive acts. These are often accompanied by poor social skills and cognitive problems that lead such

⁷ D.D. Davis and D.I. Templer, "Neurobehavioral Functioning in Children Exposed to Narcotics in Utero," *Addictive Behaviors*, 13 (1988): 275-283.

⁸ K.A. Dodge, "Social Cognition and Children's Aggressive Behavior," *Child Development*, 51 (1980): 162-170.

⁹ A.F. Jorm, D.L. Share, R. Matthews and R. Maclean, "Behaviour Problems in Specific Reading Retarded and General Reading Backward Children: A Longitudinal Study," *Journal of Child Psychiatry*, 27 (1986): 33-43.

¹⁰ R. Loeber and M. Stouthamer-Loeber, "Prediction," in H.C. Quay (Ed.), *Handbook of Juvenile Delinquency*. (New York: Wiley, 1987).

Less powerful, but still important predictors are truancy, lying and low educational achievement.

Studies agree that there is considerable continuity of antisocial behaviour over time, not only between early aggression and later aggression,¹¹ but also between different manifestations of antisocial behaviour, such as early aggression and later theft.¹²

70% to 90% of violent offenders had been highly aggressive when young.

Prediction is only one way of examining the relationship between risk factors and delinquency. It is equally important to look back to determine what percentage of offenders had a particular behavioural problem early in life: for example, to what extent have violent offenders been highly aggressive as youngsters? Loeber and Stouthamer-Loeber¹³ summarized the available studies¹⁴ and concluded that 70% to 90% of violent offenders had been highly aggressive when young.

Patterns of Early Precursors

The discussion so far has concerned specific behaviours as precursors to later delinquency. Particular patterns of such behaviours are important too, both for risk exposure and risk identification. The patterns of frequency, variety, multiple settings and early onset are related to later deviancy.

The higher the **frequency** of an early behavioural problem displayed by a child, the greater the risk of later delinquency. Similarly, this risk increases with the **variety** of early behavioural problems.

The third pattern concerns whether the problem behaviour occurs in only one **setting** or several settings. Children are less at risk for later delinquency when they misbehave only in one setting than when their problem behaviour occurs in other settings

as well.

Another important pattern refers to the **onset** of the problem behaviour. Early delinquent activities by boys and substance use by both boys and girls predict a high rate of offending and serious substance use, respectively.¹⁵

Some of the above patterns are interrelated: individuals scoring high on one usually score high on others.¹⁶

Attention Deficit and Hyperactivity

Some children who are at risk for delinquency are much more active than others and have difficulty sitting still, finding it hard to control their

impulses and to pay attention. This hyperactivity, impulsiveness and attention problem is referred to here as HIA.

Children rating high on HIA with few or no behavioural (conduct) problems are less at risk for later delinquency, but they may be at risk for such other problems as alcoholism.¹⁷ However, when children display both HIA and conduct problems early in life, there is a very high risk of later delinquency.¹⁸ Hyperactivity and its associated behaviours may act as a catalyst for the persistence of behavioural problems.¹⁹

¹¹ D. Olweus, "Stability of Aggressive Reaction Patterns in Males: A Review," *Psychological Bulletin*, 86 (1979): 852-857.

¹² R. Loeber and C. Baicker-McKee, "The Changing Manifestations of Disruptive/Antisocial Behavior from Childhood to Early Adulthood: Evolution or Tautology?" *Unpublished manuscript: University of Pittsburgh, School of Medicine, Pittsburgh, 1990.*

¹³ Loeber and Stouthamer-Loeber, "Prediction," *op. cit.*, 1987.

¹⁴ D.P. Farrington, "The Family Background of Aggressive Youths," in L.A. Hersov, M. Berger and D. Shaffer (Eds.), *Aggression and Antisocial Behavior in Childhood and Adolescence.* (Oxford: Pergamon Press, 1978). See also D. Magnusson, H. Stattin and A. Duner, "Aggression and Criminality in a Longitudinal Perspective," in K.T. Van Dusen and S.A. Mednick (Eds.), *Antecedents of Aggression and Antisocial Behavior.* (Boston: Kluwer-Nijhoff, 1983).

¹⁵ R. Loeber, "The Natural History of Juvenile Conduct Problems, Delinquency and Associated Substance Use: Evidence for Developmental Progressions," in B.B. Lahey and A.E. Kazdin (Eds.), *Advances in Clinical Child Psychology, Vol. 11.* (New York: Plenum, 1988).

¹⁶ M. Fréchette and M. LeBlanc, *Délinquances et Délinquants.* (Quebec: G. Morin, 1987). See also P.H. Tolan, "Implications of Age of Onset for Delinquency Risk," *Journal of Abnormal Child Psychology*, 15 (1987): 47-65.

¹⁷ W. McCord and J. McCord, "A Longitudinal Study of the Personality of Alcoholics," in D.J. Pittman and C.R. Snyder (Eds.), *Society, Culture and Drinking Patterns.* (New York: Wiley, 1962).

¹⁸ R. Loeber, "Behavioral Precursors and Accelerators of Delinquency," in W. Buikhuisen and S.A. Mednick (Eds.), *Explaining Crime.* (London: Brill, 1988). See also D.P. Farrington, R. Loeber and W.B. Van Kammen, "Long-Term Criminal Outcomes of Hyperactivity-Impulsivity-Attention Deficit and Conduct Problems in Childhood," in L.N. Robins and M.R. Rutter (Eds.), *Straight and Devious Pathways to Adulthood.* (New York: Cambridge University Press, 1990) and see D. Magnusson, *Individual Development from an Interactional Perspective: A Longitudinal Study.* (Hillsdale, N.J.: Lawrence, 1988).

¹⁹ Loeber, "Behavioral Precursors and Accelerators of Delinquency," *op. cit.*, 1988. See also N. Richman, J. Stevenson and P. Graham, "Sex Differences in Outcome of Pre-School Behaviour Problems," in A.R. Nicol (Ed.), *Longitudinal Studies in Child Psychology and Psychiatry.* (New York: Wiley, 1985), and see R. Schachar, M. Rutter and A. Smith, "The Characteristics of Situationally and Pervasively Hyperactive Children: Implications for Syndrome Definition," *Journal of Child Psychology and Psychiatry*, 22 (1981): 375-392.

Recent work has focused on the attention problems of known delinquents.²⁰ The cognitive handicaps of certain delinquents may slow down their learning not only of academic skills but also of prosocial behaviour and moral development.

Some Biological Risk Factors

The HIA complex may be due to biological and genetic differences in children, but much more research is needed to clarify this. The problem is that since HIA often occurs in conjunction with conduct problems, it is difficult to distinguish causal factors unique to each.

Farrington and associates addressed this problem in the Cambridge Study in Delinquent Development, which followed boys from ages 8 to 24. The authors found that "HIA was particularly related to criminal parents, low intelligence and large family size, while C(onduct) P(roblem) was particularly related to poor supervision and poor parenting."²¹

These findings coincide with those of Loney and Milich²² in the United States and McGee, Williams and Silva²³ in New Zealand. The conclusion is that HIA is much more closely associated with biological factors, while conduct problems, unlike HIA, are uniquely linked to socialization processes within families. Further verification and qualification of this conclusion are needed, however.

Other biological factors have been examined in recent years. Magnusson and colleagues²⁴ found that early onset of menarche in girls was associated with a higher rate of deviancy than later onset of menarche. The higher norm-breaking behaviour in the girls who matured early, however, tended to occur only when they associated more with older girls. It was not observed for girls who did not have such friendships.

Another important biological factor possibly involved in deviancy is the presence of toxic substances. This may retard or negatively influence neurological development, especially

during the preschool years when the central nervous system matures.

Needleman and Bellinger²⁵ found that even low levels of lead could have dramatic effects on children. Those with high lead content were more distracted, hyperactive, impulsive and easily frustrated and had difficulty following simple instructions. Overall, the percentage of children who were functioning poorly was three times higher for the high lead group than for the low lead group. These findings have spurred increased awareness of the dangers of exposing children to even small doses of lead and other potentially toxic metals.

The reason for elaborating on these findings is to alert the reader to two important points. First, differences among children (in hyperactivity, impulsiveness or intelligence, for example) are sometimes interpreted as being the result of biological or genetic factors. However, these differences can also be caused by exposure to neurotoxic substances and by

deficits in the children's social environment.

Second, even when successive generations of people show similar deviant behaviour (often interpreted as evidence of genetic effects), the explanation could be that all generations were exposed to the same persisting neurotoxins in the environment.

Academic Problems

One study comparing the academic performance of delinquents and controls showed that, by second grade, 45% of the delinquents were behind in reading and 36% in writing.²⁶ Later problem behaviour such as drug use (often coupled with truancy) is known to be related to dropping out of school.²⁷

In addition, Friedman, Glickman and Utada²⁸ found the severity of students' earlier drug use predicted failure to graduate. Incomplete schooling is often associated with disadvantages in the job market and frequently leads to higher

²⁰ T.E. Moffitt and P.A. Silva, "Self-Reported Delinquency, Neuropsychological Deficit, and History of Attention Deficit Disorder," *Journal of Abnormal Child Psychology*, 16 (1988): 553-569. See also J.Q. Wilson and R.J. Herrnstein, *Crime and Human Nature*. (New York: Simon & Schuster, 1985).

²¹ Farrington, Loeber and Van Kammen, "Long-Term Criminal Outcomes," *op. cit.*, 1990, p. 24.

²² J. Loney and R. Milich, "Hyperactivity, Inattention and Aggression in Clinical Practice," in M. Wolraich and D.K. Routh (Eds.), *Advances in Behavioral Pediatrics*, Vol. 3. (Greenwich, Conn: JAI Press, 1982).

²³ R. McGee, S. Williams and P.A. Silva, "Factor Structure and Correlates of Ratings of Inattention, Hyperactivity and Antisocial Behavior in a Large Sample of 9-Year-Old Children from the General Population," *Journal of Consulting and Clinical Psychology*, 53 (1985): 480-489.

²⁴ Magnusson, *Individual Development*, *op. cit.*, 1988. See also D. Magnusson, H. Stattin and V. Allen, "Differential Maturation among Girls and its Relations to Social Adjustment: A Longitudinal Perspective," in P.B. Baltes, D.L. Featherman and R.M. Lerner (Eds.), *Life-Span Development and Behavior*, Vol. 7. (Hillsdale, N.J.: Erlbaum, 1986).

²⁵ Needleman and Bellinger, "Epidemiology of Low-Level Lead," *op. cit.*, 1981.

²⁶ L.J. Meltzer, M.D. Levine, W. Karniski, J.S. Palfrey and S. Clarke, "An Analysis of the Learning Style of Adolescent Delinquents," *Journal of Learning Disabilities*, 17 (1984): 600-608.

²⁷ D. Kandel, "Reaching the Hard to Research: Illicit Drug Use Among High School Absentees," *Addictive Diseases*, 1 (1975): 465-480.

²⁸ A.S. Friedman, N. Glickman and A.T. Utada, "Predicting from Earlier Substance Abuse and Earlier Grade Point Average to Failure to Graduate from High School," *Journal of Alcohol and Drug Education*, 31 (1985): 25-31.

unemployment. Together with pre-existing criminal tendencies, this may increase the risk of subsequent delinquent involvement.²⁹

Factors in the family are among the best predictors of later delinquency in offspring.

Social Risk Factors

Some risk factors are in the child's social environment – the family and peer group. Loeber and Stouthamer-Loeber³⁰ summarized studies in these areas. Research indicates that factors in the family are among the best predictors of later delinquency in offspring. Among these were parental child-rearing practices, such as supervision, and combinations of familial handicaps. Parents' non-involvement with their children, parental criminality, aggressiveness and deviant peers were moderately strong predictors. Weaker predictors were poor discipline, parental absence or broken home, socio-economic status and poor parental health.

Some family factors likely have a much more long-ranging effect than others. For example, a lapse in parental supervision for, say, a few weeks is less likely to lead to delinquency in youngsters. However, an extended period of poor supervision may increase the risk.

The present emphasis on family factors should not be misinterpreted. Many other social factors, such as peer influence, probably play an important role in delinquency. They are not emphasized here partly because work on their role in causing delinquency is not as far advanced.³¹

Developmental Paths Toward Different Antisocial Outcomes

Various antisocial outcomes can develop from different paths of behaviour. Similarly, different paths apply to different individuals. The

evidence for this is complex and incomplete. The following summary, therefore, provides merely a broad outline, serving as a base for further research.

Antisocial behaviour patterns in adulthood are not all the same. Studies of psychopathology identify the following groups:

- the versatiles – those who engage in violent and property crime with or without drug offences or drug abuse;
- exclusive property offenders – those who engage in property crime only, with or without substance offences or drug abuse; and
- exclusive substance abusers – those who engage in substance abuse only (and may have been arrested as a result), but who do not substantially engage in criminal acts.

Loeber,³² using available evidence, concluded that each of these three antisocial outcomes develops from a different path.

• The Aggressive/Versatile Path

Individuals on this path have the highest likelihood of becoming versatile offenders. Typically, behavioural problems begin early, particularly in the preschool years. Youngsters develop aggressive and non-aggressive covert behaviours (such as truancy, substance use, stealing), and many show attention problems, impulsiveness and hyperactivity. They are more likely to have impaired social skills and poor relationships with both adults and peers. Their problem behaviour is often not confined to just one setting, the home environment, but also occurs in school. The combination of disruptive behaviour in school and attention problems puts

them at risk for academic frustrations and failure in school, which in turn increase their risk of dropping out of school.

Youngsters on this path are most likely to develop new problem behaviours and less likely to stop old ones, especially when they have advanced to the more serious behaviours. Significantly more boys than girls follow the aggressive/versatile path.

• The Non-Aggressive Path

Individuals on this path usually do not begin their antisocial behaviour until late childhood or early adolescence, and therefore much later than those on the aggressive/versatile path. Typically, the antisocial behaviour of these children is not aggressive and is usually limited to covert behaviours, such as theft, lying, truancy and substance use.

Hyperactivity and its associated features appear less frequently in this group. Moreover, unlike the versatile children, many of these youngsters have good relationships with their parents until their problem behaviour appears. They also appear popular and accepted among their peers. Indeed, many of their antisocial problems occur in the company of peers. Although some youngsters on the non-aggressive path have academic problems, these problems usually appear to stem more from a refusal to participate in academic work than from inherent difficulties in learning.

More youngsters on this path appear to stop their antisocial behaviour than the versatiles, and more stop sometime during adolescence. This is not to say that all non-aggressive youngsters end their antisocial

²⁹ D.P. Farrington, B. Gallagher, L. Morley, R.J. St. Ledger and D.J. West, "Unemployment, School Leaving and Crime," *British Journal of Criminology*, 26 (1986): 335-356.

³⁰ Loeber and Stouthamer-Loeber, "Family Factors as Correlates," *op. cit.*, 1986.

³¹ But see D.S. Elliott, D. Huizinga and S.S. Ageton, *Explaining Delinquency and Drug Use*, (Beverly Hills: Sage Publications, 1985), and see R. Loeber, "Explaining Delinquency and Drug Use (book review)," *Aggressive Behavior*, 13 (1987): 97-98.

³² Loeber, "The Natural History of Juvenile Conduct Problems," *op. cit.*, 1988.

behaviour early. Recidivist property offenders and white-collar criminals are thought to evolve from this group.

Individuals in this group appear at risk for drug offences and various forms of substance abuse. The proportion of females is higher for this path than the previous one, although boys still predominate.

• The Exclusive Substance-Abuse Path

A large proportion of alcoholics and other drug abusers did not display serious antisocial behaviour when they were young.³³ Substance use probably begins later than that of versatile, usually sometime in early to middle adolescence. Further explanations about the characteristics of this path are needed.

This summary of developmental paths is necessarily sketchy because certain aspects have not been adequately researched. It mainly serves to point out the developmental nature of antisocial behaviour, which varies among individuals. Moreover, risk factors and processes promoting deviant behaviour in one path are not entirely the same as those promoting deviancy in another path.

It should be kept in mind that some individuals do not progress from less serious to more serious antisocial acts, and others' behaviour will de-escalate over time. As a rule of thumb, the further an individual has progressed to more serious antisocial acts, the less likely he or she will reverse to a non-deviant lifestyle.

Knowledge of developmental trends and of periods when change is more or less likely to occur are important for assessing when intervention would be most effective.

Vulnerability

Despite the impression so far that children's antisocial development is equally likely to occur at any of the different phases of the growing-up years, this is not the case. Some major conclusions based on available research are outlined below.

- The prevalence of youngsters who engage in aggressive behaviour gradually decreases from the pre-school period to adolescence.³⁴ Thus, it appears that a proportion of youngsters, certainly boys, grow out of their aggressive behaviour.
- For boys, physically aggressive behavioural patterns rarely emerge for the first time in late childhood or adolescence. More often, such behaviour has been evident earlier.
- It follows that there is a greater chance of incorrectly labelling boys as being at risk for later deviance when aggression early in life is used as a predictor. The chances of mislabelling would be less if aggression at later points in a child's life were considered.
- Certain behavioural patterns probably form before early adolescence. The chances of a child growing out of early behavioural problems decrease after early adolescence.
- The prevalence of youngsters who engage in non-aggressive, concealing, antisocial acts increases from the late elementary-school years into adulthood. This is the case for such behaviours as theft, truancy, vandalism and substance use.³⁵

Critical Periods

• Critical Periods of Malleability

For several reasons, it is helpful to know about the developmental changes in antisocial behaviour. First, it helps to distinguish better between deviant and normal behaviour. Second, it shows at what periods most change takes place in a youngster's behaviour (in order to focus on critical periods during which new problem behaviours can be influenced). And third, knowledge of developmental trends and of periods when change is more or less likely to occur are important for assessing when intervention would be most effective.

• Critical Period for Bonding

There is increasing evidence of a critical period early in children's lives when youngsters form attachments to their adult caretakers. This helps them to learn prosocial skills and to unlearn aggressive or acting out behaviours. Without this attachment, or bonding, socialization is much more difficult.

Evidence that such bonding occurs in the first few years of life comes from studies comparing youngsters who experienced disruptions in the continuity of child care with children who did not.³⁶ Disruptions can take place for a variety of reasons, as with adoption, exposure to many different caretakers and marital breakdown.

Adoption late in a child's life is often followed by more maladaptive behaviour than early adoption.³⁷ Similarly, multiple mothering of infants for three to six months has been shown to predict antisocial behaviour.³⁸ In that same vein, separation between child and mother due to long or repeated hospitalizations, especially between

³³ Ibid.

³⁴ R. Loeber, "The Stability of Antisocial and Delinquent Child Behavior: A Review," *Child Development*, 53 (1982): 1431-1446.

³⁵ Ibid.

³⁶ Summarized by K. MacDonald, "Early Experience, Relative Plasticity and Social Development," *Developmental Review*, 5 (1985): 99-121.

³⁷ Ibid.

³⁸ R.J. Cadoret and C. Cain, "Sex Differences in Predictors of Antisocial Behavior in Adoptees," *Archives of General Psychiatry*, 37 (1980): 1171-1175.

the ages of six months and three years, can have long-term effects on behavioural adjustment.³⁹

Additionally, the amount of time with only one parent during the pre-school period predicts behaviour problems at grade two, while family breakup during the first five years predicts problem behaviour and delinquency much later.⁴⁰ The impact of disruption on child behaviour may be increased by the loss of frequent contact with one of the parents. Even very young children react to quarrelling adults by increased negative behaviour.⁴¹

A few studies have linked early adverse experiences in children's lives to later delinquency.⁴² For example, Kolvin et al. followed a birth cohort of 847 boys and girls to age 33. They measured various forms of deprivation experienced by the children during their first five years: marital disruption, parental illness, poor physical or domestic care, social dependency, overcrowding and poor-quality mothering.

With one exception, boys who experienced at least three of the above deprivations received the highest number of convictions in each age period except ages 26 to 27. Those who experienced only one of the above deprivations had an intermediate level of convictions. Those who experienced no deprivations had the lowest level of convictions.

The results illustrate two points. First, there appears to be a relationship between the degree of deprivation and the subsequent rate of offences. Second, the relationship is not restricted to the juvenile years, but is maintained from age 10 through to age 33.

Conclusion

This article stressed that, as a rule, young offenders do not "spring out of the cabbage" when they commit their first delinquent act. Instead, chronic problem behaviour often precedes the delinquent acts by many years.

Precursors of delinquency manifest themselves in many ways (Figure 1). The manifestations change

with the child's development and, more often than not, mean that problem behaviours will diversify over time (Figure 2).

Much is known about the forms of problem behaviour that predict later delinquency. However, the question of whether risk factors cause later delinquency needs substantiation.

Certain patterns of risk factors are associated with later chronic antisocial behaviour, including hyperactivity and attention deficits. Other important factors are early aggression, theft and academic problems. A number of biological risk factors are relevant, including toxic substances which affect preschoolers especially.

There is evidence that social risk factors (such as parents' socialization practices) play a role in the emergence of conduct problems and delinquency in youngsters. The longer children are exposed to social risk factors, including the influence of delinquent peers, the higher the chance they will become delinquent.

Finally, there is evidence of critical periods in which children appear vulnerable to particular influences and risk factors. Also, research reveals that children's malleability to change probably decreases with age, especially in early adolescence. The evidence is far from complete, however. ■

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One study, now in its fifth year, consists of the follow-up of a community sample of 1,517 boys. Another study is a yearly follow-up of a clinically referred sample (n=177) which has been assessed four times. These data sets make it possible to trace deviant development, identify risk and causal factors and design optimal screening procedures to identify youngsters at risk.

³⁹ MacDonal, "Early Experience," op. cit., 1985.

⁴⁰ D. Behar and M.A. Stewart, "Aggressive Conduct Disorder of Children: The Clinical History and Direct Observations," *Acta Psychiatrica Scandinavia*, 65 (1982): 210-220. See also M. Wadsworth, *Roots of Delinquency, Infancy, Adolescence and Crime*. (Oxford: Robertson, 1979).

⁴¹ E.M. Cummings, "Coping with Background Anger in Early Childhood," *Child Development*, 58 (1987): 976-984.

⁴² I. Kolvin, F.J.W. Miller, M. Fletting and P.A. Kolvin, "Social and Parenting Factors Affecting Criminal-Offence Rates: Findings from the Newcastle Thousand Family Study," *British Journal of Psychiatry*, 152 (1988): 80-90. See also Wadsworth, "Roots of Delinquency," op. cit., 1979, and see E.E. Werner and R.S. Smith, *Kauai's Children Come of Age*. (Honolulu: University of Hawaii Press, 1977).

Violent Boys: Development and Prevention

by R. E. Tremblay, R. M. Zhou, C. Gagnon, F. Vitaro and H. Boileau

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Over the last 20 years, longitudinal research¹ has shown that the majority of teenage and adult males who are frequently violent displayed aggressiveness as young boys. However, this research also shows that not all violent boys grow up to be violent teenagers and adults. In fact, more than half of boys who are most aggressive between ages 8 and 10 do not grow up to become particularly violent adults.

It was on the basis of these results that, in 1984, we undertook a longitudinal study of a cohort of 916 francophone kindergarten-aged boys from underprivileged backgrounds in Montreal. We hoped to learn more about the factors that cause some boys to remain aggressive into their teenage years. The study would provide an opportunity to follow the development of behavioural patterns in high-risk boys, and would help identify those boys who naturally outgrow their aggressive behaviour and do not require preventive intervention.

To achieve these goals, we had to keep track of a number of variables on a regular basis. Given the resources at our disposal, efforts were made to use as many theoretical and methodological perspectives as possible. Data on the boys came from various sources: direct observations by researchers; interviews; tests and questionnaires filled out by the boys, their parents, peers and teachers; and official records of different organizations (schools, social services, courts).

Direct observation of the boys' behaviour with their parents, their peers and their teachers took place at school, in the home and in a laboratory which permitted researchers to observe families in standardized conditions.

This allowed us to describe the evolution of the boys' interactions

with others (parents, teachers and peers) and to examine the perceptions that the boys' parents, teachers and peers, as well as the boys themselves, had of these behavioural patterns.

Finally, through tests, questionnaires and interviews, it was possible to trace the boys' cognitive development, academic performance, temperament, physical growth, nutritional habits and physiological reactivity, as well as their home environment and the marital harmony, personality and intelligence quotient of their parents.²

In addition to drawing a profile of the boys' development in their daily environment, we wanted to study the results of preventive intervention. In particular, we wanted to evaluate two types of help for the most aggressive kindergarten-aged boys to reduce

aggressive behaviour during their primary-school years.

The two particular types of help – parenting training for the parents and social skills training for the boys – seemed to be the most appropriate measures because they directly target two of the perceived causes of aggressive behaviour: inefficient parental disciplinary practices and a repertoire of antisocial behavioural patterns on the boys' part.

Although the first part of the study is descriptive, testing the effectiveness of a preventive intervention follows standard experimental procedure. First, the most aggressive boys in kindergarten were identified. Then they were randomly divided into three equal groups: an experimental group which was subject to the intervention, an observation group (or rather a placebo-attention group) which was subject to the intensive observations described above but not the intervention, and a control group which was subject to neither interventions nor intensive observations.³

This method made it possible to evaluate the benefits of the preventive treatment by comparing the experimental group to the control group. A comparative study of the observation group and the experimental group determined whether the changes in the latter were a result of the actual treatment or a by-product of the attention the group had received. Finally, by comparing the control group and the observation group, researchers were

¹ D.P. Farrington, "Childhood Aggression and Adult Violence: Early Precursors and Later Outcomes," in D. Pepler and K. Rubin (Eds.), *The Development and Treatment of Childhood Aggression*. (Hillsdale, N.J.: Lawrence Erlbaum, 1991). See also L. R. Huesmann, L. D. Eron, M.M. Lefkowitz and L.O. Walder, "Stability of Aggression Over Time and Generations," *Developmental Psychology*, 20 (1984): 1120-1134 and also H. Stattin and D. Magnusson, "The Role of Early Aggressive Behaviour in the Frequency, Seriousness and Types of Later Crime," *Journal of Consulting and Clinical Psychology*, 57 (1989): 710-718.

² R.E. Tremblay, P. Charlebois, C. Gagnon and S. Larivée. Les garçons agressifs à l'école maternelle, étude longitudinale, descriptive, prédictive et explicative. (Montreal: Groupe de Recherche Interuniversitaire sur la Prévention de l'Inadaptation Psycho-sociale, Université de Montréal, 1987).

³ R.E. Tremblay, J. McCord, H. Boileau, P. Charlebois, C. Gagnon, M. LeBlanc and S. Larivée, "Can Disruptive Boys be Helped to Become Competent?" *Psychiatry*, 54, May (1991): 148-161.

able to determine whether intensive observation of these boys, occurring over several years, had a positive or negative effect. At present, opinions on this point are divided. Conclusions reached by this study may shed some empirical light on the debate.

From the beginning, the study sample was restricted to kindergarten-aged boys from underprivileged backgrounds attending schools under the jurisdiction of the Montreal Catholic School Board (MCSB). This particular sample was chosen because previous studies had shown that boys from underprivileged backgrounds are more likely to resort to aggressive behaviour.⁴

In 1986 and 1987, we undertook similar studies of four different groups. One sample represented all boys and girls attending kindergarten in francophone public schools throughout the province of Quebec. The three other samples represented boys and girls attending kindergarten in three different-sized cities – Montreal, Quebec City and Val d'Or.

Distribution of Physically Violent Boys in Quebec's Kindergarten Classes

The data on aggressive behavioural patterns in kindergarten-aged children were compiled from evaluations done by kindergarten teachers. Since these teachers are in daily contact with the children for several months, they are able to identify those who display the most extreme behaviour. Although these data are bound to be somewhat biased, validity and accuracy checks of this evaluation method have shown it to be one of the most effective ways of tracing aggressive behaviour in children at school.⁵

The identification of physically aggressive children was based on three behaviours: fighting; bullying; and kicking, biting and hitting.⁶

The study of samples of boys and girls attending schools in different school boards throughout Quebec confirmed what other studies⁷ had already found: the incidence of violent behaviour was higher among young

boys than among young girls. According to observations, 14% of boys but only 4.4% of girls frequently displayed physically violent behaviour. This difference remains fairly constant regardless of the children's ages,⁸ which explains why researchers who study violent behaviour concentrate their efforts on males.

A study of the distribution of boys who frequently show violent behavioural patterns revealed that these boys were not evenly distributed throughout the province. There was a higher concentration of violent kindergarten-aged boys in Montreal (19.2%), particularly in the schools in the Montreal Catholic School Board, which receive children from underprivileged backgrounds (26.8%).⁹

Because the sample was limited to boys attending school in the MCSB jurisdiction, whose parents were all francophones born in Canada, an ethnic factor cannot be used to explain

the high incidence of aggressive behaviour.

Family Traits of Violent Kindergarten-Aged Boys

Several studies¹⁰ have shown that certain family traits are frequently associated with aggressive or antisocial behaviour. Some researchers¹¹ have therefore suggested that violent behaviour originates in the family environment.

The scope of our research did not include direct study of early behaviour learning which takes place before the child attends kindergarten. However, we observed certain factors that permitted a more accurate identification of those families whose sons are likely to display violent behaviour in kindergarten.

A comparative study of frequently violent and non-violent boys in Quebec showed that the level of schooling of parents of violent boys was slightly

⁴ M. LeBlanc and G. Côté, "Comparaison des adolescents de 14-15 ans en 1974 et 1985," in R.E. Tremblay, M. LeBlanc and A.E. Schwartzman (Eds.), *La conduite délinquante des adolescents à Montréal (1974-1985): Étude descriptive et prédictive.* (Montreal: Université de Montréal, École de Psycho-Education, 1986).

⁵ R.B. Cairns, B.D. Cairns, H.J. Neckerman, L.L. Ferguson and J.L. Gariépy, "Growth and Aggression: 1. Childhood to Early Adolescence," *Developmental Psychology*, 25 (1989): 320-330. See also R.E. Tremblay, M. LeBlanc and A.E. Schwartzman, "The Predictive Power of First-grade Peer and Teacher Ratings of Behavior: Sex Differences in Antisocial Behavior and Personality at Adolescence," *Journal of Abnormal Child Psychology*, 16 (1988): 571-583.

⁶ R. Loeber, R.E. Tremblay, C. Gagnon and P. Charlebois, "Continuity and Desistance in Disruptive Boys' Early Fighting at School," *Development and Psychopathology*, 1 (1989): 39-50.

⁷ E.E. Maccoby, "Social Groupings in Childhood: Their Relationship to Prosocial and Antisocial Behavior in Boys and Girls," in D. Olweus, J. Block and M. Radke-Yarrow (Eds.), *Development of Antisocial and Prosocial Behavior: Research, Theory and Issues.* (Montreal: Academic Press, 1986).

⁸ J.Q. Wilson and R.J. Herrnstein, *Crime and Human Nature.* (New York: Simon and Schuster, 1985).

⁹ For the complete regional distribution, see R.E. Tremblay, C. Gagnon, F. Vitaro, M. LeBlanc, S. Larivée, P. Charlebois and H. Boileau, "Les garçons agressifs à la maternelle: Qui sont-ils et que deviennent-ils?" in R.E. Tremblay (Ed.), *Les enfants agressifs.* (Montreal: Éditions Agence d'Arc, 1991).

¹⁰ R. Loeber and M. Stouthamer-Loeber, "Family Factors as Correlates and Predictors of Juvenile Conduct Problems and Delinquency," in M. Tonry and N. Morris (Eds.), *Crime and Justice: An Annual Review. Vol. 7.* (Chicago: University of Chicago Press, 1986) 29-149.

¹¹ L. Eron, "The Development of Aggressive Behavior from the Perspective of a Developing Behaviorism," *American Psychologist*, 42 (1987): 435-442.

lower than that of the parents of non-violent boys. Furthermore, 21.4% of the boys whose parents had split up (broken family) at some time between the boy's birth and the end of kindergarten displayed violent behaviour. Only 11.6% of boys whose parents were still together (intact family) showed similar behaviour.

This trend, which was consistent throughout all schools in Montreal as well as in schools under the jurisdiction of the Montreal Catholic School Board (which receive children from underprivileged backgrounds), is evidently the result of a combination of factors. Boys from broken families attending MCSB schools were almost twice as likely to be perceived as violent than their counterparts from intact families (39.2% versus 20.5%). They were also twice as likely to be considered violent as boys from broken families who attended school elsewhere in the province (21.4%), and almost four times more likely than boys from intact families elsewhere in Quebec (11.6%).

Other family factors linked to frequent aggressive behaviour in children were studied, including number of siblings, day care experience and the parents' ages at the time of the child's birth.

An analysis of the number of siblings in the provincial sample shows that the incidence of violent behaviour was higher among boys who had no siblings when they began kindergarten (21.2%) than among children with one (12.7%), two (9.9%) or three or more (10.2%) brothers or sisters. This trend was also found among boys attending MCSB schools which receive children from underprivileged backgrounds, although the differences were not quite as significant.

Results throughout the province, in Montreal and in schools under the jurisdiction of the MCSB all show that boys who had never attended day care were less likely to be among the most violent boys in kindergarten. The association between placement in day care and physical violence was much greater for boys

attending MCSB schools than for boys in the other samples.

This observation warrants further investigation, although research in the United States¹² came to similar conclusions. In a critical review of these studies, Belsky¹³ suggests that families whose children display behavioural difficulties have a greater tendency to place their children in day care while they are still infants.

The results from an analysis of the mothers' ages at the time of their sons' births confirm another phenomenon that has been previously observed, this time by researchers studying teenage mothers:¹⁴ the incidence of adjustment difficulties is higher among children of teenage mothers. The mothers of violent boys were more likely to have been younger than 21 at the time of their sons' births than to have been 21 or older. These results are consistent throughout the province, in Montreal and in schools under the jurisdiction of the MCSB.

Surprisingly, we were unable to find an association between the age of the mother at the time of birth and the level of anxiety in the child.¹⁵ One would have expected that the adversity resulting from teenage maternity could not only have a negative effect on the child's externalizing behaviour (aggressiveness), but also cause behavioural inhibition (anxiety). However, our results have shown that the negative impact of teenage maternity is expressed in terms of aggressive behaviour of the child. It will be important in the near future to explain the mechanism that leads from teenage mothering to male aggressive behaviour.

What Becomes of Boys Who Maintain Physically Aggressive Behaviour Beyond Kindergarten?

In many cases, aggressive behaviour in kindergarten is temporary, resulting from the child having to adapt to a new environment. It can also be a continuation of behavioural patterns frequently displayed by young children. The longitudinal study, in a school setting, of boys from underprivileged backgrounds in Montreal provides an opportunity to examine differences between the boys who temporarily displayed aggressive behaviour in kindergarten and the boys who consistently displayed aggressive behaviour beyond kindergarten. Both groups were compared to a third group of boys who, according to their teachers, had never displayed violent behaviour.

Results clearly show that boys who displayed violent behaviour all through primary school (consistently violent) face considerable difficulties when it comes to academic and social adaptation. Of the 785 boys attending the MCSB schools who were followed up to the age of 12, 6.2% (n=49) still ranked among the most violent boys at the ages of 10, 11 and 12, just as they had in kindergarten.

The analysis of these boys' academic status at the age of 12 (i.e., six years after kindergarten) indicated that only 29% of them attended regular grade six classes (Figure 1, following page). Another 29% were being schooled in special environments (class, school, boarding school, etc.) specifically geared to children with learning disabilities, behaviour disorders or family troubles.

¹² J. Belsky, "Infant Day Care and Socio Emotional Development: The United States," *Journal of Child Psychology and Psychiatry*, 29 (1989): 397-406.

¹³ Ibid.

¹⁴ C.D. Hayes, *Risking the Future: Adolescent Sexuality, Pregnancy and Child Bearing*. (Washington, D.C.: National Academy Press, 1987).

¹⁵ R.E. Tremblay and R.M. Zhou, *Le dépistage des difficultés d'adaptation sociale chez les garçons de milieux socio-économiques faibles de la maternelle à la fin de l'école primaire*. (Montreal: Université de Montréal, Groupe de recherche sur l'inadaptation psycho-sociale chez l'enfant (GRIP), 1991).

In contrast, boys perceived as violent in kindergarten but no longer regarded as such at the ages of 10, 11 and 12 were twice as likely to be attending regular grade six classes at the age of 12 (72%), and almost five times less likely to have been placed in a special environment (6%).

These boys were no more likely to suffer from adaptation difficulties in school than boys who were identified by their teachers as never having displayed violent behaviour.

The boys perceived as consistently violent by their teachers, from kindergarten to age 12, were generally regarded as aggressive by their peers. These boys also ran the risk of adopting a delinquent lifestyle as early as age 10, 11 or 12. We observed (Figure 2) that between ages 10 and 12, 76% of these consistently violent boys were perceived by their peers as being among the most aggressive members of the class.

In comparison, only 8% of boys perceived as violent in kindergarten

but no longer violent at age 12, and 6% of boys never perceived as violent, were thought by their classmates to be among the most aggressive in the class. Teachers' impressions of violent behaviour in certain boys were corroborated to a large extent by the opinion of the boys' peers.

We also observed that a majority of consistently violent boys (61%) aged 10 to 12 were perceived by their teachers as displaying such other anti-social behaviour as stealing, lying or truancy. This compares with only 2% of non-violent boys and 4% of boys who had been regarded by their teachers as violent only at age 6.

These teacher and peer evaluations were largely confirmed by information provided by the boys themselves regarding their delinquent activities between the ages of 10 and 12. Almost half (45%) of consistently violent boys reported committing delinquent acts (theft, vandalism, aggression, alcohol and drug use) which placed them among the most

delinquent boys aged 10 to 12 in the sample.

In contrast, 25% of the boys perceived as violent only in kindergarten fell into this category of most delinquent boys aged 10 to 12. It should also be noted that only 9% of boys perceived as non-violent from kindergarten to the ages of 10 to 12 fell into this category.

These results clearly show that young children who display violent behaviour run a high risk of becoming deeply involved in delinquent activities before their teenage years.

Characteristics of Boys Violent from Age 6 to 12

As mentioned previously, boys who display violent behaviour in kindergarten show different environmental characteristics – family traits in particular – than non-violent boys. For prediction purposes, it is important to study to what extent certain characteristics separate boys who will remain violent from boys who will

Figure 1
Academic Standing of Three Groups of Boys Six Years After Kindergarten

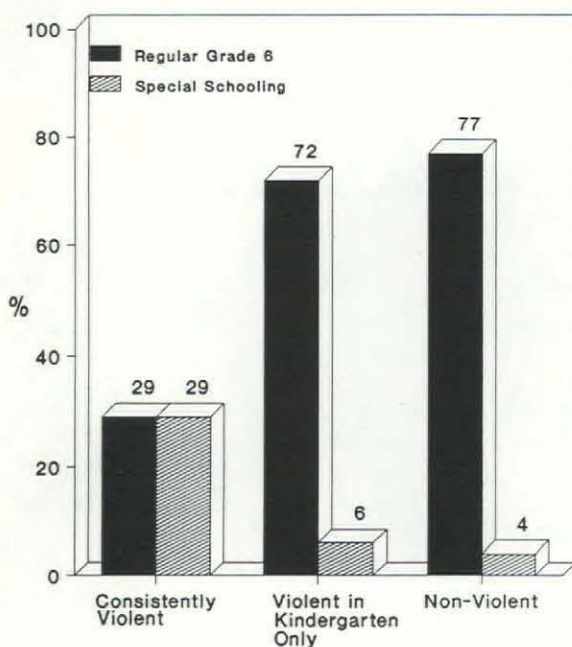
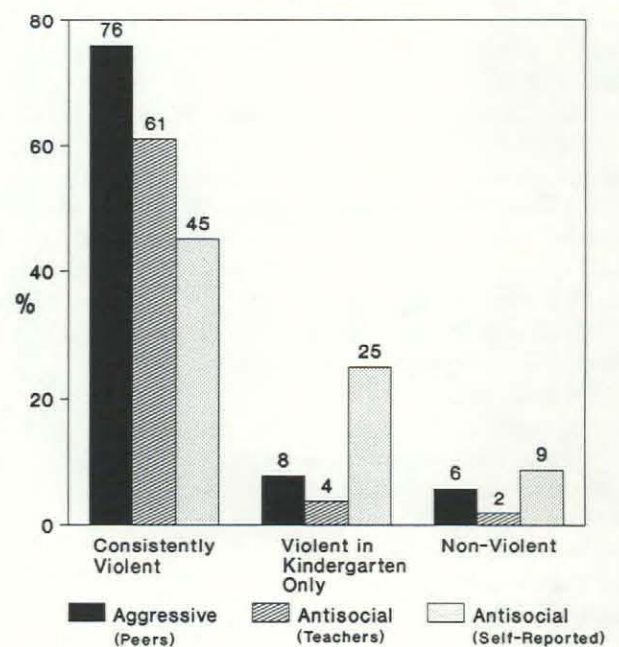


Figure 2
Aggressive and Antisocial Boys as Perceived by Peers, Teachers and Themselves



stop their aggressive behaviour. We observed that the family traits that predict violent behaviour in kindergarten also predict its continuity.

As seen in Figure 3, 45% of consistently violent boys come from broken families. These boys' mothers (51%) and fathers (37%) were more likely to be welfare recipients. In 39% of these cases, the mothers were younger than 21 at the time of their sons' births.

These results indicate that consistently violent boys were more likely to come from broken families headed by a young woman whose financial situation was unstable and who was 20 years of age or younger when she had her son.

The use of a family adversity index,¹⁶ based on these family environment variables, clearly shows that consistently violent boys come from families where adversity runs high. Also, a study of the boys' temperaments,¹⁷ as described by their mothers, shows that the boys most likely to display violent behaviour were described as being more reactive, meaning they tended to react more strongly to various stimuli and were prone to hyperactivity.

In all likelihood, boys with a highly reactive neurological system who live in an unstable environment are the most likely to display aggressive behaviour on a continuing basis.¹⁸

Can the Continuity of Violent Behaviour in Primary School-Aged Boys Be Prevented?

If it is possible to identify, right from kindergarten, the children most likely to become and remain violent, the school environment can become the focal point for the co-ordination of prevention efforts, since all children must attend school. School is an appropriate place to seek out those children who experience particular difficulties in acquiring the knowledge and behavioural patterns that will allow them to function in society.

The research program that we undertook included the testing of an intervention program designed to help

parents reduce their sons' aggressive behaviour. The program was also aimed at helping the boys by encouraging them to display positive behavioural patterns when relating to their peers rather than resorting to violence as a way of resolving conflicts.

The intervention program for parents and boys took place over two years. The boys were 7 years old when the intervention began. Between the end of kindergarten and the beginning of second grade, we trained the staff who would carry out the intervention (four university-trained childcare workers, a psychologist and a social worker). We also undertook all necessary evaluations before the implementation of the intervention program (evaluation of the parents' behaviour with their sons, evaluation of the child's behaviour at home and at school).

Interventions aimed at the boys were carried out at school, in small groups. These groups included children who did not display behavioural difficulties and who served as role models. Interventions directed at the parents took place at home with both parents present or, in the case of single-parent families, one parent present.

The behaviour of all boys (experimental, control and observation groups) was evaluated at ages 9, 10, 11 and 12.

Based on results to date,¹⁹ the effect of the intervention appears

positive. In a comparative study of the experimental group, the control group and the observation group undertaken two years after the end of the intervention, fewer boys from the experimental group reported having fought either at home or away from home, and fewer reported having stolen from their home. The number of boys who had repeated a grade or been transferred into a special class or institution for children with difficulties was also lower.

An index was established to compare the overall adaptation of each child within the school environment. This index is based on peer and teacher evaluations of aggressive, oppositional and hyperactive behavioural patterns in 10- and 11-year-old boys and on their being or not being in a regular sixth grade class six years after kindergarten. The index determines which boys show serious difficulties in terms of behaviour and academic performance.

Results (Figure 4) show that 14% of boys in the experimental group, compared with 31% in the control and observation groups, had behavioural and academic performance problems.

Although these results are encouraging, no difference was noted between the experimental group and the control and observation groups on several other variables indicative of adaptation difficulties. For the time being, we prefer to reserve judgment on the effectiveness of the preventive

¹⁶ R.E. Tremblay, R. Loeber, C. Gagnon, P. Charlebois, S. Larivée and M. LeBlanc, "Disruptive Boys with Stable and Unstable High Fighting Behavior Patterns During Junior Elementary School," *Journal of Abnormal Child Psychology*, 19 (1991): 285-300.

¹⁷ R.M. Lerner, M. Palermo, A. Spiro and J.R. Nesselroade, "Assessing the Dimensions of Temperamental Individuality Across the Life Span: The Dimensions of Temperament Survey (DOTS)," *Child Development*, 53 (1982): 149-159.

¹⁸ P.H. Venables, "Autonomic Nervous Factors in Criminal Behavior," in S.A. Mednick, T.E. Moffitt and S.A. Stack (Eds.), *The Causes of Crime: New Biological Approaches*. (New York: Cambridge University Press, 1987).

¹⁹ R.E. Tremblay, J. McCord, H. Boileau, M. LeBlanc, P. Charlebois, C. Gagnon and S. Larivée, "The Montreal Prevention Experiment: School Adjustment and Self-reported Delinquency after Three Years of Follow Up." Paper presented at the Annual Meeting of the American Society of Criminology. (Baltimore, November 1990). See also footnote 3.

Figure 3
Family Characteristics of Boys

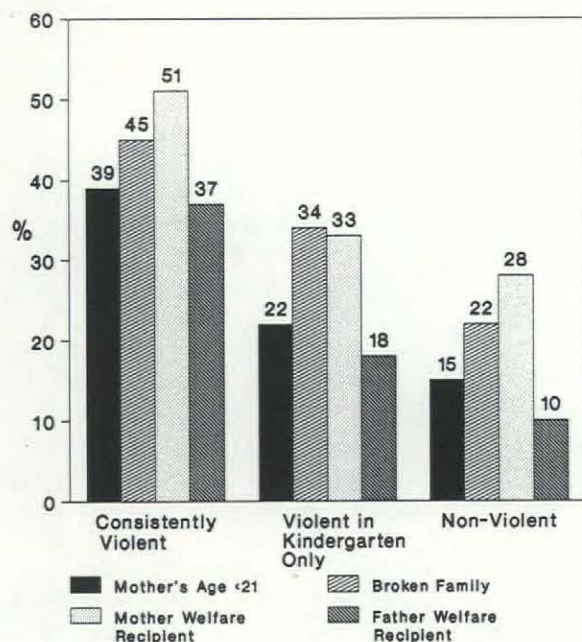
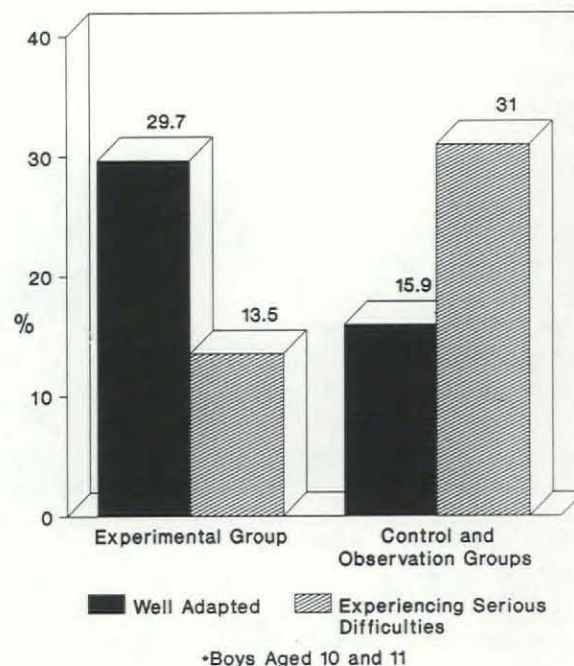


Figure 4
Percentage of Boys Who Benefited from Preventive Intervention*



treatment. Over the next five years, the boys will be in a range of age (13 to 18) during which they are most likely to commit delinquent acts, especially physically violent acts. This evaluation period should shed some light on the long-term effects of this preventive intervention in the case of aggressive, violent, kindergarten-aged boys.

Conclusion

Physical violence is everyone's concern. Physical aggression displayed by kindergarten-aged boys is linked to several social issues such as poverty, teenage pregnancy, divorce and day care.

In all likelihood, modern society will not be able to resolve these issues without putting considerable energy into bettering the quality of life of these children who are tomorrow's parents. Given that seniors, who have legitimate needs, are a growing segment of society, we will have to choose between directing resources

toward the health and welfare of an aging population or committing resources for the care of the poorest children.

The welfare of seniors can be heightened by increasing police surveillance to prevent aggressions. However, the same end can be achieved by providing better services to those children who are likely to become delinquent. In a society with unlimited resources, all prevention strategies could be used. However, we are far from being in such a society.

The politicians and managers who must decide which course of action to take are influenced by several factors. These include humanitarian considerations (e.g., the welfare of minorities) and political considerations (e.g., majority vote). One of the purposes of research is to provide facts on which to base the decision-making process.

Unfortunately, very little research has been done on the causes and prevention of psychosocial adaptation difficulties. At present, there is

no way to tell whether investing in preventive treatment for high-risk children will yield results significant enough to match the resources invested. Until now, the resources allotted to helping children with problems have been used to create services, but the short-, medium- and long-term effectiveness of these services is unknown.

Experimental and epidemiological research has brought about significant progress in the physical health field over the last few decades. It is to be hoped that the systematic application of these methods will promote a better understanding of how to keep children out of such living conditions that they turn to violence to get what they want.

The results of preventive intervention at the beginning of the primary-school years have shown that helping both the parents and the children can sometimes have a positive effect. Nonetheless, research has also shown that a much earlier intervention, before aggressive behavioural

patterns become ingrained, is preferable. These preventive interventions imply the identification of high-risk children during pregnancy or within a few months of birth. However, these evaluation methods are far more complex and costly than identification in the school.

To take advantage of the opportunity for early intervention provided by the school system, the children we study must be viewed as future parents whose children, in some cases, will be in difficulty. With this perspective, the girls included in the samples become as interesting as the boys, if not more so. The incidence of childhood behavioural difficulties is much lower in girls than in boys, but the girls who have problems are also more likely to become teenage mothers and mothers who provide less than adequate care for their children.²⁰

If early intervention in the cases of young girls who display behavioural difficulties in their primary-school years could be used to lower the teenage pregnancy rate and to raise the quality of care provided to children, the school system would then become a vehicle to prevent the reproduction of adaptation difficulties. It is not unreasonable to expect the school system to prepare youngsters not only for entrance into the work force, but for life in society as well.

Acknowledgements

The research described in this article was undertaken in co-operation with Pierre Charlebois, Serge Larivée and Marc Leblanc, and made possible by the financial support of several organizations: the Conseil québécois de la recherche sociale, the Social Sciences and Humanities Research Council of Canada, the Fonds pour la formation de chercheurs et l'aide à la recherche (FCAR) of the Government of Quebec, the Department of Health and Welfare's National Welfare Grants Program, the Conseil de la santé et des services sociaux de la région de Montréal métropolitain, the Fondation Cité des Prairies, the Centre d'accueil Le Mainbourg and the Université

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H. Boileau is statistician of the Research Unit on Children's Psychosocial Maladjustment at the Université de Montréal.

²⁰ L.A. Serbin, A.E. Schwartzman, D.S. Moskowitz and J.E. Ledingham, "Aggressive, Withdrawn and Aggressive-withdrawn Children in Adolescence: Into the Next Generation," in D. Pepler and K. Rubin (Eds.), *The Development and Treatment of Childhood Aggression*. (Hillsdale, N.J.: Lawrence Erlbaum, 1991).

In this section of FORUM, we hope to stir up some discussion and response among our readers by presenting "views" on certain issues and "reviews" of current literature, including this magazine. FORUM invites you to drop us a line, sharing your own views and reviews.

The Class/Crime Debate

People from different disciplines often have opposing perspectives on whether social class is relevant to crime and criminal justice. Some hold that there is a link between social class and crime, while others firmly believe that the class question is out of place in discussions about crime.

In this first edition of Views and Reviews, we have invited two prominent academics to use FORUM as their "forum" to debate the class/crime issue.

Ross Hastings of the University of Ottawa argues that the question of class is fundamental to any discussion of crime. Don Andrews of Carleton University holds that class and crime are separate, unrelated issues.

Corrections with Class

Ross Hastings

Department of Criminology, University of Ottawa

An emerging certitude among criminologists of all stripes is that we should re-engage in the challenge of doing applied criminology. More particularly, there is a commitment to working in smaller, more specific areas.

For rehabilitationists, the approach is to focus on the individual rather than to depend on situational reform. For critical criminologists, the approach is to focus on local communities and inter-agency partnerships rather than broader levels of class

relations.

The problem is that this shared commitment to action does not reflect a common theoretical perspective. The result is a series of acrimonious and, sometimes, very silly debates. A good example is the current argument about whether social class matters.

The answer, in my view, is yes – class has a significant impact on rates of crime and victimization among different social groups. The key is to demonstrate how it makes a

difference.

The recent work on behalf of rehabilitation argues that individual differences are at the root of criminal behaviour, and that programs can be designed to treat those differences and thereby reduce recidivism. However, this work rarely identifies the relationship of these factors to social class.

Individual differences are critical, of that there can be no doubt. However, these differences are not randomly distributed. Certain social groups suffer much higher rates of the differences that "make a difference" because of the social and economic stresses they experience.

Not only must we recognize the impact of class, we must integrate it into our analyses and responses to crime. Until we do, it is unlikely that programs aimed at rehabilitating individuals will fulfill their potential. This is in large part because they will fail to address the kinds of problematic situations to which these individuals must respond in their daily lives.

The result is that our rehabilitation programs may help some individuals for a little while, but they won't make much difference in our ability to prevent crime or make our communities safer and more vibrant. ■

Socio-Economic Class of Origin and Individual Criminal Conduct

Don Andrews

Department of Psychology, Carleton University

The unequal distribution of societal wealth, power and prestige is a major social problem with some tragic personal and familial consequences. Poverty and the abuse of power are not to be condoned, and efforts to redistribute wealth and power more equitably are highly valued.

As important as these concerns are, social class of origin is not a major correlate or predictor of criminal behaviour. Thus, much of sociological criminology – the class-based anomie/strain, sub-cultural, labelling and critical/Marxist perspectives on individual criminal conduct – rests on a very weak

empirical base.

Consider the large-scale quantitative reviews of the literature on this issue. In 1978, Tittle, Villimez and Smith reviewed a number of empirical studies, concluding that the average correlation between class and crime, at about $-.09$, offers little support to class-based theories.

If social class is considered in predicting criminal behaviour, Rolf Loeber and colleagues estimate that the relative improvement over chance (guessing) in making a correct prediction is about 18% – once again, a minimal association between class and crime.

A 1991 study by Gottfredson, McNeil and Gottfredson looked at the socio-economic characteristics of neighbourhoods and reported minimal effects on criminal behaviour.

In brief, the assumption that class – defined by parental, educational, occupational or financial indices or by the socio-economic characteristics of neighbourhoods – links with criminality remains empirically unfounded.

Social class of origin is not a major source of variability in the criminal behaviour of individuals. The major sources of such variability are the personal, interpersonal, familial and structural/cultural factors identified by general personality and social-psychological perspectives on criminal behaviour. ■

Update on *Public Service Alliance of Canada v. Attorney General of Canada and Econosult*

In a previous issue of FORUM, the Legal Perspectives section featured an article on the Federal Court of Appeal decision in the Econosult case. The Supreme Court of Canada rendered its decision on that case shortly after the article was sent to print. The following provides an update on the Supreme Court's judgment.

The facts in *Econosult* were not in dispute. The Correctional Service of Canada had entered into a contract with Econosult Inc., a private corporation, to hire and provide teachers for the Correctional Service of Canada's inmate education program. These services had previously been performed by employees of the Correctional Service of Canada. The issue before the Court was whether the Econosult teachers were employees within the meaning of the *Public Service Staff Relations Act*.

The decision of the Federal Court of Appeal held that an employer/employee relationship did not exist between the Correctional Service of Canada and the contract teachers. The Public Service Alliance of Canada then appealed this decision to the Supreme Court of Canada.

The Supreme Court of Canada dismissed the appeal and agreed that the Econosult teachers were not public servants. In his judgment, Mr. Justice Sopinka analysed the meaning of the word "employee" within the *Public Service Staff Relations Act*. He held that the Econosult teachers did not fit within the definition of "employees" because they were not hired through standard public service channels. The creation of a category of de facto public servants was not in keeping with the purposes of the legislation.

It can be concluded from the judgment that employees of a corporation which has entered into a service contract with a government department for legitimate business reasons do not become employees of the

department for collective bargaining purposes. An employer/employee relationship is not created even if the contractor's employees work on government premises, use tools or resources of the government, or are under the control of departmental officials.

The judgment does not change the status quo with respect to personal service contracts with contractors. Departments are still required to avoid creating employer/employee relationships in these circumstances since the Supreme Court of Canada decision only dealt with the issue of the creation of an employer/employee relationship within the context of the *Public Service Staff Relations Act*. The tests of standard common law to determine whether or not an employer/employee relationship exists (see the original article in the Legal Perspectives section of FORUM, Vol. 3, No. 1) must be applied to cases which do not have exactly the same elements as the *Econosult* case.

Departments must also be aware that the decision of the Federal Court of Appeal in *Attorney General of Canada v. Public Service Staff Relations Board* respecting the Workforce Adjustment Policy (which has been incorporated into most collective agreements) considerably restricts the right of the federal government to contract out when this involves the laying off of employees. The Attorney General's appeal on this matter is before the Supreme Court of Canada. ■

Recent Legal Developments

The following summaries and extracts from opinions, reports and other documents are provided for the information and convenience of the reader.

However, as the extracts are incomplete, the reader should refer to the actual opinion or document or consult with Legal Services at National Headquarters concerning the specific interpretation or applicability of any opinion or decision cited. If you have any questions about these or other related matters, please contact Mark H. Zazulak, General Counsel, Department of Justice, Legal Services, Correctional Service of Canada, National Headquarters, 4A – 340 Laurier Avenue West, Ottawa, Ontario K1A 0P9.

In its recent decision in *R. v. Swain*, the Supreme Court of Canada struck down subsection 614(2) of the *Criminal Code* which provided for the automatic detention of all persons found not guilty by reason of insanity until the Lieutenant Governor has either discharged the accused or ordered his or her continued detention. The Court found that the automatic detention of a person after a finding of not guilty by reason of insanity deprived a person of his or her right to liberty, and constituted arbitrary detention because the detention is automatic and no hearing is held. This decision does not affect those who have been detained under Lieutenant Governor Warrants for some time and have been subject to annual reviews by provincial boards of review.

In *Fengstad v. Scissons*, the Federal Court rejected an inmate's challenge to his continued detention in the segregation unit. The primary reason for the continued segregation was that, according to several informants, the inmate had been threatening other inmates and members of their families, trying to force them to purchase narcotics and bring them into the institution. The notification of placement in segregation restricted certain details so as to protect the identities of the informants.

The Court held that it was not unreasonable for prison authorities to consider an inmate's history – which in this case included numerous outstanding offences for very serious crimes – in making administrative decisions. It concluded that there was

no breach of fairness in placing the applicant in segregation and that it would be clearly unwise and perhaps even dangerous to reveal more information to the applicant.

This decision reinforces the ruling in *Gallant v. Trono* to the effect that where informants' lives could be endangered if additional information were revealed to an offender, the Correctional Service of Canada is not required to do so in its reasons for segregating or transferring an inmate.

In *Morin v. Gauthier*, the Federal Court quashed the decision of an independent chairperson that limited the number of witnesses an inmate could call. The Court held that independent chairpersons hearing a disciplinary matter cannot arbitrarily limit the number of witnesses an accused wishes to call. In deciding whether evidence is reasonable or trustworthy, the chairperson should at least attempt to learn, from the person wishing to produce one or more witnesses, what these witnesses will be saying and whether they are in a position to give credible testimony.

In *Queen v. Fischer*, the Alberta Court of Appeal upheld the trial court's denial of the appellant's application for habeas corpus. The appellant was convicted of first degree murder in 1979 and is ineligible for parole for 15 years. He argued that his continued detention constitutes cruel and unusual punishment and offends section 12 of the *Charter of Rights and Freedoms* which came into force in April 1982. The appellant contended that his punishment was cruel

because his conviction was based upon definitions of murder which were found to be contrary to another section of the *Charter of Rights and Freedoms*.

The Court of Appeal held that to accept the appellant's argument, the *Charter* would have to be applied to events that occurred before it came into force. The *Charter* can only be applied retrospectively in certain cases where the incarceration was illegal under pre-*Charter* law. In such cases, the *Charter* merely offers a remedy where none existed before. ■

Ipsa Facto

Personal information collected by a government institution can be used for a limited and specific number of purposes under the *Privacy Act*. Access to such personal information should, therefore, be restricted to those employees of the government institution whose duties relate to one of the authorized uses.

The U.S. Bureau of Prisons Office of Research and Evaluation – Attempting to Link Research and Practice

by Judy Gordon, writer/editor
Office of Research and Evaluation, Federal Bureau of Prisons

One of the major challenges facing correctional researchers is to meet conflicting demands. On the one hand, correctional managers require immediate feedback and evaluation of operations and programs. Nevertheless, the fact remains that good evaluative research is time-consuming.

Since the late 1950s when the federal prison system created a branch specifically to perform research, federal corrections researchers have striven to meet these two competing goals, learning how to serve the needs of correctional managers without compromising the quality of research.

This article describes the evolution of the U.S. Federal Bureau of Prisons (BOP) Office of Research and Evaluation (ORE), its current mandate and role and its present research activities.

From Start to Present

The federal prison system created a research office in 1959, following a landmark evaluative study of federal corrections sponsored by the Ford Foundation and conducted by Daniel Glaser, then of the University of Illinois.

In 1964, the findings were published in a book entitled *The Effectiveness of a Prison and Parole System*. The book's foreword, by former U.S. Attorney General Robert F. Kennedy, indicates the interest in this "new" type of evaluation effort:

"[The project] represents a major step forward in American corrections – the application of the analytical techniques of social science to the study of one of the largest and most advanced correctional systems in the world."

While the federal prison system had maintained statistics on its inmate population, the Glaser study prompted the reorganization of the statistics unit to an expanded Research and Statistics Branch.

The broadening role of research within the federal prison system coincided with the enthusiastic embracing of rehabilitation as a major goal of corrections.

During the 1960s and early 1970s, the Bureau of Prisons was in the vanguard of correctional agencies experimenting with rehabilitation programs, and the Office of Research was an integral part of this effort. At that time, the ORE primarily evaluated rehabilitative programs to demonstrate their success in changing the lives of inmates.

It was a time of optimism and hope that new treatment and training could have a positive impact on inmates' lives, and that research would help discover the most effective rehabilitative techniques. Studies evaluated various educational and vocational training programs, work and study release, halfway houses, unit management, individual and group counselling, and drug and alcohol programs. Total institutions such as the high-security operation at Alcatraz and the program for juveniles and young adults at Morgantown, West Virginia, were also examined.

While other projects such as population projections were initiated as well, the primary focus was on program evaluation.

During much of this time, the Office of Research's strategy was to maintain a core central office

operation, while also positioning researchers in various key institutions to study directly what was happening in them. There was even serious talk of establishing a researcher position at every BOP facility, but this never materialized.

During the mid to late 1980s, the Office of Research shifted toward a central office operation. Central office recalled researchers in the field, and this remains the style of operations today. The Office of Research and Evaluation conducts most of its work from its base in Washington, D.C., except for a few field research sites. Research is still conducted at the BOP's highest security institution in Marion, Illinois, at Butner, in North Carolina, an institution which houses many inmates in need of mental health services, and at several sites that are pilot testing a drug treatment program.

ORE Today – Mission and Projects

The number of research staff has grown considerably since the Office's early years, and today about 35 analysts and support staff work for the ORE.

The type of research projects is changing as well. In a recent report to the Director of the Bureau of Prisons, the ORE described its mission as providing "information relevant to current and future questions in the field of corrections through social science research."

According to the report, the ORE's primary activities include conducting evaluative and basic research studies, developing and maintaining information systems, producing and distributing reports, responding to information requests, and providing technical assistance.

Evaluative Research Projects

The ORE's evaluative research agenda contains several major projects: a multiyear drug treatment evaluation (TRIAD), an evaluation of the BOP's shock incarceration ("boot camp") program, a study of the effectiveness of electronically monitored home confinement, and a study of the

relationship between institutional work experience and recidivism.

The TRIAD project, partly funded by a \$2.7-million grant from the National Institute on Drug Abuse, is following inmates with substance abuse problems through their treatment, into aftercare, and then for a follow-up period after their release. The research focuses on the participation of inmates in programs in eight unit-based drug abuse programs plus comparisons with out-patient drug abuse programs, other types of programs and the general inmate population.

A major goal is to identify the circumstances and avenues by which change is initiated as well as factors related to motivation for change, self-efficacy and coping skills. It is hoped that this research will highlight methods to increase an individual's motivation to change, enhance the effectiveness of current programs and support development of innovative approaches.

The Intensive Confinement Center (ICC) in Lewisburg, Pennsylvania, the BOP's shock incarceration program, is a minimum-security facility designed to house 192 male offenders. Since November 1990, the ICC has offered a specialized program that provides a workable balance between a military boot camp and the traditional values of the BOP. Inmates meeting the participation criteria are placed in the ICC program for up to six months.

Among other components, the program consists of a due-process system of discipline, a strict daily regimen of physical training, military drill and ceremony, work assignments, adult education, vocational training, life-coping skills, and a positive personal attitude and self-esteem program.

The ICC program also includes a community component whereby after release, each inmate's probation officer is asked to complete forms on the individual's adjustment to community supervision. The ORE is studying the program to test whether ICC

participants are more or less likely than non-participants to be re-arrested or to commit technical violations of their postrelease supervision. Information on program costs will also be collected and compared with the costs of more traditional correctional approaches.

Another major evaluative study is examining the feasibility of confining offenders in their homes and monitoring their whereabouts electronically. In January of 1988, the BOP, the U.S. Parole Commission and the Federal Probation System initiated a pilot program (the Community Control Project) to examine this issue. The ORE's evaluation will investigate the recidivism, drug use and employment patterns of participants released via the Community Control Project as compared to offenders released via a halfway house.

The Post-Release Employment Project evaluates the effect of industrial work experience and vocational training on postrelease success, defined as lowered recidivism rates. Data were collected from 1983 through 1987 on more than 7,000 inmates. Preliminary findings indicate that inmates participating in these programs were more likely to be employed, earn more money and avoid re-arrest than comparable inmates who did not participate.

Basic Research

For planning purposes, Bureau managers must be able to anticipate inmate population trends, particularly now, during this period of unprecedented inmate population growth. Thus the ORE continues to work on an integrated, prison-population projection prototype.

The work develops and integrates three interrelated components:

- data from other federal justice agencies on trends in arrests, convictions and sentences for federal offenders;
- adjustments based on the impact of the Federal Sentencing Guidelines; and
- BOP data on past annual admission and release cohorts.

While work progresses on this integrated prototype, the ORE is using a simplified version of the third component to make one-year population projections, and preliminary versions of the first and second components to make projections over a five-year period.

Another project of considerable importance to BOP managers is the new security designation or custody classification system, which entered the developmental stages in December 1989. The new system, which changed the BOP's classification categories and strategy, was implemented in February 1991, and the ORE played an important role in assessing the validity of the classification instrument. This included monitoring the implementation of the system and the change in the population for six months after the new policy was instituted.

A third example of continuing basic research is the ORE's examination of rehabilitative treatment studies. It is hoped that this effort will enable ORE analysts to advise correctional managers on ways to improve their programs.

Developing and Maintaining Information Systems

One good example of ORE's efforts in the area of information systems is the Key Indicators/Strategic Support System (KI/SSS). KI/SSS grew from the need of BOP administrators to be able to integrate and access, in one system, the vast amount of existing automated data from a variety of Bureau operations.

Historically, administrators either had to make specific requests to those who could access the necessary data sources, and wait for the results, or make do with the periodic publication of statistical summary reports. The KI/SSS system was developed to promote data independence for administrators and greater timeliness in the availability of information for decision making.

Key Indicators is currently available to managers on microcomputers

at 90 Bureau locations. The system helps managers identify significant trends regarding inmates, staff, financial management and institutional operations. It is intended to form the backbone of the Bureau's internal management and oversight structures and will be integrated with virtually every function in the agency.

While development of Key Indicators demanded considerable time and effort on the part of analysts and programmers, the system has reduced the time research staff must devote to answering routine requests for information on BOP operations.

One key indicator in KI/SSS – and a sort of mini-information system in itself – is the information gathered by the annual Prison Social Climate Survey of a representative sample of Bureau staff. The survey covers four substantive areas: personal safety and security, quality of life, work environment and personal well-being.

First administered in 1988, the survey yields information for managers about employee perceptions of their jobs, their workplace and the BOP as an organization. Results are available via Key Indicators usually within two months after the surveys are received by the ORE. The survey's measures are a central feature of KI/SSS and provide subjective assessments of prison climates to complement the objective measures available in the system.

Information Dissemination and Technical Assistance

The ORE recognizes the importance of bridging the gap between corrections research and practice, and ensures that the results of its research reach those who can benefit from it, both within and outside the BOP. Through articles in in-house publications, such as the BOP's *Federal Prisons Journal* and the ORE's *Research Forum*, and certain outside periodicals, such as *Federal Probation*, the ORE communicates the results of its work to staff throughout the Bureau.

By publishing articles in such recognized academic journals as the

American Journal of Sociology, the *Journal of Research in Crime and Delinquency* and the *Annual Review of Crime and Justice*, the ORE is able to reach an even broader audience.

The ORE also provides technical assistance to state and local governments and correctional systems and, in some cases, to other nations. For example, the ORE assisted the Correctional Service of Canada in the development of its own key indicators system, the Offender Population Profile System. The ORE has also advised local and state agencies on such issues as population projections and inmate classification.

Conclusion

While different BOP administrators have had varying expectations of the Office of Research and Evaluation, the Office currently has the support of the highest levels of BOP administrators. These administrators believe in making informed decisions based on fact, and they understand the role of research in such efforts. During this period of declining revenues and fiscal restraints, these administrators are calling upon the ORE for decision-making support. In addition, since a large part of BOP operations depends on effective information management, it is no surprise that many ORE staff move on to other managerial positions within the agency, bringing with them their appreciation of, and ability to work with, research. ■

Massive American Study Traces the Development of Criminal and Non-Criminal Behaviours

With a budget of \$2.5 million and a research plan of five to eight years, the Program on Human Development and Criminal Behavior is tracing developmental factors that cause or prevent criminality.

This longitudinal and interdisciplinary study seeks answers to some fundamental questions about the development of criminal and non-criminal behaviours: why do some children and adults who share similar characteristics and life circumstances become criminals while others do not? What is the best time to intervene with programs to decrease the number of individuals who progress to more serious antisocial behaviour and criminality?

The program is supported by matching funds from the National Institute of Justice and the John D. and Catherine T. MacArthur Foundation.

The proposed research integrates biological, behavioural and sociological perspectives in studying what leads individuals along desirable and undesirable developmental pathways.

The program was designed during a two-year planning process involving more than 50 prominent researchers from various disciplines. The goal was to develop a truly interdisciplinary research plan linking developmentalists, behaviourists, sociologists, psychologists and political scientists.

An important part of the project is the overlapping longitudinal studies of seven cohorts of individuals from birth to age 18. The overlapping age groups permit the program to simulate a 21-year cohort in less than five years. This allows quicker reporting of study findings relevant to current policy issues.

The project director is Dr. Felton J. Earls, Professor of Human Behavior and Development at the Harvard School of Public Health, Boston. Co-director is Albert J. Reiss, Jr., William Graham Sumner Professor of Sociology and Chair of Sociology at Yale University. ■

This section of FORUM is devoted to short summaries of selected conferences, seminars and workshops attended by Correctional Service of Canada staff in Canada or abroad. Some effort is needed on the part of all staff if we are to take seriously the importance of sharing ideas, knowledge, values and experience, nationally and internationally. We ask you to join in this effort and contribute your reflections and observations when you attend significant events as representatives of the Correctional Service of Canada.

**19-23 February 1991
PSYCHOTHERAPY
ASSOCIATION ANNUAL
INSTITUTE CONFERENCE
San Antonio, Texas**

The Psychotherapy Association's annual institute conference witnessed some interesting lectures on the nature of psychotherapy, rational emotive therapy and cognitive behaviour modification.

In opposition to conventional theory, Dr. Thomas Szasz has argued against the notion of mental health/mental illness for the past two decades. He dismisses most psychiatric treatment as coercive social control of people whose ideas we do not like or accept.

To demonstrate his point, Dr. Szasz showed a videotape of an interview with a young man declared schizophrenic by several psychiatrists. In the course of the interview, Dr. Szasz illustrated that the young man was quite capable of rational thought and behaviour, if treated as a rational being.

Dr. Szasz noted that it is reasonable to help people who want to change their thoughts and actions. But he does not accept the whole idea of psychiatric diagnosis, or the creation of "illnesses," which he says are in the head of the observer rather than the client. In particular, he was scathing in his criticism of the concept of such coercive and intrusive psychiatric treatment as electro-convulsive therapy and phenothiazines.

Dr. Albert Ellis and Dr. Don Meichenbaum lectured on rational emotive therapy (R.E.T.). To the charge (by Meichenbaum and others) that R.E.T. attempts to objectify

"rationality," Dr. Ellis said the use of the term "rational" has perhaps been misleading. He uses it to refer only to those behaviours and cognitions which serve the best interests of the client.

Dr. Ellis does, however, believe that those "best interests" are definable in terms of constructive, prosocial behaviour. Personal happiness is only achievable through attempting to be a constructive and productive member of society.

Dr. Meichenbaum lectured on cognitive behaviour modification. He bases his therapy on teaching people how to interrupt their internal dialogues and to sort out "good" from "bad" thoughts, which help or hinder accomplishment.

Unlike Dr. Ellis, Dr. Meichenbaum adopts a constructivist position, believing there is no one reality. The viability of beliefs, rather than their validity, is crucial. Delusion and denial may be quite adaptive. There is even evidence to suggest that non-depressed normal people are less realistic than depressives.

Dr. Meichenbaum offered some interesting comments on effective therapy based on psychological outcome-prediction studies. The most important predictive variable is the patient, while a good client-clinician relationship runs a close second. Therapist characteristics run a poor third, and specific techniques account for only 15% of the variance in outcome.

Dr. Meichenbaum discussed a therapy technique called "tracking," which assesses how a client moves across the various modalities to produce the unwanted problem. For example, panic attacks may be

produced by a sequence of frightening images leading to negative sensations, which in turn fire up cognitions producing high levels of anxiety. Such an assessment is essential to deciding on which modality the therapy must focus.

Other researchers who lectured at the conference included Victor Frankl, in the keynote address, "From concentration camp to existentialism"; Arnold Lazarus on multimodal assessment and therapy; William Glasser on reality therapy; Jay Haley on directive therapy; and Paul Watzlawick on psychotherapy of "as if."

**27 February – 1 March 1991
CONFERENCE ON CLINICAL
CRIMINOLOGY
Toronto, Ontario**

"Towards Effective Treatment" was the theme of this clinical conference which focused on the treatment of special offender groups and featured well-known researchers, including Vern Quinsey, Helen Annis, Grant Harris, Lynn Lightfoot, Richard Laws, Don Andrews and Sheilagh Hodgins.

Dr. Vern Quinsey of Queen's University made several key points on the management of violent offenders. On the issue of clinical judgment, Dr. Quinsey stated that in studies examining the variables used by clinicians to predict treatability and dangerousness, there is very little agreement among clinicians as to which variables (what types of information) are predictive.

Furthermore, when comparing the decisions about dangerousness made by a group of highly trained clinicians and a group of teachers, it was found that, on average, both groups made identical decisions. This finding speaks to the specialized nature of the information on which such decisions are based.

On the issue of treatability, Dr. Quinsey noted that we must accept the inevitability of false positives. For example, people who may not in fact be dangerous may end up being labelled as such. The goal then must be to develop interventions that

are effective but not apocalyptic and, thus, not harmful to the individuals who have been mislabelled.

The conference brought together more than 200 criminal justice practitioners, policy makers and academics. Although limited space restricted registration to 200, the interest generated by the proposed list of speakers and topics could easily have doubled the number of registrants.

Session topics included: the incidence of mental disorder among offenders, the management of violent offenders, treatment co-ordination and continuity for mentally disordered offenders, treatment needs of female offenders, community issues for native offenders, substance-abuse treatment, treatment for abusive and assaultive men, cognitive skills training, relapse prevention for substance-abusing offenders and sex offenders, treatment for psychopathic offenders, the management of severely mentally disordered offenders, and fitting treatment to offenders' needs and learning styles.

The conference was sponsored by the Clarke Institute of Psychiatry, the Solicitor General of Canada and the Ontario Ministry of Correctional Services. Delegates from National Headquarters and the regions represented the Correctional Service of Canada.

28 February – 3 March 1991
AMERICAN CORRECTIONAL
HEALTH SERVICES
ASSOCIATION CONFERENCE
 Baltimore, Maryland

"Management Issues of the 90s" was the theme of this multidisciplinary conference. Sessions were organized in three tracks. The first was management and operations – health care standards, professional continuing education, legal issues, ethical standards. The second was programs and services – parenting in prison, quality assurance, AIDS education, cost containment in health care, correctional nursing. The third was special populations and issues – mental health, substance abuse, the aging

inmate and offenders with AIDS or HIV.

The keynote speaker, Dr. Robert DuPont of the Institute of Behavior and Health, pointed out the need for strategies in prevention and intervention that follow the health promotion model originally developed by the World Health Organization. Dr. DuPont contended that the future of drug-abuse interventions lies in the area of the environment (or situational context) where decisions to use or not use substances are made. This theme was repeated by many other speakers in relation to both mental health and substance abuse.

The Correctional Service of Canada was represented by Jon F. Klaus, Director of Operations, Health Care Services and Dr. Réal Préfontaine, Regional Administrator of Health Care Services, Pacific Region.

Mr. Klaus presented a paper on the Task Force on the Reduction of Substance Abuse and outlined the conceptual framework and health promotion/prevention model that had been adopted by the Task Force. Dr. Préfontaine presented a paper on the results of the Hepatitis C screening program in the Pacific Region.

5-9 March 1991
ACADEMY OF CRIMINAL
JUSTICE SCIENCES
ANNUAL MEETING
 Nashville, Tennessee

Several issues concerning correctional research and practice were examined at the 1991 annual meeting of the Academy of Criminal Justice Sciences. Although a variety of criminal justice concerns were represented in the program, the special theme of the meeting was "Drugs, Crime and Public Policy."

Two groups of American researchers presented the results of two new studies on correctional staff. A large sample of correctional officers from Texas was studied to compare current attitudes toward rehabilitation with attitudes measured 15 years ago.

Preliminary findings showed that correctional officers in the most recent sample held views about rehabilitation that were somewhat less positive than those of officers in the earlier study.

Another study of 1,000 correctional officers from Michigan investigated work-related stress. The perception of a lack of supervisory support was one of the most significant factors in increased stress levels in the correctional workplace.

A number of papers dealt with drug use among offenders and included discussions of overcrowding (resulting from increased drug convictions in the United States). The subject of treatment programs in institutional and community corrections settings was also addressed.

A paper presented by David Robinson of the Research and Statistics Branch outlined the Computerized Lifestyle Screening Instrument (CLSI). The paper focused on the results of the pilot study of the CLSI in the Correctional Service of Canada and examined some of the general issues surrounding the selection of offenders for substance-abuse treatment.

Other topics of interest included strategies for correctional treatment and characteristics of correctional staff. A number of presenters noted the need for correctional interventions and endorsed the view that without correctional treatment, criminal sanctioning is of little value. The positive role of community corrections as an alternative to incarceration was raised by many contributors at the conference.

7-9 March 1991
NATIONAL CONFERENCE ON
PERSPECTIVES ON FEMALE
VIOLENCE
 London, England

Significant differences between Britain and Canada in research, advocacy groups and available programs for female offenders became apparent at the National Conference on Perspectives on Female Violence, held in London, England, 7-9 March 1991.

Research is the forte of the British who have a long and laurelled history of researchers and scholars in criminology, sociology and law. The research related to incarcerated women is highly specialized, with topics ranging from sentencing to gender stereotyping and law.

Other areas do not compare as favourably to Canada's situation. British advocacy groups are about ten years behind their Canadian counterparts. The correctional facilities in England are very defensive in the face of the advocacy groups' criticisms, and little mutual effort is evident. The British conference participants were intrigued by the integral role of advocacy groups, such as the Elizabeth Fry Society, in the Task Force on Federally Sentenced Women.

Programming in Britain does not accommodate special needs of female offenders. For example, the correctional programming at the Holloway Prison in London does not even recognize that gender differences exist.

In Britain, there is only now an awareness that abuse (sexual, physical and psychological) may be relevant to women's crime and violence. Other than a librarian at Holloway who runs a group for incest survivors, the British prison system has no professional therapists or specialists working with sexually abused incarcerated women.

This conference was sponsored by the forensic psychiatry section, Department of Health Services, St. Georges Hospital Medical School at the University of London. ■

LOOK WHAT YOU'RE MISSING!

If you're missing a piece of FORUM's past, let us know.

Here's a list of past issues of FORUM and the themes of their feature articles.

Vol. 1, No. 1 – Sex Offenders

Vol. 1, No. 2 – Risk Assessment and Prediction

Vol. 2, No. 1 – Public Attitudes

Vol. 2, No. 2 – Community Corrections

Vol. 2, No. 3 – Mental Health

Vol. 2, No. 4 – Substance Abuse

Vol. 3, No. 1 – Correctional Education

Vol. 3, No. 2 – Institutional Design and
Correctional Environments

If you would like to receive any or all of these back issues, write to us at:

Publishing and Editorial Services
Correctional Service of Canada
4F – 340 Laurier Avenue West
Ottawa, Ontario
K1A 0P9

Coming Up in *Forum on Corrections Research . . .*

The theme of the next issue of FORUM will be sex offender programming.

For future issues, the editors of FORUM are soliciting articles on the following topics:

- staff in corrections;
- violence and suicide in correctional institutions;
- long-term offenders;
- the role of punishment in corrections; and
- women and crime.

We welcome your suggestions regarding specific research in these and other topical areas that could be profiled in future issues of FORUM.

If you wish to submit a full article or a research brief to FORUM, please write to us at:

Research and Statistics Branch
Correctional Service of Canada
4B - 340 Laurier Avenue West
Ottawa, Ontario
K1A 0P9

Call for Papers

1991 Midyear Conference of the American Psychology-Law Society

The American Psychology-Law Society (Division 41, American Psychological Association) invites submission of symposia, paper presentations and poster presentations for its 1991 midyear conference to be held 12-14 March 1992 in San Diego, California.

Fully executed proposals must include:

1. a face-sheet outlining:
 - a) the name, affiliation, address and telephone number of the primary author, and the names and affiliations of co-authors; and
 - b) a clear preference of presentation style (symposium, paper or poster). Persons submitting papers should also indicate whether they would like their work considered for a poster presentation if it is not accepted as a paper presentation.
2. five copies of an abstract of the proposal. The abstract should be 100 words or fewer.
3. five copies of a description of the proposal. Descriptions should not exceed 1,500 words and should be prepared for anonymous review.
4. two legal-size, stamped envelopes addressed to the primary author.

Proposals not containing the above information will not be reviewed.

Proposals from within Canada should be sent to: James Ogloff, J.D., Ph.D., Department of Psychology, Simon Fraser University, Burnaby, British Columbia V5A 1S6, (604) 291-3093.

Proposals being sent from outside Canada may be sent to: Randy Otto, Florida Mental Health Institute, Department of Law and Mental Health, 13301 N. Bruce B. Downs Boulevard, Tampa, Florida 33612-3899, (813) 974-4510.

Submissions must be received no later than 15 October 1991. Notification of acceptance will be mailed no later than 6 January 1992.

How Can We Improve Our Magazine?

The purpose of FORUM is to forge a better link between the field and the ivory tower, to help bridge the gap between those who do research and those who must use this research in their everyday work. To succeed, it is essential that we know our readers' needs and respond to them. We would like your help in this. Please fill out this survey, letting us know what we are doing right with FORUM and what we could be doing better. Thank you for sharing your views.

First, some general information about you.

1. What is your line of work?

2. How long have you been reading FORUM?

Now, some questions about our magazine.

1. What is your favourite section of FORUM?

Foreword Legal Perspectives
 Research in Brief International Overview
 Feature Articles Significant Events
 Management Focus

2. a) Do you find the Research in Brief section
 too long too short just right?

b) Do you find individual articles in the Research
 in Brief section
 too long too short just right?

3. a) Are the graphs and charts easy to understand?
 yes no undecided

b) Are there too many, too few,
 just enough charts and graphs?

4. Do you find the feature articles
 too long too short just right?

5. a) Which section of FORUM do you find the
 MOST informative and interesting?

Foreword Legal Perspectives
 Research in Brief International Overview
 Feature Articles Significant Events
 Management Focus

5. b) Which section of FORUM do you find the LEAST
 informative and interesting?

Foreword Legal Perspectives
 Research in Brief International Overview
 Feature Articles Significant Events
 Management Focus

6. Are technical terms sufficiently explained within the text?
 always usually sometimes rarely
 never

7. Do you think the Views and Reviews section is a
 good addition to FORUM?
 yes no undecided

8. Would you like to see any editorial articles?
 If so, by whom?

9. What changes would you like to see made to FORUM?

10. Please include any special comments you would like
 to make about FORUM.

Please return to: Frank J. Porporino
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