



Public Safety
Canada

Sécurité publique
Canada

ARCHIVED - Archiving Content

Archived Content

Information identified as archived is provided for reference, research or recordkeeping purposes. It is not subject to the Government of Canada Web Standards and has not been altered or updated since it was archived. Please contact us to request a format other than those available.

ARCHIVÉE - Contenu archivé

Contenu archivé

L'information dont il est indiqué qu'elle est archivée est fournie à des fins de référence, de recherche ou de tenue de documents. Elle n'est pas assujettie aux normes Web du gouvernement du Canada et elle n'a pas été modifiée ou mise à jour depuis son archivage. Pour obtenir cette information dans un autre format, veuillez communiquer avec nous.

This document is archival in nature and is intended for those who wish to consult archival documents made available from the collection of Public Safety Canada.

Some of these documents are available in only one official language. Translation, to be provided by Public Safety Canada, is available upon request.

Le présent document a une valeur archivistique et fait partie des documents d'archives rendus disponibles par Sécurité publique Canada à ceux qui souhaitent consulter ces documents issus de sa collection.

Certains de ces documents ne sont disponibles que dans une langue officielle. Sécurité publique Canada fournira une traduction sur demande.

Risk Factors for Delinquency among Canadian Youth: Current knowledge and future directions

Annie K. Yessine, Ph.D.
Research Report: 2011-05

Abstract

This paper synthesizes existing knowledge from Canadian studies that address delinquency-related risk factors. More specifically, it reports on how patterns of offending over time differ across individuals and which factors are associated with the various pathways. This synthesis capitalizes on the momentum of recent work by prominent Canadian researchers on the developmental trajectories of offending and risk identification, assessment and prediction. Such knowledge is necessary to inform policy and practice, and provide effective responses to youth crime. An examination of this current body of work also affirms that researchers and policy-makers across Canada need to develop and support research strategies that further inform our understanding of youth offending and what it takes to effectively prevent and reduce youth crime.

Introduction

The National Crime Prevention Strategy is based on the principle that “the surest way to reduce crime is to focus on factors that put individuals at risk.” This statement is based on empirical research over the past few decades and has led to the accepted proposition that a set of known factors place some youths at greater risk than others for engaging in delinquent and antisocial behaviour. For some, entry into the youth criminal justice system leads them into the adult system. Across studies, approximately 5% to 15% of youths who enter the justice system become serious offenders whose criminal trajectories are quite lengthy (e.g., Day, Nielsen, Ward, Rosenthal, Sun, Bevc & Duchesne, 2011; Yessine & Bonta, to be published). Equally importantly, evidence suggests that many adult offenders first began their criminal activities as young offenders. For instance, risk assessment data collected in Ontario indicated that, among 955 inmates, 43.6% were arrested prior to the age of 16 (Andrews, Bonta & Wormith, 2004). It is thus important to identify early those who are at high risk of serious and chronic offending so that intervention strategies can be developed to prevent them from embarking on a lengthy criminal career.

A number of Canadian studies have aimed to identify risk factors for serious and chronic offending in early developmental stages. Some of these studies have also explored the different trajectories of offending among youth over their lifespan. Findings from these studies are important theoretically as well as for general crime prevention policy development. This paper synthesizes the current state of knowledge from Canadian studies on the identification,

assessment and prediction of youth at risk of offending, focusing on risk factors for delinquency and crime.

Context of the Current Review

In May 2009, the National Crime Prevention Centre organized a roundtable of various experts and researchers in the field of criminology to take stock of what has been learned through Canadian and international studies on the risk factors for youth offending and delinquent trajectories. The purpose of this initiative was to determine how this knowledge could help identify children and youth at risk of delinquency, and how it could support the development and implementation of an effective response to prevent and reduce serious and chronic offending in Canada. This roundtable led to a series of research papers on the findings of Canadian studies on youth at risk of offending. Papers that focused on risk factors for delinquency among Canadian youth serve as the basis for the current synthesis.

Canadian Research on Offending Trajectories and Risk Factors Among Youth

The studies presented in this paper address developmental offending trajectories and the identification and assessment of risk factors in predicting offending behaviour among youth.

Offending Trajectories

An ongoing research initiative conducted by Day and colleagues (Criminal Trajectory Study of the Toronto *Sample*) examined the criminal trajectories of two subsamples of adjudicated Ontario youth over several follow-up periods. The two subsamples together comprise the entire population of 764 male offenders aged 16–17 years who had served a sentence between January 1, 1986, and December 30, 1997, at an open custody facility (i.e., group home) in Toronto. Sample A consisted of 378 youths while sample B (replication sample) comprised 386 youths. Their criminal offending, based on official records, was tracked from late childhood/early adolescence into their early 30s. In the initial study (Day, Bevc, Theodor, Rosenthal & Duchesne, 2008), the 378 sample A youths were followed for an average of 12.1 years. In a follow-up study (Day et al., 2011), the sample A youths were tracked for an additional six years on average; the criminal activity patterns of the additional 386 sample B youths were also examined over a period averaging 16.4 years.

In the initial study, the analyses revealed four offending trajectory groups for sample A. In the follow-up study, which tracked the criminal activity of the youths for an extended time, eight trajectory groups were identified for sample A. Similar results were obtained for sample B, with the identification of seven offending trajectory groups. These trajectories varied in rate and duration of offending. For example, in the second study, sample A had three low rate (low rate adolescent peaked, 16.4%; low rate chronic, 26.2%; low rate desister, 28.0%), four moderate rate (moderate rate escalator, 2.9%; moderate rate adult peaked, 4.5%; moderate rate chronic I, 5.3%; moderate rate chronic II, 11.9%) and one high rate (high rate adolescent peaked, 4.8%) offending trajectory groups. For sample B, two low rate (low rate desister, 29.8%; low rate chronic,

32.4%), three moderate rate (moderate rate chronic I, 3.6%; moderate rate adolescent peaked, 11.7%; moderate rate chronic II, 14.2%) and two high rate (high rate adult peaked, 3.9%; high rate adolescent peaked, 4.4%) offending trajectory groups were observed. An examination of offence-related variables suggested that a small number of youths accounted for a disproportionate amount of crime. Furthermore, the findings suggested that the number of trajectory groups increased with longer follow-up periods, which was expected as the addition of more criminal offence data over time tends to change the shape and distribution of the initial offence trajectories.

Another study (Yessine & Bonta, to be published) examined the criminal trajectories of 514 male and female youths, aged 12–19, who were sentenced to probation in Manitoba from 1986 to 1991. The youths' criminal careers were tracked up to 2005, for periods ranging from 14 to 19 years. The results revealed two main trajectories of offending. One group represented approximately 13% of the offenders and showed a chronic, high level of offending behaviour throughout their life-course. The offending frequency/severity of this group increased steadily from adolescence onward. The rest of the sample (87%) was characterized by sporadic and/or less serious involvement in criminal behaviour over the years. The offending pattern of this latter group remained stable, although it tended to show a slight decline in frequency/severity from age 26 onward. A minority of offenders classified in the chronic high trajectory group (13%) disproportionately engaged in a wider variety of offences, as well as more of the violent crimes.

Using a subsample from the aforementioned study, Yessine and Bonta (2009) further examined the offending trajectories of Aboriginal youths and compared them with those of non-Aboriginal youths. The findings were very similar to those of the original study, with a small proportion of the offenders showing serious and persistent offending behaviour over their life-course, and a majority of the juvenile probationers engaging in relatively less frequent and/or serious criminal activity over time. However, the size of the chronic high offending trajectory group was slightly larger among the Aboriginal offenders (18.7%) than among the non-Aboriginal offenders (12.3%).

Finally, researchers (Craig, Schuman, Petrunka, Khan & Peters, 2011) aimed at identifying the early trajectories of delinquency for girls and boys in Grades 3 to 9 (ages 8 to 14). To do so, the researchers drew on a sample of 842 children in schools from the large-scale Better Beginnings, Better Futures research initiative, conducted by Queen's University and the Ontario Ministry of Children and Youth Services. Craig and colleagues described six separate trajectories of offending: two lower offending groups accounting for slightly over 80% of the sample; two groups of high desisters (13%); children who reported low levels of delinquency at eight years of age that escalated over time (3.5%); and a high delinquency group that had higher rates of offending in the early years and continued with high rates of offending into the adolescent years (1.5%).

Risk Factors for Offending

In addition to exploring trajectories of offending, the research initiative undertaken by Day and colleagues (2008; 2011) identified childhood predictors and adolescent correlates of trajectory group membership. Those childhood and adolescent risk and protective factors were extracted

from client files and reflected individual, family, peer and school domains. The analyses revealed some overlap but also some differences between the childhood and adolescent risk factors distinguishing the high rate and chronic offending trajectory groups from the other groups. Generally speaking, risk factors associated with the high rate and chronic offending trajectory groups fell into two domains: (1) individual (e.g., hyperactivity-impulsivity-attention problems, early onset of antisocial behaviour); and (2) family (e.g., broken home/family transitions, involvement with alternate care, criminal family members, relationship difficulties among family members, poor child-rearing methods).

Similarly, Yessine and Bonta (to be published) examined the predictors of offending trajectory group membership in their study of young probationers in Manitoba. Information on various personal-social demographic characteristics and risk and need factors was collected from interviews with youths when they were admitted to supervision. Of the risk factors studied, the youths' patterns of associations was the most robust and reliable predictor of group membership, with the chronic high trajectory group comprising more offenders who had negative and unconstructive ties with their peers than did the stable low group. Substance use problems was also a predictor: a greater proportion of the juvenile probationers who had substance use problems was found in the chronic high offending trajectory group than in the stable low group. Additional analyses conducted specifically to compare Aboriginal offenders with non-Aboriginal offenders revealed that the Aboriginal offenders were more likely to come from an impoverished background, which was characterized by an unstable environment, substance use and negative peer associations. These risk factors contributed to their serious and persistent pattern of criminality. In contrast, unstable living arrangements predicted increased odds of membership of non-Aboriginal offenders in the chronic high group compared with the stable low group.

In the study by Craig and colleagues (2011), children at risk for delinquency (i.e., those in the high delinquency, escalator and two desister trajectory groups) exhibited more hyperactive, oppositional-defiant and physically aggressive behaviours. They were also more likely to be part of a single-parent family, have parents who did not complete high school, live in public housing and experience hostile-ineffective parenting practices. By Grade 9, the high delinquency and escalator groups also exhibited significantly more emotional/behavioural, health, criminal and school functioning problems.

Along with these studies, Lacourse (2011) examined the relationship between late childhood risk factors in multiple domains (e.g., neighbourhood characteristics, family adversity, parenting/peer relationships, externalized/internalized behaviours) and four conduct disorder (CD) subtypes that had been commonly identified in previous research. Data on CD symptoms and risk factors were collected using the National Longitudinal Survey of Children and Youth. Three cohorts of 12- and 13-year-olds were assessed during 1994–1995, 1996–1997 and 1998–1999 (N = 4,125). The results revealed that out of 12 risk factors, 10 were associated with severe-mixed CD, 9 were associated with physically aggressive CD and 10 were associated with non-aggressive CD. For example, older age, non-intact family, family mobility and hyperactivity/inattention were predictors of severe-mixed CD compared with No CD. In contrast, when compared with the No CD subtype, males in the younger age category with family mobility and high physical aggression were associated with physically aggressive CD. Non-aggressive CD, meanwhile, was associated with males in the older age category and with non-intact family, family mobility,

coercive/ineffective parenting and deviant peers. These findings suggest that, although there are many subtypes of CD, there are more commonalities than differences in risk factors. Components of family adversity (i.e., non-intact family, family socioeconomic status, family mobility), parenting practices and hyperactivity/inattention appear to be key common risk factors in CD among children and youth.

Another study examined the validity and reliability of an empirically based instrument, the CRACOW, which was developed to allow early screening of children at risk of engaging in violent behaviour (Lussier, Corrado, Tzoumakis & Deslauriers-Varin, 2011). The CRACOW focuses on the risk and need factors of very young children with respect to their potential for later aggression. The study was based on the first 100 children (boys, $n = 58$; girls, $n = 42$) recruited as part of the Vancouver Longitudinal Study on the Psychosocial Development of Children. Preliminary analyses suggested the presence of three groups of physically aggressive children (low, medium and high level). Subsequent analyses showed that the highly aggressive group scored higher on the CRACOW scale than the other two groups, which suggests that highly aggressive children had been exposed to a higher number of risk factors in a greater number of different domains. In fact, children in the highly physically aggressive group were more likely to have risk/need factors in each of the five domains: (a) pre/perinatal; (b) socioeconomic; (c) family environment; (d) child psychological functioning; and (e) parenting. More specifically, the three groups of children were distinguished by the following factors: maternal substance use during pregnancy; birth-related complications; poor parental education; economic dependency; antisocial behaviours of parents; antisocial parental attitudes; callousness; negative emotionality; daring and risk-taking characteristics; attention deficits; hostile parenting style; and lack of consistent parental discipline.

Another Canadian study, conducted by the Canadian Research Institute for Law and the Family (DeGusti, MacRae, Vallee, Caputo & Hornick, 2010), focused on youth reoffending in Calgary. Data on various risk and protective factors from the individual, family, peer, school and community domains were obtained from interviews and probation file reviews. The sample comprised 123 youths, aged 16.5 years on average, who were involved to varying degrees with the youth justice system (i.e., gateway clients under extrajudicial measures; one-time offenders; chronic offenders; and serious habitual offenders). Data were collected from July 2006 to July 2007. Reoffending was tracked for two years following the interview using police contact as outcome data. Descriptive findings indicated that a history of purchasing illegal drugs, having stolen a car or motorcycle and having committed an assault with a weapon, as well as a having received a diagnosis of ADD/ADHD were significantly related to the frequency of reoffending (i.e., number of reoffences). Gang affiliation and the presence of gangs in the community were also significant factors in involvement in criminal activities. Surprisingly, none of the predictors in the family or school domains was significantly related to reoffending.

Conclusions

A number of issues became apparent in reviewing the Canadian body of research on offending trajectories and risk factors among youth. Perhaps the most important conclusion that can be drawn from comparing the findings of these studies is that, although there was some overlap, there were also many differences, not only in terms of the number and types of offending

trajectory groups, but also in terms of the risk factors associated with serious and chronic patterns of offending. These discrepancies can be partly attributed to methodological and analytical differences, with the sample composition and the type of statistical analysis used to examine the data as prime contributors.

In general, similar studies conducted in other countries that sampled youths from a normative population find three to four trajectories, compared with four to six typically found with adjudicated/offender populations (Piquero, 2008). The samples used in the studies reviewed in this paper fell into different categories: non-criminally involved youth (Craig et al., 2011; Lacourse, 2011); youth initially involved with probation services (Yessine & Bonta, 2009; to be published); youth involved in a custody facility at the time the data were initially gathered (Day et al., 2008; 2011); and youth beyond their entry-level point in a range of services within the youth justice system (DeGusti et al., 2010). The discrepant research findings may well reflect sensitivity to the heterogeneity of the samples, as differences in sample composition can be an important moderator of trajectory groupings and types.

It is also relevant that the researchers used varying levels of complexity and sophistication in study design and statistical analysis. Often, longitudinal studies suffer from high attrition rates, particularly in the high-risk groupings, or yield sampling biases that can skew conclusions and create erroneous impressions of their meaning and relevance.

In addition to these potential explanations for the differences observed, other factors may have had an impact on the number of offending trajectories and their characteristics. These include differences in the measurement of offending behaviour (e.g., self-reports versus official convictions, frequency versus severity, scale/range of scores, number of waves of assessment), as well as in operational definitions of the risk factors, the length of the follow-up period and the age span covered by the study. For instance, although all studies were longitudinal, follow-up periods differed markedly, ranging from 2 years to 19 years.

Such inconsistencies aside, these Canadian studies share a common purpose in advancing appreciation of the diversity in offending pathways, as well as an understanding of the factors associated with different offending profiles and/or persistence in offending. As such, an important finding is that there was a common pattern of risk identification and prediction. It would appear that across studies and regardless of the specific outcome, early disruptive experiences within the family of origin (e.g., broken home/family transitions, involvement with alternate care), family adversity (e.g., parental conflict, poor family management practices), compromised academic achievement (e.g., poor academic performance, poor school attendance, low school bonding) and poor peer relations (e.g., antisocial/delinquent peer associations, unconstructive ties with peers) consistently predict which children and youths will go on to have lengthy criminal careers and, in certain instances, commit more serious, violent offences. Early experiences, such as involvement in aggressive behaviour as a child, also predict more negative outcomes. This general pattern of results remained stable regardless of the point of system intervention at which the studies' follow-up period began, even in research that drew on a predominantly non-clinical sample of children and youths (i.e., from the general population). Equally importantly, the main findings reported in this paper are consistent with those obtained across multiple data sources, at different time periods and throughout the world.

Moreover, the evidence reviewed for this paper suggests that risk for offending increases as the number and variety of risk factors accumulate; this is consistent with the extant literature. Youths exhibiting a larger number of risk factors together with risk factors in multiple domains (e.g., family, school, peers) are more likely to adopt a delinquent lifestyle compared with youths with fewer risk factors and/or risk factors in a single area. A related finding is that risk factors for children and youth often appear to play a complementary role in predicting later risky behaviour. For instance, young people who are challenged at school are also more likely to be involved with peers in negative ways and/or experience violence within their families. These factors, in combination, drive their level of risk. That being said, the research at this time does not allow us to determine precisely the significance and frequency of the major risk factors, and how these factors interact (e.g., differential weighting of certain risk factors for particular outcomes relative to, and in combination with, other factors). This line of investigation is important to help identify the youths most at risk of offending and to prioritize services.

Other issues worthy of discussion arise from the findings of studies conducted on offending trajectories, in combination with the numerous studies that have examined trends in rates of criminality (e.g., Blokland, Nagin & Nieuwbeerta, 2005; Farrington, Lambert & West, 1998; Loeber, Wei, Stouthamer-Loeber, Huizinga & Thornberry, 1999). Few would disagree that offending escalates during early adolescence and peaks sharply in late adolescence, before declining precipitously in young adulthood. This overall relationship between age and crime suggests that the period between late adolescence and young adulthood is one of the most dynamic for criminal activity. However, and despite the fact that the shape of the curve describing criminal behaviour as a function of age is indisputable, the existing research seems to indicate that the observed rise in offending during adolescence hides distinctive developmental pathways within the offending population. Although an increase in the number of individuals involved in criminal activity occurs during adolescence, the delinquent trajectory for most youths is limited to their adolescence and to more minor offences. Only a small proportion of youth adopt a serious and chronic criminal trajectory, embarking on a criminal career beyond their adolescence. These youths commit a large number and disproportionate share of the criminal offences. One of the challenges for preventive intervention is to identify those youths as early as possible and disrupt their pathways into criminal careers.

Conversely, the fact that most youth do not commit offences and that, of those who do, most stop their delinquent behaviour during adolescence points to the need to better understand resilience (i.e., how to encourage resilience in the face of increasing risk), and the mechanisms associated with protective factors and their interaction with risk factors. The findings highlighted in this paper further reinforce the need for a multi-level preventive strategy targeting several risk domains (e.g., individual, family) and one that is developmentally specific, for as these youths age, they are exposed to a new and different set of risk factors.

Future Directions

Considerable progress has been made in identifying the major risk factors for delinquency; we now have knowledge to draw on to increase our confidence in the findings of longitudinal studies that track youths at risk of offending in Canada. Advances in this area have refined our understanding of the extent to which risk is related to offender persistence into the adult criminal

justice system and the multiple pathways to serious and chronic offending. They have also informed the development of early intervention and prevention programs aimed at reducing the impact of risk factors among high-risk children and youth. Canada still requires systematic information on the prevalence of these risk factors in the population to support its growing knowledge base of the most salient risk factors related to delinquent (and other problematic) behaviours and its promising interventions to reduce the risk factors associated with a delinquent lifestyle. It is also vital to encourage further research to develop an explanatory model of the interrelation between the key risk and protective factors for offending at various stages of development.

To move in this direction and to further support the development and implementation of knowledge-driven policies and programs on youth at risk of offending, a population-based survey on at-risk children and youth would be useful. The purpose of such a study would be to determine the prevalence of the risk factors associated with offending behaviour. In addition to helping inform policy and program decisions, such a study could provide baseline data for future evaluations of policy frameworks (i.e., whether policies and interventions successfully reduce the prevalence of these risk factors over time). Collecting this new data as part of a population-based survey would not replicate other existing data sources or studies/data collection initiatives. A review of existing sources of information that would presumably provide population-based information on the most salient factors (from the individual, family, school, and peer domains) known to place children and youth at risk of offending has yielded little or no useful data (Statistics Canada, 2010). A Canadian-based population study on at-risk youth is therefore needed to both advance knowledge of developmental crime prevention and provide strategic guidelines to inform policies and practices for children and youth at high risk of embarking on a pathway toward a life of crime.

References

- Andrews, D. A., Bonta, J., & Wormith, S. J. (2004). *The Level of Service Inventory/Case Management Inventory*. Toronto: Multi-Health Systems.
- Blokland, A. A., Nagin, D. S., & Nieuwbeerta, P. (2005). "Life span offending trajectories of a Dutch conviction cohort". *Criminology*, 43, 919–954.
- Corrado, R. R., & Freedman, L. (2011). *Youth At-Risk of Serious and Life-Course Offending: Risk Profiles, Trajectories and Interventions*. Research Report, Ottawa: Public Safety Canada.
- Craig, W., Schuman L., Petrunka, K., Khan, S., & Peters, R. (2011). *Better Beginnings, Better Futures Study: Delinquency Trajectories of At-risk Youth*. Research Report. Ottawa: Public Safety Canada.
- Day, D. M., Bevc, I., Theodor, F., Rosenthal, J. S., & Duchesne, T. (2008). *Change and Continuity in Criminal Offending: Criminal Trajectories of the "Toronto" Sample*. Final report submitted to the Ministry of Children and Youth Services, Toronto, Ontario.
- Day, D., Nielsen, J. D., Ward, A. K., Rosenthal, J. S., Sun, Y., Bevc, I., & Duchesne, T. (2011). *Criminal Trajectories of Two Subsamples of Adjudicated Ontario Youths*. Research Report. Ottawa: Public Safety Canada.

- DeGusti, B., MacRae, L. D., Vallee, M., Caputo, T., & Hornick, J. P. (2010). Best Practices for Chronic/Persistent Youth Offenders in Canada: A Summary Report. Research Report. Ottawa: Public Safety Canada.
- Farrington, D. P., Lambert, S., & West, D. J. (1998). "Criminal careers of two generations of family members in the Cambridge study in delinquent development". *Studies on Crime and Crime Prevention*, 7, 85–106.
- Lacourse, É. (2011). Late Childhood Risk Factors Associated with Conduct Disorder Subtypes in Early Adolescence: A Latent Class Analysis of a Canadian Sample. Research Report. Ottawa: Public Safety Canada.
- Loeber, R., Wei, E., Stouthamer-Loeber, M., Huizinga, D., & Thornberry, T. P. (1999). "Behavioral antecedents to serious and violent offending: Joint analyses from the Denver youth survey, Pittsburgh youth study and the Rochester youth development study". *Studies on Crime and Crime Prevention*, 8, 245–263.
- Lussier, P., Corrado, R., Tzoumakis, S., & Deslauriers-Varin, N. (2011). The CRACOW Instrument: A New Framework for the Assessment of Multi-problem Violent Youth. Research Report. Ottawa: Public Safety Canada.
- Statistics Canada (2010). Feasibility Study: Children and Youth At-risk of Delinquency Survey. Research Report. Ottawa: Public Safety Canada.
- Piquero, A. R. (2008). "Taking stock of developmental trajectories of criminal activity over the life course." *The Long View of Crime: A Synthesis of Longitudinal Research*, (pp. 23–78). Liberman, A. (Ed.). New York: Springer.
- Yessine, A. K., & Bonta, J. (2009). "The offending trajectories of youthful Aboriginal offenders". *Canadian Journal of Criminology and Criminal Justice*, 51, 435–472.
- Yessine, A. K., & Bonta, J. (to be published). The Offending Trajectories of Youthful Canadian Probationers Followed to Middle Adulthood: Relation to dual taxonomies. Research Report. Ottawa: Public Safety Canada.

Date modified
2013-08-19