Fratricide: A Forensic Psychiatric Perspective

Dominique Bourget, MD, and Pierre Gagné, MD

Analyses of fratricide rates based on national homicide data have provided some general information pertaining to offenders and victims of sibling homicide but are limited by data constraints to examining a few major variables. Exploring fratricide from a forensic psychiatric perspective could uncover other related factors and provide insight into why some individuals murder their siblings. In a retrospective study of data from coroners' files on domestic homicide pertaining to individuals killed by their siblings over a 10-year period in Quebec, Canada, we identified several specific offender and victim characteristics and circumstances surrounding offenses. The impact of mental illness and substance abuse on fratricidal behavior is indicated, underscoring the importance of identifying existing psychopathology. From a forensic psychiatric perspective, we identify characteristic patterns and discuss potential dynamics operating in fratricide. We raise some issues relevant to treatment and prevention, including the fact that most cases are alcohol-related, impulsive, and unpredictable until the moment they occur.

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Victims of homicide usually know their murderers. On average over a 10-year period (1994–2003) in Canada, 37.4 percent of all solved homicides were committed by a family member. Two percent of those homicides were fratricides, the murder of one's brother or sister.¹

Fratricide has attracted limited research and is not well understood. Identifying factors associated with lethal sibling violence could enable a comprehensive understanding of the phenomenon. Recent research examining fratricide rates based mostly on national homicide data has provided some general information about factors related to gender and age pertaining to offenders and victims. While results of studies of fratricide rates based on national homicide data are informative, these analyses are limited to examining major factors related to sibling homicide. For a broader understanding of fratricide, other related factors must be taken into account. Exploring fratricide and its associated features from a forensic psychiatric perspective could provide insight into why some individuals murder their siblings. In a search for such insight, we reviewed and compared the results of analyses of fratricide rates based on national homicide data with our findings in a retrospective study of 10 cases of fratricide that occurred over a 10-year period in Quebec, Canada.

Reports of Analyses of National Homicide Data

Results of analyses of national data on sibling homicide reveal that, as in other known homicides, males are considerably more likely to be offenders and victims of fratricide.²⁻⁶ Underwood and Patch² used the Uniform Crime Reports and Supplementary Homicide Reports (SHRs) compiled by the U.S. Federal Bureau of Investigation in their review of 514 cases of fratricide between 1993 and 1995. Males were offenders (87.7%) and victims (84.4%) in the majority of cases. Gebo³ extended the analysis by examining 4,668 cases of fratricide in the U.S. between 1976 and 1994 and found that 73 percent of cases involved brothers. Marleau and Saucier⁴ obtained data from the Canadian Centre for Justice Statistics in their investigation of 265 single-victim cases of fratricide in Canada between 1978 and 1995. They found that a male offender killed a brother in 81 percent of cases. Using samples of sibling homicides that occurred in Canada (n = 255), England and Wales (n = 89), Japan (n = 45), and Chicago (n = 212), Daly *et al.*⁵ reported that victim and offender were brothers in the majority of cases re-

Dr. Bourget is Associate Professor of Psychiatry, University of Ottawa, Ontario, Canada, and Coroner in the Province of Quebec, Canada. Dr. Gagné is Associate Professor of Psychiatry, University of Sherbrooke, Sherbrooke, Quebec, Canada, and Coroner in the Province of Quebec, Canada. Address correspondence to: Dr. Dominique Bourget, Royal Ottawa Hospital, 1145 Carling Avenue, Ottawa, ON K1Z 7K4, Canada. E-mail: dbourget@rohcg.on.ca

viewed. Dawson and Langan⁶ examined 1988 U.S. homicide data and found that males killed their brothers in 90 (73%) of the 123 cases.

Analyses of sibling homicide rates based on national data indicate that most fratricides involve adults rather than adolescents.^{2–4,6} Underwood and Patch² found that only 13 percent of offenders and less than 10 percent of victims were younger than 18. The average ages of offenders and victims were 34.4 years and 33.3 years, respectively. Gebo³ and Marleau and Saucier⁴ both reported that over threequarters of fratricide offenders and victims were 19 or older. Dawson and Langan⁶ found that 86 percent of fratricides involved adult victims aged 20 and over.

Reviews of national homicide data suggest that fratricide offenders are more often younger than their victims. In their review of four data archives, Daly et al.⁵ found that younger siblings were slightly more likely to murder older siblings. Similarly, Gebo³ reported that 52 percent of fratricide offenders were younger than their victims. Marleau and Saucier⁴ found that a younger sibling killed an older sibling in 56 percent of cases. Dividing the sample into two groups revealed that 54 percent of offenders aged 20 and over and 61 percent of offenders under the age of 20 killed older siblings. Results of some analyses, however, suggest that fratricide offenders may be more likely to be older than their victims in sibling relationships involving juveniles.^{3,5} In the study by Daly et al.,⁵ fratricide offenders were more often older than their victims when one or both were aged 14 or younger. Gebo³ found that older siblings killed younger ones in 65 percent of cases in which offender and victim were both under the age of 19.

On average, during the years 1993 to 2002 in Canada, 68 percent of homicide victims and 88 percent of homicide offenders were male. Juveniles were accused in 11 percent of all homicides.⁷ Ages of homicide offenders and victims were not reported in the Canadian national data.

The only analysis of national data to address weapon use in fratricide indicates that knives were used in 30 percent of cases, while 60 percent of cases involved the use of a firearm.² For all known homicides in Canada for the past 10 years, on average, firearms were used in slightly more than one-quarter of cases, while one-third of victims were killed by stabbing.¹ Regarding substance use in fratricide, Dawson and Langan⁶ found that about half of the fratricides occurring in the United States in 1988 involved alcohol. In contrast, Underwood and Patch² reported that in the United States between 1993 and 1995 only about 1 in every 21 fratricides (4%) was alcohol or drug related. However, the authors note that substance use by offenders or victims of fratricide may be underestimated in the Uniform Crime Reports and SHRs used in their study.² Canadian national data from 2004 indicate that 73 percent of offenders and 55 percent of victims of homicide were under the influence of alcohol or drugs at the time of the offense.¹

Analyses of national homicide data have furthered our knowledge of fratricide. However, data constraints do not allow the exploration of other potentially important information that could help determine why some individuals kill their siblings. For instance, reviews of fratricide rates based on national homicide data do not report on incidents of murdersuicide. While murder-suicide appears to occur rarely in cases of fratricide, most murder-suicides involve the killing of family members.⁷ Incidents of fratricide involving multiple victims are also not reported in reviews of national homicide data. In Canada in 2004, five percent of all known homicides involved multiple victims. In cases in which an offender was identified, nearly half of the victims were killed by a family member.

There is speculation that fratricide often results from arguments,^{2,3,8} usually over money and property,⁸ or due to the culmination of a power struggle between siblings.⁵ However, these factors are not specific to fratricide; one third of all reported homicides in Canada in 2003 were motivated by an argument, and 25 percent were motivated by financial gain or settling of accounts.⁷ Moreover, these factors do not explain why only some individuals murder their siblings under those circumstances.

Quebec Study of Fratricide

We examined coroners' files on domestic homicide pertaining to individuals killed by their siblings in the province of Quebec from 1991 to 2000. Ten cases of sibling homicide were identified, representing the total number of victims of fratricide during this 10-year period. The coroners' files typically contained the victim and offender characteristics, the circumstances of death, the spatial location of the homicide, the type of weapon used in each case, the coroner's report for the particular death (including opinion and recommendations), the police investigative report, the autopsy report, and biochemical laboratory findings. Medical records were also included, when available. Collection and analysis of the data were performed in an anonymous manner, and all records were reviewed and compiled by the same two investigators, coroners with a medical specialty in psychiatry. The information reported herein is a matter of public record and was exempted from review by an IRB.

Characteristics of Fratricide

Our examination of coroners' files revealed that the 10 victims of fratricide ranged in age from 17 to 55 years (mean age, 36.8 years), with nine of the victims aged 31 or over. Seven victims were male. Victims were older siblings in seven cases; one of the other victims was a twin. Three of the 10 fratricides involved multiple victims. Regarding marital status, six victims were single, one was married, one was in a common-law relationship, and one was divorced (marital status of the other victim is unknown). Three victims were unemployed, one worked parttime, and one was a part-time student. Occupations of the other five victims are unknown. Seven of the victims were white and three were native (aboriginal).

Most of the homicides (80%) occurred in a private home. The most common means of fatal assault was stabbing (70%). Two other victims were shot, and one was beaten to death. Multiple victims were involved in three cases; in each instance, one sibling was killed. None of the homicides was followed by the suicide or attempted suicide of the offender.

Information regarding offender age was available for 8 of the 10 fratricides. These homicides were committed by siblings who ranged in age from 14 to 51 years (mean age, 32.5 years); only one offender was not an adult. Nine of the 10 offenders were male. Seven of the male offenders killed a brother and two males killed a sister. The one female offender killed a sister.

Alcohol was used by the offender at the time of the offense in six of the 10 fratricides. Substance use before the offense was determined for six victims and is unknown in three cases. There is no evidence of prior substance use by one victim.

Mental health status at the time of the offense was determinable for eight of the 10 offenders. Two of the offenders had schizophrenia or other psychosis, and one had depressive disorder. Four others experienced acute substance intoxication. One offender was not being treated for mental health problems.

Information about any prior warning or disclosure of the risk of homicide was available for 7 of the 10 fratricides. Most of the offenders had no criminal record. Five offenders had had no contact with police or medical authorities before the crime and never disclosed any fratricidal or homicidal ideation to others. One offender had a criminal history of homicide. One offender had informed friends of his fratricidal ideation.

Comparison of Findings

Our findings regarding gender and age are similar to those determined by analyses of national data on fratricide²⁻⁶ and recent national data on all known homicides in Canada.^{1,7} Specifically, in our sample, most of the offenders and victims were male; offenders were more often younger than their victims; and all but one of the fratricides involved adults.

Regarding weapon use, however, we found that fratricide victims were stabbed to death in most (70%) of the cases, differing from an analysis of national data that reported that offenders used knives in 30 percent and firearms in 60 percent of fratricides.² Our finding about weapon use also differs from that reported for all known homicides in Canada for the past 10 years; on average, firearms were used in 28 percent of cases, while 33 percent of victims were killed by stabbing.¹ We also determined that alcohol was used by the offender at the time of the offense in 60 percent of fratricides in our study. This finding is somewhat higher than the results of the analysis by Dawson and Langan,⁶ who found that about half of the fratricides occurring in the United States in 1988 involved alcohol.

Discussion

A comprehensive understanding of sibling homicide is hindered by data limitations inherent to analyses of fratricide rates based on national homicide data. Attention should be paid to all potentially important information that could provide insight into features that may be characteristic of fratricide. For instance, reviews of national homicide data do not report on instances of murder-suicide or those involving multiple victims, and substance use at the time of the offense is not routinely reported. There were no incidents of fratricide-suicide in our sample. This may reflect the fact that the sample was small. Alternatively, fratricide may not be associated with suicide as other family-related homicides seem to be. Depression is a significant finding in other familyrelated homicide-suicides.⁹⁻¹¹ In our sample, only one offender had depression. Of note, this person killed her twin. We recently came across another case of an individual responsible for the accidental shooting death of his twin. This case is not included in our sample; however, it would appear that it is nearly impossible to attribute general characteristics to this type of crime. Three of the 10 fratricides in our sample involved multiple victims, with one sibling killed in each incident. Two cases were similar in that the offenders had formed a specific intent to kill; however, their state of mind was delusional. The third case was that of a man who discovered his spouse in bed with his brother and killed both in a state of acute emotional turmoil. He was found guilty of manslaughter. Consideration of the potential importance of substance use in sibling homicide is underscored by our finding that 60 percent of the fratricides involved alcohol. Alcohol and other drug use are implicated in the commission of many crimes, including homicide.¹² There is very little information pertaining to mental health status from reviews of fratricide rates based on national homicide data. Dawson and Langan⁶ reported that about 20 percent of fratricides in their study involved mental illness. However, this figure was derived from a subset of the total number of fratricide cases reviewed. Of all known homicides in Canada in 2004, 14 percent of accused persons were reported to have had a mental health disorder, including schizophrenia and bipolar disorder. This percentage is similar to that reported each year since 1997. However, information as to the mental status of homicide offenders is derived from police perceptions and is not necessarily supported by the assessment of a health professional.¹

The potential impact of mental illness on fratricidal behavior has received little attention to date. Bender¹³ conducted a retrospective study of 13 children who had committed murder, including some who had committed fratricide. She found that the offenses of all of the children were attributed to severe psychological disturbance. Based on available information we determined that about one-third (30%) of fratricide offenders in our study were mentally ill at the time of the offense. These offenders' mental illness (i.e., depression, schizophrenia and other psychosis) potentially played an important role in the offenses. The reports of preexisting psychiatric disorders in these individuals heighten the importance of identifying existing psychopathology, particularly in view of indications that at least half of the fratricide offenders had had no prior contact with authorities or health professionals. It is interesting to note that several researchers have concluded that schizophrenia increases the risk for violence and for homicidal behavior.^{14–19} Coexisting alcoholism compounds the risk generated by either condition alone.²⁰ Alcohol or other substance abuse often precedes a first episode of psychosis.²¹ Concurrent substance use was evident in 60 percent of fratricides in our study, with four of these offenders suffering acute alcohol intoxication at the time of the offense.

We have identified the characteristic features of 10 incidents of sibling homicide that occurred over a 10-year period in Quebec. Fratricide occurs infrequently and few studies have investigated the phenomenon, limiting a more comprehensive comparison of our findings. However, while the small sample size of our study does not allow for conclusive results, this descriptive study may provide insight into why some individuals murder their siblings. It is tempting to conclude that further research is needed to clarify the potential impact of mental illness and substance abuse on fratricidal behavior. However, because fratricide is an event with such a low base rate, it is unrealistic to expect that the population under scrutiny will grow significantly in number.

With those small samples, however, a more comprehensive understanding of fratricide could be attained through a forensic psychiatric evaluation of other specific information pertaining to offenders, including history of family violence, history of violent behavior, criminal history and/or prior contact with authorities. From a forensic psychiatric perspective, our results indicate that fratricide is a heterogeneous phenomenon with no single etiological explanation. We have identified two main types or categories that derive from the distinct dynamics involved. As with other cases of homicide, the forensic psychiatrist will be interested in understanding the underlying motive, or lack thereof. A significant proportion (60%) of the fratricides in our study occurred in the context of alcohol abuse that resulted in an acute intoxicated state, and some disagreement degenerating into an argument and physical altercation. The homicide was unplanned and represented the unfortunate consequence of an explosive and impulsive act of violence. Half of these incidents (3/6) involved young people from the Native community, where the rate of substance abuse is high. As another fratricide was also committed in the heat of emotional turmoil, altogether 70 percent of the fratricides in our study were committed in an impulsive manner with no premeditation.

Other than continued education on the negative effects of alcohol on behavior, and support programs to help those with a substance abuse disorder, there may not be much to say in relation to prevention of fratricides that occur in such a context. The fact is that many of the siblings were "drinking buddies"; they were in close proximity and were key players involved in a heated argument. Their murders, even if they were impulsive, might ultimately represent an extreme manifestation of sibling dynamics with high expressed emotions and some degree of rivalry. The latter hypothesis needs further scrutiny.

We also identified another category of fratricide cases that involved the notion of mental disorder and disordered psychotic behavior. All three such cases involved a specific intent, however psychotic, and premeditated homicide. Of interest, "pathological" or psychotic fratricides were associated with a drive to exterminate the family, extending beyond the killing of the sibling to incorporate the killing of at least one parent. These offenders can form a specific intent but would, however, lack a logical and rational motive to explain their behavior. This scenario is not unlike that found in other types of intrafamilial homicide, in which the offender has an illness of a psychotic nature. Fratricide belonging to this second category presumably could be prevented with an early identification of the psychotic illness, leading us back to the argument supporting early identification and early intervention to reduce the morbidity associated with first-episode psychosis. This argument would hold true for a minority of fratricides.

The observations that fratricide is a heterogeneous phenomenon and that most cases can probably fit two distinct categories offer a new forensic perspective of fratricide. Further studies, even if sampling is small (such as case reports and case studies), would be useful to gain more insight subsequent to this analysis. Identifying characteristic patterns of sibling homicide could enable the effective treatment of offenders and potentially aid in prevention of fratricide in some cases. Beyond the examination of the offender and rendering an expert opinion on the matter, the forensic psychiatrist may also be involved in the provision of treatment to the offender. Treatment will take into account the specific needs of the offender. In many instances, treatment planning will address concerns around the recovery and prevention of substance abuse. Several cases will require psychotherapeutic support to deal with issues such as guilt or shame arising subsequent to the killing of a sibling.

References

- Statistics Canada: Homicide in Canada, 2004. Ottawa, ON, Canada: Canadian Centre for Justice Statistics, Catalogue 85-002-XPE 25(6), 2005
- Underwood RC, Patch PC: Siblicide: a descriptive analysis of sibling homicide. Homicide Studies 3:333–48, 1999
- 3. Gebo E: A contextual exploration of siblicide. Violence Victims 17:157–68, 2002
- 4. Marleau JD, Saucier JF: Birth order and fratricidal behavior in Canada. Psychol Rep 82:817–8, 1998
- 5. Daly M, Wilson M, Salmon CA, *et al*: Siblicide and seniority. Homicide Studies 5:30–45, 2001
- Dawson JM, Langan PA: Murder in Families (NCJ 143498). Washington, DC: Department of Justice, Bureau of Justice Statistics, 1994
- Statistics Canada: Homicide in Canada, 2003. Ottawa, ON, Canada: Canadian Centre for Justice Statistics, Catalogue 85-002-XPE 24(8), 2004
- 8. Daly M, Wilson M: Homicide. Hawthorne, NY: Aldine de Gruyter, 1988
- 9. Bourget D, Gagné P: Paternal filicide in Quebec. J Am Acad Psychiatry Law 33:354–60, 2005
- Bourget D, Gagné P: Maternal filicide in Quebec. J Am Acad Psychiatry Law 30:345–51, 2002
- Bourget D, Gagné P, Moamai J: Spousal homicide and suicide in Quebec. J Am Acad Psychiatry Law 28:179–82, 2000
- Parker RN, Auerhahn K: Drugs, alcohol and homicide: issues in theory and research, in Homicide: A Sourcebook of Social Research. Edited by Smith MD, Zahn MA. Thousand Oaks, CA: Sage Publications, 1999, pp 176–91
- Bender L: Children and adolescents who have killed. Am J Psychiatry 116:510–3, 1959
- 14. Eronen M, Hakola P, Tiihonen J: Mental disorders and homicidal behavior in Finland. Arch Gen Psychiatry 53:497–501, 1996
- Lindqvist P, Allebeck P: Schizophrenia and crime: a longitudinal follow-up of 644 schizophrenics in Stockholm. Br J Psychiatry 157:345–50, 1990
- Swanson JW, Holzer C, Ganju V, *et al*: Violence and psychiatric disorder in the community: evidence from the Epidemiologic Catchment Area Surveys. Hosp Community Psychiatry 41:761– 70, 1990
- 17. Tardiff K, Sweillam A: Assault, suicide, and mental illness. Arch Gen Psychiatry 37:164–9, 1980
- Tiihonen J, Hakola P: Psychiatric disorders and homicide recidivism. Am J Psychiatry 151:436–8, 1994
- Wessely S: The epidemiology of crime, violence and schizophrenia. Br J Psychiatry 170(Suppl 32):8–11, 1997
- Eronen M, Tiihonen J, Hakola P: Schizophrenia and homicidal behavior. Schizophr Bull 22:83–9, 1996
- Hambrecht M, Häfner H: Substance abuse and the onset of schizophrenia. Biol Psychiatry 40:1155–63, 1996