

Prevention of firearm-related injuries in Canada

M. Dennis Kimberley, MSW, PhD; Antoine Chapdelaine, MD, MPH, FRCPC; Louise Viau, LIM; Esther Samson, MD, FRCPC

The solution to many of today's medical problems will not be found in the research laboratories but in our Parliaments. For the prospective patient, the answer may not be cure by incision at the operating table but prevention by decision at the Cabinet table.

— Sir George Young
Former British health minister

Given the risks of firearms in relation to suicide, homicide and "accidents," it is important that police and professionals in health and social services be able to collect and access information that will enable them to assess applicants for a firearms acquisition certificate (FAC) and owners of firearms under conditions of risk. Safety education and safe storage and handling practices must be supplemented by effective authority to deny access to firearms, to seize firearms and to revoke permits.

Suicide

Since the gun control legislation of 1978 the number of deaths associated with firearms in Canada has declined,¹ and by 1989 the proportion of suicides committed by means of firearms had decreased from 37% to 30% of all suicides.¹ Although the overall suicide rate has increased over the past two decades² the rate involving firearms has decreased.¹ It is important not to be complacent, however, since Canada ranks in the top 15% of 20 countries with respect to the rate of suicide by means of firearms.³ Furthermore, about 75% of deaths associated with firearms in Canada are suicides.¹

The most significant correlate of suicide is the accessibility of guns. It would be wrong to assume that everyone who uses a gun to commit suicide suffers from a psychiatric illness.⁴⁻⁶ In 1989 there were 1076 suicides involving firearms in Canada;¹ society must reduce the number of such suicides. There are several risk factors that apply.

- Men are more likely than women to use a firearm to commit suicide. However, an estimated 25% of suicides by means of a firearm are committed by women, and many women are injured in attempted suicide with firearms. It would therefore be an error to judge that women are at low risk.^{7,8}

- Natives are overrepresented in the number of suicides and in the number of people who use firearms to commit suicide.^{9,10}

- Approximately 20% of all suicides are committed by people in the age range of 15 to 24 years, and 37% of these are related to the use of a firearm¹ (and largely involve young men who demonstrate no psychiatric illness but do show a determination to die^{5,11}).

- Alcohol and drugs are compounding factors in approximately half of firearm-related suicides (and homicides).¹²

- People who use guns to attempt suicide are more likely than those who use other means to be successful, because guns are lethal.¹³

- Of those who commit suicide 80% have given one or more strong indicators of their intention.¹¹

- People who have failed in their suicide attempt do not necessarily attempt suicide again.¹⁴

There are indications that impulse and proximity to firearms and ammunition are key factors in suicide by such means. Although there is some

Dr. Kimberley is associate professor, School of Social Work, Memorial University of Newfoundland, St. John's, Nfld. Dr. Chapdelaine is a consultant with the Département de Santé communautaire, Santé publique et Environnement, Hôpital de l'Enfant-Jésus, Québec, Que. Ms. Viau is a barrister in Québec and professor of criminal law, Université de Montréal, Montréal, Que. Dr. Samson is clinical professor of psychiatry and head of psychogeriatric services, Hôpital de l'Enfant-Jésus, Québec, Que.

Reprint requests to: Dr. Dennis Kimberley, School of Social Work, Memorial University of Newfoundland, St. John's, NF A1B 3X8

support for the substitution theory — if one method is blocked another will be used¹⁵ — the other methods chosen are often not lethal. Our aim should be to delay access to firearms with the expectation that suicidal ideation and plans will dissipate (often over a few hours or days). Unfortunately, some people take the position that those who wish to commit suicide should have the right to do so. This lay understanding does not take into account the transitory nature of some emotional states and the cognitive distortions that may occur. Many people (especially young ones) who have failed in their suicide attempts are happy a few weeks after treatment that they were unsuccessful. This fact alone supports intervention and support for those at risk.

We recommend that if there is evidence of specific and relevant psychiatric illness or other suicide risk or of threatened or attempted suicide, access to firearms be denied. If firearms are present they should be removed and any FAC seized, suspended or revoked. If there is a demonstrated risk of suicide, firearms and FACs should be returned (or reissued) only after a satisfactory psychiatric evaluation has been completed.

Homicide

Although there are occasionally large-scale massacres involving firearms the greatest problem of violence is between people who are known to one another. Only about 20% of homicides in 1988 in Canada occurred during another criminal act.¹⁶ The typical perpetrator of violence is not the mentally ill killer but the so-called “normal” person acting under an uncontrolled aggressive impulse. A number of risk factors must be taken into account.

- Most of the violence in our society involves a male victim and a male perpetrator, including homicides with the use of firearms (in which young to middle-aged male victims are overrepresented).¹⁶

- In cases of spousal violence approximately 75% of deaths are of female victims; one-third of these are caused by firearms (Canadian Centre for Justice Statistics, Ottawa, 1980 to 1989 data: personal communication).

- Women are less likely than men to be perpetrators, but it would be an error to discount them given that 16% of spousal homicide victims by shooting are men (Canadian Centre for Justice Statistics, Ottawa, 1980 to 1989 data: personal communication).

- Rural homicide rates are higher than are urban rates.^{1,17}

Criminal information systems and social services records often contain data regarding complaints of violence and threats of violence and assault, including family conflict.

Most members of the police are aware of the risk of firearms in the home when investigating domestic disputes. Although some ask questions about firearms and some assess the risk few request prohibition orders, and most do not search for and seize firearms under conditions of risk (e.g., during family conflict).¹⁸

Our policies and legislation must aim to reduce the interpersonal conflict in the hope that the impulse and the related feelings of anger and tendencies to violence will dissipate (sometimes over a few hours).

We recommend that access to firearms and FACs be denied people convicted of violent offences, even if firearms were not involved.

The social services, police and health personnel should cooperate to find out whether there are firearms in a home. Under conditions of threat of violence or known patterns of violence firearms should be removed and FACs revoked until a social assessment has been completed by a social worker.

Strategies to prevent misuse

The interests of personal and public protection are served by denying access to firearms or suspending or revoking FACs when appropriate. The goals of legislation and public policy are first to reduce the use of firearms in cases of suicide and attempted suicide and in cases of homicide, attempted homicide, assault with a weapon and threats of injury or death (all including spousal violence); and second to reduce injuries due to the “accidental” discharge of firearms and “accidental” deaths associated with ready access to firearms and ammunition.

There should be a longer waiting period (e.g., 28 days, as proposed in Bill C-17 [An Act to Amend the Criminal Code and Customs Tariff in Consequence Thereof]) before an FAC is issued to allow for a thorough investigation if there is any suspicion of risk. In addition, a “cooling-off” period would reduce impulsive misuse. The plan in Bill C-17 is that an application for an FAC should be accompanied by the names of two referees, at least one of whom knows the applicant well. The issuing officer may request additional references to help make decisions about granting an FAC.

In known cases of repeated violence or threat of violence it may be worth adding to the legislation a prohibition on owning or using a firearm for a substantial period after conviction for an offence in which violence was used, threatened or attempted, even if a firearm was not involved. This position is supported by the fact that the use of firearms is overrepresented in all homicides as well as in spousal homicides.

Eliciting reliable information from people close

to the applicant is important: unless an applicant who is a risk is observed and interviewed by a knowledgeable person the likelihood of successful screening at this point is rather slim. Self-disclosure about mental status or sociobehavioural problems is unlikely, but if applicants misrepresent the facts the receipt of contradictory information would be grounds for denial of an FAC or for its revocation.

During the application process it is possible that someone will be disturbed enough to exhibit overt symptoms but if a psychiatric evaluation is required will sufficiently mask his or her symptoms to be judged competent to be issued an FAC. People with personality disorders, who may be at higher risk for assaulting others, are able to mask their symptoms for considerable periods. If psychiatric evaluations are to be efficacious in this type of screening, then observations by people close to the applicant or by social workers and family physicians could help in cases in which the psychiatrist does not have the time to bring the problems to light. (If an applicant does not agree to medical or social services information being disclosed an FAC should be denied and the responsibility for assessing risk and denying or granting an FAC given to the court.)

It is important to screen out as many unsuitable applicants as is feasible, but even after an FAC has been issued early intervention may be undertaken to reduce the risk of violence. Not only people who have exhibited mental illness or sociobehavioural problems are at risk. So-called normal or quiet people may misuse firearms under conditions of suicidal ideation or impulsive anger, both of which are associated with loss of control and the risk of negative personal or social consequences.

Suicide attempts, threats with a weapon, family violence, physical assault, misuse of a firearm and attempted homicide are the best predictors of future problems, impulsive actions and reoffence. By the time risk behaviour comes to the attention of physicians, social workers or the police it has likely become an established pattern, and so it is good policy to give the police powers of seizure of firearms and of revocation or suspension of FACs under conditions of risk. The plan to automatically revoke FACs in the context of a prohibition order should be helpful in reducing firearm injuries and deaths, including those occurring during domestic violence. It is important, too, that policies be in place to support the police in the application of the law. Judges must become better educated about the seriousness of the risks.

The goal of reducing the number of "accidental" injuries and deaths may be achieved, in part, through proposed regulations requiring formal training in the safe handling and storage of firearms.

More specifically, impulsive or unauthorized access may be reduced by keeping firearms unloaded and out of sight in a locked cabinet, by disabling them with a trigger lock or other disabling device and by locking ammunition in a separate storage area.

Conclusion

The problems described are the product of personal, interpersonal and social factors. Given that legislation for firearms control cannot change poverty or racism or the differences in power between men and women we must not delude ourselves that we are in any way attacking the root problems in our society. Legislation, however, is effective and can be more so in preventing successful suicide and victimization by violence.

References

1. *Mortality: Summary List of Causes, 1970-88* (cat 84-203), Statistics Canada, Ottawa, 1990
2. Beneteau R: Trends in suicide. *Can Soc Trends* 1988; winter: 22-24
3. Lester D: The availability of firearms and the use of firearms for suicide: a study of 20 countries. *Acta Psychiatr Scand* 1990; 81: 146-147
4. Frierson RL: Women who shoot themselves. *Hosp Community Psychiatry* 1989; 40: 841-843
5. Michel K: Suicide in young people is different. *Crisis* 1988; 9: 135-145
6. Lester D: Gun control, gun ownership, and suicide prevention. *Suicide Life Threat Behav* 1988; 18: 176-180
7. Folkenberg J: Guns and gals. *Psychol Today* 1988; 22 (78): 16
8. Wintemute GJ: Firearms as a cause of death in the United States, 1920-1982. *J Trauma* 1987; 27: 532-536
9. Hlady WG, Middaugh JP: Suicides in Alaska: firearms and alcohol. *Am J Public Health* 1988; 78: 179-180
10. Spaulding JM: Recent suicide rates among ten Ojibwa indian bands in Northwestern Ontario. *Omega* 16: 347-354
11. Brent DA, Perper JA, Goldstein CE et al: Risk factors for adolescent suicide: a comparison of adolescent suicide victims with suicidal inpatients. *Arch Gen Psychiatry* 1988; 45: 581-588
12. National Committee for Injury Prevention and Control: *Injury Prevention: Meeting the Challenge*, Oxford U Pr, New York, 1989
13. Peterson LG, Peterson M, O'Shanick GJ et al: Self-inflicted gunshot wounds: lethality of method versus intent. *Am J Psychiatry* 1985; 142: 228-231
14. Mathog RH, Nelson RJ, Petrilli A et al: Self-inflicted gunshot wounds to the face: surgical and psychiatric considerations. *Otolaryngol Head Neck Surg* 1988; 98: 568-574
15. Rich CL, Young JG, Fowler RC et al: Guns and suicide: possible effects of some specific legislation. *Am J Psychiatry* 1990; 147: 342-346
16. Canadian Centre for Justice Statistics: *Canadian Crime Statistics: Homicide Survey*, Statistics Canada, Ottawa, 1988: app I, Table 14, Figure XVII
17. Hung CK: *Firearm Statistics*, Dept of Justice, Ottawa, 1990
18. Meredith C, Paquette C: *An Exploratory Study of Police Use of Selected Criminal Code Sections Pertaining to Firearms in the Context of Domestic Violence*, Dept of Justice, Ottawa, 1991: 2-3