Effects of a Comprehensive Police Suicide Prevention Program

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Abstract. Background: Police suicides are an important problem, and many police forces have high rates. Montreal police suicide rates were slightly higher than other Quebec police rates in the 11 years before the program began (30.5/100,000 per year vs. 26.0/100,000). Aims: To evaluate Together for Life, a suicide prevention program for the Montreal police. Methods: All 4,178 members of the Montreal police participated. The program involved training for all officers, supervisors, and union representatives as well as establishing a volunteer helpline and a publicity campaign. Outcome measures included suicide rates, pre-post assessments of learning, focus groups, interviews, and follow-up of supervisors. Results: In the 12 years since the program began the suicide rate decreased by 79% (6.4/100,000), while other Quebec police rates had a nonsignificant (11%) increase (29.0/100,000). Also, knowledge increased, supervisors engaged in effective interventions, and the activities were highly appreciated. Limitations: Possibly some unidentified factors unrelated to the program could have influenced the observed changes. Conclusions: The decrease in suicides appears to be related to this program since suicide rates for comparable populations did not decrease and there were no major changes in functioning, training, or recruitment to explain the differences. Comprehensive suicide prevention programs tailored to the work environment may significantly impact suicide rates.

Keywords: suicide, prevention, police, workplace, program evaluation, helpline

This paper presents the results of an evaluation of the effects of a multifaceted program to prevent suicides in the police force in Montreal, Quebec, Canada. We begin with a brief review of police suicide. We then describe the program and present the methodology and results of an evaluation of its implementation and its effects, including changes in suicide rates, which are compared with changes in other police forces in the Province of Quebec who did not participate in a suicide-prevention program. It was hypothesized that a sustained prevention program that provides suicide prevention education and support for all members of a police department may have a significant impact in decreasing suicides by police officers.

Suicide Among Police Officers

Although members of some police forces have a greater risk of suicide than comparable populations (Fields & Jones, 1999; Hackett & Violante, 2003), this is not always the case. For example, Marzuk, Nock, Leon, Portera, and Tardiff (2002) found that New York City police officers who died from 1977 to 1986 had suicide rates equal to or slightly lower than the city's resident population. A Province of Quebec study (Charbonneau, 2000) found similar findings: The male

police suicide rate was equivalent to the standardized rate for males in the general population. A meta-analysis of 101 samples of police suicide rates (Loo, 2003) found important variations between police forces, regions, and countries. The suicide rates of 49 municipal police forces ranged from 0 to 80 suicides per 100,000 population per year. The mean rate of 19.3 was lower than the comparison mean in the general population of 25.2. More recent reports confirm the substantial variations in police suicide rates. For example, police in New South Wales, Australia, have higher rates than the general population (Barron, 2010). On the other hand, the rates of the Federal Austrian Police Corps were comparable to the adjusted suicide rate in the adjusted general population (Kapusta et al., 2010). In the Montreal Police Force, before this program, from 1986 to 1996, the mean rate of 30.5 per 100,000 population per year was comparable to rates for equivalent age and sex populations in Quebec - and not significantly different from the rate for the rest of the Quebec police officers from

Regardless of the statistics, the death of a police officer has a significant impact, not only on the family and close friends of the victim, but also upon the entire department. Mitchell (1990) found that the death of a coworker is one of the top eight critical incidents within the emergency services professions, including police. Hackett and Violante (2003) concluded that "the suicide of a department member

can send the agency or a specific work unit into an emotional tailspin that can take months, if not years, in which to recover" (p. 11). A study in Germany (Bar, Pahlke, Dahm, Weiss, & Heuft, 2004) found that, when there was a suicide or attempted suicide of a police officer, coworkers had a higher incidence of mental illness.

Some studies did not study actual suicides and attempts, but focused on correlations between possible risk factors and suicidal ideation. A study of factors associated with suicide ideation in the South African Police Service found that low scores on conscientiousness, emotional stability, approach coping, and turning to religion, as well as high scores on avoidance coping are associated with more suicide ideation (Pienaar, Rothmann, & Van De Vijver, 2007). In Norway, a study of 3,272 police (Berg, Hem, Lau, Loeb, & Ekeberg, 2003) found that suicidal ideation was mainly associated with personal and family problems. Similarly, a study of actual suicides in Queensland, Australia, police (Cantor, Tyman, & Slater, 1995) found that most suicides were associated with ill health, alcohol abuse, and domestic problems. However, they also report that police suicides occurred more frequently following disciplinary events. Violante (2004) found that police officers who suffered from posttraumatic stress disorder (PTSD) as a result of job-related stress and who also increased their alcohol use, had a 10-fold increased risk of suicidal ideation.

Many case reports and several research investigations have emphasized the high job stress of police officers. For example, Berg, Hem, Lau, and Ekeberg (2006a), in their survey of Norwegian police, found high levels of health problems associated with job stress. They also reported (Berg, Hem, Lau, & Ekeberg, 2006b) that police rarely seek help from psychologists or psychiatrists, even when they have serious suicidal ideation. Although there are estimates that 80% of US police suicide victims gave clues regarding their suicidal intentions (Violante, 1996), officers often do not seek help for their problems (Fields & Jones, 1999; Levenson & Dwyer, 2003).

In September 1999, the Federal Bureau of Investigation hosted a conference on Suicide and Law Enforcement at the FBI Academy and subsequently published 63 papers from that conference (Sheehan & Warren, 2001). These papers present information on how individual police forces attempted to prevent suicides by training programs, mental health interventions, and postvention programs. Yet none of the papers presented an evaluation of their implementation or their effects. One program to prevent suicides by improving the counseling skills and knowledge of helpers (Amsel, Placidi, Hendin, O'Neil, & Mann, 2001) did report high appreciation ratings of their training sessions.

Several other reports describe police suicide prevention program, but do not provide empirical data on their effectiveness. For example, Levenson, O'Hara, and Clark (2010) describe the Badge of Life Psychological Survival for Police Officers program, which teaches officers about job-related stress and trauma and emphasizes the importance of a voluntary, confidential "annual mental health

check." Dowling, Moynihan, Genet, and Lewis (2006) describe the Police Organization Providing Peer Assistance (POPPA) program in the New York Police Department, which provides confidential peer support.

Program Goals and Activities

The long-term goal of *Together for Life* (in French, *Ensemble pour la vie*) is to prevent suicides among members of the Montreal Police Force. The program's short-term goal is to develop the abilities of officers to deal with suicide, develop mutual support and solidarity among members of the Force in suicide prevention, provide help for related problems, and develop competencies in using existing resources.

The program involves four complementary components:

- Training for all units: All police personnel received a half day training session conducted in each neighborhood police post, administrative unit, and operational center on the nature of suicide, identification of suicide risk and how to help a colleague in difficulty.
- Police resources: A new telephone helpline for police officers was established. Callers could choose from four problem areas (work events (traumatic situations); gay and lesbian issues; alcoholism, gambling and other dependencies; marital and relationship problems). Callers are asked to leave a message with their contact information so that they can be called back by a police volunteer trained in suicide prevention "in complete discretion."
- Training of supervisors and union representatives: This
 full-day training session conducted by psychologists focused upon improving supervisors' abilities to identify
 officers at risk of suicide and how to provide help.
- Publicity campaign "Together for Life": This campaign to inform police officers about suicide prevention involved publishing articles in the internal police newspapers, hanging large posters on the program in each police unit, and distributing a brochure describing the program to all members of the force.

In 2006 the program was repeated with another training of all units. The implementation of the program was evaluated in 2000–2001. However, we waited until 2010 to assess whether there was a significant impact upon suicide rates.

Methodology

Participants

The program was provided to all members of the Montreal police force. Table 1 shows characteristics of the 4,178 members of the Montreal police force as of December 31,

Table 1. Description of police personnel on Dec. 31, 2000

	Number (%)
Sex	rumber (10)
Men	3255 (77.9%)
Women	923 (22.1%)
Total	4178
Ranks	1170
Officers	2998
Sergeants	444
Sergeant-Detectives	507
Lieutenants	47
Lieutenant-Detectives	52
Captains	1
Captain-Detectives	2
Commanders	98
Inspectors	9
Chief-Inspectors	12
Assistant-Directors	5
Associate Directors	2
Age distribution	
20–29	1147
30–39	1810
40–49	889
50-59	330
60+	2
Distribution by years of service	
0–4	1305
5–10	545
10–14	868
15–19	549
20–24	323
25–29	440
30–34	141
35+	7

2000, in the 49 local community posts and police headquarters.

Procedures

Training for All Units

Questionnaires after participating in training were completed by all 2395 police officers who participated in the first phase of the program at the time of the evaluation. There are no missing data. In the first 1,781 questionnaires "yes" and "no" responses were given, but in the remaining questionnaires we used a 5-point Likert scale. Questionnaires asked about the perceived usefulness and suitability of the sessions as well as open-ended questions about what they have learned. Interviews were conducted with the two psy-

chologists who conducted the training, and with the director and associate director of the program, focusing upon their impressions of the program, perceptions of its effects, and suggestions for changes. In addition, three focus groups were conducted concerning reactions to the sessions, particularly opinions on the content, format, and the general usefulness.

Police Resources

Data sheets completed by the helpers following each contact were analyzed and an additional data sheet on the nature of the problem, the nature of help given, and the outcome was added. In addition, an interview was conducted with the coordinator of the program and a 2.5-h focus group was conducted with the 11 volunteer officers working in Police Resources, without the presence of the program coordinator.

Questions concerning Police Resources, knowledge about its activities and impressions of its effectiveness were also included in the questionnaires completed by the supervisors.

Questions about Police Resources were asked in focus groups with officers who participated in the training, on their knowledge about the program and impressions of its usefulness. Also, questions about this component were included in the interviews with the program coordinators.

Training of Supervisors and Union Representatives

Before this evaluation began, 197 supervisors trained between June 17 and December 15, 1998, completed questionnaires concerning their impressions of the training and what they had learned. An additional 72 supervisors completed more detailed questionnaires both before and after participating in the training, which included additional questions on their perception of the role of the supervisor in intervention with employees in difficulty and their ability to name suicide warning signs.

Questionnaires were sent three years later to the 197 supervisors who received training in 1998, 119 of which were returned (response rate 60.4%). Of the 119 questionnaires returned, 9 of the 51 supervisors who reported having had to intervene with at least one officer in difficulty after they received training were randomly selected to participate in an indepth individual interview about their intervention experiences. Two of the 9 supervisors declined to participate, and a total of 7 interviews were conducted.

We also included questions about the supervisors and their training in interviews with the directors of the program as well as with other administrators.

Publicity Campaign "Together For Life"

Questions about the publicity campaign were included in the questionnaires sent to supervisors. Participants in each of the focus groups were asked about their knowledge of and reactions to the campaign and all other people interviewed were asked about this campaign, and their recollections of its content and impressions.

General Information About the Overall Program and Changes in Suicide Rates

Two meetings were conducted between the researchers and the committee supervising the program implementation, involving union leadership and police force administrators. We obtained information from the Quebec Coroner's Office on all police suicides in the Montreal police and the other police suicides in the Province of Quebec for 11 years before the program began from 1986 to 1996 and for 12 years after the program, from 1997 to 2008. Because of delays in validating data there is a 2-year delay in obtaining suicide data from the Coroner's Office. We began data collection with 1986 since this was the first year that the coroner systematically included information on the occupation of persons who died by suicide.

Results

Training for All Units

350 90-minute meetings conducted by outside consultants were held with all units of the police force. 2,620 police officers participated in these meetings, which constituted 87.4% of all officers in the force. In the sample of questionnaires after training sessions, 96.1% felt that the sessions were useful, 96.6% felt that the format was suitable, and 99.2% responded that they would recommend the session positively to a colleague. In the second sample of 614 respondents using the Likert scale, 72.7% were strongly in agreement that the meetings were useful, 30.1% were generally in agreement, and only 1.1% at all in disagreement. Almost all (99%) agreed that the format was suitable and 75.9% strongly agreed that they would positively recommend the sessions to a colleague, 20.1% were generally in agreement with this statement, and only 0.4% were in disagreement.

Interviews were transcribed verbatim and then researchers coded key elements. Overall, those interviewed were pleased with this program. They reported that the success was due to the fact that the police counseling service had an excellent reputation and the trainers were able to "speak their language."

Police Resources

Interviews and the focus groups indicated that almost all members of the force are aware that this service exists. The program was known to 84% of supervisors; 70% said they knew about it from the posters and brochures, 29% from internal newspaper articles, and 19% had heard about it from a colleague. They accurately described the services provided. Nevertheless, there is relatively little use of the service. From February 1999 to December 2001, only 46 calls were received. Although women make up 22.1% of the police force, 42.4% of callers were women. Six of the calls came from the spouse of a police officer, and one was from a retired officer. The helpers felt that they were able to help the callers in all instances. Despite the infrequent use of the service, almost all members of the force were aware of its existence and also felt that having it available was an important resource that they would use if needed.

Training of Supervisors and Union Representatives

Table 2 summarizes responses concerning perceived abilities to intervene before and after participation in the sessions.

Participants generally felt much more at ease in handling problem situations after the training. In response to openended question, before the training most (93%) already

Table 2. Responses pre- and posttraining by supervisors and union representatives in 1998 (N = 197) and 2001 (N = 72)

	1998 pre	1998 post
"If you have to intervene with a police extent are you comfortable with":	officer in diffic	culty, to what
Evaluating his suicidal intentions*		
Not at all	1%	0%
A little comfortable	53%	3%
Comfortable	42%	86%
Very comfortable	4%	11%
Removing his service revolver**		
Not at all	2%	0%
A little comfortable	45%	7%
Comfortable	38%	57%
Very comfortable	15%	36%
Informing his family of your concerns	**	
Not at all	6%	0%
A little comfortable	47%	13%
Comfortable	41%	64%
Very comfortable	6%	23%
Working in collaboration**		
Not at all	0%	0%
A little comfortable	18%	2%
Comfortable	58%	53%
Very comfortable	24%	45%

Notes. *Pre-post differences significant 1998 (χ^2) p < .001; 2001 pre-post significant (χ^2) p < .05. **Pre-post differences significant 1998 and 2001 (χ^2) p < .001.

Table 3. Police suicide rates in Montreal and the rest of Quebec before and after implementation of the suicide prevention program

		Montreal police	Police rest of Quebec	Comparison Montreal to rest of Quebec
Before program 1986–1996	Suicides	14	29	
	Population	4178	10131	
	Rate per 100 000	30.46	26.02	p = 0.63 (ns)
	95% confidence interval	18.04-51.44	18.08-37.45	
After program 1997–2008	Suicides	4	32	
	Population	5189	9197	
	Rate per 100 000	6.42	28.99	p = .007
	95% confidence interval	2.31-17.88	20.19-41.64	
Change from 1986-1996 to 1997	7–2008	-78.9%	+ 11.4%	
95% confidence interval		-93.3% to -33.4%	-33.3% to 86.2%	
Comparison before-after		p = .008	p = .68 (ns)	

Significant differences are in bold.

knew that behavior changes were a possible indication of suicidal risk, and this increased to 100% after the training. Some 64% indicated that talking about suicide and suicide threats were possible signs before the training, about the same (61%) as afterward. There was a significant increase in the number who mentioned physical symptoms, such as weight loss and sleep problems (24% before, 83% after). There was a significant increase from 20% to 39% of direct questioning about suicidal intentions. There was also a small but significant increase in the proportion who mentioned removing the officer's service revolver (from 70% to 76%). Most (80% before; 88% after) said that they would help the person find appropriate therapy or counseling, and most (76% before; 78% after) said that it was important to establish a support system for the individual in difficulty.

In the 2001 follow-up of officers who participated in the 1998 training, 90% felt that the training had been helpful (29% "very helpful" and 61% "somewhat helpful"). When asked what they had learned, 67% stated the training helped them better identify suicidal intentions and 58% that it helped them understand the importance of listening and offering support. 40% said that they were more able to identify difficulties, 25% that they learned to ask direct questions about suicidal intentions, 45% rated the content of the training session as "very useful" for their work, and 46% rated the content was "somewhat useful."

43% of the 119 supervisors responded that they had intervened with an officer in crisis, and over half (51%) reported having intervened on several occasions. The most frequent problem was family and couple difficulties (29%). 76% said that they listened to the persons in difficulty, 69% made adjustments to the person's work situation in order to help, and 82% referred the person to the police counseling service. A third (33%) said that they involved others to establish a support network for the person.

Almost all the interventions (96%) were rated as having positive effects. In 92% of the cases, the employee followed the supervisor's advice. Thirty-eight supervisors

(32%) made specific suggestions for improving the training, most focusing on the need for an annual refresher course, follow-up or "memory-aids."

Three years later supervisors still felt that the sessions had been useful. Of the 51 supervisors who intervened with an officer in crisis, there were 89 different interventions. In 11 instances (13%), the supervisor took away the officer's service revolver as a suicide prevention measure. Interviews with 7 supervisors who had intervened since their training indicated a high quality of interventions. Each of the 7 supervisors gave detailed information about questions asked to identify the nature of the problem, and they all became directly involved in helping find solutions and guaranteeing follow-up.

Publicity Campaign

Although everyone from the officers to administrative personnel was aware of all components of the suicide prevention program, they were often not aware that the components were linked together as part of a general suicide prevention strategy. For example, of the 119 supervisors who received questionnaires in 2001, only 40 (34%) recognized that they had heard of the program "Together for Life." Nevertheless, all the supervisors were aware of the training programs and Police Resources.

Changes in Suicide Rates

During the 11 years from 1986 to 1996 before the program was initiated, the suicide rate in the Montreal police was slightly higher but not significantly different from the rate for all the other police in the Province of Quebec, 30.5 per 100,000 per annum in Montreal compared with 26.0 per 100,000 for the other Quebec police. There were 14 suicides in Montreal during this period (at least one suicide in

9 of the 10 years). There were 29 suicides in the other police in the Province with an average of 10,131 police officers. During the 12 years since the date the program began in 1997 until 2008, there were 4 suicides in Montreal police and 32 suicides in other Quebec police, with an average increase in police force members in Montreal to 5189 and a decrease in the average number of police elsewhere in Quebec to 9197. The Montreal police suicide rate decreased significantly by 78.9% (p < .008) to 6.42 per 100,000 per annum, while the other Quebec police had an 11.4% nonsignificant increase in suicides to 29.0 per 100,000; with a significant postprogram difference between Montreal suicide rates and other provincial police suicide rates (p < .007) (see Table 3).

Discussion

The results indicate that this suicide-prevention program is effective in attaining its objectives. Besides being greatly appreciated, the three principal components of the program – the training for all units, the Police Resources program, and the training of supervisors and union representatives – resulted in increased knowledge and improved interventions with officers at risk of suicide. One important factor related to the program success is the great appreciation and high regard held for the Police Counseling Service, whose director and employees implemented most of this program. The program was skillfully implemented, placing emphasis upon available resources within the force by training supervisors and volunteer officers as helpers. The trainers were well received because they "spoke the language" of the police milieu and were not seen as outsiders.

One of the most impressive findings is the fact that after the program there was a significant 79% decrease in suicides and no comparable decrease in suicide deaths in police elsewhere in the Province of Quebec, where no similar police suicide prevention program was initiated. It is likely that this dramatic decrease is linked to this suicide prevention initiative. Although this change could be due to some extraneous factors, we are not aware of any other event or situation that could explain this decrease. There were no major changes in the functioning, training, or recruitment patterns of the police force during this period, and the suicide rates in Quebec for the same age and sex groups did not decline during the same time period.

Although the primary goal of decreasing the incidence of police suicides was achieved, it is impossible to identify from this study which components of this multifaceted program were essential in contributing to the decrease in suicides. The data on appreciation of the program and changes in knowledge and practices are positive; however, differences in response rates and a lack of psychometric validation of those scales reveal weaknesses in this study. Nevertheless, even if the response rate were 100% and the scales were carefully validated, there is no way of knowing

whether the significant changes in attitudes and knowledge were responsible for the decrease in suicides. The only way to identify empirically the essential components would be to compare variants of the program with different populations. It is also possible that the effects are not due to any specific program components, but rather to a more global synergetic effect of the multifaceted program. In fact, the evaluators have hypothesized that this may be the case.

The evaluators are under the impression that one of the major factors to explain those changes may be that all levels of the police milieu were affected by this program, from the directors of the force and the union leaders down to each officer on the beat. In this small closed environment, it may be possible to engage in persistent and intensive activities which may influence the mentality and the culture of the entire milieu. Suicidal behavior, previously considered to be a culturally acceptable way to deal with a crisis, may no longer be seen as an appropriate way to deal with problems. In the past, officers would joke about "eating their gun" when things got really tough. Now, it appears that officers do not joke about this quite as often, and that they frequently mention available sources for help. Furthermore, part of the emphasis of the training was that a suicide is not an event affecting only the suicidal individual, but also involves and profoundly affects the entire community. One of the effects of this program was that suicidal behavior is seen as less acceptable because of its implications for the rest of the force.

Although this program was specific to the police environment, similar prevention programs specially tailored for other work environments may be an effective means of preventing suicidal behavior. Within a relatively small milieu, it is possible to educate all members and perhaps even produce long-lasting ideological changes. A challenge with this type of program is to maintain its momentum and ensure that as new persons join the police force, they are initiated into the new cultural norms where suicide is not seen as acceptable and resources for help are perceived as available and useful. Based upon these evaluation results, the Montreal police department, with union support, has continued this program and has integrated many of the recommendations from the evaluation.

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