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Police Suicide in Small Departments: A Comparative Analysis

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Abstract

The majority of police suicide research has focused on larger police departments. Very little research has been done within small departments. The present study compared suicide rates between small and larger police departments. Two Hundred ninety-eight departments were drawn from the U.S. Public Safety Officer Benefits database totaling 119,624 officers. Annual suicide rates were calculated per 100,000 for each of four category (by size of department) and p-values from Chi-square tests were employed to assess differences in rates across categories. The annual suicide rate varied significantly across departments. Smaller police departments had a significantly higher suicide rate than large departments. Possible reasons include lack of availability for mental health assistance, increased workload and danger, and community visibility.

Keywords

police; suicide; organizational size

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The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the CDC or National Institute for Occupational Safety and Health.

Epidemiological evidence suggests an elevated rate of suicide within law enforcement (Violanti, Vena & Petralia, 1998; Forastiere, Perucci, Dipietro, Miclei, Rapiti, Bargagli, et al, 1994; Gershon, Lin & Li, 2002; Cantor, Tyman & Slater, 1999; Charbonneau, 2000; Hartwig & Violanti, 1999; Violanti, Fekedulegn, Charles, Andrew, Hartley, Mnatsakanova & Burchfiel, 2008; O'Hara & Violanti, 2009). A meta-analysis by Aamodt and Stalnakar (2001) suggests that the annual suicide rate of 18.1/100,000 for law enforcement personnel is higher than the 11.4/100,000 in the U.S. general population.

Because suicide is a relatively rare event, the majority of previous studies of police officer suicide have focused on larger police departments. Very little research has been done within small departments, where 49% of police departments in the U.S. employ fewer than 10 full time officers (Reaves, 2011). According to Lindsey and Kelly (2004), small town police officers face danger without the benefit of immediate backup that is available in larger jurisdictions. Often small town police officers may be the only officer on duty during any given shift. Lindsay and Kelly (2004) add that officers and their families in small towns come under close scrutiny because the majority of citizens in their jurisdiction know them. In turn, officers may have personal identification with persons involved in traumatic incidents or serious crimes that occur in their town, leading to an intensification of psychological after-effects.

The strain of being a small town police officer is reflected in attrition rates. Yearwood and Freeman (2004) found that larger police agencies reported an average attrition rate of 10.2 percent while their smaller counterparts report an attrition rate almost twice as high at 18.2 percent. Data gathered from 24 small departments showed that at least 30 officers switched to another force in the area in the past five years. Of those who transferred, 15 months was the average amount of time they spent at one department.

A rare quantitative analysis of police suicide in small jurisdictions was conducted by Campion (2001). The average number of police officers in these departments was 39. Eighty-nine of 150 (60%) police organizations surveyed responded involving 3,736 officers. Nine of the 89 departments reported suicides. One hundred percent of the suicides were committed off duty with a firearm. Sixty-four percent of the victims showed no notable indication that they intended to commit suicide. Forty-five percent were patrol officers, 18% were field officers and 9% were investigators.

It is evident that there is a lack of empirical research regarding suicide in small departments. In addition, no study to our knowledge has compared suicide rates between varying sized police departments. Utilizing data obtained from 298 police departments (PDs), the present study compared suicide rates between four different size categories of police departments: smallest, small, medium, and large.

METHODS

Two hundred and ninety eight police departments were randomly drawn from the U.S. Department of Justice Public Safety Officer Benefits database, Washington, DC. These 298 police departments had experienced officer deaths within the last ten years. The response

rate was 100%. Through questionnaires, each department was asked to provide data on the reported number of suicides that occurred over the past ten years for on-duty, off-duty, and retired police officers. Additional information on the location (at worksite vs. away from worksite) and the method used (firearm, knife, hanging or asphyxiation) was available. However, the information on the location and method used was aggregated for each PD and therefore could not be linked to an individual suicide. The total number of police officers in these departments ($n = 119,624$) was used to create four categories of police department (PD) size: 1) smallest, ≤ 50 officers; 2) small, 51-200 officers; 3) medium, 201-500 officers; and 4) large, 501-6,500 officers. Annual suicide rates were calculated per 100,000 officers for each PD size category and p-values from Chi-square tests were determined to assess whether the rates were statistically different across these PD size categories. Six pairwise comparisons between the PD size categories were made using Chi-square tests; p-values were multiplied by six to adjust for multiple comparisons using the Bonferroni correction.

RESULTS

Of the 298 police departments, 86 (29%) reported one or more suicides in the past ten years. A total of 189 suicides were reported. Of the 85 PDs who reported information on the location of the suicides, 89% reported that the suicides occurred away from the worksite compared to 11% which occurred at the worksite (Table 1). Of the 81 PDs who reported the method of suicide, firearms were the most frequently reported method (91.4%); other methods included knives, hangings, asphyxiation, drug overdose and automobile (Table 2).

Of the 189 total suicides, 155 (84.7%) were committed by police officers who were employed at the time (10 of these were on-duty suicides (5.5%), 145 were off-duty suicides (79.2%), and 28 (15.3%) were committed by retired police officers. PD size was not reported for six additional off-duty suicides and these suicides were excluded from the analyses.

Annual suicide rates per 100,000 officers were calculated for each PD size category. The overall annual suicide rate was 15.3 per 100,000 officers (Table 3). The annual suicide rate varied significantly across the PD size categories: 43.78/100,000 for officers in the smallest PDs (≤ 50 officers), 13.67/100,000 for officers in the small PDs (51-200 officers), 26.39/100,000 for officers in the medium PDs (201-500 officers), and 12.46/100,000 for officers in the largest PDs (501-6,500 officers). More specifically, PDs that were smallest (≤ 50 officers) had significantly higher suicide rates than those classified as small (51-200 officers; $p = 0.028$) and large (501-6,500 officers; $p < 0.0001$).

DISCUSSION

Our results suggest that smaller police departments have a reported higher annual suicide rate than larger departments. A significant difference in the annual suicide rate across department size categories was found. The annual suicide rate for all departments of 15.3/100,000 officers was above the U.S. general population suicide rate of 11/100,000, with the smallest department rate being approximately four times the national rate (43.78/100,000). These results were somewhat surprising, as there is a general consensus

that small departments have a sense of teamwork and a stronger sense of personal identity. Size also appears to have a motivating effect (Moates & Kulonda, 1990). These group characteristics would seem to be more protective against suicide, lending to cohesiveness and support in times of stress and trauma (Hogg, 1992.)

Other results in the present study appear to be consistent with previous research. First, retired officers were less likely to commit suicide than currently employed officers (15.3% vs. 84.7%). In general, police officers are more likely to commit suicide while still working. Violanti and colleagues (1998) found the highest risk for suicide centered on 15-20 years of police service just prior to retirement, indicating a period of high anxiety over decisions to remain in police work or retire. Violanti (1983) found that officers in the 12-20 year career category had the highest stress scores, identifying this period as the “disenchantment” stage of police work. Hartley, Violanti, Fekedulegn, Andrew, and Burchfiel (2007) found that officers in this police service range had higher negative life event and depression scores than younger officers. Second, the proportion of off-duty suicides was much higher than on-duty suicides. Violanti (1996), in a comparison of five police departments, found that an average of 64% of suicides occurred away from the department. Campion (2001) found that 100% of suicides committed by officers in small PDs occurred while off-duty. Finally, concerning the method of suicide, the present study found that approximately 91% of officers used a firearm. Similar results have also been found in previous work (Violanti, 1996; Cronin, 1982; Danto, 1978; Campion, 2001).

Exploring Reasons for Small Department Police Suicide

A more challenging question is why small departments may have higher annual suicide rates than larger departments. There are several possible explanations to explore. First, there is likely a lack of availability for mental health assistance or peer support programs in smaller departments due to inadequate budgets. Geographic conditions may also play a part; many small departments are rural and cover wide jurisdictions where mental health services are limited. A national study conducted by Mental Health America (MHA) found that states with more psychiatrists, psychologists, and social workers per capita had lower suicide rates. The study also found that in states with more generous mental health parity coverage a greater proportion of the population received mental health services (Mental Health America, 2008). Larger departments have a better opportunity to establish internal programs such as Employee Assistance Programs (EAPs) or peer support programs should officers need confidential help for stress or trauma. Small departments may not have this luxury, and may depend on outside sources to deal with officers experiencing difficulty. Officers are less likely to use outside sources because of confidentiality concerns.

Secondly, the workload in small departments may be more intensive than large departments. In some small departments, there may be only one or two officers on duty per shift. Those officers are responsible for handling all police calls, accidents, burglaries, or homicides for the entire jurisdiction. Small departments require their personnel to be more generalized in their knowledge and skills. Large departments are more decentralized and have specialized investigation units to handle different types of crimes such as sexual offenses, homicides, and traffic. In small towns, officers may have personal identification with individuals

involved in traumatic incidents or serious crimes that occur in their town, leading to an intensification of psychological after-effects (Lindsay & Kelly, 2004). Work overload associated with such situations can lead to undue stress and trauma straining the officer's ability to cope effectively. The danger of working alone is also increased in small departments. Since there are fewer officers available, backups may not be possible, or if backup is available it may come from another agency some distance away. This can place added stress on small town officers.

Third, there is lack of anonymity in small town departments. Since there are so few officers in the department, they are well known throughout the jurisdiction and under community scrutiny. Unlike large departments where officers are not known by the community when they leave work, small town police are identified as officers whether on- or off-duty. Such visibility can not only affect the officer's psychological well-being in terms of “getting away” from police work, but also his or her family. Additionally, peers in the department will be aware of any errors or disciplinary problems that occur among officers in small departments. This may lead to isolation and undue scrutiny by peers.

Fourth, due to budget limitations small police departments may lack training and intervention programs for officers in crisis. Most of the emphasis in training is placed on operational aspects of policing with very little funding available for wellness and psychological care (Violanti, 1996). If small police departments are to seriously address the issue of police suicide, they should consider adopting programs that larger departments find effective in reducing suicide and trauma in officers.

There are limitations to the present study. Due to confidentiality concerns, we were unable to obtain demographic information on individual suicides such as gender, age, and life circumstances. Secondly, suicides may be underreported. Suicide counts were based on recollections of chiefs and higher order personnel who were in the department for at least ten years. It is possible that difficulty recalling all suicides led to some underreporting and this could have occurred to a slightly greater extent in the larger departments.

The advantages of the present study are that it is the first quantitative comparison of small and larger police department suicides, and the study involves a national sample with a relatively large number of departments ($n = 298$) and police officers ($n = 119,624$). Further research is necessary to help clarify reasons for higher suicide rates in small police departments. Since the majority of departments in the U.S. are small, it becomes imperative that this problem be considered. Additionally, due the paucity of research on small departments, it is necessary that we explore further why such tragedies occur in these departments and how they may be best prevented.

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Table 1Location of Suicide as Reported by Police Departments^{*}

	Number of Police Departments	Percents
At worksite	9	10.59
Away from worksite	76	89.41

* 1 Police Department did not report where the suicide(s) occurred.

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Table 2Method of Suicide as Reported by Police Departments^{*}

	Number of Police Departments	Percents
Firearm	74	91.36
Other	7	8.64

^{*} 5 Police Departments did not report the method used to commit the suicides.

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Table 3

Annual Reported Suicide Rate by Police Department Size

Department Size	Number of Departments	Number of Officers at Risk	Total Number of Suicides	Annual Suicide Rate *
50	88	2,284	10	43.78
51-200	74	8,046	11	13.67
201-500	55	18,568	49	26.39
501-6,500	66	90,726	113	12.46
Total	283	119,624	183	15.30
p-value **				< 0.0001

* Annual suicide rates are reported per 100,000 police officers..

** p-value is from chi-square test.

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