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Homicide–suicide in the United States, 1968–1975

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ABSTRACT

This paper describes for the first time the epidemiology of homicide–suicide events in the whole of the United States using archival data. From 1968 to 1975, there were 2215 homicide–suicide events out of 123,467 homicides. The mean rate of homicide–suicide events was 0.134 per 100,000 per year. The murderers in these events differ from the typical murderer and the typical suicide in socio-demographic characteristics. Details of the characteristics of this population may be valuable for understanding the circumstances of homicide–suicide events and planning preventive measures.

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A homicide followed by a suicide is an uncommon and deadly event in which someone kills another and then commits suicide shortly after the homicide [1,3]. Estimates of the rate of homicide–suicide in the United States range from 0.20 to 0.38 cases per 100,000 persons per year [5,10,18,31]. In the United States between 1968 and 1975, a yearly average of 1,946,395 deaths has been reported [22–28]. Each year there is an average of nearly 554 cases of homicide–suicide, about 0.03% of all homicides.

Stack [34] noted that research at the national level into these incidents is rare, partly because of the lack of a national surveillance system. Koziol-McLain et al. [13] noted that databases, such as the Supplemental Homicide Report and the National Vital Statistics System, are unable to link homicide to suicide events. It was hoped that the CDC National Violent Death Reporting System (NVDRS) would correct this surveillance inadequacy [30], but the first report from the NVDRS did not include homicide–suicide data [29]. Until linked data are available, researchers have had to rely on reviews of police and medical examiner records, sometimes with follow-up interviews, or search newspaper clippings for cases [3,7,15,16].

Barraclough and Harris [1] described all homicide–suicide incidents in England and Wales from 1988 to 1992, and Malphurs and Cohen [16] conducted a newspaper surveillance study of

homicide–suicide incidents in all 50 states of the United States for the 1997–1999. Bossarte et al. [2] reported on the characteristics of homicide followed by suicide incident using data from seven American states in 2003 and 13 states for 2004 using surveillance data from the CDC's National Violent Death Reporting System. Hitherto, there has been no nation-wide study of homicide–suicide incidents in the United States.

Cases of homicide–suicide are important for several reasons. Not only are they of interest (and importance) in their own right but, as Barraclough and Harris [1] noted, cases of homicide–suicide contribute significantly to the murder rate for both female and child victims. For these reasons, the objectives of the present study were to describe homicide–suicide incidents in the United States as a whole, to calculate their rates, and to document age, gender, and racial and ethnic differences and the relationship between the victim and the murderer.

1. Method

Riedel and Zahn [32] obtained data from the Supplementary Homicide Reports taken from FBI's Uniform Crime Reporting Program Data for 1968–1978 and placed it in a standardized format in order to obtain consistency and comparability of observations and variables over time. Their data set is available from the Inter-University Consortium for Political and Social Research at the University of Michigan.

Riedel and Zahn's reformatted variables, including information on the reporting agency, type of weapon used, the circumstances of the incident, and the characteristics of the victim and murderer. Data are available for the variables of population and city size and the victim's and the murderer's age, race and sex. One of the circumstance indicators, OCIRCUM2, is a variable indicating special circumstances relating to the homicide victim, but it was used only for the years 1968 through 1975. The special circumstances of this variable were described as

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follows: 0 = normal, 1 = murder by a juvenile, 2 = murder followed by suicide, and 9 = murder by an insane person. No 'murder followed by suicide' data was gathered for the 1976–1978 time period.

2. Results

There were 123,467 cases of homicide recorded for 1968–1975. Among these there were 2215 homicide–suicides (1.8% of the total homicides) (see Table 1), with 79% of the homicide victims being female (Table 2). The 8-year mean rate of homicide–suicides per 100,000 of the population was 0.13.²

2.1. Victims

The 2215 homicide–suicide victims accounted for 1.8% of the 123,467 homicide victims: 6.1% among females, and 0.5% among males. This percentage peaked for those aged 5–9 (see Table 3). The secondary peak in those aged 65 and older is perhaps a result of the presence of serious illness in older people, leading the healthy partner to kill the seriously ill partner and then commit suicide.

The ratio of male to female rates of homicide–suicide rates is 0.27 compared to 3.32 for all homicides (Table 1), indicating that females were overwhelmingly the victims in homicide–suicide events whereas males were more often the victims of homicide in general. For the 258 victims under 15 years of age, 52% were female; for the 1915 victims over the age of 15, 83% were female. Thus, in homicide–suicide events, the murderer was equally likely to kill young boys and young girls whereas, for adult victims, the majority of victims were women.

Table 1
Cause of death for 2215 victims in homicide–suicide events and all homicides for the United States 1968–1975.

Code and cause of death	H-S N (%)	All N (%)
11 Firearm, type not stated	107 (5)	5493 (4)
12 Handgun	1364 (62)	58,776 (48)
13 Rifle	253 (11)	6298 (5)
14 Shotgun	257 (12)	9558 (8)
15 Other gun, than those above	0	39 (<1)
20 Knife or cutting instrument	87 (4)	22,727 (18)
30 Blunt object	29 (1)	6079 (5)
40 Personal weapon (beating)	20 (<1)	7293 (6)
50 Poison	5 (<1)	82 (<1)
60 Explosives	1 (<1)	116 (<1)
65 Arson ^b	2 (<1)	520 (<1)
70 Other, narcotics	30 (1)	1748 (1)
80 Unknown ^a	0	808 (<1)
80 Strangulation ^b	15 (<1)	1334 (1)
85 Asphyxiation ^b	9 (<1)	189 (<1)
90 Strangulation ^a	33 (2)	1494 (1)
90 Other ^b	3 (<1)	913 (<1)
All causes	2215 (100)	123,467 (100)
	H-S	All
Eight-year mean rate per million for 2215 victims in homicide–suicide events and homicides by all methods for the United States		
All Ages	1.34	74.66
Male	.28	57.32
Female	1.05	17.28
Male:female ratio	.27	3.32
Eight-year mean rate per million for 2215 suspects in homicide–suicide events and suicides by all methods for the United States		
All ages	1.34	117.42
Male	.19	83.94
Female	.09	33.48
Male:female ratio	2.1	2.51

^a 1968–1972 only.

^b 1973–1975 only.

² The data set apparently excluded mass murders.

2.2. Offenders

There were 2215 offenders/suicides. Of these, 1231 were spouses killing partners and then committing suicide. Of these 1229 suspects, 1129 were husbands killing wives and 100 were wives killing husbands. (Two cases had missing data.)

The 2215 suicides accounted for 1.14% of all of the 194,176 reported suicides during the 8-year period. The male/female ratio for homicide–suicide offenders where known was 5.6 (1439/255) compared to 2.5 for suicides in general during that period (138,818/55,358). Thus, compared to suicides in general in the USA, the offenders in homicide–suicide events were more often men.

Of the 465 non-spousal homicide–suicide events where the gender was known for both the homicide victim and the offender, there were 74 (16%) instances where both were females, 102 (22%) instances where both were males, 81 (17%) instances where a female killed a male, and 208 (45%) instances where a male killed a female.

2.3. Method for the homicide

Homicide–suicide victims were more likely to be shot by any type of firearm, than all homicides (89% vs. 65%) (Table 1), and this was true for both male and female victims. Handguns were used more often for homicide–suicides, both for male and female victims (Tables 1 and 2). Furthermore, male murderers in homicide–suicide events were more likely to use a firearm than female murderers: 86% and 92% of female and male victims, respectively, were killed by a male suspect using a firearm vs. 69% of victims killed by female suspects.

2.4. Race

Eighteen hundred and forty-two (83%) victims were white, 336 (15%) were black, and 37 (2%) were of others races or unknown. Both black and white homicide–suicide victims were equally likely to be killed with a handgun (71% and 69%, respectively) and more likely to be killed with a handgun than all homicides (53% and 42%, respectively, for black and white victims of homicide in general).

2.5. Homicide–suicide in the family unit

One group of cases involved those within the family unit, that is, where suspect and victim were family or related to each other, for example, spouse kills spouse, parent kills child, child kills parent, or other family situation. The family unit was involved in 1668 (75.3%) of the homicide–suicide events (Tables 4 and 5). Women were more often killed by their husbands (65% of female victims) than men were killed by their wives (21% of male victims). Male and female children were equally likely to be murdered by parents (146 and 144 cases, respectively), and slightly more mothers were murdered by their children than were father (23 and 16, respectively).

2.6. Other circumstances

Homicide–suicide events, as compared to all homicides, were less often the results of "other arguments" and less often the result of murder during the course of a felony.

3. Discussion

Malphurs et al. [17] reported homicide–suicide rates of 0.2–0.3 per 100,000 per year, and the homicide–suicide rate for the present data set is a little lower (0.134). Homicide–suicide rates are much higher in the United States than in England and Wales. The rate of homicide–suicides in the United States from 1968 to 1975 in the present study (0.134 per 100,000 per year) was nearly double that

Table 2
Gender and cause of death surrounding the deaths of 2215 victims in homicide–suicide events and in all homicides for the United States 1968–1975.

Code and cause of death	H–S			All		
	Male N (%)	Female N (%)	Gender unknown	Male N (%)	Female N (%)	Gender unknown
11 Firearm, type not stated	28 (6)	77 (4)	2	4491 (5)	994 (4)	8
12 Handgun	275 (59)	1088 (62)	1	48,079 (51)	10,684 (37)	13
13 Rifle	63 (13)	190 (11)	0	4815 (5)	1482 (5)	1
14 Shotgun	47 (10)	210 (12)	0	7650 (8)	1903 (7)	5
15 Other gun, than those above	0	0	0	34 (<1)	5 (<1)	0
20 Knife or cutting instrument	22 (5)	65 (4)	0	17,736 (19)	4978 (17)	13
30 Blunt object	2 (<1)	27 (2)	0	4289 (5)	1790 (6)	0
40 Personal weapon (beating)	4 (<1)	16 (<1)	0	4255 (5)	3033 (11)	5
50 Poison	2 (<1)	3 (<1)	0	55 (<1)	27 (<1)	0
60 Explosives	0	1 (<1)	0	80 (<1)	36 (<1)	0
65 Arson ^b	0	2 (<1)	0	314 (<1)	206 (<1)	0
70 Other, narcotics	14 (3)	16 (<1)	0	960 (1)	770 (3)	18
80 Unknown ^a	0	0	0	485 (<1)	313 (1)	10
80 Strangulation ^b	3 (<1)	12 (<1)	0	463 (<1)	0	5
85 Asphyxiation ^b	2 (<1)	7 (<1)	0	84 (<1)	0	0
90 Strangulation ^a	5 (1)	28 (2)	0	478 (<1)	0	2
90 Other ^b	2 (<1)	1 (<1)	0	526 (<1)	0	11
All causes	469 (100)	1743 (100)	3	94,794 (100)	28,582 (100)	91

^a 1968–1972 only.
^b 1973–1975 only.

Table 3
Homicide–suicide victims as a percentage of all homicide victims by age.

Age	Percent of victims (%)
0–1	1.5
1–4	4.6
5–9	8.7
10–14	3.4
15–19	1.0
20–24	1.2
25–34	1.6
35–44	1.8
45–54	1.7
55–64	2.3
65+	2.7

reported by Barraclough and Harris [1] for England and Wales between 1988 and 1992 (0.071). However, homicide rates in general are also higher in the United State than in England and Wales (7.47 vs. 1.10, respectively), but the difference is relatively less for homicide–suicide events.

Homicide–suicide events accounted for 1.8% and 1.1% of all reported homicides and suicides, respectively, in the United State during an 8-year period from 1968 to 1975 in the present study. Hanzlick and Koponen's [11] reported that homicide–suicides accounted for 1.4% for all homicides and 3.4% of all suicides in a much smaller sample and over only a 4-year time period.

These proportions are higher in other countries. Buteau et al. [4] reported that 4% of the homicides in Quebec (Canada) were cases of homicide–suicide, while Lecomte et al. [14] reported that 13% of all homicides from 1990 to 1996 in Paris were homicide–suicides.

Homicide–suicide events in the United States remain were most often family affairs, especially with one spouse killing another spouse and then committing suicide. Nearly eight out of ten victims involved in homicide–suicide events were female. These findings are consistent with those findings of Barraclough and Harris [1] in England and Wales and Saleva et al. [33] in Finland.

Three-quarters (75%) of homicide–suicide events in the present study occurred in circumstances within the family unit, most commonly 56% spouse killing spouse and 13% parent killing a child. These results are consistent with the findings of earlier studies of much smaller sample [36,19,9,34,14,21,8,2].

Some 19% of the homicide–suicides occurred in circumstances outside the family unit but between friends and acquaintances:

10% as a result of love triangles and 8% “other arguments.” Felony or first degree type circumstances, where individuals commit crime-related murders and then kill themselves account for a very small percentage of homicide–suicide events (0.7%).

When the gender of the victim and suspect are both known in homicide–suicide events, nearly 87% of female parents kill their children compared with 41% of male parents. For child victims where gender was known, there were slightly more females (133) than males (129) for the age groups up through 10–14 years, while for the 15–24 year age group there were many more female than male victims (280 and 58, respectively). This preponderance of females killed over males killed was consistent for the older age groups. Barraclough and Harris [1] suggested that, “Possibly boys are less trusting than girls. Fewer older children [among those murdered] may be explained in part by

Table 4
Circumstances surrounding the deaths of 2215 victims in homicide–suicide events and in all homicides for the United States 1968–1975.

Code and circumstances	H–S N (%)	All N (%)
11 Spouse kills spouse	1231 (56)	13,873 (11)
12 Parent kills child	291 (13)	3511 (3)
13 Child kills parent	39 (2)	1562 (1)
14 Relation kills relation ^b	22 (<1)	1278 (1)
19 Other family situation	85 (4)	6341 (5)
21 Love triangle	217 (10)	7748 (6)
22 Drunken	9 (<1)	7511 (6)
23 Money	4 (<1)	3267 (3)
24 Revenge ^a	0	623 (<1)
25 Gang killing	0	515 (<1)
26 Institutional killing ^a	0	160 (<1)
29 Other arguments	182 (8)	34,901 (28)
31 Juvenile gang ^a	0	1007 (<1)
32 Sex motive ^a	4 (<1)	1194 (<1)
33 Institutional killing ^b	0	133 (<1)
34 Citizen or police killed by felon	44 (2)	19,722 (16)
35 Suspected felony type ^b	15 (<1)	3587 (3)
36 Illegal abortion ^a	0	84 (<1)
37 Murder, reason unknown ^a	5 (<1)	4495 (4)
38 Not stated ^a	36 (2)	5476 (4)
51 Illegal abortion ^b	0	4 (<1)
59 Circumstance not described or scored ^b	31 (1)	6475 (5)
Total	2215 (100)	123,467 (100)

^a 1968–1972 only.
^b 1973–1975 only.

Table 5

Gender and circumstances surrounding the deaths of 2215 victims in homicide–suicide events and in all homicides for the United States 1968–1975.

Code and circumstances	H–S			All		
	Male N (%)	Female N (%)	Gender unknown	Male N (%)	Female N (%)	Gender unknown
11 Spouse kills spouse	100 (21)	1129 (65)	2	6568 (7)	7301 (26)	4
12 Parent kills child	146 (31)	144 (8)	1	1975 (2)	1508 (5)	28
13 Child kills parent	16 (3)	23 (1)	0	1117 (1)	445 (2)	0
14 Relation kills relation ^b	8 (2)	14 (<1)	0	1022 (1)	256 (<1)	0
19 Other family situation	29 (6)	56 (3)	0	4541 (5)	1798 (6)	2
21 Love triangle	44 (9)	173 (10)	0	5118 (5)	2629 (9)	1
22 Drunken	4 (<1)	5 (<1)	0	6951 (7)	557 (2)	3
23 Money	2 (<1)	2 (<1)	0	3031 (3)	236 (<1)	0
24 Revenge ^a	0	0	0	568 (<1)	55 (<1)	0
25 Gang killing	0	0	0	487 (<1)	28 (<1)	0
26 Institutional killing ^a	0	0	0	158 (<1)	2 (<1)	0
29 Other arguments	68 (15)	114 (7)	0	30,698 (32)	4191 (15)	12
31 Juvenile gang ^a	0	0	0	963 (1)	44 (<1)	0
32 Sex motive ^a	1 (<1)	3 (<1)	0	267 (<1)	927 (3)	0
33 Institutional killing ^b	0	0	0	131 (<1)	2 (<1)	0
34 Citizen or police killed by felon	28 (6)	16 (<1)	0	15,846 (17)	3868 (14)	8
35 Suspected felony type ^b	5 (1)	10 (<1)	0	2519 (3)	1057 (4)	11
36 Illegal abortion ^a	0	0	0	2 (<1)	80 (<1)	2
37 Murder, reason unknown ^a	3 (<1)	2 (<1)	0	3465 (4)	1025 (4)	5
38 Not stated ^a	8 (2)	28 (2)	0	4357 (5)	1112 (4)	7
51 Illegal abortion ^b	0	0	0	1 (<1)	3 (<1)	0
59 Circumstance not described or scored ^b	7 (2)	24 (1)	0	5009 (5)	1458 (5)	8
Total	469 (100)	1743 (100)	3	94,794 (100)	28,582 (100)	91

^a 1968–1972 only.^b 1973–1975 only.

their being able to escape by hiding, running away or defending themselves” (p. 583).

In the present study, shooting by any type of firearm, especially a handgun, was the most common cause of death, accounting for more than twice (89.4% vs. 40%) the percentage of victim deaths reported for the counties of England and Wales between 1988 and 1992 [1]. The finding that the majority of victims were shot is consistent with a report from Victoria, Australia [20] and one from the United States [3]. However, it is not consistent with a report from northern England [35] or from Finland Saleva et al. [33]. The high rate for the use of guns for murder–suicides in the United States is consistent with other studies using small samples of homicide–suicide incidents [2,34] and probably reflects the greater ownership of guns in the United States as compared to England and Wales and Finland, and the great use of guns both homicides and for suicides in the United States.

Chan et al. [6] described 56 homicide–suicide events that occurred over a 10-year period in Hong Kong where the most common means of killing a victim was by strangulation/suffocation. Firearms were used in only one instance, and in this case both the murderer and the victim were police officers who had easy access to firearms. Clearly, culture plays a large role in the choice of method for homicide–suicide (as well as for homicide and for suicide in general).

Henry and Short [12] offered a hypothesis for why some homicides may be followed by a suicide. Stack [34] described stated this hypothesis as follows. “Homicide–suicides can be distinguished from homicides per se to the extent that they involve the loss of nurturance and love. The homicide of a loved one decreases the chances that the homicide will be seen as legitimate to the suspect. While the source of frustration (the victim) is destroyed in such homicides, the source of nurturance is also destroyed. Hence, such homicides can restore or even increase frustration since the source of nurturance is now lost. The self, then, can become the legitimate target of aggression in the form of suicide” [34] (p. 437).

Stack [34] reported that whites account for 36% of the victims in homicide–suicide events whereas they account for only 15% of all

homicide victims. His conclusion seems to be biased by the limited region he studied (Chicago). In contrast, in the present study of the whole of the United States, white and black victims accounted for 83% and 15%, respectively, of homicide–suicide events compared to 47% and 52%, respectively, of all homicides.

How has the phenomenon of homicide–suicide changed in recent years? Unfortunately, there is no comparable data set available for the 21st century with which to compare the data analyzed in the present study. However, the National Violent Death Reporting System does contain data for 16 reporting states on “suicide victims³ suspected of a recent homicide.”⁴ For the year 2007, there were 173 suspected homicide–suicides in these states, giving a rate of 0.22 per 100,000 per year. Hispanics (0.26) and Asian/Pacific Islanders (0.27) had higher rates of committing homicide–suicide than African Americans (0.22) and whites (0.21). Females had a very low rate (0.03). This rate was highest for black male suicides (0.45), followed by white males (0.39). The most common method used in homicide–suicides in the year 2007 was firearms (with a rate of 0.17). These data indicate that the rate of homicide–suicide is higher now than it was back in the period 1968–1975, although the limitation of recent data to only 16 states makes this conclusion tentative.

There are limitations in the data set. As part of the Uniform Crime Reporting Program (UCR), participating law enforcement agencies were asked by the FBI to provide additional details about homicides that were reported in their jurisdictions. These data are collected on a URC form entitled “Supplementary Homicide Report.” Riedel and Zahn [32] obtained a copy of these data for the years 1968 through 1978 and performed additional processing. They reported that the data that make up their sample may be biased because (1) not all homicides were brought to the attention of the local police agency, (2) the agency did not participate in the UCR program, and (3) a participating agency failed to forward the Supplementary Homicide Report portion of the UCR to the FBI.

³ This means murderers and not the murdered individuals.⁴ The states reporting are AK, CO, GA, KY, MD, MA, NJ, NM, NC, OK, OR, RI, SC, UT, VA and WI.

Thus, the data set may not be complete. Furthermore, some of the cases had missing data (particularly, the sex of the murderers and suicides), and this may have biased the results.

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