# Homicide Among Youth and Young Adults, 15 Through 29 Years of Age. A Report of 138 Cases from Paris and Its Suburbs, 1991–1993

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**ABSTRACT:** Recent surveys of some metropolitan areas in the United States have shown an increasing death rate as a result of violence among adolescents and young adults. In France, there has been no systematic research into the characteristics of homicide among youth and young adults. We have attempted from autopsy and police records to determine the incidence and the circumstances of homicides in the 15 to 29 age group, in Paris and its suburbs, during the past 3 years.

The main results are as follows:

KEYWORDS: forensic science, criminalistics, homicide, forensic pathology, epidemiology, Paris, France

- 1. Number of cases: 138 (41, 1991; 49, 1992; 48, 1993). Crude homicide rate: 2.4 homicides/100,000 residents by year.
- 2. Sex: males, 101 (75%).
- 3. Ethnic groups: Caucasian: 60%, Arabic: 30%, Black: 5%, and Asian: 5%.
- 4. Age distribution: mean age in both sexes, 25 with 55% of the victims over 25.
- 5. Locality: Paris and its suburbs were equally involved.
- 6. Location of homicides: street, 49 (35%); home, 55 (35%); building, 11; railway, 8; bars, 6; shops, 4; parkings, 3; and hotel rooms, 3.
- 7. Circumstances of homicide: domestic violence: 20 (15%) which included family members, spouse, and girl/boy-friend and street violence: 118 (85%) which included street warriors, gangs, and innocent victims of assault.
- Method of homicide: stabbing, 54 (40%); firearms, 46 (33%); strangulation 18 (13%); bodily force 16 (11%); and 2 simultaneous methods 12 (8%).

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<sup>2</sup>Assistant in forensic medicine, Institute of Forensic Medicine of Paris, 2, place Mazas, 75012 Paris, France.

<sup>3</sup>Director of the Institute of Forensic Medicine of Paris, 2, place Mazas, 75012 Paris, and professor of forensic sciences, Department of Forensic Sciences, Faculté de Médecine Cochin Port-Royal, University of Paris V, 24, rue du Faubourg Saint-Jacques, 75014 Paris, France. Conclusion: during 1991 through 1993, the rate of homicides in the 15 to 29 age group in Paris and its suburbs has been relatively constant, around 45/year (2.4 homicides per 100,000). The victims were mainly over 20, and death by stabbing was slightly more common than shooting. Alcohol was involved in most cases. In contrast, narcotics were an infrequent factor of homicide in the age group studied. Unlike the entirely intrafamilial murders we found in the 0 to 14 age group, those in the 15 to 29 age group met their end mainly through street violence. Be it intra or extrafamilial, persons were more likely to be killed by acquaintances. Gang-related homicides were infrequent.

Recent surveys of some metropolitan areas in the United States (1-5) have shown an increasing death rate as a result of violence among adolescents and young adults. Of particular concern is the dramatic increase in firearm-related homicides among young persons (1-11). International comparisons of homicides may contribute to a better knowledge of the root causes of violence among young people. However, such surveys are infrequent (2).

We have attempted, from autopsy data and police records, to determine the incidence, sociodemographic patterns, and the circumstances of homicides in the 15 to 29 age group, in Paris and its suburbs, during the 3-year period from 1991 through 1993.

# **Study Population**

The study area consisted of the city of Paris (approximately 2,200,000 inhabitants, 1990 national census), and the five following "départements" of its suburbs, Seine-Saint-Denis, Val-de-Marne, Hauts-de-Seine, Seine et Marne, and Essonne (approximately 6,200,000 inhabitants, 1990 national census). In France, a national census is done every seven or eight years. In the 15 to 29 age group, approximately 530,000 persons (48% males) live in Paris and 1,450,000 (50% males) in the 5 "départements" of its suburbs. This study included all homicides occurring in Paris and its suburbs among residents of this area, 15 to 29 years of age, during the 3-year period from 1991 to 1993. All homicide deaths occurring in the study area are autopsied at the Insitute of Forensic Medicine of Paris. Numerators for homicide rates were calculated using homicides occurring in Paris and its suburbs among residents of this area. Denominators for homicide rates were calculated using data from the 1990 national census. The victims were divided into 3 age groups: 15 to 19 years, 20 to 24 years, and 25 to 29 years.

Information concerning weapons, victims, perpetrators, motivation of homicide, involvement in gangs, and narcotics come entirely from police records. Toxicological analyses were done on all victims of homicide.

### Definitions

A homicide was defined as the willful killing of one human being by another. This category included cases of premeditated murder, intentional killing, and aggravated assault resulting in death. Aggravated assault was defined as an unlawful attack by one person on another for the purpose of inflicting severe or aggravated bodily harm. Sometimes, this type of assault involves the actual or threatened use of a deadly weapon. In tabulations such as the World Health statistics annual, most homicides are coded to the ninth revision of the International Classification of Diseases (E 960 through E 969) and exclude those deaths caused by legal intervention (codes E 970 through E 978), defined as injuries inflicted by the police or other law enforcement agents in the line of duty. In the present study, we excluded those deaths caused by legal intervention. Gang-related crimes are defined as any of a number of crimes in which either the victim or the perpetrator is identified in the files of the gang information section of the police department as a gang member. Intimate assaults refers to those assaults in which the victim and perpetrator were emotionally intimate when the murder occurred or had been at some earlier time. Emotionally intimate relationships included marriage, boyfriend/girlfriend relationships, terminated nonspousal and spousal partnerships, and other relationships among family members and relatives (family assaults).

## Results

During the 3-year period (1991 to 1993), 138 homicides involving persons aged 15 to 29 years were investigated at the Institute of Forensic Medicine of Paris. Of the cases, 69 (50%) occurred in Paris and 69 cases in its suburbs. Table 1 shows the distribution of annual homicide deaths and homicide rates (homicides/100,000 residents) in the 15 to 29 age group by gender and by year for Paris and its suburbs. Of the 138 cases, 101 (75%) were male. This proportion was roughly constant during the three years. The mean age of the victims was 25 years for both sexes. Only 10% of the homicide deaths (13% in females and 10% in males) were in youth from 15 to 19 years. In contrast, more than 55% of the victims were 25 years or older in both sexes. A majority of victims were Caucasians (82 cases, 60%). Forty-one victims (30%) were Arabics; 7 (5%) were Asians; and 8 (5%) were Blacks. No interracial homicides were recorded. In France, the national census does not provide information on the proportions of ethnic groups, and we were not able to calculate homicide rates by race.

### Location of Homicide (Table 2)

Fifty persons (36%) were killed in their homes (Table 2). In eleven additional cases, the victims were killed in the building where they had been living. In the case of street violence, homicides occurred in various places (Table 2). No case of drive-by shooting was recorded. Three bodies were found in the river Seine and one in a wood. In 28 cases, the victims died after admission in hospital.

### Methods of Homicide

Table 2 shows the methods of homicide of which stabbing (54 cases, 40%) and shooting (46 cases, 33%) were the most frequent. Forty-one males (40%) were killed by stabbing, while knives were used against 13 females (35%). The proportion of firearm-related homicides was constant over the study period (1991, 37%; 1992, 32%; and 1993, 38%). Only seven females (20%) were killed by

 

 TABLE 1—Annual distribution of homicides and annual homicide rates (homiocides/100,000 population) by gender, age group, and year.

Age Group, Years	Number of Homicides (Mortality Rates/100,000 Population)				
	1991	1992	1993	Total	
Males:					
15-19	3 (1.03)	6 (2.05)	1 (0.34)	10	
20-24	7 (2.22)	14 (4.41)	12 (3.78)	33	
25-29	19 (5.21)	20 (5.22)	19 (5.21)	58	
Total	29 (2.97)	40 (4.08)	32 (3.28)	101	
Females:	. ,	. ,	· · · ·		
15–19	1 (0.35)	1 (0.35)	3 (1.07)	5	
20-24	3 (0.91)	4 (1.21)	6 (1.82)	13	
25-29	8 (2.10)	4 (1.05)	7 (1.84)	19	
Total	12 (1.21)	9 (0.9)	16 (1.61)	37	
Males and I	Females:	. ,			
15-19	4 (0.69)	7 (1.21)	4 (0.69)	15	
20-24	10 (1.53)	18 (2.76)	18 (2.76)	46	
25-29	27 (3.61)	24 (3.21)	26 (3.48)	77	
Total	41 (2.08)	49 (2.49)	48 (2.44)	138	

 TABLE 2—Modes of homicides, location of homicides, and perpetrators.

Results	М	F	Total
Mode of homicide*:			
Stabbing	41	13	54
Shooting	39	7	46
Strangulation	6	12	18
Bodily force	12	4	16
Poisoning	2	0	2
Arson	1	0	1
Train	1	0	1
Two simultaneous methods	6	6	12
Location of homicide:			
Residence	35	26	61
Home	26	24	50
Other residential building	9	2	11
Street	45	4	49
Railway/subway	7	1	8
Bars/nightclubs		Ō	6
Shops	2	2	4
River/woods	6 2 3 3	1	4
Car parks	3	Ō	4 3 3
Hotel rooms	ō	3	3
Perpetrator:		•	U
Acquaintance	48	16	64
Spouse	0	10	10
Stranger	12	3	15
Gang member		õ	7
Boy/girl friend	7 2 4	4	6
Family member	$\overline{4}$	ò	4
Unknown relationship		Ū	
between the killer and the victim <sup>†</sup>	28	4	32

\*Some deaths have more than one mode. Therefore, the total for this part of the table exceeds the number of homicides.

<sup>†</sup>Although police records indicated that a large majority of homicides were perpetrated by victims acquaintances, it was in some cases impossible to determine the relationship between the killer and the victim.

gunshot. In contrast, shooting was more likely used among males (39 cases, 40%). Bodily force alone was the third most frequent method of killing (16 cases). Strangulation was used in twelve cases among females and only six cases among males. In twelve cases, two methods of homicide were simultaneously used. Of

those, strangulation was used in ten cases (associated with knife, five cases: bodily force, one case; poisoning, two cases; and firearm, two cases). In the two cases in which the victim was found in the river Seine, the victim had been killed by strangulation associated with poisoning and firearm. In one case, the body had been dismembered. Finally, there were a few anecdotal cases: a man was pushed under a train; an arson was the cause of death of another man; and two victims were hostages.

# Perpetrator and Circumstances of Homicide

Domestic Violence-Four males, mean age 25, but no female, were killed by a family member. A father used a gun to kill his 23-year-old son because the young man had been violent against his mother. Three mothers killed their sons because the sons had assaulted them. The mothers used a gun in two cases, and poisoning in the other. In six cases, a boyfriend, girlfriend, or a spouse was involved in the murder. The mean age of these victims was 28 years. Women were more likely to be killed by their husbands or boyfriends: ten wives and four girlfriends were victims, and jealousy was the reported motivation of these homicides. In most cases, a man killed his wife/girlfriend during a violent altercation. Alcoholism was frequently involved. Only two men were killed by their girlfriend or spouse. The perpetrators used various modes: a firearm alone in only three cases, a knife in six cases, strangulation in four cases, and bodily force alone in one case. In three cases of domestic violence, the murderer committed suicide after killing his spouse or girlfriend.

Street Violence—Men were more likely to be involved in street violence. Ninety-five men were killed during fights, while only 23 women were victims of street violence. Men were more likely to be killed during violent altercations, and most of these victims were alcoholics. In those deaths involving a fight, knives were used in 49 cases while a firearm was used in 38 cases. Bodily force alone was the method of killing in twelve cases. There were only seven cases of gang-related homicides. Drug dealing was the cause of those homicides. The mean age of male victims of street violence was 25 years. In three cases, the women had been raped. Two prostitutes were murdered by their clients. One woman was killed by a sniper; another was a hostage. The mean age of female victims was 25 years.

### Discussion

Rising rates of violence and homicide have been the subject of an increasing number of papers in the forensic and public health literature, especially in the United States (1-12), where the homicide rate is found to be consistently higher than the rates in other industrialized countries of the world (2). All factors responsible for the wide international variation in homicide rates are still not known (2,11). Fingerhut and Kleinman (2) found the homicide rate among males 15 through 24 years of age to be 1.4 per 100,000 in France in 1986 (59 homicides). In our study, the homicide rate for males in this same age group was found to be slightly higher: 1.64, 3.28, and 2.3, in 1991, 1992, and 1993, respectively. This is not surprising since the number of homicides has been found to be higher in urban areas than in other parts of the country (13). Fingerhut and Kleinman found the homicide rate in France to be 94% below the U.S. rate among males 15 through 24 years of age (2). In their paper, they found a wide international and interstate variation in homicide, but they did not identify the factors responsible for this variation. They noted, however, that three quarters of the homicides in the United States resulted from the use of firearms in contrast with less than a quarter of all homicides in the comparison countries. In our study, the small number of cases and the short study period probably account for the important fluctuation of incidence rates observed in the younger part of the range (1.64 and 3.28 in 1991, 1992, respectively).

Our data indicate that homicides are overrepresented in Paris compared with suburbs. However, it is unclear whether Parisians are more likely to be victims of homicides than residents of the suburbs because the victims' home addresses could not be determined accurately in most cases. According to police records, some victims were homeless, while others had two or more home addresses in Paris and suburbs (parents', friend's, or relative's). The proportion (75%) and rate (3.5 versus 1.5) among male victims were much higher than among females. In a previous study (14) focused on childhood homicide, 0 to 14 years old, 1990 through 1993, in Paris and its suburbs, we found only a slightly higher proportion of male victims (58%).

Males were more frequently victims of street violence, whereas females were more likely to be involved in domestic violence. From our results, it appears that when a spouse killed a spouse, wives were the victims in more than 85% of cases. Alcoholism was involved in most cases. From our data obtained from police records, it is not possible to assess accurately which homicides were premeditated.

Our data confirm that firearms are not the most frequent weapon used in France as compared to the United States (2) among young persons. Many authors have suggested that the availability of firearms is an important factor that influences the homicide rate (2,6-13,17). Since in our series the number of persons who owned guns was not known, our results do not allow us to draw any conclusion regarding gun availability as a possible risk factor for violence. A previous survey has shown that 3% of Parisians and 5% of persons who live in the suburbs of Paris have a shotgun and that 1.3% of Parisians and 3.2% of persons who live in the suburbs of Paris have a handgun (for recreational use).<sup>4</sup> In France, the purchase of a gun (other than a shotgun) requires a restrictedweapons permit. A permit to carry a weapon must also be obtained to transport a handgun. Otherwise, carrying a gun is illegal. The owner of a gun also has to meet specified requirements relating to age, criminal record, physical fitness, and knowledge of firearms laws, and safe use. Finally, the law requires that owners keep firearms in the home and unloaded and disassembled or locked up except while they are being used for lawful recreational purposes (hunting or target shooting).

Be it intra- or extra-familial, persons were more likely to be killed by acquaintances. Many investigators believe that family and intimate assaults (15) and also street violence (2) are often the result of impulsive, violent altercations rather than premeditation. In our series, street violence did not stem immediately from criminal activities such as robbery or gang activities. In some American surveys (16,18), gang members have been found to be many times more likely than members of the general population to be victims of homicide, and gang-related homicides have been found to be higher among young people (16). Among gang-related deaths those caused by drive-by-shootings are a major source of concern (17). In our study, no drive-by-shootings occurred. Others have found that drug trafficking is not a major causative factor of homicide (3,17). Our results support these findings in the age

<sup>4</sup>INSEE survey, Institut national de la Statistique et des Etudes Economiques, not published. group studied. Finally, as reported by others (3), victims and perpetrators were most often of the same race (2,17).

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