Homicide Against Women in the Workplace

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Objectives: To examine the nature and magnitude of violence against women in the workplace. Method: Data from the National Traumatic Occupational Fatalities surveillance system were analyzed for the 13-year period, 1980 to 1992. Employment information was coded from industry and occupation narratives taken from the death certificates. Rates were calculated using annual average employment data published by the Bureau of Labor Statistics. Results: From 1980 to 1992, 2,001 women and 7,935 men were victims of work-related homicides, for rates of 0.32 and 1.01 per 100,000 female and male workers, respectively. The majority of female homicide victims were employed in two industries—retail trade (46%) and services (22%). The highest risk industry was grocery stores (1.74 per 100,000 workers), followed by eating and drinking establishments, hotels and motels, and justice and public order. Conclusions: The findings presented here are consistent with previous research indicating that homicide is the leading cause of occupational injury death for women, but that women are at lower risk than their male counterparts. Homicide played a major role in sales and service, sectors that have increased over the last several decades and in which future growth is predicted. Feasible and effective prevention strategies to reduce the risk of work-related homicides must be developed and implemented.

Women accounted for 46% of the employed population in the United States in 1992, or more than 53 million female workers.[1] Previous research indicates that the fatal occupational injury experience of women is distinctly different from that of men, as homicide is the leading cause of female occupational injury death and accounts for 42% of women's deaths compared to 10% of men's.[2] Thus, it is important to determine the demographic and employment characteristics of victims in order to develop research and prevention priorities.

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Method

Data on workplace homicide among women for the period 1980 through 1992 were taken from the National Traumatic Occupational Fatalities (NTOF) surveillance system maintained by the National Institute for Occupational Safety and Health (NIOSH). The NTOF system is a death certificate-based census of occupational injury deaths to workers age 16 years and older. Data are collected from all 50 states and the District of Columbia. This provides for complete coverage of all US workers without regard to size of establishment, kind of work being performed, or coverage by compensation systems. The "Injury at Work?" item from the death certificate is used to identify cases submitted by the states to NIOSH. During the period of data analysis, no standardized definition of an injury at work was in use by medical examiners and coroners; therefore, the response to this item on the certificate was open to interpretation by individual certifiers. Operational guidelines for the determination of work injuries were distributed to all medical examiners and coroners as well as vital registrars for implementation in 1993, which should improve death certificate surveillance of work-related injury deaths. Complete discussions of the methods and limitations of the NTOF system and the limitations in using death certificate information to examine workplace homicide are available elsewhere.[3,4] Data on homicide were not available from Louisiana, Nebraska, New York, and Oklahoma for the period 1980 through 1984, but were in subsequent years.

Employment information was coded from industry and occupation narratives taken from the death certificate, using software developed by the NIOSH Division of Safety Research. This program effectively codes narrative descriptions into broad occupational categories according to the 1980 Bureau of the Census (BOC) classification system[5] and by industry divisions according to the *Standard Industrial Classification Manual, 1987*.[6] Cases in this analysis were also manually assigned detailed occupation codes according to the BOC classification system. Cause of death codes were assigned based on the International Classification of Diseases.[7]

Rates were calculated using annual average employment data published by the Bureau of Labor Statistics from the Current Population Survey.[8] These data are based on monthly surveys taken from a sample of households selected to represent the civilian noninstitutional population.

Data on occupational homicides by year, age group, and industry division were analyzed for the 13-year period, 1980 to 1992, and information on occupational homicides by detailed industry and occupation were analyzed for the 3-year period, 1990 to 1992, as numbers and rates of work-related homicides by these detailed employment characteristics have been published previously for the 1980s.[4] Rates were calculated only for industry or occupation categories that had at least six homicides during the 3-year period.

Results

During the 13-year period from 1980 to 1992, 2,001 women were victims of work-related homicides, for a rate of 0.32 per 100,000 female workers, and 7,935 men were killed in work-related homicides, for a rate of 1.01 per 100,000 male workers. Homicide was the leading cause of occupational injury death among women and accounted for 42% of the total, followed by motor vehicle-related deaths (25%), falls (5%), and machinery-related deaths (5%).

The majority of female homicide victims were employed in two industries—retail trade (46%) and services (22%). Among men, in addition to retail trade (36%) and service industries (16%), a large number of deaths also occurred in public administration (11%) and transportation/communication/public utilities (11%) (see Table 1). The majority of female homicide victims were 25 to 44 years old, while the highest rates occurred among women age 65 and older (see Table 2). It is important to note that although homicide is the leading cause of occupational injury death among women, men are at more than three times the risk of work-related homicide overall and from 2 to 3.5 times the risk in specific age groups (Table 2).

Detailed industry categories were examined for men and women combined during the three-year period, 1990 to 1992, for which the taxicab service had the highest rate of work-related homicide at 41.4 deaths per 100,000—a rate nearly 60 times the national average work-related homicide rate (0.70 per 100,000). This was followed by liquor stores (7.5), detective/protective services (7.0), gasoline service stations (4.8), and jewelry stores (4.7). The largest number of deaths occurred in grocery stores (N=330), eating and drinking places (N=262), taxicab service (N=138), and justice/public order (N=137). For women specifically, the highest risk industry was grocery stores with a rate of 1.74 per 100,000 female workers; followed by eating and drinking establishments (0.77 per 100,000 female workers), hotels and motels (0.59 per 100,000 female workers), and justice and public order (0.37 per 100,000 female workers). The largest number of female homicide victims were employed in grocery stores (N=76), eating and drinking establishments (N=72), hotels and motels (N=13), and hospitals (N=13).

When detailed occupations were analyzed for both men and women for 1990 to 1992, the highest rates were found for taxicab drivers/chauffeurs (22.7), sheriffs and bailiffs (10.7), public service police and detectives (6.1), gas station and garage workers (5.9), and security guards (5.5). For women specifically, the highest rates occurred among stock handlers and baggers (4.38 per 100,000 female workers), sales counter clerks (2.25 per 100,000 female workers), and sales supervisors and proprietors (1.39 per 100,000 female workers). It should be noted that the female homicide rate exceeded that of males in the category stock handlers and baggers. The largest number of female homicide victims were employed as sales supervisors and proprietors (N=55), cashiers (N=44), and stock handlers and baggers (N=29).

Discussion

The findings presented here are consistent with previous fatal occupational injury research indicating that homicide is the leading cause of occupational injury death for women, but that they are at lower risk than their male counterparts in every age, industry, and occupation category, with the exception of one occupation category—stock handlers and baggers.[4,9-11]

The finding of elevated rates among older workers is also consistent with previous research. Several factors may contribute to increased homicide rates among workers age 65 years and older, including decreased ability to survive injury and the perception that they may be "softer" targets with regard to intentional injury.[9] Additionally, 59% of female workers 65 years of age and older work part time compared to 23% of women 20 to 64 years of age.[8] Older workers, particularly part-time workers, may be underenumerated in employment data, resulting in artificially high fatality rates.

It has been suggested that women experience a disproportionate number of workplace homicides as a result of domestic violence. Data indicate that only 17% of female victims of workplace homicide were killed by current or former husbands or boyfriends.[11] Prevention strategies should focus on threat assessment policies that allow women to report threats from intimate partners and for employers to respond appropriately to those threats. For example, employers may alter the victim's work schedule or move her to a new work area, so that the perpetrator will not know where to find the victim at specific times during the day. As the majority of female workplace homicides are robbery related, however, attention should be focused primarily on workplace-specific factors, which have been discussed elsewhere.[4,9,10,12] Strategies to reduce the opportunities and risks for workplace violence should include environmental (lighting, bullet-resistant barriers), administrative (scheduling and staffing patterns), and behavioral (training in nonviolent response) approaches.

Homicide is the leading cause of occupational injury death for women due to the preponderance of homicides in

Table 1: Male and Female US Workplace Homicides by Industry Division, 1980-1992*

Industry Division	Men (%)	Women (%)
Retail Trade	36	46
Services	16	22
Finance/Insurance/Real Estate	2	7
Manufacturing	7	5
Transportation/Communication/Public Utilities	11	4
Public Administration	11	3
Wholesale Trade	2	1
Agriculture/Forestry/Fishing	3	<1
Mining	1	<1
Construction	4	<1
Not Classified	9	12

* Data for New York City and Connecticut were not available for 1992

Table 2: Number and Rate* of US Workplace Homicides by Age Group and Sex, 1980-1992**

Age Group	Men N (Rate)*	Women N (Rate)*
16-19	242 (.55)	102 (.25)
20-24	796 (.87)	285 (.35)
25-34	2020 (.89)	591 (.33)
35-44	1841 (.99)	423 (.28)
45-54	1344 (1.04)	293 (.29)
55-64	1055 (1.22)	191 (.31)
65+	620 (2.59)	115 (.71)
TOTAL	7935 (1.01)	2001 (.32)

* Per 100,000 Workers

** Data from New York City and Connecticut were not available for 1992

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of the health facility. The presence of an on-site group will provide an interim step for women who may not be ready to seek outside help specifically for abuse.

In addition, the project envisions a series of other interrelated activities, including workshops for local journalists, engaging church leaders in a dialogue about abuse, and analyzing potential reforms to the existing medico-legal system. Undoubtedly, further options and ideas will evolve as the projects develop. For the first time, however, a handful of communities in Latin America will be guaranteed sustained funding for four years to develop creative responses to violence against women. So far the Dutch, Swedish, and Norwegian governments have donated more than $4 million to this effort, and PAHO hopes to mobilize several million more from the Inter-American Development Bank.

Following on this lead, the World Health Organization (WHO) recently held a consultation with women's groups to help strategize about what it should do in the area of violence against women. One of the strongest recommendations to emerge from this meeting was that WHO should mount a multicountry research project on the prevalence and health consequences of violence in the developing world. This recommendation recognizes WHO's comparative advantage in research and responds to the pressing need of advocates for data that substantiate the harmful consequences of abuse. In the not-too-distant future, advocates and policy makers will have the quantitative data and real life "success" stories they need to press for greater investment in violence prevention.

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particular industries and occupations where other hazards may be less prominent and where women are more likely to be employed. Occupations in which homicide played a major role were sales and service sectors in which employment has increased over the last several decades and in which future growth is predicted. Recently published data on nonfatal workplace violence indicate that women are actually at somewhat increased risk for nonfatal workplace assault compared to men, with rates of 58 per 100,000 workers and 52 per 100,000 workers, respectively.[13] The vast majority (67%) of nonfatal assaults against women were committed by patients and residents in health care facilities.[13] Thus, it becomes clear that occupational safety and health, human resources, security, and public health professionals must work together to implement feasible and effective prevention strategies to reduce the risk of work-related violence against women. This will require evaluation of the efficacy of strategies that have been suggested but not rigorously tested and the development of new and innovative approaches to this important occupational safety and health problem.

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