12 Public-Initiated Violence

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December 10, 2003, Florida, United States:

> Zhi Hui Dong, 20, was just finishing his first day of work at the China Star restaurant when two masked men entered through the back door. After robbing the restaurant, they forced the young employee to lie on the ground and then they shot him in the head. Zhi died at the hospital. ("Employee Shot," 2003; "Man Shot," 2003; "Police Nab Suspect," 2004)

The majority of workplace homicides in the United States are perpetrated by members of the public during the commission of a robbery or similar crime (see, e.g., Bureau of Labor Statistics, 1998). Individuals employed in the retail (e.g., convenience stores), services (e.g., restaurants), security (protective agencies), and transportation (e.g., taxi) industries are at highest risk (e.g., Casteel & Peek-Asa, 2000; Castillo & Jenkins, 1994; Peek-Asa, Runyan, & Zwerling, 2001). Research suggests that there are several job-related tasks that place employees at increased risk for robbery-related violence, often referred to as *Type I violence:* contact with the public, working alone or in small numbers, working in the late evening or early morning, guarding something of value, handling money, and working in high-crime areas (Canadian Centre for Occupational Health and Safety [CCOHS], 1999; Castillo & Jenkins, 1994; Davis, 1987; Kraus, 1987). In Type I violence, the perpetrator does not have a legitimate relationship with the targeted workplace or its employees. In other words, the assailant and victim

are strangers (see Merchant & Lundell, 2001; University of Iowa Injury Prevention Research Center [UIIPRC], 2001).

Although robbery is the primary risk factor for occupational homicide, it is not the primary risk factor for nonfatal assaults (Amandus et al., 1996). Providing service, care, advice, or education can put employees at increased risk for assault (e.g., CCOHS, 1999; see also LeBlanc & Kelloway, 2002), especially if clients, customers, inmates, or patients are experiencing frustration, insecurity, or stress (see Lamberg, 1996; National Institute for Occupational Safety and Health [NIOSH], 2002; Painter, 1987). Workers who have the authority to deny the public a service or request may also be at increased risk for violence (Hearnden, 1988; LeBlanc & Kelloway, 2002; NIOSH, 2002). Working alone or interacting with unstable (e.g., psychiatric patients) or volatile (e.g., criminals) populations, as well as interacting with individuals who are under the influence of drugs or alcohol, may increase employee risk (CCOHS, 1999; LeBlanc & Kelloway, 2002; NIOSH, 2002). Contrary to Type I violence, the perpetrator in *Type II violence* has a legitimate relationship with the victim and commits an act of violence while being served by the organization (e.g., a nurse is assaulted by a patient). Industries reporting high rates of nonfatal assaults include health care, education, social services, and law enforcement (Casteel & Peek-Asa, 2000; NIOSH, 2002; Occupational Safety and Health Administration [OSHA], 2004).

The focus of this chapter is on both Type I (robbery-related) and Type II (non-robbery-related) violence. We begin by discussing prevention strategies for robbery-related violence, and we focus our discussion on predicting and preventing violence in the taxi and retail industries. We discuss the taxi industry because taxi drivers in the United States have the highest risk of workplace homicide of any occupation (see Sygnatur & Toscano, 2000) and the retail industry because the majority of research on Type I violence is focused on convenience stores (Casteel & Peek-Asa, 2000). Following this, we explore Type II violence. We discuss prevention strategies for the health care and social service industries. We focus on health care and social services because these two industries face a significant risk of job-related assault (OSHA, 2004). We conclude our chapter with suggestions for future research within the realm of Type I and Type II workplace violence.

Type I Violence

Because most workplace homicides occur during the commission of a robbery, actions aimed at preventing robberies will likely reduce the number of workplace homicides (see Amandus, Hunter, James, & Hendricks, 1995). To understand why some targets (e.g., convenience stores) are robbed more frequently than others, it is useful to consider the decision-making processes of criminals. Rational choice theory portrays criminals as active decision makers, taking into account risks and benefits when choosing a particular target (see Desroches, 1995; Gill, 2000). This is not to suggest that all

offenders are completely and equally rational (Gabor & Normandeau, 1989) or that they assess targets in similar ways (Gill, 2000). Offenders will have varying levels of knowledge about risks, be willing to assume more or less risk, and be satisfied with different monetary gains.

Because studies confirm that criminals do behave, at least to a limited extent, in a rational way (e.g., Gill, 2000), robbery reduction strategies focus on increasing the risks, reducing the rewards, and increasing the effort associated with robbery (Desroches, 1995; Hendricks, Landsittel, Amandus, Malcan, & Bell, 1999; OSHA, 1998). Three principles—increasing visibility, reducing rewards, and target hardening—underlie most robbery reduction strategies (Mayhew, 2000b; see also Mayhew, 2000a; OSHA, 1998). Increasing visibility by using security cameras, for example, may deter would-be robbers by increasing their perceptions of risk. Reward reduction strategies make committing a robbery less lucrative (e.g., less money is kept in the cash register). Target hardening approaches involve engineering design or redesign of the workplace to make committing a robbery more difficult (e.g., using a protective screen to shield store clerks from customers). These robbery reduction strategies should be considered and, to the extent deemed appropriate, utilized when trying to reduce workplace robberies. Because risk factors for robbery will differ among workplaces, no single strategy is appropriate for all organizations (OSHA, 1998). Hence, prevention strategies must be customized to work sites (Mayhew, 2000b). Prevention strategies should also be routinely evaluated to determine their level of effectiveness, and they should be upgraded when necessary (Mayhew, 2000b).

Employees in high-risk industries should be provided with training to anticipate and respond to robberies and violence. Although employee training may not necessarily prevent robberies, it may reduce the likelihood that employees will be injured or killed during a robbery. To date, there is no research examining the effectiveness of employee training.

Robbery and Violence in the Taxi Industry

> "No job is worth risking your life for. There were lots of times when I was scared out of my mind and I really had to keep my wits about me or who knows what could have happened?"
>
> After working for 13 years as a taxi driver in Calgary, Alberta, where five taxi drivers were assaulted in as many weeks, Paul Murray, 37, quit working as a taxi driver and took a job with a trucking company. (Bourette & Hanes, 2000)

Paul Murray had good reason to be afraid. Driving a taxi is dangerous work. Between 1992 and 1998, 510 taxi drivers and chauffeurs in the United States were murdered on the job (U.S. Department of Labor, 1999). Taxi drivers and chauffeurs are also among the occupations with the highest rates of nonfatal victimization (OSHA, 2000). Although precise statistics on

homicide and assault rates of taxi drivers who work outside of the United States are hard to obtain, research suggests that taxi drivers around the globe experience workplace violence (International Labour Organization [ILO], 1998; see also Mayhew, 2000c). For example, Haines (1997) conducted a survey of taxi drivers in Victoria, Australia. One third of the 3,634 respondents reported being assaulted, and 14% reported being robbed over the course of their careers. In a Canadian study, 36% of taxi drivers who were questioned reported being robbed at least once during their careers (Stenning, 1996). The following prevention strategies may reduce the risk for robbery and violence in the taxi industry:

Increasing Visibility

Surveillance techniques used in the taxi industry include global positioning systems (GPS), external emergency lights, and in-car video cameras. GPS allows dispatchers and police to accurately locate a taxi driver in distress (OSHA, 2000). External emergency lights are located on the roofs of taxis; hence, perpetrators should be unaware when they are flashing. Of course, they are ineffective if there are no people around to see them flashing (Mayhew, 2000a). Another strategy is in-car surveillance cameras. Cameras allow identification of perpetrators (Appleby, 2000; Mayhew, 2000a) and may act as a deterrent for robbery and violence (Jackman & Smith, 2001). Surveillance cameras, mandatory in Perth since December 1997, resulted in a 60% decrease in assaults within a year after their introduction (cf. Mayhew, 2000a). Cameras debuted in the United States in 1999 and are currently being used in several American cities (Jackman & Smith, 2001). Crimes against taxi drivers have been reduced by more than 50% since the implementation of a bylaw in Toronto requiring taxi owners to install either security cameras or GPS in their cars (Calleja, 2002).

Reducing Rewards

Cash handling practices such as carrying minimal amounts of money and making frequent cash deposits may deter would-be robbers because money is the most frequent motive for robberies (Gill, 2000). Cashless taxi payment systems, which would require passengers to pay cabdrivers with credit cards or vouchers, would also likely deter would-be robbers (Appleby, 2000; Mayhew, 2000a). To date, there is no research examining the effectiveness of cash-handling practices for reducing robberies and robbery-related violence in the taxi industry.

Target Hardening

Protective screens have been found to reduce the number of assaults experienced by taxi drivers. Stone and Stevens (1999) examined taxi driver

assaults in Baltimore prior to and following a 1996 citywide shield mandate. In 1991, when 5% of cabs had shields, there were 203 assaults; by 1995, when 50% of taxis were shielded, there were 131 assaults. In 1996, following the mandate, taxi drivers experienced 25 assaults, a decrease of 56% from 1995, and 88% from 1991. The authors also reported a 17-to-1 benefit-to-cost ratio of estimated savings from reduced injuries versus the cost of citywide shield installations. Despite Stone and Stevens's (1999) findings, opinions on screens remain mixed (Appleby, 2000; Mayhew, 2000a). Many taxi drivers and customers do not like them because they can restrict air circulation, leave little leg room, and limit communication between drivers and passengers (see Appleby, 2000; Mayhew, 2000a). There are also taxi drivers who argue that shields will do little to protect them if assailants are intent on robbing and hurting them; perpetrators can simply find a way to lure them out of the car (Fallding, 2001). To date, screens are mandatory in several American and Australian cities (Mayhew, 2000a; Stone & Stevens, 1999), but they are not currently being used in any Canadian cities (Marlowe, 2001).

Driver Training

Driver training may also potentially prevent robberies and reduce the incidence of assaults. Drivers need to be knowledgeable about current policies and procedures (e.g., mandatory safety equipment). They also need to learn how to use safety equipment such as surveillance cameras and external emergency lights. Taxi drivers should also receive training on how to prevent robberies. For example, they need to be aware that they may be able to avoid random attacks by keeping their car doors locked when waiting in a queue. Drivers also need information on how to react during a robbery to lessen the likelihood of injury (e.g., drivers should never resist or fight back; Mayhew, 2000a).

Research suggests that some taxi drivers refuse to pick up certain passengers because they fear for their safety (see Dao, 2003; Haines, 1997). Although to some extent this is understandable, given the level of violence in this field of work, this practice has resulted in unfair discrimination against certain groups. A review of 1999 dispatch records from one Washington taxi company showed that an individual calling for taxi service from a northwest Washington address was 14 times more likely to receive service than an individual calling from an address in the city's southeast district, a low-income, mainly Black neighborhood. Northwest Washington is the city's most wealthy section and is predominately White (see Dao, 2003). In 2001, police officers gave out 94 citations in 3 days to taxi drivers because they picked up White undercover officers posing as customers but not Black undercover officers (see Dao, 2003). This is not just an issue in the United States: A recent study of taxi drivers in Victoria, Australia, found that most drivers have refused rides to some passengers because they feared for their safety (Haines, 1997). It has been argued that training may help alleviate

discriminatory practices among taxi drivers (see "Taxi Discrimination," 1999). Making the taxi industry safer in general would also presumably reduce such practices by reducing the level of fear in drivers and making violence in this industry less of an issue.

Robbery and Violence in the Retail Industry

February 12, 2004, Massachusetts, United States:

> A 26-year-old store clerk who was working alone at a 7-Eleven store was stabbed during an early morning robbery. The young man, married only 2 months, died in the hospital. There were apparently no witnesses. ("Lynn Store Clerk," 2004)

Employees in the retail industry face an above-average risk for workplace homicide. In the early 1990s, for example, the average risk of workplace homicide for all occupations was 0.7 per 100,000 employees, whereas the risk for homicide in the retail industry was 1.6 per 100,000 employees (OSHA, 1998). Not all occupations in the retail sector have the same risk of homicide, however. From 1990 to 1992, convenience stores (including grocery stores) had a rate of 3.8 per 100,000 workers, and jewelry and liquor stores had a rate of 4.7 and 7.5, respectively (see OSHA, 1998). Because the majority of research studies in the retail industry have used convenience stores as samples, our discussion of prevention strategies is predominately focused on convenience stores.

Increasing Visibility

Robbers appear to be deterred by the presence of witnesses (see Purpura, 1993). Research suggests, for instance, that commercial robberies occur more often in the late evening or early morning hours when there are few if any customers (e.g., D'Alessio & Stolzenberg, 1990). Of course, the risk of late-night robbery may vary depending on other factors, including whether or not the organization is located in close vicinity to other businesses that are open late (OSHA, 1998). Robbery rates are also higher during the winter months, presumably because there are more dark hours during the day in winter compared with summer (Van Koppen & Jansen, 1999). In their study of 30 randomly sampled convenience stores in Leon County, Florida, D'Alessio and Stolzenberg (1990) found that more than 50% of the robberies they studied occurred between November and February. Hence, strategies that increase the visibility of would-be robbers may reduce crime by increasing perceptions of risk (Mayhew, 2000b).

To increase visibility, retail establishments should keep their windows clear of signs (e.g., advertisements) to allow passersby to see inside (Purpura,

1993). Good interior and exterior lighting, as well as a cash register location that can be seen from the outside (e.g., in the center of the store), may also reduce criminal behavior (Mayhew, 2000b). Hendricks et al. (1999) found that poor visual access to the inside of stores and cash registers located along the wall rather than in the center of stores were strongly associated with increased risk of robbery.

Closed circuit televisions (CCTV) and video cameras may also deter criminal behavior by increasing would-be robbers' perceptions of risk (OSHA, 1998). Of course, for maximum deterrence, retail establishments should display signs informing customers and would-be criminals that surveillance equipment is in use (OSHA, 1998). A recent study of imprisoned robbers found that the presence of cameras had deterred some criminal activity (Gill, 2000). Ironically, the presence of cameras can also affect the amount of violence used during robberies. For example, in certain instances, perpetrators have destroyed surveillance cameras by firing shots at them (Gill, 2000).

Store clerks should make eye contact with customers and greet them as they enter the store (e.g., Desroches, 1995; Gabor & Normandeau, 1989). This behavior may be effective in deterring crime by making would-be robbers feel conspicuous (Desroches, 1995; Gabor & Normandeau, 1989). OSHA (1998) suggests that employing two clerks during evening shifts may also reduce the incidence of robberies; however, employing multiple clerks as a method of deterring robberies is controversial (see Amandus et al., 1996) and is not recommended by either the National Association of Convenience Stores (NACS) or NIOSH (see Richman, 1998). Critics of OSHA's (1998) two-clerk condition argue that there is limited empirical evidence supporting the validity of the two-clerk provision, hiring two clerks is expensive, and employing more than one clerk potentially increases the number of workers exposed to robbery-related violence (see Casteel & Peek-Asa, 2000). Although there is some support that stores employing two clerks during late-night shifts experience fewer robberies (e.g., Calder & Bauer, 1992), more research is required before a decision can be made about whether this is an effective strategy for reducing robberies (Casteel & Peek-Asa, 2000). Commercial establishments should have practices in place to ensure the safety of employees who work alone (e.g., routinely check on individuals who work alone; Mayhew, 2000b).

Reducing Rewards

Retail stores should establish cash-handling practices. Keeping a minimal amount of cash on hand and using drop safes may reduce the rewards associated with robbery (see Desroches, 1995; Gill, 2000; OSHA, 1998). Hendricks et al. (1999) examined 400 convenience stores that were robbed and 1,201 that were not. The stores were located in three metropolitan areas of Virginia. Cash-handling policy exhibited the strongest association with robberies: Stores that were categorized as having good cash-handling policies were at a significantly reduced risk for robbery. Stores were coded

as having either good, fair, or poor cash-handling policies. To receive a *good* rating, stores had to post a sign informing patrons of their cash limit policy, the amount of the cash limit, and the hours of the cash limit. As well, they had to use a drop safe, have a sign posted informing customers that a drop safe is used, and have the drop safe situated in a location visible to the public. Bank deposits should be made at irregular times so that would-be robbers are unable to predict employee behavior (Desroches, 1995).

Target Hardening

Given that many robbers suggest that an important consideration in choosing a target is their subsequent escape (Gill, 2000), making it difficult for criminals to flee from the scene of the crime may deter robbery (Desroches, 1995). Potential strategies to make retail stores less attractive targets include blocking off lane ways and using speed bumps in parking lots (Desroches, 1995). Revolving doors and longer rather than shorter distances between the cash register and the exit may also help to deter crime (Gill, 2000).

In addition to preventing robberies, some target hardening strategies may also reduce the likelihood that employees will be hurt during the commission of a robbery. Commercial establishments can install high and wide counters with raised floors on the employee side to prevent robbers from jumping over counters to assault employees (Desroches, 1995; Mayhew, 2000b). Personnel can also be shielded by bullet-resistant barriers (Desroches, 1995; Mayhew, 2000b). A recent study conducted by Hendricks et al. (1999) found that the presence of bullet-resistant shielding is associated with reduced risk for robbery. Locking doors that lead behind counters or to cash registers may also make it more difficult for criminals to physically attack employees (Desroches, 1995).

Employee Training

Employees should be taught how to act in the event of a robbery. Having instructions on how to behave may give employees a sense of control of the situation and lessen the possibility that they will be injured. Employee training should stress cooperation with robbers because there is ample evidence that employees who cooperate with robbers sustain fewer injuries (e.g., Faulkner, Landsittel, & Hendricks, 2001). Employees who refuse to cooperate with robbers can also endanger the lives of customers. One example of this will suffice to explain the importance of cooperation with robbers: On April 17, 1998, a robber entered Caisse Populaire de Saint-Simon-Apotre, a credit union in Ahuntsic, Quebec, and demanded money from a teller. The teller refused. The credit union's policy is to *not* hand over money during a robbery. All the tellers are protected by bullet-resistant glass. Paradoxically,

the effectiveness of protections for employees may have unintended negative consequences. The robber threatened to shoot a customer if he did not get the money. The teller did nothing, and the robber shot 35-year-old Claude Mailhot in the spine, paralyzing him for life. He is currently suing the credit union (Brownstein, 2002; Fitterman, 2003).

Workers should also be told not to make any sudden moves during a robbery, to keep their hands in plain sight at all times, and to inform the robbers of what they are doing when they are doing it (see Tyler, 1999). Staff should also be told to activate the silent alarm only when it is safe to do so (see Tyler, 1999). Employees should also be aware that it is not constructive to confront shoplifters. On February 17, 2004, an 18-year-old CVS Pharmacy store clerk was stabbed to death and another employee was injured when they confronted a shoplifter ("CVS Clerk Killed," 2004).

Robbery-related violence is responsible for the majority of workplace homicides. Taxi drivers and retail workers are among those occupations at highest risk for Type I violence (see Casteel & Peek-Asa, 2000; Castillo & Jenkins, 1994; ILO, 1998; OSHA, 1998; Sygnatur & Toscano, 2000). Methods of preventing and responding to violence include increasing risk, reducing rewards, and increasing the effort associated with robbery (Desroches, 1995; Hendricks et al., 1999; OSHA, 1998). Employee training may also be useful for preventing robbery-related violence. More research is needed to assess the effectiveness of these strategies.

Type II Violence

Service providers (health care workers, teachers, social service workers, prison guards, and police officers) are among the most common victims of nonfatal workplace violence (UIIPRC, 2001). In the United States in the year 2000, 48% of all nonfatal assaults occurred in the health care and social service industries (see OSHA, 2004). Although the average rate of nonfatal assaults in the private sector was 2 per 10,000 full-time workers, nursing and personal care facility workers had a rate of 25, and social service workers had a rate of 15 (see OSHA, 2004); however, the actual number of incidents is likely much higher because of underreporting (UIIPRC, 2001).

There are generally three approaches to preventing or dealing with Type II violence (e.g., Merchant & Lundell, 2001; Peek-Asa et al., 2001). The first is environmental and involves looking at physical risk factors related to building layout or design (e.g., the organization should be well lit). The second approach is organizational or administrative and involves the development of policies and practices specific to workplace violence. The third, behavioral or interpersonal, involves training employees to anticipate and respond to violence.

Violence in the Health Care Industry

January 10, 2001, Quebec, Canada:

A 6-ft., 2-in., 225-lb. psychiatric patient repeatedly punched and kicked male nurse Daniel Begin, 41, in the emergency room at the Louis-Hippolyte Lafontaine Psychiatric Hospital. Mr. Begin died 3 weeks later of internal bleeding; because Mr. Begin had a preexisting medical condition, chronic pancreatitis, experts were unable to conclude definitely that the assault was the direct cause of his death. ("Discharge Ruling," 2003; Parkes, 2003c)

The vast majority of aggressive acts directed against health care workers are perpetrated by patients and, to a lesser extent, visitors (e.g., NIOSH, 2002). Although violent incidents can occur anywhere in hospitals, they are more likely to occur in psychiatric wards, emergency departments, waiting rooms, and geriatric units (NIOSH, 2002). There are several factors that increase employee risk. For example, health care workers may be at risk when they attempt to set limits on behavior (e.g., tobacco use; NIOSH, 2002), particularly if the employee's actions are perceived as being unfair or unreasonable (see, e.g., Boyd, 1995). Violence can also occur when patients are involuntarily admitted into the hospital (NIOSH, 2002). Long waits for service may result in frustration and increase the propensity of patients and visitors to become aggressive (e.g., Hoag-Apel, 1998; Levin, Hewitt, & Misner, 1998).

Environmental Strategies

In a recent study, focus groups of nurses argued that the physical work environment is critical to preventing violence (Levin et al., 1998). Security devices that may reduce employee risk include metal detectors, surveillance cameras, and bullet-resistant glass surrounding reception areas and nursing stations (NIOSH, 2002; OSHA, 2004). Other suggestions include effective lighting both inside and outside hospitals and curved mirrors at hallway intersections (OSHA, 2004). The presence of security personnel may also be effective at preventing assaults (e.g., Levin et al., 1998). Card-controlled entrances and security checks for identification could be used to limit public access to restricted areas (Levin et al., 1998; NIOSH, 2002; OSHA, 2004).

Hospitals should provide patients and their families with comfortable waiting rooms designed to minimize stress (e.g., soothing colors on walls, toys for children to play with, reading materials; NIOSH, 2002). Waiting areas and patient-care rooms should also be designed with safety in mind: Furniture should be lightweight, have few sharp edges, and be laid out to ensure that staff can not be trapped in rooms (OSHA, 2004). Rooms and waiting areas should also be sparsely decorated with accessories (e.g., few pictures on the walls or vases on the tables) to limit the number of possible weapons that can be used against staff (see OSHA, 2004). Patient-care rooms should have two exits and be equipped with phones and panic buttons (OSHA, 2004).

Organizational or Administrative Strategies

Hospitals should have policies and practices in place to prevent aggression. A written policy should outline what constitutes unacceptable behavior in the workplace (Scalora, Washington, Casady, & Newell, 2003), and patients, visitors, and employees should be aware of the document. Policies that encourage reporting of violence are also necessary, and management should stress to employees the importance of reporting acts of aggression. A point worth emphasizing is that accurate information on the incidence of violence is essential to assess employee risk, to implement appropriate prevention strategies, and to evaluate the effectiveness of intervention strategies.

Management should also take all reports of aggression seriously, and they should ensure that employees are aware of their commitment to safety. Levin et al. (1998) found that nurses in their study were consistent in dismissing any benefits that reporting violence to management might have on preventing future incidents of aggression. Employees who report being victimized should be treated with respect by their superiors. It is not uncommon for nurses and health care workers to express concerns about reporting incidents of violence because they fear their employers will assume that they provoked the incident (see Boyd, 1995; Elliot, 1997; Scalora et al., 2003). Hospitals also need to have detailed plans for dealing with violent attacks when they occur (Health Services Advisory Committee [HSAC], 1987).

Hospitals should also develop procedures to ensure that information about aggressive patients and visitors is shared between employees and departments so that employees can take necessary precautions to avoid being victimized (HSAC, 1987). One possibility is for the charts of high-risk patients to be flagged (Levin et al., 1998); another possibility is for a notice board to be posted on wards with ratings for patients' potential for violence (Parkes, 2003b). Although access to patient information must be balanced with patients' rights for confidentiality, when staff members are not informed of patients' or visitors' propensity for violence, the consequences can be devastating. On July 1, 2003, a female employee working at the Douglas Psychiatric Hospital (Quebec, Canada) was sexually assaulted by a male patient with a history of sexual violence. The doctor and head nurse on the ward were aware of his history, but they did not inform the female staff member who was assigned to watch him. The female employee was alone with the patient when the attack occurred (Parkes, 2003a).

When health care employees work inside their patients' homes, access to protections that are afforded to employees who work within traditional organizational settings is delayed or limited at best (Barling, Rogers, & Kelloway, 2001). Hence, organizations need to have policies and procedures in place that are targeted at home health care providers. For example, home care workers could be required to keep a designated colleague informed of their whereabouts throughout their work shift (OSHA, 2004). Health care

workers should also be accompanied to a patient's home by a coworker or a police escort if their personal safety may be threatened (HSAC, 1987; OSHA, 2004). In a similar vein, employees should be prohibited from working alone in emergency areas or walk-in clinics, especially during late-night and early-morning shifts (Elliott, 1997; NIOSH, 2002; OSHA, 2004). Policies and practices should also be in place to restrict public (e.g., patients, visitors) movement in hospitals (NIOSH, 2002).

Behavioral or Interpersonal Strategies

Employees should be required to attend training sessions on preventing and responding to violent incidents. In addition to providing staff with necessary knowledge and skills, training may give employees the confidence to deal with potentially dangerous situations (HSAC, 1987; Levin et al., 1998). Schat and Kelloway (2000) found that hospital workers who received training targeting workplace violence reported higher levels of perceived control compared with workers who did not receive training. In their study, perceptions of control were positively correlated with employee emotional well-being and negatively associated with employee fear of future violence.

Staff should be taught customer service skills, how to resolve conflicts, how to recognize escalating agitation, and how to manage and respond to aggressive behavior (DelBel, 2003; NIOSH, 2002; OSHA, 2004). Because violence is related to patient wait times (see Hoag-Apel, 1998; Hunter & Love, 1996; NIOSH, 2002), staff should provide patients and their families with sufficient information when there are long delays for service (e.g., explain how long the delay will be and why there is a long delay; see HSAC, 1987). Answering patients' and visitors' questions during stressful medical procedures and times of crises may also reduce the risk for aggression. Employees who have direct patient contact (e.g., security guards, nurses, orderlies) should also be trained on how and when to physically restrain patients (HSAC, 1987). Follow-up training is necessary if employees are to maintain the skills and confidence that they have acquired (Levin et al., 1998; Maggio, 1996).

Violence in the Social Services Industry

Summer 1999, Ottawa, Canada:

A 24-year-old social worker employed at a social services group home was hit on the head with a fire extinguisher by a resident. (McCoy, 1999)

Social service employees are at high risk for violence from their clients, many of whom may be experiencing stressful life circumstances and feelings of frustration or despair. A 1999 survey of Ontario social workers found

that 71% of respondents had experienced physical assaults, verbal abuse, or threats at work (McCoy, 1999). Newhill (1996) conducted a random survey of members of the National Association of Social Workers from Pennsylvania and California and found that 57% of respondents experienced one or more types of client violence, including threats, property damage, and physical attacks, over the course of their careers.

Abusive behavior may be directed at social workers and other social service employees for a number of reasons, one being the role that these employees play in the lives of their clients. Social service workers must be caring and controlling (Newhill, 1996). For example, when clients are ineligible for resources, they may have to assume the role of service denier (Newhill, 1995). When denied service or resources, some clients may become frustrated and hostile. Social service workers may also have regular contact with involuntary clients who must unwillingly reveal personal information about themselves and their families (Shields & Kiser, 2003). When clients face situations that are highly unpleasant (e.g., child abuse allegations), their interactions with social service workers can be particularly tense and unpredictable (Shields & Kiser, 2003).

The strategies that have been recommended to prevent violence against social service workers are identical to those that have been recommended to reduce violence directed at health care workers (e.g., OSHA, 2004). Environmental strategies—for example, design of the workplace (e.g., interview rooms with two exists and lightweight furniture) and security systems (e.g., emergency buttons, security personnel)—are required to ensure the safety of social service workers. Policies and practices aimed at preventing and responding to violent incidents should also be put into place (Rey, 1996). Home visits and outreach work can be extremely risky (Newhill, 1995), and policies should be developed that allow social service workers to request the accompaniment of coworkers or law enforcement personnel when the risk for violence is high (e.g., when the client lives in a dangerous neighborhood; when the client has a drug or alcohol addiction). Social service workers should also receive ongoing on-the-job training appropriate to the client population served and settings (e.g., Newhill, 1995; Weisman & Lamberti, 2002). They need to develop skills to identify potentially dangerous clients and de-escalate violent interactions, as well as be aware of existing organizational policies and practices.

Clients, customers, patients, and inmates are responsible for the vast majority of nonfatal assaults. Health care workers and social service employees are among the occupations at highest risk for Type II violence (OSHA, 2004). Preventing and responding to this type of violence requires environmental, administrative, and interpersonal strategies. To date, only nine studies have evaluated organizational or behavioral interventions aimed at preventing or responding to Type II violence, and they are all based in the health care industry (Runyan, Zakocs, & Zwerling, 2000). To our knowledge, there are no studies that have examined the effectiveness of environmental approaches to preventing Type II violence.

Directions for Future Research

In this section, we discuss directions for future research specific to Type I and Type II violence.

Type I Violence

Previous research suggests that prevention strategies are effective at reducing robberies in the retail industry (see Casteel & Peek-Asa, 2000, for a review); however, because this research has limitations, there are many unanswered questions that need to be addressed. The study population in the majority of these studies is convenience stores (see Amandus et al., 1996). Hence, it is impossible to conclude whether strategies that are effective in preventing convenience store robberies will also be effective in other business settings (e.g., jewelry stores). Future research should examine prevention strategies across a variety of different retail settings.

Another limitation of existing studies is that they examine the effectiveness of programs comprising multiple intervention components (Casteel & Peek-Asa, 2000). As a result, it is not possible to determine the value of specific strategies. It would be important for future researchers to evaluate single-component programs. To date, the majority of studies that have examined single-component programs have shown reductions in robbery frequency (see Casteel & Peek-Asa, 2000); however, many have not controlled for other prevention strategies that may have been employed at the same time or may have been added at a later point in time (see Casteel & Peek-Asa, 2000). Future research needs to address these concerns.

Currently there is no consensus on whether employing two clerks is an effective strategy for reducing robberies. As previously mentioned, OSHA (2004) recommends that late-night retail establishments employ two clerks, whereas NIOSH and the NACS disagree with OSHA's recommendation (see Richman, 1998). It would be important for controlled studies to be conducted to determine whether employing two clerks is an effective strategy for preventing robberies.

Although employee training targeting workplace violence is widely recommended as a method for preventing robberies and employee injuries (e.g., Desroches, 1995; Gabor & Normandeau, 1989; Mayhew, 2000a), few studies have evaluated the effectiveness of this form of intervention (Runyan et al., 2000). When staff training has been studied, it has been imbedded in a multiple-component program (see Casteel & Peek-Asa, 2000). Hence, information on the effectiveness of training targeting workplace violence is limited. Future research should evaluate employee training in a single component program. It would be important to know whether training on how to behave during a robbery situation reduces worker injuries and increases employee confidence to deal with dangerous situations.

Schat and Kelloway (2000) found that health care workers who receive training targeting workplace violence have higher perceptions of control compared with health care employees who are not provided with training. Future research could examine whether providing training to employees who work in the retail industry will lower fear and increase perceptions of control during a robbery situation. Because many retail employees are teenagers (Janicak, 1999), researchers should investigate whether young employees would benefit from the same type of training as more mature employees.

Experts suggest that retail employees who make eye contact with and greet customers may reduce the risk for robbery by making would-be robbers feel conspicuous (e.g., Desroches, 1995; Gabor & Normandeau, 1989). To our knowledge, this suggestion has not been examined empirically. It has also been proposed that retail organizations should implement practices to ensure the safety of employees who work alone (e.g., routinely check on employees; Mayhew, 2000b). Future research needs to determine what organizational policies and practices will be the most effective at preventing injuries to employees who work alone.

Although research has shown that cash-handling practices can reduce the risk for robbery in retail settings (e.g., Hendricks et al., 1999), we are unaware of any studies that have examined whether cash-handling practices (e.g., cashless system) are effective at preventing robberies in the taxi industry. In addition to determining whether cash-handling practices deter would-be robbers from targeting taxi drivers, future research should examine whether training programs can reduce injuries to taxi drivers. Stenning (1996) conducted a qualitative study of 150 Canadian taxi drivers. In his study, taxi drivers who at some point in their careers received training in safety and risk awareness did not report fewer victimizations compared with drivers who did not receive training. Researchers need to investigate whether driver training targeting workplace violence is effective at reducing injuries.

Type II Violence

Although environmental strategies are widely recommended for decreasing violence directed at health care and social service workers (e.g., OSHA, 2004), they have been neglected in intervention studies aimed at reducing Type II violence. Hence, future research should examine whether environmental strategies (e.g., lighting, surveillance cameras, metal detectors) are effective at reducing Type II violence.

Research on the effectiveness of policies and practices to reduce Type II violence is also limited (Runyan et al., 2000). It would be important to know if restricting public access in hospitals and social service agencies can reduce employee injuries. Another question worth investigating is whether postings declaring zero tolerance for violence deter aggressive behavior from the public. Researchers also need to determine what are the most effective policies

and practices for ensuring the safety of employees who work inside their clients' homes.

The few studies that have focused on preventing Type II violence have been conducted in health care settings (Runyan et al., 2000), limiting the generalizability of the results. The majority of these studies have evaluated training programs aimed at teaching hospital employees how to handle aggressive patients (Runyan et al., 2000); however, these studies have used methodologically weak designs and their results are inconclusive (Runyan et al., 2000). Future research should investigate intervention programs in a variety of work settings (e.g., social services settings, educational settings). As well, intervention programs should be examined using methodologically sound research designs. Questions worth investigating include the following: Do training programs aimed at teaching employees customer service and conflict resolution skills reduce injuries to workers? How effective are programs that train employees how to recognize and respond to aggressive behavior? Do employees who are trained on proper restraining techniques sustain fewer injuries?

Conclusion

Members of the public are responsible for the vast majority of workplace homicides (Sygnatur & Toscano, 2000) and assaults (Peek-Asa & Howard, 1999; Peek-Asa, Schaffer, Kraus, & Howard, 1998). Although numerous strategies have been recommended to prevent and reduce workplace violence (e.g., Merchant & Lundell, 2001), studies evaluating these strategies, when available, have been plagued with shortcomings, including weak research designs and limited samples. We urge researchers to continue to investigate methods of reducing Types I and II violence given their devastating consequences for victims and their organizations.

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