

The Prediction, Experience, and Consequences of Workplace Violence

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The workplace is one location in which many people typically have felt safe, at least safe from the reality of violence in the rest of their environments. However, workplace violence is on the rise, and the workplace is no longer a safe haven from the ills of society (Leather, Cox, & Farnsworth, 1990; McLean Parks & Kidder, 1994). Although some employees, by the nature of their jobs (e.g., police), might reasonably expect to encounter violence at work, more and more employees in supposedly low-risk jobs are experiencing the effects of violence (Hill, 1988). Homicide in the workplace, the most severe form of workplace violence, is the fastest growing form of murder in the United States (Anfuso, 1994; Stuart, 1992), and murder is now the single most common cause of death on the job in New York State. Murder also is now the leading cause of death in the workplace for women and the third most frequent cause for men (Anfuso, 1994; Toufexis, 1994).

The overwhelming magnitude of this trend toward workplace violence cannot be overstated. A 1993 survey conducted by Northwestern National Life Insurance suggested that more than 2 million employees suffer physical attacks at work each year and that more than 6 million are threatened in some way at work (see Anfuso, 1994; also see Appendix A, this volume). As alarming as these data are, they probably underestimate the magnitude of the problem: It has been known for some time that five incidents of violence occur against employees for each one that is reported (Lion, Snyder, & Merrill, 1981). Recent research also has suggested that any effects of workplace violence are far more widespread than considered previously (e.g., Hall & Spector, 1991; Schwarz & Kowalski, 1993; Sutker, Uddo, Brailey, Vasterling, & Errera, 1994).

Most of this research has concentrated on the prevalence and incidence of workplace violence and on the demographic characteristics of the

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victims and perpetrators. By contrast, much less research has been conducted on the predictors and outcomes of workplace violence. The findings that do exist are frequently contradictory because of the inconsistency of the definition and lack of an adequate measurement tool across studies.

The aims of this chapter are threefold. First, possible predictors of workplace violence are discussed. Second, a brief conceptualization of the psychological experience of workplace violence is presented. Finally, the personal and organizational consequences of violence in the workplace are considered. At a general level, the discussion of the predictors and outcomes of the workplace violence, together with a consideration of the psychological experience of workplace violence, also serve as an agenda for future research.

Toward a Conceptualization of Workplace Violence

The use of the term *workplace violence* is remarkably varied in the literature, leading to confusion and incomparable results between studies (Lanza, Kayne, Hicks, & Milner, 1991). Often, some type of severe bodily injury is considered symptomatic of violence, but this approach is problematic because it reflects only a small portion of workplace violence (Slora, Joy, & Terris, 1991) and implies erroneously that violence should be defined according to its effects. A more appropriate approach describes workplace violence in terms of behaviors that range from the least physically injurious (e.g., pushing and shoving) to the most severe (e.g., assault and murder; Slora et al., 1991).

The primary focus in this chapter is on physical aggression or violence in the workplace rather than on "psychological aggression." In developing this chapter, however, I could not ignore completely psychological violence in the workplace for several reasons. First, psychological violence in the workplace is more frequent than physical violence. In a study of 136 men, 82%, 74%, and 76% admitted to some form of psychological violence against coworkers, subordinates, and supervisors, respectively (Greenberg & Barling, 1995). By contrast, only 2 of the 136 respondents reported using physical aggression at work. Second, and perhaps more important, on the basis of research from the literature on family violence, it is apparent that incidents of psychological violence precede physical aggression (Murphy & O'Leary, 1989). This is an important finding because of the longitudinal nature of the study: Murphy and O'Leary found that, among a group of people with no prior experience of physical aggression, psychological aggression predicted first instances of physical aggression 6 and 12 months later. Moreover, they found that marital dissatisfaction alone (i.e., with no concurrent psychological aggression) did not precede physical aggression. If these findings are replicated in the workplace, there will be considerable intervention and prevention implications: Job dissatisfaction alone might not predict workplace violence. (This issue is explored in more detail later.)

The model of workplace violence that I propose draws primarily on two types of literature, as will become evident. First, I examined the lit-

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erature on work stress in general and acute work stressors or workplace disasters in particular. In this respect, I assumed that the outcomes of workplace violence would bear some similarity to the consequences of acute workplace stressors or disasters. Second, I used the literature on family violence as an aid in generating hypotheses about the prediction of workplace violence and in understanding the effects of workplace violence.

Predicting Workplace Violence

Despite the enormity of the problem of workplace violence, there is still little scientific information about the causes and predictors of workplace violence. Indeed, a general reading of the literature would reveal that most of the information that is available tends to come from one of several sources: descriptive statistics from surveys or inferences drawn from post hoc investigations of violent incidents such as murders in the United States Postal Service (e.g., "A Post Office Tragedy," 1992) or in other workplaces in different countries (Cowan, 1994). There also have been attempts to construct a profile of the "typical," or average, "disgruntled worker," invariably to construct screening devices that would exclude such employees from the workplace to begin with (Slora et al., 1991). Such attempts, however, have not resulted in a validated questionnaire (Anfuso, 1994).

On the basis of these sources, together with information about the prediction of family violence, I suggest that both contextual (or workplace) factors and personal factors will predict workplace violence (see Figure 1).

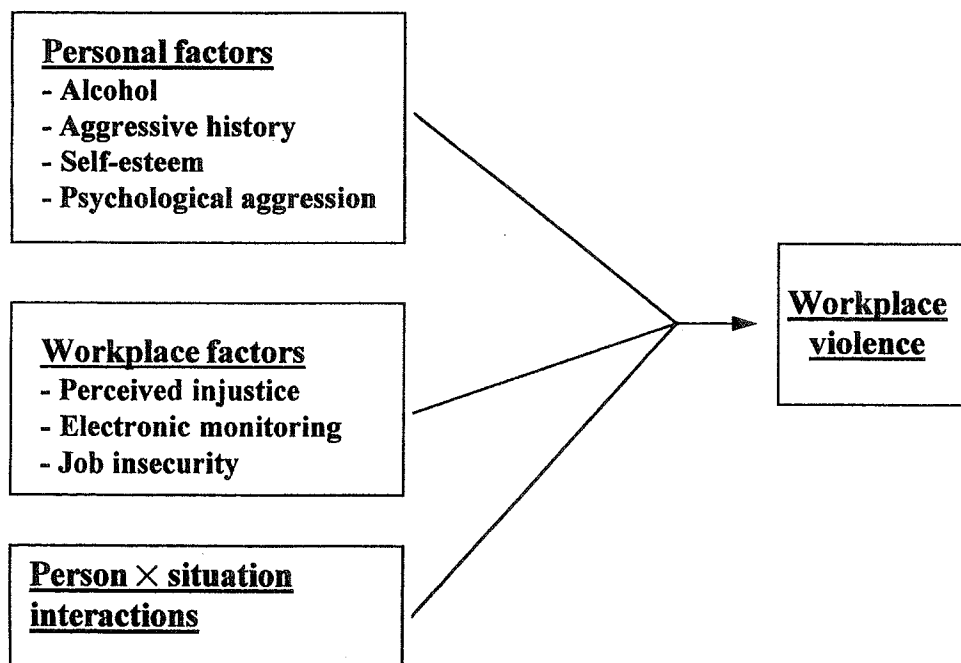


Figure 1. Predictors of workplace violence.

Workplace Factors

Previous researchers have concentrated almost exclusively on personal factors in an attempt to predict workplace violence. Consistent with social learning theory (Bandura, 1973), however, I suggest that an approach that takes into account both the person and the situation, and their interaction, will result in a more valid predictive model. Work stress in general is associated with marital violence (Barling & Rosenbaum, 1986), and three specific workplace factors that may be of considerable relevance in predicting workplace violence are employees' perceived workplace justice, the use of electronic surveillance, and feelings of job insecurity.

Organizational justice reflects employees' perceptions of fairness about procedures and policies (procedural justice) as well as organizational outcomes (i.e., distributive justice; Greenberg, 1990a). There are several reasons why perceived justice with respect to policies and procedures may affect workplace violence. At a general level, Greenberg (1990b) found that when employees perceived an inequity in the workplace (in his research, it was a short-term pay freeze), they engaged in attempts to restore their sense of justice (by employee theft). In that research, the inequity and the consequences were both financially related. By extension, if employees perceive themselves to be threatened at work, whether in terms of a physical threat or a perceived threat to the security of their work, violence may be a predictable outcome.

At an anecdotal level, several workplace murders have been attributed to workers who had been passed over for promotions or laid off, believing that the procedures used were unfair (McGarvey, 1994; Stuart, 1992). Certainly, the congressional investigation into the murders at the Royal Oaks Post Office attributed unfair management procedures and intimidating and inconsistent disciplinary procedures as one of the precipitating events ("A Post Office Tragedy," 1992). Likewise, the murder of four people at Concordia University in Montreal was preceded by one individual's fears that tenure might not be granted (Cowan, 1994). Thus, although it is not the only causal factor, perceptions of procedural injustice may predict workplace violence.

An overly close and punitive style of supervision has been characteristic of many workplaces throughout the 20th century. Although by no means a new practice, as is evident from Charlie Chaplin's movie *Modern Times*, one recent and dramatic development in the workplace involves the increased use of electronic monitoring (Schliefer, 1992). Garson (1985) noted that electronic monitoring is an invasion of privacy and that it is a management technique designed to increase the pace of work and exert greater managerial control. Electronic monitoring is associated with psychological stress and strain (Lund, 1992; Schliefer, 1992). Given both the rapid increase in the pace of work in organizations, together with the use of electronic monitoring that has pervaded organizations experiencing workplace violence such as the United States Postal Service, I predict that the experience of being monitored electronically may indeed increase the likelihood of workplace violence. In one study, Greenberg and Barling

(1995) showed that both perceived injustice and electronic surveillance were associated with workplace aggression. However, the generalizability of their findings may be restricted because only psychological aggression at work was studied.

With continued downsizing, mergers, and restructuring, job insecurity is widespread, and job insecurity may precipitate workplace violence for two reasons: First, the psychological bases of job insecurity are feelings of powerlessness and loss of control (Ashford, Lee, & Bobko, 1989), which themselves may increase the likelihood of violence being perceived as one possible means for regaining control. Second, different writers have noted that murder and incidents of less severe workplace violence sometimes occur after employees are laid off (e.g., McGarvey, 1994; Stuart, 1992; Thompson, 1994). Thus, job insecurity will predict workplace violence to the extent to which it is experienced as a direct threat.

Before discussing personal factors that predict workplace violence, it is worth noting that most of the references cited earlier linking workplace factors and employee violence (e.g., Cowan, 1994; McGarvey, 1994; "A Post Office Tragedy," 1992; Stuart, 1992; Thompson, 1994) were not based on empirical research. Future researchers ought to investigate the extent to which perceived organizational justice, electronic surveillance, and job insecurity predict workplace violence, especially because Greenberg and Barling's (1995) findings pertain only to psychological violence in the workplace. It also would be useful for future research to identify other workplace predictors.

Personal Factors

Inspection of the literature might suggest that personal factors alone contribute to workplace violence. This literature overwhelmingly has focused on the development of a profile of the "disgruntled" employee, with the implication that preselection (or more accurately, preexclusion) of such individuals could reduce dramatically incidents of workplace violence. However, this literature is limited because it is descriptive rather than predictive and it is at a level of generality that fosters neither research nor practical interventions.

Largely on the basis of the literature on family violence, I expect that four personal factors will predict workplace violence: alcohol use, past history of aggression, lack of self-esteem, and the use of psychological aggression in the workplace.

Excessive alcohol use is associated with aggressive behavior across a variety of settings, including family violence (e.g., Heyman, O'Leary, & Jouriles, 1995; Pan, Neidig, & O'Leary, 1994). Profiles of potentially violent employees emphasize their excessive alcohol consumption (Graham, 1991). From a more psychologically oriented perspective, Cox and Leather (1994) argued that alcohol abuse will increase workplace violence because it increases the likelihood of the situation being "misread" and decreases intellectual and verbal functioning. Greenberg and Barling (1995) found

that binge drinking was associated with psychological aggression against coworkers and subordinates. Thus, inappropriate alcohol use will predict workplace violence.

There are several reasons why an individual's past history of aggression might predict workplace violence. First, aggression is a highly stable behavior (Huesmann, Eron, Lefkowitz, & Walder, 1984). Malone, Tyree, and O'Leary (1989) reviewed the literature on family violence and found that the use of aggression as an adolescent was associated with current marital violence. The previous use of aggression also has been documented as being one of the personal characteristics of aggressive employees in attempts to profile the potentially aggressive employee (Graham, 1991; Mantell & Albrecht, 1994). In addition, the history of aggression against peers and families while still a teenager was a substantial predictor of psychological aggression against coworkers and subordinates (Greenberg & Barling, 1995). Thus, because aggression is stable across contexts and across time, an individual's past history of aggression in general will predict violence in the workplace.

The third personal factor that predicts workplace violence is lack of self-esteem. Poor self-esteem is a characteristic of aggressive children (Lochman & Lampron, 1986) and aggressive spouses (Rosenbaum & O'Leary, 1981), and a threat to self-esteem can arouse an aggressive response (Caprara et al., 1987). Again, low self-esteem is supposedly characteristic of aggressive employees (Mantell & Albrecht, 1994). Issues of causality remain to be resolved, however. Just as it is possible that low self-esteem results in employees' resorting to workplace violence, it is equally possible that individuals who resort to physical violence in the workplace and elsewhere experience diminished self-esteem as a result. The possibility that self-esteem is implicated both as a cause and an effect should not be ignored.

Although the focus in this chapter specifically is on physical violence in the workplace, psychological aggression cannot be ignored for several reasons, as noted earlier. Perhaps the most important of these emerges from research on family violence, in which it has been shown in a longitudinal design that psychological aggression precedes marital violence but that marital dissatisfaction does not (Murphy & O'Leary, 1989). If this phenomenon is replicated in the workplace context, there would be important implications for intervention and possible prevention.

Person-Situation Interactions

Although it is possible that personal or work factors might operate separately in predicting workplace violence, a more comprehensive understanding can be gleaned from their interaction. The notion that personal and situational factors will interact in predicting workplace violence is consistent with social learning theory (Bandura, 1973). In particular, the effects of workplace factors (perceived injustice, electronic surveillance, and job insecurity) will be greatest under conditions of high alcohol con-

sumption, a long history of past general aggression, and low self-esteem. By contrast, the influence of perceived injustice, electronic surveillance, and job insecurity will be minimized when alcohol consumption is normal, there is little history of past aggression, and self-esteem is good.

Some support has been obtained for such interaction effects (Greenberg & Barling, 1995). Specifically, high alcohol consumption exacerbated the effects of job insecurity and procedural justice on psychological aggression against subordinates and of procedural justice on psychological aggression against coworkers. This research also showed the importance of Person \times Workplace interactions in predicting workplace sexual harassment (Dekker & Barling, 1995). One specific direction for future research therefore would be to examine other interactions among personal factors (e.g., a history of aggression, alcohol use, self-esteem, and current use of psychological aggression in the workplace) and workplace factors (e.g., perceptions of justice, electronic surveillance, and job insecurity).

Before concluding this section on predicting workplace violence, it is noteworthy that the target of workplace violence has been ignored. Greenberg and Barling (1995), however, found that somewhat different factors predict psychological aggression against supervisors, coworkers, and subordinates. Although the generalizability of this finding may be limited because of their concentration on psychological aggression, it does point to the need for future researchers to specify more clearly the target of physical violence in the workplace.

The Psychological Experience of Workplace Violence

In searching for models to aid in understanding the nature and consequences of workplace violence, the literature on family violence may be especially useful because of its considerable emphasis on understanding the victims. However, in considering the consequences of workplace violence, some deviation is necessary in one important respect. In the literature on family violence, the research focus primarily has been on what would be called the *primary victim* (i.e., the individual who was abused). There certainly is some research on the primary victims of workplace violence. For example, employees who were held up in bank robberies (Leymann, 1988), train drivers who hit someone who jumped onto the tracks (Farmer, Tranah, O'Donnell, & Catalan, 1992; Theorell, Leymann, Jodko, Konarski, & Norbeck, 1994), reservists engaged in grave registration duty during Operation Desert Storm (Sutker et al., 1994), and military personnel engaged in peace-keeping missions (Lamerson & Kelloway, 1995) all suffer an increased risk of developing posttraumatic stress disorder. However, an understanding of the effects of workplace violence must go further and consider the perceptions and behaviors of "secondary" victims (i.e., employees who themselves were not violated but whose perceptions, fears, and expectations are changed as a result of being vicariously exposed to the violence).

Embracing this perspective has important implications for the way in

which the psychological experience of workplace violence should be studied. First, an objective approach to understanding workplace violence cannot be sufficient. An objective approach would classify individuals according to whether they have personally experienced workplace violence or dichotomously classify events as violent. A more productive approach would emphasize individuals' perceptions of workplace events, which would be consistent with a traditional work stress framework (Pratt & Barling, 1988), in which objective, quantifiable workplace events are stressors; individuals' interpretations and perceptions of these events reflect psychological stress; and it is the stress that ultimately generates psychological or physical strain. A second major implication of this framework is that the perception of the workplace event is multifaceted (with actual exposure reflecting only one of its perceived characteristics).

Subjective Experience of Workplace Violence

Understanding the subjective experience of workplace violence is important in itself and also helps in predicting how different people exposed to workplace violence might respond differently. An understanding of the subjective experience of workplace violence is complicated because individuals neither experience nor respond to workplace violence in the same way. Having said that, there is a set of core experiences that includes direct or vicarious exposure to the violence, perceived vulnerability, the "low point" (explained later), predictability, and severity that together constitute the subjective experience of workplace violence.

Exposure to the violence. As stated previously, one need not be the direct object of workplace violence to be affected. Exposure to workplace violence can occur personally or vicariously. For example, employees can witness workplace violence directly or view fellow employees being attacked, such as in a bank robbery, where there would presumably be more vicarious than direct victims. Similarly, if a former employee returns to the worksite to settle violently a perceived grievance with a specific supervisor, there would be both direct and vicarious victims. In addition, employees may view stories about workplace violence on TV or hear about workplace violence through friends or read reports in the newspapers. Such vicarious exposure presumably would be detrimental because employees may infer that they, too, might be attacked in a similar fashion in the future. Extrapolating from Bandura's (1973) social learning theory, direct exposure to workplace violence will be more harmful than vicarious exposure, which in turn will be more personally damaging than hearing or reading about the incident.

Vulnerability, or the "loss" of control. As noted earlier, the different aspects of perceived workplace violence combine to affect employees. For example, the nature of the exposure to workplace violence might well affect employees' perceived vulnerability, that is, beliefs about whether they themselves might become primary victims (Killias, 1990).

Killias (1990) suggested that three main factors are involved in vulnerability: exposure to risk (i.e., workplace violence), loss of control, and the anticipation of serious consequences. Exposure to workplace violence already has been discussed. Killias's notion of the anticipation of serious consequences is highly similar to that of the low point. What is critical here (and again shows the interactive nature of the dimensions under consideration) is that exposure to workplace violence will be associated with feelings of *loss* of personal control. Whereas employees previously believed that they exerted sufficient control over workplace events, they may now believe that they have lost the ability to control one of their most basic needs (i.e., the need for a safe and secure workplace).

The difference between the *loss* and the *lack* of control is critical for understanding the experience and consequences of workplace violence, and the literature on work stress is instructive. Workplace or technological disasters have been shown to exert more negative effects than natural disasters, presumably because they involve a loss of control: Initially, individuals had or perceived they had control, but they feel they have lost control (e.g., once they agreed to the implementation of a process or technological processes were introduced that removed decision making from them). By contrast, natural disasters (e.g., hurricanes) involve a feeling of a lack of control and individuals probably do not believe they had any control over the event in the first place (see Baum, Fleming, & Davidson, 1983). This suggests that the feelings of loss of control following exposure to workplace violence may exert substantial negative effects.

The low point of the violent episode. One critical question is when any negative effects after a violent episode in the workplace might be expected to subside. Research on disasters has identified dimensions that affect the nature and severity of the outcomes. One additional dimension that has received empirical attention is the low point, which is the point at which individuals involved personally or vicariously (a) no longer perceive any likelihood of recurrence of the violent event or (b) believe the consequences of the event have dissipated. Events that have long-lasting outcomes are typically those in which individuals are chronically concerned about recurrence, or the long-term consequences, as was the case at Three Mile Island, which involved lingering uncertainty about potential long-term effects of the event (e.g., exposure to radioactivity; Baum et al., 1983). Indeed, the actual time elapsed since a critical event bears little relation to the negative psychological and physiological consequences. The low point in the Three Mile Island disaster (which occurred more than 15 years ago) has probably still not been reached because of chronic concerns about initial exposure to radioactivity and its possible negative consequences, and the long-term effects of the disaster endure (Davidson, Fleming, & Baum, 1987). By contrast, an explosion at a dynamite factory that killed 14 people and obliterated the buildings involved but that had little likelihood of recurrence exerted no effects on organizational commitment, job satisfaction, personal well-being, or marital satisfaction after 14 days (Barling, Bluen,

& Fain, 1987), probably because the low point was reached immediately after the event.

The low point also could be extremely useful in predicting how long-lasting the negative effects of any workplace violence might endure. Because events lacking a clear low point will result in long-term strain, only when employees believe that they are no longer likely to experience workplace violence will they become free of negative symptoms (cf. Pratt & Barling, 1988; Solomon & Thompson, 1995).

Predictability. Baum et al. (1983) suggested that the lack of predictability in a natural or technological disaster contributes to the aftermath's severity. Warning of a disaster allows individuals to take precautionary measures to minimize the subsequent impact (i.e., evacuation prior to or seeking shelter during a tornado warning). This suggests that employees who can predict violence and are prepared to deal with such events may not experience negative outcomes to the same degree of severity or duration. For example, prison guards are expected to deal with violence from inmates; thus, they are constantly vigilant, receive training on how to deal with violent incidents, and are more prepared to deal with violence. On the other hand, teachers do not expect to have to manage violent behavior on the job, and they often are given no training in how to do so. Hence, the teacher who is slapped, shoved, pushed, or even threatened by a student might experience workplace violence differently than a prison guard who is threatened or assaulted by an inmate. Findings from a study by Barling (1995) provide some support for this: Although military police experienced twice the level of workplace violence as wait staff in a restaurant (they completed identical questionnaires), exposure to such violence for military police had no negative effects, whereas exposure for the wait staff was associated with negative organizational outcomes (e.g., intentions to quit the job, weaker company loyalty).

Severity. It is assumed that the severity of workplace violence will be related to the severity of the psychological and physiological outcomes. In the most literal sense, the more violent the crime, the more severe the direct physical threat to person, property, or both.

Thus, a violent event has several dimensions that would influence victims' subjective experience of workplace violence. These characteristics combine additively to determine how adverse the experience of workplace violence might be. Thus, employees who are the primary victims of extreme physical violence feel that they have lost control within the organization, believe that violence is likely to recur but that they cannot predict where or when, and are most likely to experience workplace violence the most negatively.

Outcomes of Workplace Violence

The effects of workplace violence are numerous, varied, and related to the nature of the violence. Primarily on the basis of previous research that I

have conducted on work stress (Barling, 1990, 1992, 1994; Barling & MacEwen, 1992; MacEwen & Barling 1991; MacEwen, Barling, & Kelloway, 1992; Stewart & Barling, in press), unemployment experiences (Grant & Barling, 1994), retirement experiences (Higginbottom, Barling, & Kelloway, 1993), Type A behavior (MacEwen & Barling, 1993), and sexual harassment (Barling et al., in press), I have generated a mediational model predicting that workplace violence will exert direct and indirect outcomes. Direct outcomes are considered to be the first effect of the psychological experience of workplace violence (specifically, negative mood and cognitive distraction). Indirect outcomes are a consequence of the direct outcomes (e.g., emotional exhaustion, depression, psychosomatic complaints, accidents, turnover intentions). The model of how these dimensions influence personal and organizational factors is depicted in Figure 2.

Direct Outcomes

On the basis of my prior research, I expect that the direct outcomes of workplace violence will be negative mood (e.g., anger, anxiety, depressive symptoms) and cognitive distraction. However, to understand the consequences of workplace violence, fear is included as a third direct outcome because it is expected that it will be a critical direct outcome of workplace violence. In turn, these three variables would be responsible for transmitting any effects of the experience of workplace violence to psychological, psychosomatic, and organizational outcomes.

Negative mood. There is substantial empirical evidence showing that stress in general, and workplace stress as well, affect negative mood. This effect is stable across diverse settings (e.g., Solomon & Thompson, 1995), which supports the robust nature of this phenomenon. Focusing on work stress, for example, daily work stress (Barling & Kryl, 1990; Barling & MacIntyre, 1993; MacEwen et al., 1992) and chronic work stress (Barling & MacEwen, 1992; Motowidlo, Manning, & Packard, 1986; Stewart & Barling, in press) are associated with negative mood. More specific work-related stressors, such as experiencing sexual harassment (Barling et al., in press), unemployment (Grant & Barling, 1994) and Type A behavior (MacEwen & Barling, 1993), also have been associated with negative mood and depressive symptoms. These findings are consistent with McManus's (1992) observation that exposure to workplace violence leads to emotional numbing. Results of several studies also have indicated that negative mood mediates the relation between psychological stress and other negative outcomes (e.g., Barling & MacEwen, 1992; Kelloway & Barling, 1991). Thus, negative mood will mediate any negative effect of the experience of workplace violence on organizational and personal outcomes.

Cognitive distraction. Within the literature on stress there also is support for the notion that stress alters arousal and attention: When arousal

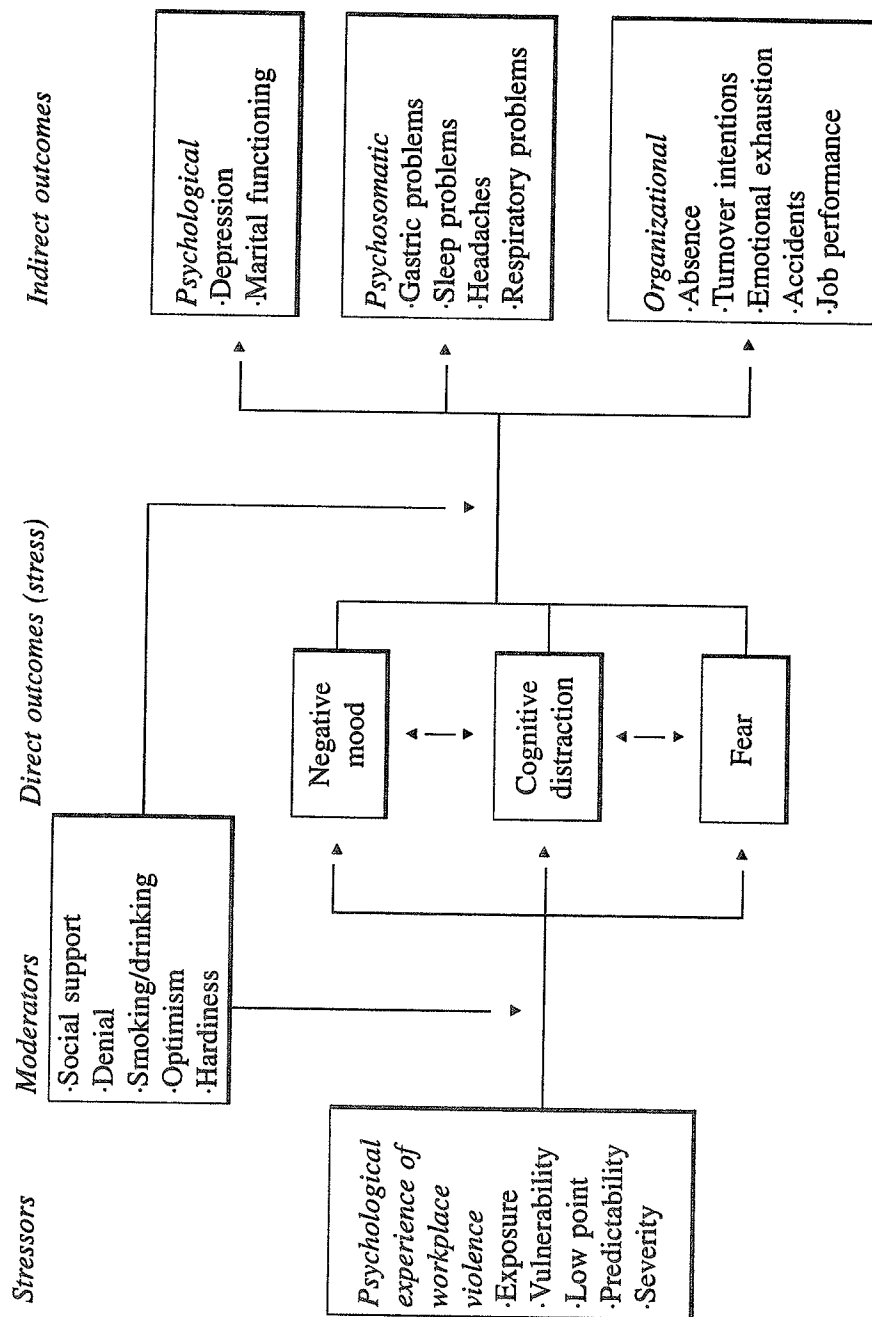


Figure 2. Outcomes of workplace violence.

and stress are either above or below an optimal level, attention will be affected negatively. Workplace stressors produce cognitive overarousal as individuals increase their vigilance in an attempt to cope with the situation. There is some empirical support for this notion. For example, the chronic stress caused by unemployment is related to cognitive difficulties (Fryer & Warr, 1984). Likewise, chronic work stress is associated with cognitive distraction (Barling & MacEwen, 1992), as is the chronic stress associated with balancing employment and child-care demands (MacEwen & Barling, 1993) and employment and elder-care responsibilities (Barling, MacEwen, Kelloway, & Higginbottom, 1994). Again, the notion that cognitive difficulties will be a result of exposure to workplace violence is consistent with the finding that nurses who had been assaulted by patients subsequently reported difficulties concentrating on the job (Whittington & Wykes, 1989). In addition, chronic stress is associated with intrusive imagery (Baum, 1990). Consequently, exposure to workplace violence will result in cognitive difficulties, which in turn will predict negative psychological and organizational outcomes.

Fear of violence. One of the major consequences of exposure to workplace violence, whether experienced directly or vicariously, will be fear. Recent research has shown that being the primary victim of an episode of physical violence is not required for individuals to experience negative effects. Likewise, the violent crime rate was not related to perceived danger of victimization (Hall & Spector, 1991). Instead, the widespread effect and importance of the fear of being a victim of workplace violence has been demonstrated.

Perceived danger had a significant positive correlation with anxiety and illness symptoms in Hall and Spector's (1991) research. In a study of bank employees, perceived fear of workplace violence was associated with psychosomatic outcomes and thoughts about quitting the organization (Rogers & Kelloway, in press). In terms of the fear of violence, bus drivers indicated that the possibility of assault was the most prevalent source of job stress (Duffy & McGoldrick, 1990). Approximately 70% of bus drivers reported that the fear of being assaulted on the job was a regular and major problem. The third most prevalent source of stress was related closely to the fear of workplace violence, namely the risk of carrying large sums of money, which 67% of the drivers viewed as a regular major problem (Duffy & McGoldrick, 1990). This again signals the importance of studying workplace violence among both primary and secondary victims.

Note that these three mediating variables (negative mood, cognitive distraction, and fear) are interrelated. For example, fear of workplace violence probably is associated both with an inability to concentrate on the job (cognitive distraction) and anger or sadness (negative mood; see Figure 2).

Indirect Outcomes

One of the primary reasons for focusing on negative mood and cognitive distraction is that previous research has shown that they are differentially

associated with indirect outcomes. For example, cognitive distraction is associated with psychological withdrawal from the situation, whereas negative mood increases the likelihood that individual tolerance levels are reduced and inappropriate attention is given to negative behaviors (MacEwen & Barling, 1993; MacEwen et al., 1992; Repetti, 1989). In addition, it is likely that fear will be associated with behavioral withdrawal. I predict that organizational functioning, psychological well-being, and psychosomatic well-being will be indirect outcomes of workplace violence, inasmuch as negative mood, cognitive distraction, and fear will be affected directly by the experience of workplace violence and will exert differential effects on the indirect outcomes.

Psychological well-being. At least two different factors are likely to be affected (viz., personal well-being and family functioning). One critical indicator of personal well-being is depression, and this serves as an exemplar for the effects of workplace violence. At an epidemiological level, crime victims are at an elevated risk of depression (Stuart, 1992). At an individual level, one occupational group in which depression has been investigated with respect to workplace violence is teaching. Teachers are interesting in this respect because of the low incidence of actual assaults (Williams, Winfree, & Clinton, 1989). Schonfeld (1991) conducted a longitudinal study of people entering the teaching profession and found that exposure to workplace violence predicted depressive symptoms. Similarly, Sutker, Davis, Uddo, and Ditta (1995) found that exposure to extreme war zone stress was associated with clinical depression. The mediational concept allows researchers to suggest that negative mood and fear resulting from workplace violence (rather than cognitive distraction) will result in depression.

Marital (or relationship) functioning and family functioning could also be indirect outcomes of workplace violence. Crime victims often report some marital problems (Stuart, 1992). On a more general level, there is substantial support for the notion that depression and negative mood predict marital and parental dysfunction. Importantly, these findings have shown specific effects of depressive symptoms on negative marital interactions and spousal violence (Grant & Barling, 1994; MacEwen & Barling, 1993), psychological aggression within the marriage (Barling & MacEwen, 1992; MacEwen & Barling, 1993), and parenting behavior (Barling, MacEwen, & Nolte, 1993; MacEwen & Barling, 1993). Recent longitudinal research has shown that it is depression that affects marital dysfunction in community samples and has ruled out the alternative hypothesis that marital dysfunction affects depressive symptoms (Higginbottom et al., 1993). Thus, marital and family dysfunction could be indirect outcomes of exposure to workplace violence, mediated largely but not exclusively through negative mood. However, cognitive distraction also will play a mediating role in the extent to which it increases the likelihood of affected family members being perceived as distant or rejecting (Barling et al., 1993; MacEwen & Barling, 1993).

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Psychosomatic functioning. Although there is less empirical evidence, I predict that psychosomatic functioning (e.g., sleep problems, headaches and migraines, gastrointestinal problems, and upper respiratory tract infections) will be an indirect outcome of workplace violence for two reasons: First, after assaults by patients, nurses report sleep disturbance, fatigue, and muscle tenderness (Whittington & Wykes, 1989), and perceived danger at work is associated with illness symptoms (Hall & Spector, 1991), as is fear of workplace violence (Rogers & Kelloway, in press). Second, psychosomatic complaints are outcomes of work-related psychological stress (Barling & Boswell, 1995; Barling & Charbonneau, 1992).

Organizational functioning. The psychological experience of workplace violence will affect indirectly organizational functioning through the mediating influence of negative mood, cognitive distraction, and fear. Although there is a paucity of research on organizational functioning as outcomes of workplace violence, when violent incidents occur at work, it would be expected that workplace perceptions and behaviors will be affected. Psychological attachment to the organization (i.e., organizational commitment, absenteeism, turnover intentions), emotional exhaustion, job performance, and accidents will be affected indirectly.

The experience of workplace violence would influence employees' attachment to the organization in different ways. First, perhaps the most obvious short-term method for avoiding the possibility of workplace violence is by avoiding the workplace. Employees who are afraid might engage in withdrawal behaviors such as using more sick leave to avoid returning to the environment in which the violence occurred (Mantell & Albrecht, 1994). Certainly, there are data showing that absenteeism reflects an attempt to cope with work stress (Barling et al., 1994; Kristensen, 1992). Thus, workplace violence is expected to affect absenteeism indirectly through the mediating role of fear. Similarly, I predict that the fear of workplace violence will reduce an individual's desire to remain permanently in an organization where the violence occurred. Employees experiencing workplace violence thus will be expected to experience higher turnover intentions. In his research on teachers, Schonfeld (1991) found that the fear of workplace violence may be a sufficient cause to search for alternative employment. Rogers and Kelloway (in press) found a similar effect among bank employees who feared workplace violence.

Second, commitment to the organization in which the violence occurs could be affected. Two types of organizational commitment (i.e., affective and continuance commitment) have been identified as important correlates of job performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). Affective commitment characterizes employees who stay with an organization because they want to; continuance commitment describes individuals who stay because they need to, perhaps because of financial constraints, a lack of relevant skills, or a lack of appealing alternatives. Occupational violence is likely to reduce an individual's desire to remain at a given job. Thus, employees may remain with the organization after a

violent event because of a lack of other alternatives, increasing their continuance commitment.

Direct or vicarious exposure to workplace violence and the resulting fear also would be expected to wear down employees emotionally. One examination of the predictors of emotional exhaustion in a police organization was conducted by Gaines and Jermier (1983). Although no significant correlation was found between their three-item measure of physical danger and emotional exhaustion, the questionnaire they used did not assess fear specifically or the psychological experience of workplace violence. It also is possible that individuals in occupations in which exposure to physical harm is expected might have developed some tolerance to violence or positive coping strategies (Barling, 1995; Gaines & Jermier, 1983). At a general level, there are data showing that negative mood mediates the relation between work-role stress and emotional exhaustion (Barling & MacIntyre, 1993). Thus, emotional exhaustion could be an indirect outcome of workplace violence.

An indirect link also may exist between workplace violence and workplace accidents, inasmuch as cognitive distraction (and intrusive imagery) will mediate the link between violence in the workplace and accidents. This is partially supported by Duffy and McGoldrick's (1990) finding that being physically attacked by passengers was a significant predictor of transit accidents for bus drivers. Physical attack also was often the result of having to reprimand passengers for shouting or smoking, which itself could increase cognitive distraction and therefore accidents (Guastello, 1990).

Data also show that the likelihood of performing the job satisfactorily among employees whose attention is distracted is reduced (Barling & Boswell, 1995). Presumably, cognitive distractions as a function of ruminating about workplace violence would exert similar indirect effects on job performance.

Moderators of the Workplace Violence-Outcome Relationship

Just as clearly as the study of workplace stress (and presumably workplace violence) predicts negative outcomes, it is equally clear that not all individuals respond negatively when faced with workplace stress. This makes it critical to understand the factors that moderate any negative effect of workplace violence. Although no previous research has identified specific moderators of the violence-outcome relationship, to my knowledge, predictions can be made on the basis of the literature. In general, having adequate social support or inappropriate regressive (or negative) coping strategies (e.g., alcohol consumption, smoking) may influence the subjective experience of workplace violence (see Figure 2).

Whittington and Wykes (1989) suggested that social support may be important in reducing the negative effects of exposure to workplace vio-

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lence. However, the role of social support in this context may be complex: The results of their study revealed that nurses experiencing the most severe outcomes also were receiving the most support from work and other sources. At the same time, the nurses also reported dissatisfaction with the support they were receiving and were found to rely more on smoking and drinking. Thus, it is possible that the positive relationship found between support and symptomatology emerged because individuals were not receiving appropriate support and were engaging in negative coping strategies such as drinking at the same time. Thus, both the quantity and the type of social support must be considered (Pratt & Barling, 1988).

The direction of effects of social support probably will depend on its type and congruence with respect to the stressor (Ganster, Fusilier, & Mayes, 1986; House, 1981; MacEwen & Barling, 1988; Pratt & Barling, 1988). In the workplace, it is expected that support from a victim's supervisor will reduce any negative effect on organizational functioning. Similarly, support from a spouse after a violent episode at work may reduce marital dissatisfaction. Family cohesion reduces the likelihood of developing posttraumatic stress disorder after exposure to extreme war stress (Sutker et al., 1995). A variety of research has provided counterintuitive evidence that social support either does not moderate the relationship between work stress and work strain (Ganster et al., 1986) or it increases strain (e.g., Kaufmann & Beehr, 1986; MacEwen & Barling, 1988). These results may be attributable to the nature or type of the support (emotional) and suggest that other forms of support (i.e., instrumental or informational) may be more appropriate. For example, employees who are provided with training or knowledge (i.e., informational support) or preventive equipment (i.e., instrumental support) will be more likely to feel comfortable returning to work and less fearful in the future. These factors also may allow the individual to regain perceived control after the violent episode.

Although typically considered a negative coping mechanism (Wykes & Whittington, 1991), denial often is observed in victims of workplace violence and may have positive effects. Wykes and Whittington conducted a longitudinal study on nurses' coping strategies with respect to the level of psychological difficulties. Denial was significantly related to a decrease in psychological difficulty over a 3-week period. Nurses often have to continue working with the perpetrator, which might have resulted in the beneficial effect for denial in this sample.

Personality factors such as dispositional optimism may influence the relationship between workplace violence and direct outcomes (i.e., stressors and stress) because it will influence the way in which workplace events are perceived. For example, hardy individuals are less likely to develop posttraumatic stress disorder after exposure to war-related violence (Sutker et al., 1995). Thus, future researchers might investigate whether coping strategies such as social support, smoking, and alcohol use will influence the relation between the actual violent event and the subjective experience of the event and between subjective experience of the workplace violence and direct and indirect outcomes (see Figure 2).

Conclusion

Evidence that workplace violence now constitutes a major problem is overwhelming (e.g., Anuso, 1994; Budd & Arvey, 1994), and numerous questions with important implications remain to be answered. For example, does the nature of the target influence the nature of the predictors of workplace violence (Greenberg & Barling, 1995)? Likewise, if research shows that psychological aggression (but not job dissatisfaction) precedes physical violence in the workplace (cf. Murphy & O'Leary, 1989), important diagnostic and preventive implications would be apparent. Given the enormity of the problem of workplace violence, both in terms of its incidence and consequences, it is encouraging that basic research has now begun that will help to assess the model presented.

The model presented in this chapter goes beyond previous speculation by explicating the psychological experience of workplace violence and by integrating the prediction, experience, and direct and indirect effects of workplace violence. However, many of the links in the model are based on knowledge from other areas, primarily knowledge on work stress and on family violence, and the model invites empirical scrutiny. At the same time, as such basic research continues, researchers should not lose sight of the fact that research is needed to focus on factors that would help in reducing or preventing the likelihood of workplace violence and on helping the direct and indirect victims of incidents of workplace violence.

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