Coping Styles Moderate the Relationships Between Exposure to Community Violence and Work-Related Outcomes

Cody B. Cox
Texas A&M University

Jennie Johnson and Tom Coyle
The University of Texas at Brownsville

The purpose of this study was to identify coping strategies used by employees exposed to community violence and their relationships to work-related outcomes. In study 1, Mexican Maquiladora employees who experienced community violence reported their coping strategies. Results identified 3 strategies: social, solitary, and maladaptive coping. In study 2, another sample completed measures of violence exposure, strain, coping, and turnover intention. Supervisors provided performance evaluations. Community violence predicted the use of all 3 strategies. Social coping lessened the effects of community violence on turnover while maladaptive strategies predicted increased psychological strain. Results indicate that workers use a variety of coping strategies in response to community violence that both lessen and magnify the effects of violence exposure and impact their psychological strain, turnover intention, and job performance.

Keywords: community violence, coping styles, intention to turnover, job performance

The workplace is not immune to violence. Research in the areas of workplace violence or workplace aggression has traditionally focused on violence within the work context, such as identifying antecedents of violence between employees within the same organization or between employees and outsiders such as clients, customers, or patients, and the consequences to employees exposed to workplace violence (Barling, Dupre, & Kelloway, 2009; Griffin & Lopez, 2005; Hershcovis et al., 2007; LeBlanc & Kelloway, 2002; Martinko, Gundlach, & Douglas, 2002; Spector & Fox, 2005). The impact of exposure to community violence—that is, being a victim of violence in one's community, witnessing violence within one's community, or learning of violent acts occurring within one's community—outside the work context on organizational outcomes has been less well researched. However, even when individuals are not directly the victims of violence, working in a location in which violence is common may have a dramatic effect on the health and job performance of employees (Hogh & Mikkelsen, 2005). To date, however, organizational psychology has not examined the effects of exposure to violence in the community on employee behavioral outcomes at work.

The purpose of this study is to explore the effects of exposure to community violence on employees' use of coping strategy and employees' work-related outcomes (i.e., job performance, intention to turnover, and psychological strain). We explored the relationship between direct and indirect exposure to violence in the community to work-related outcomes in two samples of factory workers in Mexico. In study one, we explored the specific coping behaviors used by employees exposed by community violence to identify categories of coping strategies employees use (i.e., copying styles). In study two, we examined whether exposure to community violence predicts using these coping styles and whether these coping strategies impact work-related outcomes.

Exposure to Community Violence

Researchers in fields outside of organizational psychology have explored the impact of community violence on community members. A recent meta-analysis of the literature revealed that exposure to violence in the community has dramatic effects on teenagers' and adults' abilities to function and greatly increased the risk for Post-Traumatic Stress Disorder (Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009). Exposure to community violence has been linked to increased risk for psychopathology in American, Belgian, and Russian samples (Schwab-Stone, Koposov, Vermeiren, & Ruchkin, 2013). Such effects may be particularly strong for children. For example, a study by Sharkey, Tirado-Strayer, Papachristos, and Raver (2012) concluded that exposure to community violence impaired children's self-regulatory behaviors and cognitive functioning, as well as generated psychological distress among their parents. Lee (2012) reported that exposure to community violence was significantly and positively related to substance use and binge drinking among adolescents. Thus, researchers have established that individuals do not need to be victims of violence to be affected by violence; merely being exposed to community violence has been associated with a variety of negative consequences.

Though the effects of community violence on work-related outcomes have yet to be researched, previous studies suggest that exposure to violence may affect workplace performance in a variety of ways. Pynoos and Nader (1988), for example, found that

exposure to violence reduced students' abilities to concentrate in class which led to lower levels of learning. Borofsky, Kellerman, Baucom, Oliver, and Margolin (2013) found that exposure to violence reduced student engagement in coursework which subsequently reduced student GPA. Further, researchers have found that exposure to violence in the community can cause psychological strain, anxiety, and depression among adolescents (Margolin & Gordis, 2000). Thus, extensive research on exposure to violence among adolescents indicates that exposure to community violence impacts adolescents' school performance, decreases engagement in school, and increases stress, suggesting that exposure to community violence may affect performance, motivation to remain engaged in schoolwork, and psychological strain.

Though researchers have not explored whether community violence predicts workplace performance, turnover, or strain, researchers have explored whether exposure to community violence predicts workplace aggression (i.e., engaging in aggressive behavior in the workplace). Dietz, Robinson, Folger, Baron, and Schulz (2003) found that violent crime rates in the community where an employer resided predicted aggressive workplace behavior, whereas the procedural justice climate in the organization did not. Researchers have also explored whether either the experience of being a victim of violence or the fear of being the victim of violence predicted work-related outcomes. LeBlanc and Kelloway (2002) found that being the victim of violence from a community member while at work led to greater turnover intentions and being the victim of coworker violence while at work reduced organizational commitment and negatively impacted both psychosomatic and emotional well-being. Similarly, in a large sample of public school teachers, Wittmer, Sinclair, Martin, Tucker, and Lang (2013) found that among teachers, greater concern about being the victim of aggression while at work predicted poorer student performance on standardized test scores (which reflected teacher performance), even when salaries, school resources, and budgets were controlled. Thus, research indicates that experiencing community violence outside of the workplace predicts workplace aggression and the fear of being the victim of violence in the workplace impacts performance and other organizational outcomes. To date, however, researchers have not explored whether exposure to community violence (outside of the workplace) impacts job performance, intention to turnover, or psychological strain. The lack of research in this area may reflect an inability to recognize the impact environmental factors have on work-related outcomes. Dietz et al. (2003) noted the dearth of research in this area and contended that "the absence of research on environmental antecedents is typical of organizational behavior research, which, for the most part, draws an artificial boundary between organization and environment, thereby failing to consider the organizational behavior might be as much a product of the forces outside the organization as it is a product of the organization itself" (p. 317). They urged other researchers to study the external environmental factor of violence and other societal factors on both workplace violence and aggression and other organizational behaviors (see also Johns, 2006).

The purpose of this study was to explore the effects of exposure to violence in the community on employees. In exploring the role of community violence on workplace performance, it may be useful to consider other existing models of workplace stress: specifically the conservation of resources theory (Hobfoll, 1989).

Conservation of resources theory argues that individuals experience stress when resources (e.g., financial resources, physical health) are threatened and cope with this stress through various stress resisting strategies, such as proactive coping (Hobfoll, 2001). Community violence can be understood as threatening an individual's resources, which may lead an individual to engage in coping strategies to mitigate these effects to maintain their employment. In violent environments, individuals employ a wide-range of coping strategies to manage the effects of prolonged exposure to violence (e.g., Epstein-Ngo, Maurizi, Bregman, & Ceballo, 2013). Folkman and Lazarus (1984) defined coping as "cognitive and behavioral effects to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Further, coping style can be thought of as the individual's response to stress (Carver, Scheier, & Weintraub, 1989) though individuals may use different coping strategies for different stressors (Alarcon, Edwards, & Clark, 2013). In fact, researchers have identified a wide array of behaviors that function as coping strategies (Delongis & Holtzman, 2005; Kapsou, Panayiotou, Kokkinos, & Demetriou, 2010). These behaviors have, in turn, demonstrated a variety of relationships with work-related outcomes. Wallace, Lee, and Lee (2010), for example, found that counselors using active coping behaviors experienced lower levels of stress and burnout and those using humor as a coping behavior experienced higher levels of burnout which negatively affected job performance. Additionally, Leung, Liu, and Wong (2006) found that active coping had a positive influence on job performance and other researchers have found that venting had a negative impact on job performance (Brown, Westbrook, & Challagalla, 2005). Thus, there are a variety of behaviors individuals use to cope with stress and these behaviors vary in terms of their effects and efficacy.

The multitude of behaviors (e.g., use of humor, venting, active coping) identified as coping strategies have been grouped into coping styles in a variety of ways by various authors (Krägeloh, 2010). For example, some researchers have distinguished between social and solitary coping styles (Latack & Havlovic, 1992; Skinner, Edge, Altman, & Sherwood, 2003). Social coping may involve seeking out other individuals for advice, for instrumental assistance, or for emotional support while solitary coping involves solitary behaviors such as distracting oneself with work (Dunahoo, Hobfoll, Monnier, Hulsizer, & Johnson, 1998). Other researchers argue that the behaviors individuals engage in can be considered either problem-focused (in which the individual focuses on eliminating the stressor) or emotion-focused coping (in which individuals focus on control of their emotional reaction; Carver et al., 1989). Researchers have also distinguished between active coping strategies (i.e., taking action on the problem) and passive coping strategies (i.e., avoiding thoughts of the event) as well (Esperanza, Luisa, Fabiola, & Adriana, 2008). Given the wide variety of coping behaviors, researchers in this area encourage the exploration of higher order factors (i.e., coping styles) within the data when exploring the antecedents and consequences of coping with environmental violence. Thus, the purpose of study one was to identify the coping styles used by workers exposed to community violence before exploring the antecedents and consequences of these coping styles.

Study One

To our knowledge, researchers have not explored how best to categorize the coping behaviors employees utilize in response to exposure to community violence. Because the coping strategy one uses may be specific to a particular stressor (Alarcon et al., 2013), it was important to first identify the strategies employees use in response to exposure to community violence. Thus, in study one, we sought to identify the coping behaviors employees who have been exposed to violence utilize and then to examine the copying styles these specific behaviors reflected. Researchers who have explored the effects of exposure to violence in other fields have often identified communities in which violence is common. Accordingly, researchers have explored exposure to violence in cities in various countries such as the United States (Dietz et al., 2003), Belgium (Schwab-Stone et al., 2013), Cambodia (Yi et al., 2013), China (Ho & Cheung, 2010), Ireland (Goeke-Morey et al., 2009), Israel (Guterman, Haj-Yahia, Vorhies, Ismayilova, & Leshem, 2010), Mexico (Esperanza et al., 2008), Russia (Schwab-Stone et al., 2013), and South Africa (Shields, Nadasen, & Pierce, 2009). In this study, we explored the use of coping styles to moderate the relationship between exposure to community violence and work-related outcomes in Mexico. In recent years, Mexico has experienced an increase in violence, particularly along the border region (Fausset, 2012). Molzahn, Ferreira, and Shirk (2013) reported that crime and violence have proliferated in Mexico with a noticeable increase since the 1990s. This has become a primary concern for government, business, and the general public. An increase in a diverse array of various criminal activities, including kidnapping, extortion, and other crimes have had a direct effect on the general population. Much of the violence occurs within the border states with 50% of organized crime violence occurring in those areas in 2010. During the same year, border cities accounted for 29.5% of organized crime homicides. Relatedly, recent studies have shown that exposure to community violence predicts stress and health outcomes for Latino adolescents as well as the presence of PTSD symptoms (Epstein-Ngo et al., 2013; Reyes, 2012). Given that researchers have explored the effects of community violence in Mexican samples, we also sought to use a sample of Mexican workers for this study. Specifically, in study one, we sought to explore the coping styles used by employees exposed to community violence.

Method

Participants and procedure. An initial sample of 112 Mexican workers who reported exposure to community violence completed the Brief COPE (Spanish version), a measure of psychological coping. All the participants were residents of a community in northern Mexico along the U.S.–Mexican border. The participants were engineers, office administrators, supervisors, and technicians for an organization in what is commonly termed the Maquiladora Industry. This industry was established in 1965 and is predominantly dominated by U.S. firms (Lovett, Coyle, Banerjee, & Hardebeck, 2008). By 2006, the industry employed 1.2 million Mexican national employees. The sector accounted for approximately 3% of Mexico's total GDP and nearly half of the country's exports (Bergin, Feenstra, & Hanson, 2009). Initially the primary market for the Maquila plants was the U.S. market; however, as globalization has expanded, firms operating in the industrial sector export products to all parts of the globe. Maquila plants are predominantly involved in producing industrial products including automotive, electronics, and durable goods (Lovett et al., 2008).

The data were collected during 2011; during this time, the supervisors at the plant reported high levels increased levels of violence at the plant, including trespassing, theft, and kidnapping. Out of concern for the safety of the participants, supervisors at the plant requested that researchers not collect demographic data such as age and gender for the participants. The human resources managers who administered the study reported that all of the participants were Hispanic with at least a high school education and that many of the respondents were college graduates.

Participants completed the questionnaires during departmental sessions conducted by the human resources manager which were not attended by their immediate supervisors. The data were collected on a voluntary basis and all respondents were told by the human resources manager that they were not required to participate. The human resources manager did not record who participated in the study. For security reasons, the authors were specifically requested not to attend these meetings. Researchers obtained approval from the university's Institutional Review Board before initiating data collection.

Materials. The brief version of the COPE scale (brief Spanish version; Carver, 1997) measure is the mostly widely used measure of coping and provides several different behaviors that have been identified as strategies for coping with stressors. However, given the variety of results from use of the scale (Krägeloh, 2010), it was important to establish the factor structure of the COPE scale with a group of Mexican workers before exploring the coping styles as moderators of the relationship between exposure to community violence and work-related outcomes. Participants were given statements to respond to such as *I've been getting emotional support from others* and *I've been using alcohol or other drugs to make myself feel better*. Participants responded on a scale from 0 (*I haven't been doing this at all*) to 3 (*I've been doing this a lot*) scale (for the full scale, $\alpha = .87$).

Results

To conduct the exploratory factor analysis, we incorporated a principal axis analysis with a direct oblimin rotation. From the analysis, three factors emerged with Eigenvalues greater than 1 and accounting for 58.77% of the variance in scores. To interpret the factors, the scales with the largest loadings on a single factor were identified. The factor loadings indicated that the first consisted largely of the use of humor (.83) and seeking emotional (.74), and instrumental support (.65). These behaviors had been identified by other researchers as examples of social coping (see Latack & Havlovic, 1992). Accordingly, we labeled this factor social coping. The second factor, as indicated by factor loadings, consisted of distracting oneself (e.g., *I've been turning to work or other activities to take my mind off things*; .78), taking action (.71), and engaging in denial (.64). These factors were similar to strategies other researchers have termed individualistic or solitary coping strategies (Dunahoo et al., 1998). We labeled this solitary coping. Factor loadings indicated that the final factor consisted of activities such as venting (.67), using substances (.40), and disengaging (.40); many of these activities have been previously iden-

tified as maladaptive coping (Burgess et al., 2010). We likewise labeled this factor maladaptive coping.

Discussion

Our factor analysis was largely consistent with what other researchers have found (e.g., Burgess et al., 2010; see also Kapsou et al., 2010). Specifically, our analysis found evidence of three coping styles: social coping, solitary coping, and maladaptive coping. Having found evidence of a three-factor structure with a sample of Mexican workers, we could begin to explore the relationship between these factors and the work-related outcomes for workers exposed to community violence.

Study Two

The results of study one indicated that the coping styles employees use in response to community violence can best be understood as social coping, solitary coping, and maladaptive coping. In study two, we sought to explore how these coping styles impacted work-related outcomes and whether the relationships between these coping styles and work-related outcomes was moderated by the amount of violence employees experienced.

Though less well researched than other coping styles, social and solitary coping have been examined in other studies. Researchers have found, for example, that men are more likely to engage in solitary coping and less likely to engage in social coping than women (Dunahoo et al., 1998; Monnier, Hobfoll, Dunahoo, Hulsizer, & Johnson, 1998). Social strategies involve soliciting help from others or seeking emotional support from other individuals. Social coping strategies such as seeking social support have been well researched and have demonstrated negative relationships with negative outcomes such as job burnout (Shin et al., 2014), posttraumatic stress (Prati & Pietrantoni, 2009), and even cardiovascular stress (Lee, Suchday, & Wylie-Rosett, 2012). Solitary strategies have been less well researched (Dunahoo et al., 1998). Solitary strategies are coping strategies that do not involve others; engaging in behaviors to address the stressor or focusing on thoughts to reduce stress are examples of solitary strategies (Latack & Havlovic, 1992). Previously, researchers have identified solitary strategies as those involving tactics such as changing how one perceives the stressful event, distracting oneself from the stressful event or taking aggressive action (Dunahoo et al., 1998). In addition to these adaptive strategies, our model also found evidence for a maladaptive coping strategy. In fact, one consistent finding across the coping literature is the presence of coping behaviors that are considered maladaptive (for a review, see Krägeloh, 2010). Such strategies not only fail to provide a resource to the employee but actually enhance the negative effects of community violence. Burgess, Irvine, and Wallymahmed (2010) found evidence in a sample of nurses that maladaptive behaviors such as venting emotions or using drugs or alcohol actually exacerbate the experience of psychological strain at work. Study one also suggests that in response to community violence, employees may also engage in substance use or venting negative emotions.

In study two, we sought to develop a model which depicted the relationship between exposure to community violence, the use of coping strategies, and work-related outcomes. In the model, exposure to community violence predicts the use of coping strategies;

these strategies then moderate the relationship between exposure to violence and job performance, intention to turnover, and psychological strain. Though we found evidence of three coping styles employees use, we did not expect each of the styles to affect all of the work-related outcomes measured. Previous research indicates that various coping styles have effects on particular work-related consequences. The justifications for our specific hypotheses are provided next.

Exposure to violence and coping. The relationship between exposure to community violence and coping has been well documented in previous research. Kliewer and Zaharakis (2013) found that exposure to community violence led to higher levels of avoidant coping and substance use among caregivers in urban settings. Scarpa, Haden, and Hurley (2006) similarly found evidence in a sample of young adults that community violence predicted the use of social and solitary coping strategies. As the results of study one indicated that employees engage in social, solitary, and maladaptive coping strategies in response to community violence, we anticipated that exposure to community violence would predict the use of all three strategies in study two.

Hypothesis 1: Exposure to violence will predict the use of social, solitary, and maladaptive coping strategies.

Solitary coping styles and job performance. In terms of the outcome variables, we anticipated that solitary coping strategies would have the strongest relationship to job performance. Job performance has been of interest to organizations and researchers for decades because it is related to organizational productivity and is most often measured through performance ratings from supervisors (Newman, Kinney, & Farr, 2004). As noted earlier, previous researchers have found that fear of aggression is negatively associated with job performance, though these effects were moderated by the resources available at the school (Wittmer et al., 2013). Experiencing community violence may lead employees to engage in solitary coping strategies such as distracting themselves by focusing on work (see Dunahoo et al., 1998). The conservation of resources theory argues that threats to resources (such as employment or financial security) lead individuals to engage in coping strategies that moderate the effects of the stress (Hobfoll, 1989). Solitary coping strategies (e.g., focusing on work) may be able to assist the employee in maintaining the desired level of strong job performance despite the presence of community violence. Researchers have found that coping strategies that are solitary in nature do moderate the relationship between stress and job performance in that individuals under high stress who engage in such techniques outperform those who do not (Leung et al., 2006). Therefore, we anticipate that workers who engage in solitary coping will moderate the effects of exposure to community violence and job performance; specifically, we anticipate that for participants exposed to violence, those who engage in solitary coping strategies will have higher performance ratings than those who do not.

Hypothesis 2: The use of solitary coping strategies will moderate the relationship between exposure to community violence and job performance ratings.

Social coping styles and intention to turnover. We anticipated that social coping would have the strongest relationship with

intention to turnover. All organizations are faced with managing employee turnover. Important organizational variables such as profitability (Glebbeek & Bax, 2004) and future revenue growth (Baron, Hannan, & Burton, 2001) have been associated with turnover. Historically, job attitudes such as job satisfaction, organizational commitment, and demographic variables (age, gender, etc.) have been studied as important predictors of turnover (Arnold & Feldman, 1982). Emotional exhaustion has been associated with turnover intentions (Lee & Ashforth, 1996; Wright & Cropanzano, 1998), as well. The literature on workplace aggression has also related workplace aggression to employee intentions to turnover. Hauge, Skogstad, and Einarsen (2010) found that in a large representative sample of the Norwegian workforce that workplace bullying, a form of coworker to coworker or supervisor to worker workplace aggression, was related to employee intentions to turnover. Rogers and Kelloway (1997) determined that workplace aggression led to the fear of future violence, which decreased employee emotional well-being and increased intention to turnover. Subsequently, LeBlanc and Kelloway (2002) expanded the Roger and Kelloway model and reported that the risk of exposure to workplace aggression from both the public and coworkers was related to employee intention to turnover.

Given that previous research has found a strong direct relationship between violence and turnover, we anticipated that exposure to violence would increase the workers' intention to turnover. However, we also anticipated that when employees engage in social coping, the presence of the support system may reduce this effect. Previous research has found evidence that the ability to utilize social support from other employees as a coping resource reduces employee turnover (Heaney, Price, & Rafferty, 1995). We therefore hypothesize that among workers exposed to violence, those who engage in social coping will report less intention to turnover.

Hypothesis 3: Social coping will moderate the relationship between exposure to violence and employee intention to turnover.

Maladaptive coping styles and psychological strain. Stress, defined as the individual's subjective reaction to a stressor (an environmental characteristic or event; LeBlanc & Kelloway, 2002), has been the subject of many studies and has been found to be related to various organizational variables of interest such as job performance (Hunter & Thatcher, 2007; Leung, Liu, & Wong, 2006; Motowidlo, Packard, & Manning, 1986; Schat & Frone, 2011), job satisfaction (Muhammad et al., 2011), and burnout (Wallace et al., 2010). Studies have examined work-related stressors (i.e., work-related events or characteristics that cause stress) from a perspective of understanding the nature of the stressor; however, the emotional consequences of exposure to stress have increasingly been considered important outcomes in themselves (e.g., Bond, Tuckey, & Dollard, 2010; Brief & Weiss, 2002; Hoobler, Rospenda, Lemmon, & Rosa, 2010). Researchers often refer to the harmful consequences of exposure to stressors as psychological strain (Dollard et al., 2012). Maladaptive strategies, such as drinking and drug use, have consistently been shown to amplify rather than reduce psychological strain. Brown, Westbrook, and Challagalla (2005) found that the use of venting following a negative workplace event led to greater levels of expe-

rienced strain as venting causes individuals to focus attention on negative events. Parasuraman and Hansen (1987) found that the use of maladaptive coping styles led to increased workplace burnout among nurses. Given the negative behaviors associated with maladaptive coping (e.g., venting or substance use), engaging in maladaptive coping behaviors may actually enhance the experience of psychological strain in the workplace (Anshel, 2000). Thus, we believe the use of maladaptive coping styles will enhance the experience of psychological strain by those exposed to community violence.

Hypothesis 4: Maladaptive coping will moderate the relationship between exposure to community violence and psychological strain.

Method

Participants. The participants were 154 Maquila employees (average age = 39.95 years, SD = 10.77) who worked as engineers, supervisors, office workers, and technicians. All were Hispanic with at least a high school education; the participants were also primarily male (65%). As before, the data were collected during departmental meetings with the human resources managers held in 2011. As before, because of security concerns, the authors were not permitted to attend. To collect performance data and maintain participant confidentiality, the respondents completed the questionnaires and returned them to the human resources managers face down. The managers recorded the most recent performance rating for the worker on the back of the questionnaire and placed the questionnaire into an envelope. The managers made no record of which employees participated. The envelope was sealed when all questionnaires were completed and delivered to one of the authors at a meeting both attended at a different location.

Materials

Exposure to Violence Scale (Richters & Saltzman, 1990). In this 52-item scale, participants were asked the number of times they had seen, witnessed, or heard about individuals experiencing various acts of violence (e.g., shootings, muggings, physical assaults). Participants responded on 1 (*never*) to 9 (*always*) scale (α = .75).

Psychological Strain Scale (adapted from Goldberg & Williams, 1988). A 12-item psychological strain scale was designed from previous research into a measure of well-being. Participants considered the extent to which they had experienced various thoughts or feelings in the previous weeks and responded to questions such as *Have you recently lost much sleep over worry?* on a 1 (*not at all*) to 4 (*very often*) scale (α = .66).

Job performance. Supervisors provided a single-item evaluation on each of the individual workers. Supervisors rated the job performance of the workers they supervised on a 1 (*poor*) to 4 (*excellent*) scale. Human resources managers copied these performance ratings onto the back of the questionnaires submitted by each employee.

Intention to turnover scale. The three-item turnover scale measured the participant's desire to seek other work at the individual level. Participants listed the number of times in the past few months they had looked for another job, considered looking for a job in another field, or made an effort to find another job on a 1 (*not at all*) to 5 (*extremely*) scale (α = .67).

Procedure. Workers were informed of the study by their employers and invited to participate. Participants completed paper surveys while at work and returned them to their supervisors who then delivered them to one of the authors. All surveys were offered in Spanish. Human resources managers provided job performance ratings which were on file for the participants. As before, researchers obtained approval from the university's institutional review board before initiating data collection.

Results

All variables were normally distributed. As our sample size allowed us to conduct a confirmatory factor analysis (according to the 10-to-1 ratio of indicators-to-subjects, Bryant & Yarnold, 2001), we conducted a confirmatory factor analysis of the coping variables. Our results supported the three factor structure of solitary coping, social coping, and maladaptive coping, $\chi^2(24) =$ 49.96, RMSEA = .08, CFI = .95, TLI = .92. Correlations between the variables are displayed on the Table 1. All three of the coping factors were correlated with each other. Likewise, exposure to violence was correlated with each of the coping factors, suggesting that those exposed to violence were more likely to utilize each of the three coping factors.

To explore our hypotheses, we used path analysis. Path analysis allowed for all of our hypothesized relationships to be examined simultaneously. We hypothesized direct relationships between exposure to violence and coping as well as between exposure to violence and work-related outcomes. The interactions were explored by creating composite terms by multiplying the standardized main effects together (Cortina, Chen, & Dunlap, 2001). Our initial model of moderated effects fits the data well enough for further analysis, $\chi^2(5, n = 154) = 21.85, p = .01$, CFI = .94, RMSEA = .04. As Figure 1 indicates, exposure to community violence was associated with greater likelihood to plan to seek other employment ($\beta = .92, p < .01$) but was not directly associated with job performance ($\beta = .00, p = .97$) or psychological strain ($\beta = .00, p = .80$). Thus, we found only modest evidence that community violence affected work-related outcomes directly. However, exposure to community violence did predict employees likelihood to engage in social ($\beta = .21, p < .01$), solitary ($\beta = .86, p = .02$) and maladaptive coping ($\beta = .14, p < .01$), and thus the first hypothesis was supported.

Hypothesis two stated that solitary coping would moderate the relationship between exposure to community violence and job performance. We found support for this hypothesis in that solitary coping moderated the relationship between exposure to commu-
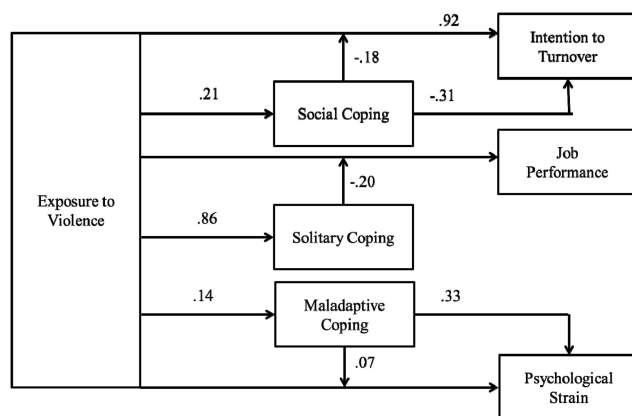

Figure 1. Path model of the relationship between exposure to violence and psychological strain, job performance, and intention to turnover as moderated by social coping, solitary coping, and maladaptive coping. Only significant paths are depicted.

nity violence and job performance, $\beta = -.19, p = .04$. These results are depicted in Figure 2 with data points for each independent variable one standard deviation above and below the mean, in the manner described by Aiken and West (1991). Tests of the simple slopes, however, were not significant ($p > .05$). Thus, the results were not exactly as hypothesized. As Figure 2 indicates, workers who engaged in solitary coping had slightly lower performance ratings when exposure to violence was high, and workers who were less likely to use solitary coping had slightly higher performance ratings when community violence was high. Thus, hypothesis two received only modest support; solitary coping appeared beneficial for those exposed to low levels of community violence but not for those exposed to high levels of community violence.

Hypothesis three posited that social coping would moderate the relationship between exposure to violence and turnover. Results indicated that social coping did moderate the effects of exposure to community violence on turnover ($\beta = -.18, p = .04$). Statistically significant interaction effects are depicted in Figure 3 in the manner specified by Aiken and West (1991). Tests of the simple slopes indicated a significant effect of exposure to violence on turnover intentions when social coping was low, $t(153) = 6.75, p < .01$, but not when social coping was high, $t(153) = 1.31, p = .19$. For workers who did not use social coping, exposure to community violence was associated with greater intention to turn-

Table 1
Standard Deviations, Means, and Interrcorrelations Among the Variables

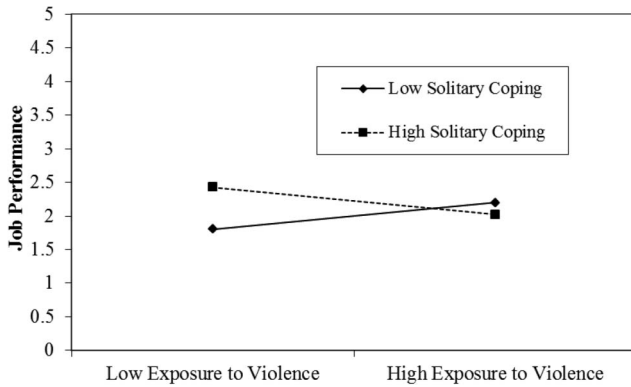| Variable	M	SD	1	2	3	4	5	6	7	8
1. Age	39.94	10.77	1							
2. Exposure to Violence	2.42	.90	−.04	.95						
3. Social Coping	2.14	.57	.05	.32*	.87					
4. Solitary Coping	1.73	.59	−.03	.31*	.39*	.83				
5. Maladaptive Coping	1.70	.46	.05	.28*	.61*	.49*	.62			
6. Psychological Strain	1.85	.44	.05	.09	.22*	.37*	.45*	.77		
7. Turnover	2.21	.55	−.03	.66*	.04	.11	.12	.11	.87	
8. Job Performance	2.32	.54	−.01	−.01	−.01	.05	.01	−.02	−.09	1

Figure 2. The relationship between exposure to violence and job performance is depicted. Ratings of job performance one standard deviation above and below the means of exposure to violence and solitary coping are displayed.

over. However, for workers who used social coping, greater exposure to community violence was not associated with greater intention to turnover. Thus, hypothesis three was supported.

Hypothesis four posited that maladaptive coping would also moderate the relationship between exposure to community violence and work-related outcomes in that workers exposed to community violence who engaged in maladaptive coping would have more negative effects than those who did not. Maladaptive coping was associated with higher levels of psychological strain ($\beta = .33$, $p < .01$). Further, maladaptive coping moderated the relationship between exposure to community violence and psychological strain (see Figure 4). Tests of simple slopes, however, were again not significant ($ps > .05$). Workers who engaged in maladaptive coping reported higher levels of psychological strain than those who did not engage in maladaptive coping regardless of how much community violence they experienced (see Figure 1), though these differences were slightly reduced when exposure to community violence was higher. Overall, hypothesis four was supported.
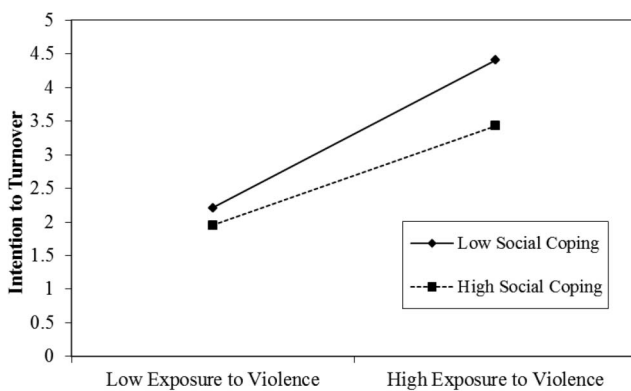

Figure 3. The relationship between exposure to violence and the intention to turnover is depicted. Scores on the Intention to Turnover scale one standard deviation above and below the means of exposure to violence and social coping are displayed.
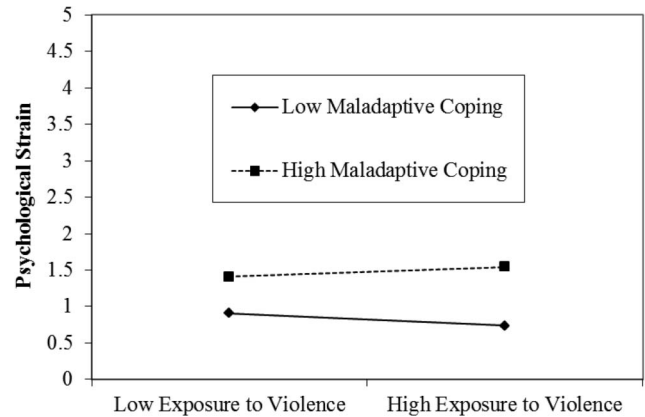

Figure 4. The relationship between exposure to violence and self-reported psychological strain is depicted. Ratings of psychological strain one standard deviation above and below the means of exposure to violence and maladaptive coping are displayed.

Discussion

The purpose of this study was to link exposure to community violence to work-related outcomes. It is one of the first to explore exposure to community violence on work-related outcomes, specifically the effects of exposure to community violence on job performance, turnover intentions, and psychological strain in the workplace. In addition, our study is one of the first to explore the coping styles employees use to cope with exposure to community violence and to examine these strategies as potential moderators of the relationship between exposure to community violence and work-related outcomes. Our results suggest that workers cope with community violence by engaging in solitary, social, and maladaptive strategies. Overall, our findings suggest that social coping appears to alleviate the relationship between exposure to violence in the community and intention to turnover. Further, solitary coping appeared to be less beneficial than social coping. Specifically, solitary coping is somewhat beneficial when exposed to low levels of community violence but not when exposed to high levels of community violence; further, solitary coping also did not predict job performance directly ($\beta = .11$, $p = .51$). Maladaptive coping modestly exacerbates the negative effects of exposure to community violence (i.e., leads to greater psychological strain after exposure to violence). Interestingly, our results suggest that the maladaptive coping resulting from exposure to community violence associated with exposure to violence leads to increased psychological strain regardless of the amount of community violence experienced. Thus, the maladaptive coping may be best understood as a negative consequence of exposure to community violence rather than as a moderator of the effect of community violence. To our knowledge, this study represents to first attempt to link exposure to community violence to work-related outcomes and to demonstrate that these effects are moderated by coping style.

The findings presented here are largely consistent with previous literature in many ways. First, in our sample, we identified three coping styles—social, solitary, and maladaptive—workers use to cope with community violence that were similar to styles previous researchers have identified (Latack & Havlovic, 1992). Second, we

also found that social coping strategies moderated these effects (Leung, Liu, & Wong, 2006; Wallace et al., 2010), and maladaptive coping strategies had a negative consequences for workers (Brown et al., 2005). Overall, as much as community violence has been found to have negative effects on members of that community, (Lee, 2012; Sharkey et al., 2012), we found that employee exposure to community violence can impact employees themselves as well as work-related outcomes. Our study contributes to the literature by connecting exposure to violence outside of the work context with work-related outcomes, and demonstrates that effective coping styles can moderate these relationships.

As with any study, there are limitations to this study which will need to be addressed in future studies. Methodologically, privacy concerns limited our ability to collect much demographic information on the samples, particularly in study one. Though variables such as gender and age were unrelated to the measured variables (all ps > .05) in study two, more detailed information about the participants would be ideal. Second, although it is fairly common to research community violence in areas of the world experiencing violence, it is possible that our findings may be specific to this particular culture and may not generalize to exposure to community violence in other cultures. Future research should explore the effects of coping styles in moderating the relationship between exposure to community violence and work-related outcomes in other cultures. Third, although we found that exposure to violence had a strong relationship to intention to turnover, we did not explore whether intention to turnover reflected an intention to leave this position or leave the entire community. Our findings suggest that employees using social support may be more willing to remain at the organization, but whether those who intend to leave are seeking a safer organization within the community or to simply leave the community is an unanswered question. Future studies may seek to specify in greater detail whether exposure to violence leads individuals to seek safer workplaces within the community or to leave the community entirely.

In terms of theory, our study contributes to a growing body of literature which connects theories of work-related stress (such as the job demands-resource theory and conservation of resources theory) and coping theory. Specifically, both coping theory and theories of work-related stress have identified social support as an effective style for mitigating environmental stressors and job demands (Burgess et al., 2010). We also explored the utility of solitary coping styles, which have been incorporated into conservation of resources theory previously (Hobfoll, 2001). We further contribute to the literature by connecting solitary, social, and maladaptive coping styles to specific work-related outcomes (job performance, turnover, and psychological strain, respectively). Overall, our study supports the notion that researchers exploring the effects of exposure to violence on workplace performance may seek to expand the theory to both outside the physical workplace (to community violence) and within the employee (to coping styles), as other researchers have suggested (Dietz et al., 2003; Johns, 2006).

The findings of this study have important implications for managers working in areas with greater levels of community violence. Such managers may need to be aware that the presence of community violence predicts all three coping styles (as reflected in the positive correlations between community violence and coping strategies). The presence of community violence, then, may

predict increased drug or alcohol use among employees as a coping mechanism. Managers may benefit from designing interventions to lead employees away from maladaptive strategies and toward social coping strategies, such as seeking psychological or instrumental support. Our findings have important implications for cross-cultural researchers as well. Bhagat et al. (2010) argued that the success of a coping strategy depends on the cultural context in which that strategy is used (see also Alarcon et al., 2013). In their study, problem-focused coping was more successful in individualist cultures such as the United States and New Zealand whereas emotion-focused coping was more successful in collectivist countries such as Spain and Japan. However, our findings suggest that maladaptive strategies may be ineffective across cultures. Further, our findings are consistent with and contribute to anthropological evidence exploring coping strategies in Mexico. For example, Hooker (2003) identified several mechanisms for coping with psychological strain that are common in Mexico and argued that machismo, religion, lively festivals, and a strong reliance on family were all mechanisms for reducing psychological strain in Mexican culture. Many of these strategies (e.g., religion, seeking emotional support) were identified as social coping in this study and were effective at moderating the effects of exposure to community violence. This study, then, may provide additional empirical support for the effectiveness of these coping strategies in mitigating the effects of exposure to community violence in Mexico.

Organizational researchers have been called to pay additional attention to contextual factors' effects on organizational outcomes (Dietz et al., 2003; Johns, 2006). Exploring contextual factors, particularly societal factors, in relation to research on the impact of exposure to violence may be particularly important. Our study demonstrates that the effects of contextual, external factors on organizational outcomes can be understood through the coping mechanisms employees utilize in response to exposure to community violence. As researchers have argued that coping strategies must be evaluated in context and in response to particular stressors (Alarcon et al., 2013), one important contribution of this study is that this study is one of the first to explore the coping strategies employees adopt in response to community violence. Our study suggests that traditional workplace stress theories—such as the conservation of resources theory—may benefit by expanding to events external to the workplace. Our findings demonstrate that the strategies employees use to cope with experiencing community violence can affect their likelihood to leave the organization, their experience of psychological strain, and to some extent their job performance. Future studies may seek to identify psychological and emotional variables that may act as mediating mechanisms between exposure to community violence and work-related outcomes. Future researchers may also explore whether providing training for managers and employees in coping strategies in areas where there are high levels of community violence can be an effective technique for organizations to use to minimize negative work-related outcomes. Enabling employees to cope in optimal ways related to work-related outcomes may be a necessary investment, particularly because community violence is beyond the organization's control but promoting opportunities for social coping with other employees may be within the organization's control (Heaney, Price, & Rafferty, 1995).

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Alarcon, G. M., Edwards, J. M., & Clark, P. C. (2013). Coping strategies and first year performance in postsecondary education. *Journal of Applied Social Psychology, 43,* 1676–1685. http://dx.doi.org/10.1111/jasp.12120

Anshel, M. H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior, 27,* 375–400. http://dx.doi.org/10.1177/0093854800027003006

Arnold, H. J., & Feldman, D. C. (1982). A multivariate analysis of the determinants of turnover. *Journal of Applied Psychology, 67,* 350–360. http://dx.doi.org/10.1037/0021-9010.67.3.350

Barling, J., Dupré, K. E., & Kelloway, E. K. (2009). Predicting workplace aggression and violence. *Annual Review of Psychology, 60,* 671–692. http://dx.doi.org/10.1146/annurev.psych.60.110707.163629

Baron, J. N., Hannan, M. T., & Burton, M. D. (2001). Labor pains: Change in organizational models and employee turnover in your high-tech firms. *American Journal of Sociology, 106,* 960–1012. http://dx.doi.org/10.1086/320296

Bergin, P., Feenstra, R., & Hanson, G. (2009). Offshoring and volatility: Evidence from Mexico's maquiladora industry. *The American Economic Review, 99,* 1664–1671. http://dx.doi.org/10.1257/aer.99.4.1664

Bhagat, R. S., Krishnan, B., Nelson, T. A., Leonard, K. M., Ford, D. L., & Billing, T. K. (2010). Organizational stress, psychological strain, and work outcomes in six national contexts: A closer look at the moderating influences of coping styles and decision latitude. *Cross Cultural Management: An International Journal, 17,* 10–29. http://dx.doi.org/10.1108/13527601011016880

Bond, S. A., Tuckey, T. M., & Dollard, M. F. (2010). Psychological safety climate, workplace bullying and symptoms of posttraumatic stress. *Organization Development Journal, 28,* 37–56.

Borofsky, L. A., Kellerman, I., Baucom, B., Oliver, P. H., & Margolin, G. (2013). Community violence exposure and adolescents' school engagement and academic achievement over time. *Psychology of Violence, 3,* 381–395. http://dx.doi.org/10.1037/a0034121

Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology, 53,* 279–307. http://dx.doi.org/10.1146/annurev.psych.53.100901.135156

Brown, S. P., Westbrook, R. A., & Challagalla, G. (2005). Good cope, bad cope: Adaptive and maladaptive coping strategies following a critical negative work event. *Journal of Applied Psychology, 90,* 792–798. http://dx.doi.org/10.1037/0021-9010.90.4.792

Bryant, F. B., & Yarnold, P. R. (2001). Principal-components analysis and exploratory and confirmatory factor analysis. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understand multivariate statistics* (pp. 99–136). Washington, DC: American Psychological Association.

Burgess, L., Irvine, F., & Wallymahmed, A. (2010). Personality, stress and coping in intensive care nurses: A descriptive exploratory study. *Nursing in Critical Care, 15,* 129–140. http://dx.doi.org/10.1111/j.1478-5153.2009.00384.x

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine, 4,* 92–100. http://dx.doi.org/10.1207/s15327558ijbm0401_6

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56,* 267–283. http://dx.doi.org/10.1037/0022-3514.56.2.267

Cortina, J., Chen, G., & Dunlap, W. P. (2001). Testing interaction effects in LISREL: Examination and illustration of available procedures. *Organizational Research Methods, 4,* 324–360. http://dx.doi.org/10.1177/109442810144002

DeLongis, A., & Holtzman, S. (2005). Coping in context: The role of stress, social support, and personality in coping. *Journal of Personality, 73,* 1633–1656. http://dx.doi.org/10.1111/j.1467-6494.2005.00361.x

Dietz, J., Robinson, S., Folger, R., Baron, R. A., & Schulz, M. (2003). Impact of community violence and an organization's procedural justice climate in workplace aggression. *Academy of Management Journal, 46,* 317–326. http://dx.doi.org/10.2307/30040625

Dollard, M. F., Opie, T., Lenthall, S., Wakerman, J., Knight, S., Dunn, S., . . . MacLeod, M. (2012). Psychological safety climate as an antecedent of work characteristics and psychological strain: A multilevel model. *Work & Stress, 26,* 385–404. http://dx.doi.org/10.1080/02678373.2012.734154

Dunahoo, C. L., Hobfoll, S. E., Monnier, J., Hulsizer, M., & Johnson, R. (1998). Even the Lone Ranger had Tonto: Part 2. There's more than rugged individualism in coping. *Anxiety, Stress, & Coping, 11,* 137–165. http://dx.doi.org/10.1080/10615809808248309

Epstein-Ngo, Q., Maurizi, L. K., Bregman, A., & Ceballo, R. (2013). In response to community violence: Coping strategies and involuntary stress responses among Latino adolescents. *Cultural Diversity & Ethnic Minority Psychology, 19,* 39–49. http://dx.doi.org/10.1037/a0029753

Esperanza, L., Luisa, M. M., Fabiola, F., & Adriana, P. (2008). Volcanic risk exposure, feelings of insecurity, stress, and coping strategies in Mexico. *Journal of Applied Social Psychology, 38,* 2885–2902. http://dx.doi.org/10.1111/j.1559-1816.2008.00417.x

Fausset, R. (2012, August 21). Amid drug war, Mexico homicide rates up for fourth straight year. *Los Angeles Times*. Retrieved from http://latimesblogs.latimes.com/world_now/2012/08/in-midst-of-drug-war-mexican-homicide-rate-increase-for-fourth-straight-year.html

Folkman, S., & Larzarus, R. S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

Fowler, P. J., Tompsett, C. J., Braciszewski, J. M., Jacques-Tiura, A. J., & Baltes, B. B. (2009). Community violence: A meta-analysis on the effect of exposure and mental health outcomes of children and adolescents. *Development and Psychopathology, 21,* 227–259. http://dx.doi.org/10.1017/S0954579409000145

Glebbeek, A. C., & Bax, E. H. (2004). Is high employee turnover really harmful? An empirical test using company records. *Academy of Management Journal, 47,* 277–286. http://dx.doi.org/10.2307/20159578

Goeke-Morey, M. C., Cummings, E. M., Ellis, K., Merrilees, C. E., Schermerhorn, A. C., Shirlow, P., & Cairns, E. (2009). The differential impact on children of inter- and intra-community violence in Northern Ireland. *Peace and Conflict: Journal of Peace Psychology, 15,* 367–383. http://dx.doi.org/10.1080/10781910903088932

Goldberg, D., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. Windsor, UK: NFER-Nelson.

Griffin, R., & Lopez, Y. P. (2005). "Bad behavior" in organizations: A review and typology for future research. *Journal of Management, 31,* 988–1005. http://dx.doi.org/10.1177/0149206305279942

Guterman, N. B., Haj-Yahia, M. M., Vorhies, V., Ismayilova, L., & Leshem, B. (2010). Help-seeking and internal obstacles to receiving support in the wake of community violence exposure: The case of Arab and Jewish adolescents in Israel. *Journal of Child and Family Studies, 19,* 687–696. http://dx.doi.org/10.1007/s10826-010-9355-x

Hauge, L. J., Skogstad, A., & Einarsen, S. (2010). The relative impact of workplace bullying as a social stressor at work. *Scandinavian Journal of Psychology, 51,* 426–433.

Heaney, C. A., Price, R. H., & Rafferty, J. (1995). Increasing coping resources at work: A field experiment to increase social support, improve work team functioning, and enhance employee mental health. *Journal of Organizational Behavior, 16,* 335–352.

Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupre, K. E., Inness, M., LeBlanc, M. M., & Sivanathan, N. (2007). Predicting workplace aggression: A meta-analysis. *Journal of Applied Psychology, 92,* 228–238. http://dx.doi.org/10.1037/0021-9010.92.1.228

Ho, M. Y., & Cheung, F. M. (2010). The differential effects of forms and settings of exposure to violence on adolescents' adjustment. *Journal of Interpersonal Violence, 25,* 1309–1337. http://dx.doi.org/10.1177/0886260509340548

Hobfoll, S. E. (1989). Conservation of resources. A new attempt at conceptualizing stress. *American Psychologist, 44,* 513–524. http://dx.doi.org/10.1037/0003-066X.44.3.513

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process advancing conservation of resources theory. *Applied Psychology, 50,* 337–421. http://dx.doi.org/10.1111/1464-0597.00062

Hogh, A., & Mikkelsen, E. G. (2005). Is sense of coherence a mediator or moderator of relationships between violence at work and stress reactions? *Scandinavian Journal of Psychology, 46,* 429–437. http://dx.doi.org/10.1111/j.1467-9450.2005.00474.x

Hoobler, J. M., Rospenda, K. M., Lemmon, G., & Rosa, J. A. (2010). A within-subject longitudinal study of the effects of positive job experiences and generalized workplace harassment on well-being. *Journal of Occupational Health Psychology, 15,* 434–451. http://dx.doi.org/10.1037/a0021000

Hooker, J. (2003). *Working across cultures.* Stanford, CA: Stanford University Press.

Hunter, L. W., & Thatcher, S. M. B. (2007). Feeling the heat: Effects of stress, commitment, and job experience on job performance. *Academy of Management Journal, 50,* 953–968. http://dx.doi.org/10.5465/AMJ.2007.26279227

Johns, G. (2006). The essential impact of context on behavior. *The Academy of Management Review, 31,* 386–408. http://dx.doi.org/10.5465/AMR.2006.20208687

Kapsou, M., Panayiotou, G., Kokkinos, C. M., & Demetriou, A. G. (2010). Dimension of coping: An empirical contribution to the construct validation of the Brief-COPE with a Greek-speaking sample. *Journal of Health Psychology, 15,* 215–229. http://dx.doi.org/10.1177/1359105309346516

Kliewer, W., & Zaharakis, N. (2013). Community violence exposure, coping, and problematic alcohol and drug use among urban, female caregivers: A prospective study. *Personality and Individual Differences, 55,* 361–366. http://dx.doi.org/10.1016/j.paid.2013.03.020

Krägeloh, C. U. (2011). A systematic review of studies using the Brief COPE: Religious coping in factor analysis. *Religions, 2,* 216–246. http://dx.doi.org/10.3390/rel2030216

Latack, J. C., & Havlovic, S. J. (1992). Coping with job stress: A conceptual evaluation framework for coping measures. *Journal of Organizational Behavior, 13,* 479–508. http://dx.doi.org/10.1002/job.4030130505

LeBlanc, M. M., & Kelloway, E. K. (2002). Predictors and outcomes of workplace violence and aggression. *Journal of Applied Psychology, 87,* 444–453. http://dx.doi.org/10.1037/0021-9010.87.3.444

Lee, R. (2012). Community violence exposure and adolescent substance use: Does monitoring and positive parenting moderate risk in urban communities? *Journal of Community Psychology, 40,* 406–421. http://dx.doi.org/10.1002/jcop.20520

Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81,* 123–133. http://dx.doi.org/10.1037/0021-9010.81.2.123

Lee, Y. S. C., Suchday, S., & Wylie-Rosett, J. (2012). Perceived social support, coping styles, and Chinese immigrants' cardiovascular responses to stress. *International Journal of Behavioral Medicine, 19,* 174–185. http://dx.doi.org/10.1007/s12529-011-9156-7

Leung, M., Liu, A. M. M., & Wong, M. M. (2006). Impact of stress-coping behavior on estimator performance. *Construction Management and Economics, 24,* 55–67. http://dx.doi.org/10.1080/01446190500228381

Lovett, S., Coyle, T., Banerjee, G., & Hardebeck, S. (2008). Measuring managerial effectiveness in handling pay cuts. *Journal of Applied Management and Entrepreneurship, 12,* 23–46.

Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology, 51,* 445–479. http://dx.doi.org/10.1146/annurev.psych.51.1.445

Martinko, M. J., Gundlach, M. J., & Douglas, S. C. (2002). Toward an integrative theory of counterproductive work behavior: A causal reasoning perspective. *International Journal of Selection and Assessment, 10,* 36–50. http://dx.doi.org/10.1111/1468-2389.00192

Molzahn, C., Ferreira, O. R., & Shirk, D. (2013). *Drug violence in Mexico: Data and analysis through 2012.* San Diego, CA: University of San Diego, Trans-Border Institute. Retrieved from http://justiceinmexico.files.wordpress.com/2013/02/130206-dvm-2013-final.pdf

Monnier, J., Hobfoll, S. E., Dunahoo, C. L., Hulsizer, M., & Johnson, R. (1998). There's more than rugged individualism in coping: Part 2. Construct validity and further model testing. *Anxiety, Stress, & Coping, 11,* 247–272. http://dx.doi.org/10.1080/10615809808248314

Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology, 71,* 618–629. http://dx.doi.org/10.1037/0021-9010.71.4.618

Muhammad, J., Naser, K., Khan, A., Tahir Jan, M., & Soharwardi, S. (2011). Effects of job stress on job performance and job satisfaction. *Interdisciplinary Journal of Research in Business, 3,* 453–465.

Newman, D. A., Kinney, T., & Farr, J. T. (2004). Job performance ratings. In J. C. Thomas (Ed.), *Comprehensive handbook of psychological assessment: Industrial and organizational assessment* (Vol. 4, pp. 373–389). Hoboken, NJ: Wiley & Sons.

Parasuraman, R., & Hansen, D. (1987). Coping with work stressors in nursing: Effects of adaptive versus maladaptive strategies. *Work and Occupations, 14,* 88–105. http://dx.doi.org/10.1177/0730888487014001005

Prati, G., & Pietrantoni, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma, 14,* 364–388. http://dx.doi.org/10.1080/15325020902724271

Pynoos, R. S., & Nader, K. (1988). Psychological first aid and treatment approach to children exposed to community violence: Research implications. *Journal of Traumatic Stress, 1,* 445–473. http://dx.doi.org/10.1002/jts.2490010406

Reyes, F. J. (January 1, 2012). Coping as a mediator between proximity to violence in Juarez, and PTSD symptoms among college students attending a university in the Texas—Mexico border. *ETD Collection for the University of Texas, El Paso.* Retrieved from http://digitalcommons.utep.edu/dissertations/AAI1518241

Richters, J. E., & Saltzman, W. (1990). *Survey of Exposure to Community Violence: Self-report Version.* Rockville, MD: National Institute of Mental Health.

Rogers, K. A., & Kelloway, E. K. (1997). Violence at work: Personal and organizational outcomes. *Journal of Occupational Health Psychology, 2,* 63–71. http://dx.doi.org/10.1037/1076-8998.2.1.63

Scarpa, A., Haden, S. C., & Hurley, J. (2006). Community violence and symptoms of posttraumatic stress disorder. *Journal of Interpersonal Violence, 21,* 446–469.

Schat, A. C. H., & Frone, M. R. (2011). Exposure to psychological aggression at work and work performance: The mediating role of job attitudes and personal health. *Work & Stress: An International Journal of Work. Health & Organizations, 25,* 23–40.

Schwab-Stone, M., Koposov, R., Vermeiren, R., & Ruchkin, V. (2013). Cross-cultural findings on community violence exposure and internalizing psychopathology: Comparing adolescents in the United States, Russia, and Belgium. *Child Psychiatry and Human Development, 44,* 516–524. http://dx.doi.org/10.1007/s10578-012-0344-8

Sharkey, P. T., Tirado-Strayer, N., Papachristos, A. V., & Raver, C. C. (2012). The effect of local violence on children's attention and impulse control. *American Journal of Public Health, 102,* 2287–2293. http://dx .doi.org/10.2105/AJPH.2012.300789

Shields, N., Nadasen, K., & Pierce, L. (2009). A comparison of the effects of witnessing community violence and direct victimization among children in Cape Town, South Africa. *Journal of Interpersonal Violence, 24,* 1192–1208. http://dx.doi.org/10.1177/0886260508322184

Shin, H., Park, Y. M., Ying, J. Y., Kim, B., Noh, H., & Lee, S. M. (2014). Relationships between coping strategies and burnout symptoms: A meta-analytic approach. *Professional Psychology: Research and Practice, 45,* 44–56. http://dx.doi.org/10.1037/a0035220

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129,* 216–269. http://dx.doi.org/10.1037/0033-2902.129.2.216

Spector, P. E., & Fox, S. (2005). The stressor-emotion model of counter-productive work behavior. In S. Fox & P. E. Spector (Eds.), *Counter-productive work behavior: Investigations of actors and targets* (pp. 151–174). Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/10893-007

Wallace, S. L., Lee, J., & Lee, S. M. (2010). Job stress, coping strategies and burnout among abuse-specific counselors. *Journal of Employment Counseling, 47,* 111–122. http://dx.doi.org/10.1002/j.2161-1920.2010 .tb00096.x

Wittmer, J. S., Sinclair, R. R., Martin, J. E., Tucker, J. S., & Lang, J. (2013). Shared aggression concerns and organizational outcomes: The moderating role of resource constraints. *Journal of Organizational Behavior, 34,* 370–388. http://dx.doi.org/10.1002/job.1807

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology, 83,* 486–493. http://dx.doi.org/10.1037/0021-9010.83.3 .486

Yi, S., Poudel, K. C., Yasuoka, J., Yi, S., Palmer, P. H., & Jimba, M. (2013). Exposure to violence in relation to depressive symptoms among male and female adolescent students in Cambodia. *Social Psychiatry and Psychiatric Epidemiology, 48,* 397–405. http://dx.doi.org/10.1007/ s00127-012-0553-2