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## A Comparison of Firefighters and Police Officers: The Influence of Gender and Relationship Status

### Keywords

firefighters, police officers, gender, relationship status

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Tammy J. Shaffer

*Differences between fire department and police department personnel (N = 190) concerning work-related stressors and depression were examined with regard to gender and relationship status. Participants completed the Beck Depression Inventory–II (A. T. Beck, R. A. Steer, & G. K. Brown, 1996) and the Distressing Event Questionnaire (E. S. Kubany, M. B. Leisen, A. S. Kaplan, & M. P. Kelly, 2000). Recommendations are made concerning what crisis theories, both traditional and nontraditional, counselors should be aware of, as well as how simply working with trauma survivors can be traumatizing. E. Erikson's psychosocial stages (as cited in J. R. Studer, 2007) are considered in the framework of adult development.*

Critical events are typically unpredictable and powerful; they can disrupt an entire community for an extended period of time. These events include natural disasters, such as hurricanes, and accidental disasters, such as airline crashes or house fires. Some disasters are deliberate and man made, such as terrorist attacks (Baum, Fleming, & Singer, 1983; Duckworth, 1991). In today's society, exposure to a traumatic or critical event is not highly unlikely. B. L. Green (1994) asserted, "up to three-quarters of the general population in the United States [have] been exposed to some event in their lifetime that might consensually be defined as traumatic" (p. 342).

It is interesting to note that the majority of research regarding posttraumatic stress disorder (PTSD) gives attention to direct victims. "Nearly all publications focusing on people confronted with extreme stress events exclude those who have experienced the event indirectly or secondarily and concentrate on those who were directly traumatized" (Figley & Kleber, 1995, p. 77). However, research that was focused on how critical incidents affect emergency personnel began emerging as early as 1980 (Stamm, 1997). This development was important because emergency care workers are typically the first to respond to a critical incident or disaster, particularly workers providing fire and police services (Duckworth, 1991). Ursano, Fullerton, and Norwood (1995) identified emergency care workers, children, heroes, and the physically wounded as being at higher risk for developing psychiatric symptoms subsequent to experiencing high levels of stress.

There has been growing concern about the impact of critical events on emergency personnel. Emergency care workers such as firefighters and police officers

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are at higher risk for psychological disorders and substandard work performance than are individuals in the general population (Figley, 1995; Haslam & Mallon, 2003; McCann & Pearlman, 1990; Rudolph, Stamm, & Stamm, 1997; Ursano et al., 1995). Work stress affects emergency personnel (Del Ben, Scotti, Chen, & Fortson, 2006; O'Driscoll & Cooper, 1994). Many variables may influence how firefighters or law enforcement officers react to and manage the stress of their employment. Variables considered for this article included gender and involvement in an emotionally significant relationship.

## **GENDER AND TRAUMA EXPOSURE**

Few studies in the literature explore the direct effects of gender in response to trauma. This is significant, because the number of women entering trauma-related fields that have been traditionally dominated by men is growing. In 1970, women were only 2% of the police force (Price, 1996). The U.S. Department of Labor, Bureau of Labor Statistics (BLS; n.d.) reported that women compose 14.7% of the national police workforce. The number of female firefighters continues to grow; in 2008, 4.8% of firefighters were women (BLS, n.d.).

Gender may influence the development of psychopathology subsequent to traumatic events. Women have twice the rate of PTSD that men have after a critical incident (Breslau et al., 1998; Tucker, Pfefferbaum, Nixon, & Dickson, 2000). Norris (1992) asserted that women were more vulnerable to developing PTSD because they perceive that their lives are more stressful than those of men. Norris also stated that there might be a relationship between this perception and the reality that women were more likely to be victims of violent crime; B. L. Green (1994) cited a study by Kilpatrick and Resnick in which 75% of the women surveyed had been victimized in at least one crime incident. Brewlin, Andrews, and Valentine (as cited in Del Ben et al., 2006) stated that gender was a variable of importance in predicting outcome subsequent to trauma exposure.

## **RESPONSE TO TRAUMA**

Problems resulting from disaster exposure in the line of duty can range from those that are transient and self-correcting to those that are "longer-term, incapacitating, and meet the criteria for psychological or psychiatric disorder" (Duckworth, 1991, p. 15). Everly and Mitchell (1993) stated that the likelihood of developing PTSD over the span of a career in an emergency response profession was approximately 16%; other researchers put the figures at 22.2% in the United States (Heinrichs et al., 2005). Del Ben et al. (2006) reported that the figure ranged from 6.5% to as high as 37%. In the United States, more than 650 firefighters retire each year as a result of occupational illness, including psychological turmoil (Ursano et al., 1995). Firefighters and police officers are at high risk for the development of posttrauma difficulties that can have an impact on their careers (Duckworth, 1991). Emotional conflicts and feelings of anger, hatred, and intense apprehension reduce emergency care workers' ability to respond effectively (Gentry, Baranowsky, & Dunning, 1997; Ursano et

al., 1995), even as they often put their personal safety in jeopardy and ignore personal risk while attempting to help victims. Duckworth (1991) asserted that emergency care workers had “great concern [about] the quality of their professional performance in the life and death situations they work in” (p. 14).

## RELATIONSHIP ATTACHMENT AND TRAUMA

As previously stated, involvement in a significant emotional relationship may influence the degree to which one receives effective emotional support, which may lessen symptoms of stress and depression, regardless of gender (Myers, 2001). Relationships can influence whether or not one seeks counseling services. Kouzis, Ford, and Eaton (2000) found that married persons requested counseling services less frequently than did their single counterparts, as did individuals with strong connections to family members. Kouzis et al. maintained that persons lacking strong social connections with family were “five times more likely to seek professional help” (p. 65). Lack of significant relationships and social support during a severe disaster may profoundly test community and social support systems currently in place, further hindering the emotional recovery of emergency care workers (Haslam & Mallon, 2003; Kouzis et al., 2000).

There are also gender differences in how individuals request support from their significant other. Research has indicated that men are less skilled in requesting support from their spouses or family and that women actually have the ability to modify how they present their emotions to others in such a way that helps them receive the emotional support they need (Barbee et al., 1993). Men tend to report greater dissatisfaction with the level of support they receive from their family and friend networks than do women (Barbee et al., 1993). This fact may be a result of differences in how men and women approach others when in need of emotional assistance. The therapeutic healing from PTSD is largely enhanced when one has the skills needed to maintain a circle of support (Heinrichs et al., 2005). Women tend to be direct and display their emotions until their husbands respond to their nonverbal cues, whereas men may be more likely to sulk or deny that anything is wrong when asked whether or not something is disturbing them. Barbee et al. (1993) stated that wives and significant others should persevere when they suspect that their male partners are distressed by asking questions until an affirmative response is forthcoming, thereby positioning themselves to offer support and assistance and thus helping to relieve the distressing emotions. These communication traits further underscore the need for gender research.

## RESPONSES OF EMERGENCY RESPONDERS

Myers (2001) presented several symptoms that emergency responders were likely to experience. These symptoms were described as emotional, cognitive, and physiological symptoms. Emotional symptoms included shock, disbelief, dread, anguish, anger, and a pressing motivation to take action in response to the critical event. In addition, emergency responders frequently felt torn between their commitment to

their professional duties and their responsibility and loyalty to their families (Myers, 2001). Interestingly, as a result of such cognitive distortions, emergency care workers may also become self-destructive and predisposed to increased violence and antisocial behavior, which is the antithesis of their professional endeavors (Spitzer & Burke, 1993). These tumultuous feelings, emotional conflicts, and difficulty expressing emotional needs could even lead to an increase in family violence. According to Myers, family violence increased in both fire and police department families among responders to the Oklahoma City Federal Building bombing in 1995. Furthermore, divorce rates increased 25%–30% and 300% for police and fire department personnel, respectively (Myers, 2001).

McNally and Solomon (1999) and Shelby and Tredinnick (1995) asserted that cognitive distortions and disorganization might occur postdisaster. Cognitive symptoms included difficulty recalling information, lack of ability to maintain focus and concentration, reduced capacity for problem solving, and less effective communication skills (Myers, 2001). Emergency care responders, including law enforcement officers, may experience disapproving and unfounded thoughts about their performance in responding to the critical incident and may even entertain the irrational thought that they are somehow responsible for the incident or resulting destruction (McNally & Solomon, 1999).

B. L. Green (1994) also stated that postdisaster risk of psychological pathology was higher among individuals who had previous psychiatric diagnoses; he added that the following also precipitate the development of PTSD and other psychological sequelae postdisaster: “low education/social class . . . prior trauma, and a family history of psychiatric problems. Women are usually shown to be at more risk as well” (p. 356). In studying military personnel, it was found that female military personnel exceeded the criteria for PTSD and reported distressing psychological symptoms at more than twice the rate of men after exposure to a military stressor (Wolfe, Erickson, Sharkansky, King, & King, 1999).

Men are reported to be more likely than women to be exposed to trauma (Deykin & Buka, 1997), but women may be at higher risk of developing PTSD after exposure to a critical incident (B. L. Green, 1994; Litz, Orsillo, Friedman, Ehlich, & Batres, 1997; Norris, 1992). Fullerton et al. (2001) found that “women are 2.38–2.49 times more likely to develop lifetime PTSD than men after exposure to similar traumas” (p. 1486). Women have also been reported to experience a higher rate of anxiety, depression, and somatic complaints (Tucker et al., 2000), whereas men are reported to have a higher incidence of alcohol and drug abuse (Breslau et al., 1998). The American Psychiatric Association (APA; 2000) asserted that the lifetime risk for a major depressive disorder ranges from 10% to 25% for females and 5% to 12% for males. This gender discrepancy may be partially elucidated when considering that females are exposed to a higher rate of sexual abuse, rape, domestic violence, and other types of violence than males are (Breslau et al., 1998).

Because women are now entering fields that have high exposure to critical occurrences, they are experiencing an increasing risk of developing depression and PTSD. Engdahl, Dikel, Eberly, and Blank (1997) found that women had a lifetime

prevalence rate of trauma exposure of 74.2%, whereas, for the current study, the rate was 81.3%. However, Engdahl et al. also found that a significantly higher number of women than men displayed signs of current PTSD symptomatology. According to Engdahl et al., partial PTSD is as common as full PTSD, and significantly more women than men suffer from partial PTSD.

## **STUDY DESIGN**

The principal purpose of this study was to determine the influence of gender and relationship status on participants' scores on the Distressing Event Questionnaire (DEQ; Kubany, Leisen, Kaplan, & Kelly, 2000) and the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996). Participants were fire and police department personnel in a southwestern urban setting.

### **Research Design**

A preexperimental, one-shot case study design was used (Bieger & Gerlach, 1996). This design required the implementation of a treatment, “following which an observation was conducted. The implied assumption was that whatever happened in the treatment influenced what was found in the observation” (Bieger & Gerlach, 1996, p. 52). One purpose of this type of design is to enable the researcher to make limited references regarding the influence of the treatment. A correlational analysis was conducted to determine relationships, if any, between and among gender and relationship status and their effect on the psychological well-being of the participants of the study. Anonymous demographic data were also obtained with each assessment.

To analyze the survey research, a Pearson  $r$  was conducted to determine correlations between the BDI-II and the DEQ. Other hypotheses were examined using the  $t$  test of independence and analysis of variance to determine differences and interactions between and among years of experience, ethnicity, and relationship status. The researcher (the author) obtained verbal informed consent from the participants prior to their taking the assessments during their respective shifts as emergency care workers. There were 190 respondents. This number permitted some generalizations to be made regarding the population of emergency care workers.

### **Sampling Procedure**

A sample, a subset of the population, was used in this study. This researcher assumed that the sample would meet the assumptions of homogeneity of variance and a representation of the population of emergency care workers. The convenience sampling technique was used to select the sample. The sample consisted of 190 participants from a southwestern city. Of this number, 91 were firefighters and 99 were police officers. The  $t$  test of independence was used to determine differences among the variables, as revealed by means of scores on the BDI-II and the DEQ.

### **Instruments**

The BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), introduced in 1961, has been widely used. It was revised in 1971 and again in 1996 (BDI-II) to

correlate with diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; APA, 2000). The BDI-II (Beck et al., 1996), is a 21-item, self-report inventory that measures traits of depression.

The BDI-II has a reliability coefficient alpha of .92 (Beck et al., 1996). Internal consistency ranges from .73 to .92. Test–retest reliability has been questioned. Beck et al. (1996) were concerned that memory would artificially inflate retest scores. When conducting alternate test–retest reliability studies, Groth-Marnat (1990) found that test–retest reliability ranged from .48 to .86, depending on the interval and type of population responding. However, Beck et al. (1996) found test–retest reliability to be .93, significant at the .001 level. Numerous correlational studies comparing the BDI-II with other instruments have indicated strong convergent and discriminant validity ( $r = .68$  with the Beck Hopelessness Scale, Beck, 1987;  $r = .71$  with the Hamilton Depression Rating Scale, Hamilton, 1960). Factorial validity is .95. According to Beck et al. (1996), “the sensitivity of the test was considered more important than specificity . . . to decrease the probability of any false negatives” (p. 11).

Ranges for determining severity of depression were established using receiver operating characteristic curves (Beck et al., 1996). Four levels of scores were established using total scores from the BDI-II, which categorized depression as *minimal* (0–13), *mild* (14–19), *moderate* (20–28), or *severe* (29–63). The BDI-II takes approximately 5 to 10 minutes to complete and can be self-administered (Beck et al., 1996).

The DEQ was developed to enhance the completion rate in settings where timeliness is critical, such as emergency rooms. Psychometrics are currently being determined for the DEQ. According to the developer of the measure (E. S. Kubany, personal communication, May 23, 2003), a total score greater than 25 indicates the presence of PTSD. The DEQ assesses criteria for diagnosing PTSD using either the *DSM-IV-TR* or cut-off scores (Kubany et al., 2000). Kubany et al. (2000) reported that internal consistency ranged from .94 to .95 for the entire scale. Test–retest correlation for the DEQ was .95.

### Data Collection Procedure

Permission to conduct the study was granted by the human subjects committee at a large urban university. The researcher made personal contact with the directors of public relations and psychological services at the police and fire departments of the southwestern city and provided them with information regarding the proposed study and possible benefits to their organizations. After obtaining permission, the researcher met with fire and police department participants at their respective sites.

At the police department, the researcher attended police roll call and explained the purpose of the study. The assessment procedures were explained to the participants, and their verbal informed consent was obtained. Confidentiality and anonymity were assured. Participants were apprised that participation was voluntary and that they could discontinue the assessment at any time with no repercussions. The survey packets, not numbered or identifiable, were placed in brown 8½ × 11-inch envelopes and distributed. The BDI-II and the DEQ



were administered. The BDI-II uses a Likert-type scale and takes approximately 10 minutes to complete. The DEQ typically takes fewer than 10 minutes to complete and also uses a Likert-type scale. Testing time for participants ranged from 10 to 30 minutes. Upon completion, the packets were placed in a bin provided by the researcher, who returned to the police substation within a few days to retrieve them.

Similar procedures were followed with the fire department. The fire captain summoned district substation personnel to one central station, where they met with the researcher. However, this time, after information was provided regarding informed consent, confidentiality, and voluntary participation, the fire department participants completed the packets while the researcher waited and received the packets after they had been completed.

## DATA ANALYSIS

### Demographic Data

Respondents were recruited from a police department and fire department in an urban southwestern city. These emergency care workers completed the instruments.

*Gender.* Of the 190 respondents who completed the study, 175 were men (92.12%) and 15 were women (7.88%). Eighty-five percent of the surveys distributed to the police personnel were completed and returned. The fire department had a return rate of 84%. Ninety-one firefighters completed the instruments, 85 men (93.4%) and 6 women (6.6%). Ninety-nine police officers completed the instruments, 90 men (90.9%) and 9 women (9.1%).

*Age.* The respondents' ages ranged from 22 years to 59 years within the police department and 25 years to 55 years within the fire department. The mean age of firefighters ( $M = 38.98$  years,  $SD = 7.9$ ) was greater than the mean age of police officers ( $M = 34.62$ ,  $SD = 5.87$ ).

*Ethnicity.* The majority of the respondents were Anglo American (48.4% within the fire department and 60.6% within the police department), followed by African Americans (37.4% within the fire department and 20.2% within the police department), Hispanic Americans (8.8% within the fire department and 13.1% within the police department), and other (5.5% within the fire department and 6.1% within the police department).

### Years of Experience

Years of experience ranged from 3 months to 31 years. This information is presented in Table 1. The mean length of experience for the firefighters was 14.05 years ( $M = 14.05$ ,  $SD = 9.30$ ). The mean length of experience for the police officers was 9.43 years ( $M = 9.43$ ,  $SD = 6.32$ ).

**TABLE 1**  
**Years of Experience of Fire and Police Department Personnel**

Variable	Department		% Total
	Fire	Police	
Years of experience			
0–5	24	24	25.26
6–10	19	42	32.11
11–15	5	16	11.05
16+	43	17	31.58
Total	91	99	100.00
<i>M</i>	14.05	9.43	
<i>SD</i>	9.30	6.32	

## CONCLUSION

The following conclusions were generated as a result of the findings collected from the data of this study. Of the participants in the study, the majority were men (92.12%); 15 women participated in the study (7.9%). A total of 91 firefighters and 99 police officers participated in the study.

A *t* test of independence showed that there was a statistically significant difference in the DEQ scores of fire and police department personnel, with fire department personnel achieving higher DEQ scores. Scores may be reviewed in Table 2. Although significantly different, the mean scores for both departments were well below diagnostic criteria. The difference was not strong enough to generalize to the larger population. This finding warrants further research with a larger sample pool to make more definitive findings.

Police officers and firefighters are affected by the services they provide in emergency situations. The emotional impact was evident in the comments participants wrote when asked to describe a traumatic incident they had experienced. This impact, despite a lack of significant rate of depression or PTSD, needs to be taken under advisement. Emergency care workers need a work atmosphere in which they can express their fears, frustrations, anger, and haunting images so that they can attempt to dispel the intensity of their emotions and experiences. An important consideration for counselors working with emergency care workers is that, in order to be successful at their career, emergency care workers may often

**TABLE 2**  
**Differences Between Scores of Fire and Police Department Personnel on the Distressing Event Questionnaire Using *t* Test of Independence**

Department	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	Power
Fire ( <i>n</i> = 91)	7.12	11.54	.643*	188	.945
Police ( <i>n</i> = 99)	6.20	7.99			

\**p* < .05.

shut down their emotions. They need to do this to “survive” the job. Although this may be an effective action in the course of duty, it does not necessarily serve the emergency care worker well in his or her personal life. Repressed emotions may lead to depression, anxiety, frustration, and isolation. Greater attention may be needed to help these individuals find a comfortable outlet to support healthy development in their relationships as well as personal mental health.

## DISCUSSION

This study was essential because today’s global climate, increasing population, and escalating violence contribute to more frequent critical incidents and a greater frequency of emergency response needs than ever before. As a result, more individuals are exposed to chronic intense stressors, particularly emergency care workers (Del Ben et al., 2006; Ursano et al., 1995). The current study found that the police officers and firefighters were commonly exposed to traumatic incidents in the line of duty.

This study investigated the impact of stressors on emergency care workers within police and fire departments. It was undertaken to ascertain whether gender and relationship status resulted in differences in affective response to stressors. The BDI-II was used to measure the occurrence and severity of depression among police and fire department personnel in a group of 99 police officers and 91 firefighters. The DEQ was used to determine the frequency of PTSD among police and fire department personnel. A positive correlational relationship was found to exist between the BDI-II and the DEQ. As scores on the BDI-II increased, so did the scores on the DEQ.

Approximately 8% of adults in the United States will experience PTSD (APA, 2000). In the current study using the DEQ, it was found that 11% of the respondents from the fire department met the criteria for a PTSD diagnosis; 2% of those surveyed from the police department met the criteria for PTSD. The rate of PTSD among firefighters was found to be higher than rates reported for the general population (APA, 2000). Yehuda and McFarlane (1995) found that 16% of firefighters were diagnosable with PTSD immediately after severe bushfires and that less than half of the firefighters had recovered from the PTSD even 42 months after the fires. Of the participants surveyed for this study, according to the BDI-II, 11% of the firefighters met the criteria to be diagnosed with depression, whereas 16.16% of the surveyed police officers met the criteria for depression. There is a wide discrepancy in what percentage of emergency care workers will experience PTSD. Del Ben et al. (2006) asserted that this variance may be due to “variations in the types of responders, sample sizes, and selection of PTSD measures” (p. 38). More consistency in research design may be helpful in obtaining more consistent data.

The majority of the study participants reported that they were in a significant relationship. Of the firefighters, 86% reported that they were involved in a significant relationship. Among the police officers, 80% reported involvement in a significant relationship. Social support is a critical factor in reducing the risk of PTSD and depression resulting from traumatic incidents (Basoglu, Paker,

Özmen, Özgün, & Sahin, 1994; Kaniasty & Norris, 2000). It has been reported that individuals who feel most comfortable asking for support from others have decreased rates of psychological problems and seek counseling from professionals less frequently (Kaniasty & Norris, 2000). The fact that the majority of participants in this study reported involvement in an emotionally significant relationship (86% of firefighters, 80% of police officers) may help explain why so few of the participants have sought professional counseling (11% of firefighters, 7.1% of police officers).

As greater numbers of women enter the workforce of emergency care response, additional information is critical for ensuring their longevity in the field and for promoting their mental wellness. This fact could also have implications for counselors who work with emergency care providers; counselors should be aware that although both men and women experience some trauma, it is possible that women experience a greater subjective impact from the critical incident. Because of the small number of women ( $n = 15$ ) in the current study, no significant conclusions could be drawn regarding the influence of gender. The small cell of women limited the ability to conduct statistical analysis of the influence of gender. However, it is worth noting that earlier studies have indicated that women are at greater risk than men are of developing PTSD and depression (Breslau et al., 1998; B. L. Green, 1994; Tucker et al., 2000).

Gender must also be considered when developing treatment interventions because of the differences in common symptomatology manifestations among men and women. Research has indicated that when exposed to traumatic incidents and stressors, men experience a greater degree of irritability and alcohol abuse, whereas women tend to experience more flashbacks and reliving of the trauma (B. Green, 2003). Men also tend to become more hypervigilant and experience organic amnesia, and women report increased recall of childhood sexual abuse experiences (B. Green, 2003).

The current study found a statistically significant correlation between BDI-II scores and DEQ scores. The assessments were found to be positively correlated. This finding is in agreement with Kubany et al.'s (2000) study, which found that scores on the BDI-II and DEQ were correlated. Keane and Wolfe (1990) asserted that the majority of persons with PTSD also experienced major depression. Davidson, Hughes, Blazer, and George (1991) also found that PTSD is associated with increased rates of depression, as did Pengilly and Dowd (2000). The current study supports these findings.

Administrators in police and fire departments should be vigilant in adequately preparing their new recruits for the experiences and stressors they will encounter. Being forewarned of the career risk can prepare both emergency care workers and those supporting them for the potential consequences of their chosen profession. Providing emergency care workers with this information enables them to prepare for the worst so that they may continue to perform their best (McFarlane, 1995). "They, who risk their lives and their welfare to assist others, should not be neglected" (Miles, Demi, & Mostyn-Aker, as cited in Figley, 1995, p. 115).

## RECOMMENDATIONS FOR COUNSELORS AND EDUCATORS

The following recommendations are suggested for consideration by counselors when working with emergency care personnel or others who are affected directly or vicariously through trauma or critical incidents. Counselors and educators should familiarize themselves with theories of PTSD and the manner in which one is affected by trauma. A variety of theoretical approaches to treating trauma abound, including Critical Incident Stress Management, which is an intervention protocol developed by Everly and Mitchell (1997), and the Integrative Assessment, Crisis Intervention, and Trauma Treatment model proposed by Roberts (2002). It is important that counselors be aware of the stigma that still permeates society with regard to seeking mental health services, making it more difficult for some to reach out for assistance. This may be particularly true of those in the “macho” professions of firefighting and law enforcement (Haslam & Mallon, 2003). One need only consider various films dealing with firefighters or police officers and how these individuals are portrayed. This is played out in the “real world.” It seems the only time it is acceptable for a firefighter or police officer to be upset or cry is if a partner “goes down.” This image is acceptable to most, but the image of a police officer being upset about stress and trauma on the job is disturbing.

It is also important to note that researchers, whose work is focused on the impact of trauma on others, should be aware of how they themselves may be affected by their interactions with participants and the findings of the study. As stated previously, professionals who work with disaster workers are at increased risk of developing compassion fatigue, vicarious traumatization, or secondary stress (Figley, 1995; Rudolph et al., 1997). Any emotional concerns regarding findings may be indicative of vicarious trauma and should be recognized and processed appropriately in either supervision or interpersonal counseling.

Counselors working with emergency care workers and trauma may want to consider the developmental stages identified by Erikson (Studer, 2007). These stages of psychosocial development can be used as a guide for clinicians working with adults of various ages and may prove useful in considering the primary “task” Erikson associated with a particular stage, and how this task may be influenced, enhanced, or delayed by experiencing trauma as an emergency care worker.

Erikson (see Studer, 2007) asserted that the primary task of young adults is to figure out the struggle between having intimacy, or a close relationship versus being isolated and alone. As mentioned previously, being traumatized may lead to conflict and isolation. Middle adulthood is supposed to be a time to work out how to be productive and contribute to society instead of being stagnant and self-absorbed. Older adults nearing retirement age are faced with finding a sense of integrity instead of despairing over what one has done, or not done, in life. Adults in this later stage need to develop “a sense of acceptance of life as it was lived and the importance of the people and relationships [those individuals] developed over the lifespan” (Huit, 2008, “Erikson’s Theory of Socioemotional Development” table). There are a myriad of issues and challenges that can interfere in the typical developmental sequence,

according to Erikson (Huitt, 2008). Counselors operate from a wellness model and will be well-advised to consider how trauma on the job can have an impact on typical development and use strategies that help steer troubled emergency care workers onto a healthier, meaningful path to wellness.

## RECOMMENDATIONS FOR FURTHER STUDY

To facilitate further research regarding the findings of this study, it is recommended that a follow-up study be conducted in another urban city with a larger sample pool. Such additional data would permit the further generalizability of the research data. A follow-up study regarding gender differences in affective response should also be conducted. A larger sample pool of women is needed to allow for a greater ability to make generalizations. The current researcher advises that a subsequent study be conducted in a rural setting with fire and police department personnel to determine whether city size is a factor in BDI-II scores and DEQ scores. Another interesting follow-up study incorporating a personality assessment could be conducted with fire and police department personnel to determine whether there is an interaction between personality profile and scores on the BDI-II and the DEQ. Researchers may also want to consider pretraumatic risk factors. Heinrichs et al. (2005) identified three risk factors, in addition to the current stressor, that are important in trauma response: “psychiatric history, family history of mental disorders, and childhood abuse” (p. 2276). These variables could be examined in future studies, using survey data or structured interviews.

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