

THE WORLD ASSUMPTIONS OF POLICE OFFICERS AND ACADEMY CADETS: IMPLICATIONS FOR RESPONSE TO TRAUMA

Lori H. Colwell, Ph.D.

Whiting Forensic Division, Connecticut Valley Hospital

Phillip M. Lyons, J.D., Ph.D.

Randall Garner, Ph.D.

Sam Houston State University

One way to understand individuals' reactions to traumatic events is to focus on their basic assumptions about the self and the world and how these influence the coping response. Some scholars have argued that police officers' assumptions about the world differ from those of average citizens, and that these different worldviews may act as a risk factor or a protective factor against the development of trauma-related symptoms in response to the myriad potentially traumatic events that they encounter on a daily basis. The present study sought to examine the world assumptions of police officers and academy cadets to determine if they differ from one another and the general public in their basic assumptions about the self and the world, and to investigate how these beliefs shape and, in turn, are shaped by their traumatic experiences on the job.

Police officers are exposed to potentially traumatic events as a routine part of their daily duties, a burden that far exceeds that experienced by the typical citizen (Abdollahi, 2002; Anshel, 2000; Patterson, 1999, 2002; Violanti, 1996; Yuan et al., 2011). Such repeated trauma exposure places them at a higher risk for development of posttraumatic symptoms and stress disorder (PTSD) that can interfere with safe job performance and can lead to serious impairment in their overall functioning (e.g., stress-related illnesses, suicidal ideation, divorce and substance abuse). However, despite this increased exposure to trauma-related incidents, and in particular to *repeated* trauma, police officers typically do not exhibit higher rates of PTSD. Prevalence rates have ranged from 7% to 26% across several studies (e.g., Carlier, Lamberts, & Gersons, 1997, 2000; Liberman et al., 2002; Marmar et al., 2006; Martin, McKean, & Velkamp, 1986; Wilson, Poole, & Trew, 1997; Wilson, Tinker, Becker, & Logan, 2001), although a few studies have seen rates nearing 50% (Gersons, 1989; Kopel & Friedman, 1997). This has caused some to speculate whether police officers as a group are more resilient to trauma, and, if so, what factors contribute to this resilience.

Author note: This research was undertaken as part of the first author's dissertation at Sam Houston State University.

Address correspondence to: Lori H. Colwell, Whiting Forensic Division, Connecticut Valley Hospital, P.O. Box 70, Middletown, Connecticut 06457, (860) 262-6891, Lori.Colwell@po.state.ct.us

World Assumptions and Trauma

One way to understand individuals' reactions to traumatic events is to consider their most basic assumptions about themselves and the world, particularly regarding their vulnerability to negative events. According to Janoff-Bulman (1985, 1989, 1992), we all maintain fundamental beliefs or personal theories about the self and the world that are developed and refined throughout a lifetime of experiences. These basic assumptions center around a perspective of safety and well-being and include: (a) a belief in personal invulnerability (Benevolence of the World); (b) a perception of the world as meaningful and sensible (Meaningfulness of the World); and (c) a view of the self in a positive light (Worthiness of the Self). More specifically, people strong in such beliefs tend to overestimate positive outcomes and to underestimate negative outcomes, perceiving the world as a benevolent place. They expect a consistent person-outcome contingency based on the principles of justice and controllability. They perceive themselves as worthy, decent people who are capable of controlling their own fate, and they tend to maintain high self-esteem. This working model allows us to organize and make sense of our world, to anticipate future events, and to relate to our environment in a consistent, predictable manner.

Individuals who experience a traumatic event often have these most basic assumptions about self and the world shattered by unexpected and incomprehensible negative information. This can cause a great deal of inner tension and anxiety – as Janoff-Bulman describes, a “loss of equilibrium” (1989, p. 18) – as an event so inconsistent with one's basic assumptions cannot be incorporated readily into this core belief system. That is, their “illusions...cannot account for the tragic victimization” they have experienced (Janoff-Bulman & Berg, 1998, p. 36). The coping task that victims face is to reorganize either their interpretation of the event or their fundamental assumptions. This allows them to reconcile this new information about the self and the world into a coherent structure (Lazarus & Folkman, 1984; Mitchell-Gibbs & Joseph, 2001).

Police Officers: A Population At Risk or the Face of Resilience?

Some scholars (Kopel & Friedman, 1997; Perloff, 1983; Violanti, 1996) have speculated that police officers may be more at-risk for the development of posttraumatic symptoms because they are more vulnerable to having their worldviews shattered by a traumatic event. For instance, although training academies attempt to avoid instilling in cadets a belief that they are invulnerable and impenetrable, what is emphasized is a position of strength, authority, and control over whatever circumstances officers encounter. That is, the officers are taught how to manage situations so that negative outcomes are minimized, and are given confidence in their ability to effect change on the worlds around them (Pogrebin & Poole, 1995; Violanti, 1996). Although such preparation is a useful survival mechanism for individuals who face harm and danger more often than average citizens do, this seemingly protective ‘armor’ can increase the likelihood of distress when it is shattered by a traumatic event (Kopel & Friedman, 1997; Violanti, 1996).

Perloff (1983) has suggested that the greater the perception of strength and control prior to trauma, the greater the likelihood of difficulty in response to such an event, due to the incongruence between one's worldview and this new reality. In other words, if an

officer expects to feel composed and in control in dangerous situations, he or she may be more likely to experience shame and fear in response to the unexpected emotional reactions brought on by trauma, and the damage to the officer's self-esteem may be far greater than any physical injury that is sustained (Resier & Geiger, 1984; Violanti, 1996). Indeed, Carlier and colleagues (2000) found that the only dimension that distinguished officers with PTSD from those without PTSD was the officers' perception of vulnerability and threat to their physical integrity.

However, others (Brown & Campbell, 1994; Mitchell-Gibbs & Joseph, 2001) have suggested that officers may be more impervious to the psychological impact of traumatic events because their daily interactions with crime and violence prevent them from maintaining perceptions of a benevolent and just world in the first place. They speculate that officers' repeated exposure to crime and violence forces them to accommodate their core beliefs into a more negative view of the world. As these incidents slowly erode the officer's belief in a just world, it may be less likely to be shattered in response to a single traumatic event, as the incongruence between his or her (already negative) assumptive world and reality would be minimal.

Another possibility is that officers' pre-existing schemas are qualitatively different from those of the general population before they even join the police force. That is, there may be something different about how those who select policing as a career perceive the world and their sense of purpose within it that enables police officers to continue to function despite repeated exposure to trauma (Mitchell-Gibbs & Joseph, 2001). Further, more positive core beliefs may serve as a *protective* factor against the development of posttraumatic symptoms. One recent study (Yuan et al., 2011) found that academy cadets with a greater sense of self-worth and stronger beliefs about the benevolence of the world experienced fewer symptoms of PTSD after two years of service, suggesting that an officer's world assumptions can act as a buffer against the deleterious effects of exposure to trauma. Regardless of which perspective is accurate, it is clear that the way an officer construes an event in terms of its consistency with his or her most basic assumptions about the self and the world can be an important determinant of his or her functioning and ability to cope.

The Present Study

The present study sought to compare the core beliefs of police officers and academy cadets and to assess how these beliefs relate to their recent experiences with trauma. The study employed a mixed between-groups (officers vs. cadets) / within-groups (Time 1 vs. Time 2) (i.e., cross-sequential) design with a one-year lag between assessment periods. Survey methodology was used to gather data regarding participants' world assumptions and experience with trauma. This study sought to examine whether: (a) officers and cadets share similar worldviews to each other and to the general population; (b) officers and cadets with more positive world assumptions experience fewer deleterious effects of an intervening trauma than those with more negative worldviews; and (c) officers' and cadets' worldviews become less positive and more cynical over time or in response to traumatic events experienced within the intervening year.

METHOD

Participants

Three hundred thirteen officers and 200 cadets participated in the study. Thirty-six cadets reported having prior policing experience and were excluded from further analyses, leaving a total of 164 cadets. Sample demographics for both groups are reported in Table 1. The sample of officers had a mean age of 39.5 years and included predominantly Caucasian, married, college-educated males. These officers had an average of 15 years of law enforcement experience, ranging from one year to 37 years. The majority (78.3%) was of entry-level rank (i.e., officer, deputy, or detective) and primarily in either a patrol (60.4%) or an investigative (33.2%) position. More than one quarter (26.2%) reported prior military experience, averaging 7.0 years, and 7.3% reported an average of five years of firefighter or emergency medical service experience. The sample of academy cadets had a mean age of 29.0 years and, like their officer counterparts, were predominantly Caucasian, married males with some college experience. A greater percentage (36.0%) of these officers reported prior military experience, averaging 7.4 years, and 7.3% reported an average of 6.3 years of firefighter or emergency medical service experience.

Procedure

Officers. Ranking chiefs from 11 Texas police agencies were contacted and asked for their permission to administer a series of questionnaires to their officers. These administrators were informed of the nature and purpose of the study, the voluntariness of participation, and the proposed procedure for data collection. Once approval was obtained, a liaison officer from each agency was asked to brief the officers regarding the nature and purpose of the study prior to data collection, and the researcher provided a brief synopsis of how to describe the study to the officers.

Data collection was carried out on-site at the various police agencies during officer roll calls at shift changes. The officers completed a brief demographics questionnaire and then completed the World Assumptions Scale (WAS; Janoff-Bulman, 1989). Completion of these measures took approximately 15 minutes¹. Officers who were unable to complete the instruments at the time of data collection returned them at a later time to the liaison, who forwarded them to the researcher within three weeks. After approximately 11 months, the researcher contacted the liaison officers and sent follow-up questionnaires with instructions to distribute the packets to the officers who participated at Time 1. The follow-up packet included the same demographics questionnaire, the WAS, and a brief questionnaire asking about officers' experiences with trauma. The researcher contacted the liaison officers again after three weeks and asked them to remind their officers to complete and return the surveys.

1. This study was part of a larger data collection procedure that included the completion of additional measures, which took an additional 15-30 minutes. These results are reported elsewhere (Colwell, Lyons, Bruce, Garner, & Miller, 2011).

Table 1
Sample Demographic Characteristics and Years of Policing Experience

Demographic	Officers	Cadets
Age	$M = 39.5$ ($SD = 8.3$)	$M = 29.0$ ($SD = 6.7$)
Gender		
Male	91.1%	84.1%
Female	8.3%	15.9%
Ethnicity		
Caucasian	83.1%	62.9%
Hispanic	8.0%	17.7%
African-American	5.1%	16.5%
Native American	1.6%	1.2%
Asian/Pacific Islander	0.6%	1.2%
Marital status		
Single	5.1%	39.6%
Married	76.7%	50.0%
Divorced/separated	16.6%	6.1%
Widowed	0.3%	2.4%
Common-law/partner	0.3%	1.2%
Education		
Did not complete high school	0.0%	0.6%
High school/GED	11.2%	12.8%
Some college	43.8%	36.6%
2-year degree	12.5%	12.8%
4-year degree	27.2%	32.3%
Graduate school	4.5%	4.9%
Years of policing experience	$M = 15.0$ ($SD = 7.7$)	N/A

Cadets. Four Texas police academies and the Department of Public Safety were contacted and solicited for participation of their cadets in the same manner as the officers. Data collection was carried out on-site at the academies during cadet training sessions within weeks of their graduation. The cadets completed a brief demographics question-

naire and then completed the WAS. Completion of these measures took approximately 15 minutes. After approximately 10 months, follow-up questionnaires were sent directly to the cadets (now rookie officers) who participated at Time 1, from addresses provided by the academies. The follow-up packet was identical to the officers' follow-up packets, with minor word changes where appropriate. The researcher sent reminder postcards to each rookie officer after three weeks, asking them to complete and return the surveys.

Measures

World Assumptions Scale. The World Assumptions Scale (WAS; Janoff-Bulman, 1989) is a 32-item self-report measure of basic cognitive assumptions about the self and the world. The scale includes eight subscales and three higher-order scales reflecting the three basic assumptions: Benevolence of the World (BW), Meaningfulness of the World (MW), and Worthiness of the Self (WS). Respondents indicated their agreement or disagreement with each item on a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*), and average scores for each subscale were calculated. Initial validation on the WAS revealed adequate reliabilities ($\alpha = .67$ to $.78$), with three of the eight subscales (Perceived Self-worth, Chance, and Benevolence of the World) emerging as significant discriminators of victim and non-victim status. A study of adult female sexual assault victims (Ullman, 1997) revealed similarly high levels of internal consistency for the three higher order scales (.86 for Benevolence of the World, .74 for Meaningfulness of the World, and .87 for Worthiness of the Self), and moderate correlations among the three scales (r s ranging from .18 to .33). These same scales evidenced alphas of .76, .62, and .68, respectively, in a sample of 79 survivors of child sexual abuse. Scores on the Worthiness of the Self scale were related ($r = -.43$) to symptoms of PTSD as well as a relative absence of various cognitive distortions about rape (r s ranging from .39 to .65; Owens & Chard, 2001). Feldman and colleagues (Feldman, Ullman, & Dunkel-Schetter, 1998) revealed that beliefs in a just, benevolent world and in personal controllability as measured by the WAS were related to women's perceptions of greater victim blame and less social support for rape victims. For the purposes of this study, only the three higher-order scales were of interest.

Trauma questionnaire. Officers were asked to describe what they considered to be the most traumatic event they had experienced over their entire careers. They answered specific questions about the event, including: (a) number of years (or months, for the rookie officers) of police experience at the time of the event; (b) total number of traumatic events over their entire careers; (c) number of traumatic events over the past year²; (d) the perceived controllability of the event; and (e) the negative impact the experience had on their overall well-being (e.g., sleep disturbances, anxiety) in the months that followed. Responses to these latter two questions were rated on 5-point Likert-type scales, with higher scores indicating greater control and more negative impact, respectively.

2 This item was not included on the rookie officers' questionnaires, as it would be redundant with (b); all rookie officers had had less than one year of policing experience at the time of data collection.

RESULTS

World Assumptions: Officers vs. Cadets

Multivariate analysis of variance revealed significant differences between cadets and officers in their basic assumptions at Time 1, that is, as cadets were beginning their careers, Pillai's Trace = .02, $F(3, 428) = 3.18$, $p = .02$, partial $\eta^2 = .01$; however, these differences were extremely small. Univariate analyses of variance revealed that cadets had slightly stronger beliefs ($M = 4.49$, $SD = 0.61$) about the Benevolence of the World than did officers ($M = 4.34$, $SD = 0.70$), $F(1, 430) = 4.92$, $p = .03$, partial $\eta^2 = .01$, and officers had slightly stronger beliefs ($M = 3.55$, $SD = 0.52$) about the Meaningfulness of the World than did cadets ($M = 3.44$, $SD = 0.58$), $F(1, 430) = 4.31$, $p = .03$, partial $\eta^2 = .01$. Officers and cadets did not differ in their perceptions about the Worthiness of the Self, ($M = 4.64$, $SD = 0.49$, and $M = 4.60$, $SD = 0.47$, respectively), $F(1, 430) = 0.93$, $p = .34$, partial $\eta^2 < .002$ (see Table 2).

Table 2
Means, Standard Deviations, and Univariate F Ratios for Multivariate Analysis of Variance (MANOVA) Results: Officers Versus Cadets

<i>Time / DV</i>	<i>Group</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Time 1: Baseline</i>					
BW	Officers	4.34	0.70	4.92	.03*
	Cadets	4.49	0.61		
MW	Officers	3.55	0.52	4.31	.03*
	Cadets	3.44	0.58		
WS	Officers	4.64	0.49	0.93	.34
	Cadets	4.60	0.47		
<i>Time 2: One year follow-up</i>					
BW	Officers	4.30	0.56	1.53	.22
	Cadets	4.55	0.67		
MW	Officers	3.56	0.35	0.18	.67
	Cadets	3.49	0.58		
WS	Officers	4.65	0.50	0.07	.80
	Cadets	4.61	0.58		

Note. BW = Benevolence of the World; MW = Meaningfulness of the World; WS = Worthiness of the Self.
* denotes $p < .05$.

Similarly, multivariate analysis of variance revealed no significant differences between cadets and officers in their basic assumptions at Time 2, that is, after cadets had had nearly one year experience as officers, Pillai's Trace = .09, $F(3, 35) = 1.08$, $p = .37$, partial $\eta^2 = .09$ (though a greater effect size; see Table 2). Repeated measures analyses of variance revealed that officers' and cadets' perceptions did not change over the intervening year, for Benevolence of the World, $F(1, 38) = 2.35$, $p = .13$, partial $\eta^2 = .06$; for Meaningfulness of the World, $F(1, 36) = 1.02$, $p = .32$, partial $\eta^2 = .03$; or for Worthiness of the Self, $F(1, 37) = 0.10$, $p = .76$, partial $\eta^2 = .003$ (see Table 3).

Table 3
Summary of Means, Standard Deviations, and F Ratios from Repeated Measures ANOVAs: World Assumptions From Time 1 to Time 2

DV	Time	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
BW	Baseline	4.58	0.67	2.35	.13
	Follow-up	4.42	0.62		
MW	Baseline	3.44	0.56	1.02	.32
	Follow-up	3.55	0.47		
WS	Baseline	4.61	0.51	0.10	.76
	Follow-up	4.64	0.54		

Note. BW = Benevolence of the World; MW = Meaningfulness of the World; WS = Worthiness of the Self.

Traumatic Experiences: Officers vs. Cadets

Officers reported experiencing more than twice as many traumatic events ($M = 5.78$, $SD = 3.00$) in the intervening year of the study than did cadets ($M = 2.81$, $SD = 4.68$), $t(32) = 2.23$, $p = .03$. However, their perceptions about the most traumatic event they had experienced over that time were similar. Both perceived that they had a modest amount of control over the situation, $t(28.57) = -0.38$, $p = .71$, and that the incident had a moderate negative effect on them, $t(24.43) = 1.33$, $p = .20$ (Table 4).

Table 4
Summary Means, Standard Deviations, and t Statistics: Officers' and Cadets' Experiences With Trauma

<i>DV/Group</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
<i>Number Traumatic Experiences</i>				
Officers	5.78	3.00	2.23	.03*
Cadets	2.81	4.68		
<i>Perceived Control (Most Traumatic)</i>				
Officers	2.29	1.10	-0.38	.71
Cadets	2.47	1.59		
<i>Negative Impact (Most Traumatic)</i>				
Officers	2.88	0.60	1.33	.20
Cadets	2.47	1.12		

* denotes $p < .05$.

World Assumptions and Trauma: Officers vs. Cadets

It was expected that officers' and cadets' basic assumptions about the world (i.e., at Time 1) would relate to their well-being following a recently experienced traumatic event (i.e., at Time 2). Results indicated that for all officers only the Meaningfulness of the World had an impact on their subsequent functioning following a traumatic event, with those officers who perceived the world as more meaningful one year ago reporting a more significant impact following a recent trauma, $r(38) = .43$, $p = .01$. Benevolence of the World, $r(38) = -.08$, $p = .64$, and Worthiness of the Self, $r(38) = .10$, $p = .54$, had no impact on officers' functioning following trauma. Further, these traumatic events appeared to have no impact on officers' present world assumptions. Pearson correlations revealed no relationship between the number of traumatic events officers and cadets experienced over the course of the year and the difference in their world assumptions over that same time period: Benevolence of the World, $r = -.08$, $p = .68$; Meaningfulness of the World, $r = .06$, $p = .74$; or Worthiness of the Self, $r = -.10$, $p = .61$. Only a belief in the Benevolence of the World was related to officers' years of experience, $r(290) = .14$, $p = .02$; beliefs in the Meaningfulness of the World, $r(288) = -.01$, $p = .88$, and the Worthiness of the Self, $r(287) = -.02$, $p = .71$, were unrelated to years of experience as an officer (see Table 5).

Table 5
Bivariate Correlations: World Assumptions, Negative Impact, Years of Experience, and Number of Traumatic Events

	Benevolence of the World	Meaningfulness of the World	Worthiness of the Self
Negative Impact	-.08	.43*	.10
Years Experience	.14*	-.01	-.02
Traumatic Events	.14* _a	-.01 _a	-.02 _a

_a For these analyses, traumatic events were correlated to the *change* in beliefs from baseline to follow-up.

* denotes $p < .05$.

DISCUSSION

Police Officers: World Assumptions

The present study sought to investigate the differences between police officers and academy cadets in terms of their world assumptions, and in terms of how their traumatic experiences influence these assumptions over rookie officers' first year on the job. Results revealed that officers and cadets as a whole did not tend to have particularly negative or cynical views about the world; their responses fell on the positive side of average and were commensurate with other community samples (e.g., Feldman et al., 1998; Janoff-Bulman, 1992). This suggests that there is not something different about those who choose policing as a career in terms of how they perceive the self and the world. Further, there was little practical difference between the two groups in terms of these basic assumptions, either at baseline or at the one-year follow-up, and no significant change in beliefs over time. This is consistent with theoretical assumptions that, like most attitudes and beliefs, our assumptions about the world are fairly crystallized by adulthood and unlikely to change appreciably over brief time periods (i.e., one year; Janoff-Bulman, 1989, 1992).

Police Officers: A Population At Risk or the Face of Resilience?

Previous research had proposed conflicting views regarding whether officers are more at-risk for or more resilient against posttraumatic reactions. Those who have postulated that officers may be more at-risk (Kopel & Friedman, 1997; Perloff, 1983; Violanti, 1996) have suggested that officers hold stronger beliefs about their own invulnerability and about their ability to effect change and bring about positive outcomes. As a result, they stand more at-risk to have these beliefs shattered in response to a traumatic event. There was partial evidence from the present study to support this view. On the one hand, a positive view of people in general and a confidence in one's ability to effect change did not place officers at particular risk to have their beliefs shattered in response to trauma. However, there was a moderate correlation between officers' belief in the meaningfulness,

or predictability, of the world and negative impact following a traumatic event. Those officers who expected a just world in which there is a consistent, predictable relationship between events, one which affords the ability to control it, experienced greater difficulty in response to a traumatic event. Other recent research (Yuan et al., 2011), however, found that greater self-worth and a belief in the benevolence of the world were associated with *fewer* PTSD symptoms, whereas a belief in the meaningfulness of the world was unrelated to PTSD symptoms at 24 months post-trauma.

Those who believe officers to be more resilient against posttraumatic reactions (Brown & Campbell, 1994; Mitchell-Gibbs & Joseph, 2001) have proposed that they are resilient because their repeated exposure to traumatic events chips away at their positive worldviews, essentially inoculating them against extreme, negative reactions (i.e., shattered assumptions). This second perspective would suggest that officers enter the profession with stronger, more positive beliefs about the self and the world than they would exhibit after a long tenure as a police officer. However, such was not the case. First, results indicated little practical difference between officers and academy cadets in their world assumptions. Second, both groups displayed neutral to positive worldviews, contrary to popular conceptions that officers are by their nature a cynical group. Finally, there was only a weak *positive* correlation between years of experience and a belief in the benevolence of the world, with other world assumptions being unrelated to years of experience. If officers' views had shifted gradually toward a more negative outlook, one would expect such variables to be negatively related to their world assumptions. However, this was not the case.

The longitudinal analysis also did not support the notion that police officers develop cynical worldviews over time. At a one-year follow-up, there were no differences between seasoned and rookie officers, neither group had changed appreciably in their beliefs about the self or the world, and there was only a weak relationship between number of traumatic events experienced and a less benevolent view of the world. It is likely the case that, like many attitudes and beliefs, officers' perspectives are so variable and idiosyncratic that a consistent relationship may not exist. This suggests a need for those working with these officers to attend to each individual's beliefs and schemas and to tailor treatment approaches to the individual, rather than to make assumptions about the population as a whole. Understanding each officer's worldview provides a context for understanding the meaning of the trauma to that individual, which in turn can help a clinician to understand that officer's unique emotional and behavioral reactions to the event.

Limitations and Suggestions for Future Research

The present study suffered a number of limitations that ought to be addressed in future studies. First, the response rate for the follow-up inquiry was dim, especially in comparison with the initial sample size. Therefore, the conclusions drawn must be stated with caution. Certainly those who took the time to respond to the follow-up may represent a distinct subgroup of officers, one that may be more apt to perceive events as traumatic (sparking their interest in responding) or who may have more positive views of the self and

world (with non-responders perhaps more cynically feeling as though their participation would not mean much or that such research endeavors are not fruitful).

Second, the current study used a rather crude measure of negative impact following trauma (i.e., a single, five-point Likert-type question). Future research might use a combination of self-report checklists of specific symptoms, rating scales from significant others, and more objective measures (e.g., days off of work, hours of sleep per night) to provide a more comprehensive analysis of the impact of traumatic events on officers.

Finally, although the present study utilized a cross-sequential design to investigate differences between officers and cadets over time, officers were still asked to report on how they responded to traumatic events that may have occurred close to a year prior. Future endeavors ought to utilize more prospective, temporally proximal investigations of officers' response to trauma (that is, data collection immediately following or soon after major traumatic events) and to maintain reasonable forms of contact with participants in order to assess changes over time and in response to intervening events.

CONCLUSIONS

The role of world assumptions in recovery from trauma is a relatively new and rapidly emerging area. It is becoming evident that how we perceive ourselves and the world around us can have a significant influence on how we experience and interpret a traumatic event. In turn, these traumatic events often force us to reshape our belief systems, sometimes gradually and sometimes instantaneously. For those who attempt to treat or prevent trauma-related disorders in police officers, a more complete understanding of the relationship between assumptions and trauma will likely improve intervention efforts. Such an understanding may aid police psychologists in determining how best to respond to such incidents and may provide useful avenues for treatment for those suffering the effects of trauma. Above all, it is important to remember that officers (like any other group) are individuals, and that each brings to the situation his or her own beliefs and assumptions about the world, beliefs which must be reconciled with the event at hand.

REFERENCES

- Abdollahi, M. K. (2002). Understanding police stress research. *Journal of Forensic Psychology Practice, 2*, 1-24.
- Anshel, M. H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior, 27*, 375-400.
- Brown, J. M., & Campbell, E. A. (1994). *Stress and policing*. West Sussex, England: Wiley.
- Carlier, I. V. E., Lamberts, R. D., & Gersons, B. P. R. (1997). Risk factors for posttraumatic stress symptomatology in police officers: A prospective analysis. *The Journal of Nervous and Mental Disease, 185*, 498-506.
- Carlier, I. V. E., Lamberts, R. D., & Gersons, B. P. R. (2000). The dimensionality of trauma: A multidimensional scaling comparison of police officers with and without posttraumatic stress disorder. *Psychiatry Research, 97*, 29-39.

- Colwell, L. H., Lyons, P. M., Bruce, A. J., Garner, R. L., & Miller, R. S. (2011). Police officers' cognitive appraisals for traumatic events: Implications for treatment and training. *Applied Psychology in Criminal Justice*, 7(2), 106-132.
- Feldman, P.J., Ullman, J. B., & Dunkel-Schetter, C. (1998). Women's reactions to rape victims: Motivational processes associated with blame and social support. *Journal of Applied Social Psychology*, 28, 469-503.
- Gersons, B. P. R. (1989). Patterns of PTSD among police officers following shooting incidents: A two-dimensional model and treatment implications. *Journal of Traumatic Stress*, 2, 247-257.
- Janoff-Bulman, R. (1985). The aftermath of victimization: Rebuilding shattered assumptions. In C. R. Figley (Ed.), *Trauma and its wake*. New York: Brunner/Mazel.
- Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7, 113-136.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Toward a new psychology of trauma*. New York: The Free Press.
- Janoff-Bulman, R., & Berg, M. (1998). Disillusionment and the creation of value: From traumatic losses to existential gains. In J. H. Harvey (Ed.), *Perspectives on loss: A sourcebook* (pp. 35-47). Philadelphia, PA: Brunner/Mazel, Inc.
- Kopel, H., & Friedman, M. (1997). Posttraumatic symptoms in South African police exposed to violence. *Journal of Traumatic Stress*, 10, 307-317.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company.
- Liberman, A., Best, S., Metzler, T., Fagan, J., Weiss, D., & Marmar, C. (2002). Routine occupational stress in police. *Policing: An International Journal of Police Strategies and Management*, 25, 421-441.
- Marmar, C. R., McCaslin, S. E., Metzler, T. J., Best, S., Weiss, D. S., Fagan, J.,... Neylan, T. (2006). Predictors of posttraumatic stress in police officers and other first responders. *Annals of the New York Academy of Sciences*, 1071, 1-18.
- Martin, C. A., McKean, H. E., & Veltkamp, L. J. (1986). Post-traumatic stress disorder in police and working with victims: A pilot study. *Journal of Police Science and Administration*, 14, 98-101.
- Mitchell-Gibbs, J., & Joseph, S. (2001). Occupational trauma in the British police: Preliminary analysis. *Issues in Criminological and Legal Psychology*, 25, 54-58.
- Owens, G. P., & Chard, K. M. (2001). Cognitive distortions among women reporting childhood sexual abuse. *Journal of Interpersonal Violence*, 16, 178-191.
- Patterson, G. T. (1999). Coping effectiveness and occupational stress in police officers. In J. M. Violanti & D. Paton (Eds.), *Police trauma: Psychological aftermath of civilian combat* (pp. 214-226). Springfield, IL, England: Charles C. Thomas.
- Patterson, G. T. (2002). Development of a law enforcement stress and coping questionnaire. *Psychological Reports*, 90, 789-799.
- Perloff, L. S. (1983). Perceptions of vulnerability to victimization. *Journal of Social Issues*, 39, 41-61.
- Pogrebin, M. R., & Poole, E. D. (1995). Emotion management: A study of police response to tragic events. In M. G. Flaherty, & C. Ellis (Eds.), *Social perspectives on emotion* (Vol. 3, pp. 149-168). Greenwich, CT: Elsevier Science/JAI Press.
- Ullman, S. E. (1997). Attributions, world assumptions, and recovery from sexual assault. *Journal of Child Sexual Abuse*, 6, 1-19.
- Violanti, J. M. (1996). Trauma stress in police work. In D. Paton & J. M. Violanti, *Traumatic stress in critical occupations: Recognition, consequences and treatment* (pp. 87-112). Springfield, IL, England: Charles C. Thomas.
- Wilson, F. C., Poole, A. D., & Trew, K. (1997). Psychological distress in police officers following critical incidents. *The Irish Journal of Psychology*, 18, 321-340.
- Wilson, S. A., Tinker, R. H., Becker, L. A., & Logan, C. R. (2001). Stress management with law enforcement personnel: A controlled outcome study of EMDR versus a traditional stress management program. *International Journal of Stress Management*, 8, 179-200.

Yuan, C., Wang, Z., Inslicht, S. S., McCaslin, S. E., Metzler, T. J., Henn-Haase, C.,... Marmar, C. R. (2011). Protective factors for posttraumatic stress disorder symptoms in a prospective study of police officers. *Psychiatry Research, 188*, 45-50.

Received 4/12

Accepted 6/12

Colwell, L.H., Lyons, P.M., & Garner, R. (2012). The world assumptions of police officers and academy cadets: Implications for response to trauma. [Electronic Version]. *Applied Psychology in Criminal Justice, 8*(1), 54-67.