The Relationship Between the Adjustment of Australian Police Officers and Their Partners

Ann C. Davidson, Ellen Berah and Simon Moss
Monash University, Australia

This study examined the impact of police officers' trauma on the psychological adjustment of their partners. One hundred and three Victorian police officers and their spousal partners completed measures assessing trauma exposure, PTSD symptomatology (PCL) and general psychological wellbeing (GHQ-28). Partners were hypothesised to demonstrate patterns of psychological adjustment similar to the officers. Based on PCL scores, nearly one third of the officers and almost 14% of the partners demonstrated PTSD. Consistent with hypotheses, regression analyses identified that, after controlling for partners' prior trauma exposure, characteristics of officer psychological adjustment — particularly avoidance-numbing symptoms — were significant predictors of poorer psychological adjustment in their partners. Theoretical explanations for such associations are discussed, especially with reference to the theories for the systemic effects of trauma, and suggestions for further research are proposed.

Research indicates that, when a family member endures a traumatic event of sufficient magnitude to provoke a posttraumatic stress reaction, relatives often experience increased distress. Findings suggest that it is PTSD, and specifically the psychological and behavioural disturbances typical of this disorder, in the trauma survivor that contribute to psychological distress among intimate partners of trauma victims. Most research in this field has focused on the wives and partners of veterans, particularly the Vietnam veteran cohort (Carroll, Rueger, Foy, & Donahoe, 1985; Lyons, 2001; Lyons & Root, 2001; Verbosky & Ryan, 1988; Westerink & Giarratano, 1999; Wilson & Kurtz, 1997). Some studies have also described the experiences of Israeli veterans of the 1982 Lebanon war and their partners (Mikulincer, Florian, & Solomon, 1995; Solomon et al., 1992; Waysman, Mikulincer, Solomon, & Weisenberg, 1993). Other investigations with civilians traumatised from exposure to World War II, the Holocaust, or more recent European conflicts provide further evidence of the negative effects of war on spouses of trauma survivors (Cook, Riggs, Thompson, Coyne, & Sheikh, 2004; Lev-Wiesel & Amir, 2001; Spasojevic, Heffer, & Snyder, 2000).

The experience and perspective of the wives of Vietnam veterans have highlighted the magnitude of the systemic effects of trauma, with clinical and empirical reports of these women demonstrating anxiety, irritability, depression, anger, sleep deprivation, emotional withdrawal, and traumatic stress symptoms (Maloney, 1988; Matsakis, 1996; Riggs, Byrne, Weathers, & Litz, 1998; Verbosky & Ryan, 1988; Westerink & Giarratano, 1999; Wilson & Kurtz, 2000). Specific PTSD symptoms have been

Correspondence to: Simon Moss, School of Psychology, Psychiatry, and Psychological Medicine, Monash University, PO Box 197, Caulfield East VIC 3145, Australia. E-mail: simon.moss@med.monash.edu.au

associated with distress for partners. Hyperarousal symptoms have increased the risk for veterans in the United States perpetrating physical, verbal, and psychological aggression against their female partners (Jordan et al., 1992; Riggs et al., 1998; Savarese, Suvak, King, & King, 2001). Avoidance-numbing symptoms — specifically emotional numbing — have been shown to predominate in the relationship difficulties of PTSD-veteran couples (Riggs et al., 1998). PTSD in a partner has been shown to predict marital distress more so than the individual's own PTSD symptoms (Spasojevic et al., 2000). Apart from the direct negative impact of the PTSD symptoms of irritability, avoidance, and detachment, traumatic memories can disrupt attachment and interpersonal relationships (McFarlane & Bookless, 2001). Features of the traumatic experience can become embedded in the memory structure, causing increasing recoil from interpersonal triggers, producing detachment from the most significant and potentially supportive intimate relationship.

Several models have been posited to explain findings in which people close to trauma survivors demonstrate symptoms, behaviours, or changes that imply that they also have been affected by the trauma. Secondary traumatic stress refers to a pattern of symptoms that often mimics the experience of the trauma survivors and is conceived in terms of the diagnostic criteria of PTSD (1995). Vicarious traumatisation is a construct that encompasses the broader effects of changes to the cognitive schemata of a person or their behavioural style (Pearlman & Saakvitne, 1995). Hence, anyone who engages empathically with trauma survivors can experience vicarious traumatisation. Caregiver burden is another construct applied less frequently to explain the deleterious effects for spouses living with veterans who demonstrate war-induced psychiatric disorders (Ben Arzi, Solomon, & Dekel, 2000; Calhoun, Beckham, & Bosworth, 2002; Lyons & Root, 2001).

Literature in this field has tended to focus on war veterans and their families. However, members of other occupational groups such as police officers face violent or life-threatening situations on a regular, if not daily, basis. Unlike most veterans, police are living with their families when exposed to critical incidents. Hence, the mechanisms ascribed to effects on partners of war veterans could be different from those applicable to partners of police officers. Studies have not addressed the effects of trauma experienced by police officers on their intimate partners. This project, therefore, addressed this shortfall and explored the impact of trauma in Australian police officers on the psychological adjustment of their intimate partners. The following hypotheses were proposed:

1. Police officers and their spouses would share concordant patterns of psychological adjustment.
2. The level of PTSD symptomatology in police officers would significantly predict PTSD symptomatology and psychological distress among partners.
3. The emotional-numbing/avoidance symptoms in police officers would be associated with increased psychological distress in their partners.

Method

Participants

One hundred and three Victorian police officers (102 male, 1 female) and their spouses (102 female and 1 male) participated in this study. Questionnaire packs were distributed to 600 randomly selected married or 'defacto' police officers in Victoria Police containing questionnaires for the officer and the partner. Of the 290 questionnaires returned — a return rate of 24.25% — 103 were matching officer/partner couples with sufficient material completed to enable analysis. This number represented 17.3% of those invited to participate. Police officers were aged between 36 and 63 years (M = 50.6, SD = 5.3), and their spouses were 2 years younger (M = 48.6, SD = 6.0). These couples had lived together for an average of 25 years.

At 30th June 2003, there were 10,438 serving members in Victoria Police; hence the present sample represents nearly 1% of the serving members of Victoria Police at the time of this study. The distribution of ranks among the participants is skewed towards the higher ranks. For example, about one quarter of serving Victorian police officers were constables and about half were senior constables; whereas, this sample included no constables and just under one quarter were senior constables. The highest ranked participant was at commander level. Police officers were distributed widely across the State of Victoria in both rural and metropolitan areas.

Measures

This study was part of a broader research program examining the interrelationships between police trauma exposure, disclosure to the spouse, the relationship characteristics of the couple, and the psychological adjustment of the spouse.

Trauma Exposure

Police officers were asked to report frequency of exposure to each of 17 critical incident types, such as 'death involving children' and 'confrontation with accident (not involving severe burns)'. Officers were asked to indicate the number of times they had experienced each event. Following the critical incident exposure list, officers were asked: 'Which event during your service has been the most upsetting? (Please describe)'. A second list of traumatic events was presented to both officers and partners. This list was intended to capture the non-duty-related trauma exposure of officers and the trauma history of partners. The events on the list included being seriously physically attacked or raped, involvement in a natural disaster, experiencing a life-threatening accident, serious abuse or neglect as a child, or suffering great shock as a result of one of these events happening to someone close to the respondent.

Posttraumatic Stress Symptomatology: The PCL

The Posttraumatic Stress Disorder Checklist (PCL; Weathers, Litz, Herman, Huska, & Keane, 1993) is a 17-item self-report scale used frequently as a screening tool for PTSD. The PCL assesses overall PTSD severity as well as the degree of each of the three PTSD symptom clusters: re-experiencing, avoidance-numbing, and hyperarousal. Items are rated on a 5-point Likert scale and total scores can range from 17 (*no symptoms*) to 85 (*severe symptoms*).

Psychological Wellbeing: The GHQ-28

The General Health Questionnaire (GHQ-28) is a screening instrument designed to assess the presence of psychological symptoms (Goldberg & Williams, 1988). The 28-item version assesses four domains of symptoms: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Items are rated on a 4-point Likert scale, yielding total scores from 0 (*no symptoms*) to 84 (*severe symptoms*), and scores from 0 to 21 for severity of symptoms within each of the four domains.

Results

Trauma Exposure

Officers utilised a range of format in response to the list of duty-related traumatic events. Some participants provided non-specific numeric indicators — '0' to '100s' or '20+' or '20–30'; whereas other individuals provided written responses such as 'nil' or 'numerous'. Item 17 in the list specified 'other' incidents, and a broad range of events was identified in this section. Workplace stress featured prominently in this other category, and included problems with managers/supervisors, inadequate support from command, structural changes within the police service, and problems with subordinate staff. Both partners and officers reported extensive trauma exposure in their private lives. Almost 72% of officers and 61% of partners had experienced between one and seven of the different types of traumatic events contained in the list of non-work traumas. These traumas included events such as being seriously physically attacked or raped, being involved in a natural disaster, experiencing a life threatening accident, serious abuse or neglect as a child, or suffering great shock as a result of these events happening to someone close to the respondent. Officers had also experienced more events — 24% endorsing four or more incidents on the list — compared with about 9% of partners.

Psychological Outcomes

Means and standard deviations were calculated for all psychological outcome measures. Table 1 presents the means and standard deviations for all global and subscale scores on the measures of psychological adjustment and traumatic stress.

As revealed in Table 1, a sizeable congruence can be observed between the scores of officers and partners (supporting the first hypothesis of this study). Although couples' total scores on this measure are significantly correlated, the only cluster that correlated in police and partners was avoidance-numbing. Using a score of 44 as a cut-off for screening for posttraumatic stress disorder, 31 (or 32%) of the 97 officers who completed the PCL, and 15 (13.5%) of the 89 partners who completed the PCL produced scores that exceed the criterion.

Regression Analyses

The second and third hypotheses of this study proposed that the officers' level of PTSD

Table 1

Means and Standard Deviations of Scores on the General Health Questionnaire and the Posttraumatic Disorder Checklist and Correlations Between Officer and Partner Scores

	Officers		Partners		
Scale	*M*	*SD*	*M*	*SD*	*r*
GHQ-28 total	21.9	14.1	21.3	13.1	.38**
Somatic concerns	6.0	4.8	6.2	4.8	.29**
Anxiety/sleep disturbance	6.5	5.1	6.1	5.4	.27**
Social dysfunction	7.6	3.0	7.4	2.9	.32**
Severe depression	1.9	3.1	1.7	3.1	.42**
PCL total	35.5	17.1	32.0	14.0	.34**
Re-experiencing	2.1	1.0	2.0	1.0	.20
Avoidance-numbing	2.0	1.0	1.7	0.8	.50**
Hyperarousal	2.3	1.2	2.0	1.0	.13

Note: $^{**}p < .01$.

symptomatology would be a significant predictor of PTSD symptomatology and psychological distress among partners, and that police officers' emotional numbing/avoidance symptoms would be associated with increased psychological distress in their partners. To test these hypotheses, a series of seven regression analyses was conducted. Acknowledging that partners' psychological symptoms could be attributed to their own trauma histories, partner prior trauma exposure was controlled in each analysis. Data were screened during the regression analyses for violations of normality and multivariate outliers. Screening identified rare examples of outliers and, with one exception, all regressions were significant at an alpha of .01, and hence no further action was taken. The exception will be discussed in the next section.

Predictors of Partners' Psychological Adjustment

The first set of regression analyses was undertaken to predict partner psychological distress — as reflected by the total score and each subscale of the

Table 2

Regression of Police Symptoms of PTSD and Psychological Distress on Spouse Psychological Distress After Controlling for Spouse Trauma Exposure

	Symptom severity		Somatic concerns		Anxiety/ insomnia		Social dysfunction		Severe depression	
	B	*t*	*B*	*t*	*B*	*t*	*B*	*t*	*B*	*t*
Partner prior trauma	0.16	1.49	0.02	0.17	0.24	2.20	0.07	0.57	0.16	1.47
Officer PTSD symptoms										
Re-experiencing	–0.24	–1.29	–0.31	–1.59	–0.15	–0.76	–0.17	–0.78	–0.16	–0.83
Avoidance/ numbing	0.80	4.08***	0.90	4.36***	0.66	3.29**	0.50	2.23*	0.47	2.36*
Hyperarousal	–0.59	–2.76**	–0.74	–3.27**	–0.60	–2.69**	–0.36	–1.45	–0.10	–0.46
Officer psychological distress										
Somatic concerns	0.09	0.52	0.30	1.59	0.32	1.71	–0.17	–0.82	–0.40	2.18*
Anxiety/ insomnia	0.10	0.49	0.04	0.21	0.01	0.07	0.21	0.88	0.13	0.64
Social dysfunction	0.18	1.25	0.08	0.39	0.04	0.30	0.27	1.64	0.30	2.08*
Severe depression	0.12	0.93	0.05	0.39	0.05	0.38	0.03	0.21	0.29	2.30*
R^2	.39***		.33***		.35***		.19*		.38***	

Note: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

GHQ-28 — from police psychological adjustment. For each analysis, one measure of partner psychological distress was designated as the criterion variable. The four dimensions of police psychological distress and the three symptom clusters of traumatic stress were designated as the predictors. In addition, prior trauma exposure of partners was also incorporated as a control. Table 2 presents the standardised *B* and *t* values, together with the R^2 values, that emerged from this set of regression analyses.

As revealed in Table 2, officer avoidance-numbing was positively associated with partners' scores on all four GHQ subscales: somatic symptoms, anxiety and sleep disturbance, social dysfunction, and depression. There was a negative association between officers' hyperarousal and both partners' somatic symptoms and anxiety/sleep disturbance. Partners' social dysfunction was predicted only by officers' avoidance-numbing; however, because the presence of a multivariate outlier, this model was no longer significant at $\alpha = .01$. Finally, partner depression was predicted by officers' somatic symptoms, social dysfunction, depression, and avoidance-numbing symptoms.

The second set of analyses was conducted to predict partner traumatic stress — as reflected by the total score and subscales of the PLC. For each analysis, one measure of traumatic stress was designated as the criterion variable. The four measures of police psychological distress and the three symptom clusters of traumatic stress were designated as the predictors. In addition, prior trauma exposure of partners was incorporated as a control. Table 3 presents the standardised *B* and *t* values, together with the R^2 values, that emerged from this set of regression analyses.

As revealed in Table 3, officer anxiety/sleep disturbance and avoidance-numbing symptoms both predicted traumatic stress in partners, whereas lower levels of officer hyperarousal were associated with partner PTSD. Officer anxiety/sleep disturbance and avoidance-numbing symptoms both predicted partner re-experiencing symptoms and there was a negative association between officer hyperarousal and partner re-experiencing. Partner avoidance-numbing was positively associated with officer somatic symptoms and officer avoidance-numbing but it was negatively associated with officer hyperarousal. Finally, partner hyperarousal was predicted by officer avoidance-numbing, and lower levels of officer hyperarousal predicted increased hyperarousal symptoms in partners.

Discussion

This study examined whether the psychological adjustment and trauma experience of police officers influence the mental health of their partners. Previous research has primarily focussed on populations in which the trauma victim and

Table 3

Regression of Police Symptoms of PTSD and Psychological Distress on Spouse PTSD After Controlling for Spouse Trauma Exposure

Partner PLC Scores	PTSD		Re-experiencing		Avoidance-numbing		Hyperarousal	
	B	*t*	*B*	*t*	*B*	*t*	*B*	*t*
Partner prior trauma	0.43	4.54***	0.28	2.58*	0.39	4.17***	0.51	4.91***
Officer PTSD symptoms								
Re-experiencing	–0.10	–0.60	–0.17	–0.91	–0.08	–0.47	–0.02	–0.09
Avoidance/numbing	0.56	3.26**	0.55	2.77**	0.59	3.50***	0.38	2.04*
Hyperarousal	–0.57	–3.04**	–0.50	–2.28*	–0.45	–2.44*	–0.63	–3.05**
Officer psychological distress								
Somatic concerns	–0.17	–1.05	–0.13	–0.72	–0.22	–1.38	–0.11	–0.62
Anxiety/insomnia	0.65	3.65***	0.68	3.34***	0.52	2.96**	0.57	2.95
Social dysfunction	0.03	0.24	–0.09	–0.60	0.13	1.01	0.04	0.31
Severe depression	–0.04	–0.38	–0.03	–0.23	0.02	–0.19	–0.07	–0.59
R^2	.45***		.55***		.38***		.53***	

Note: *$p < .05$, **$p < .01$, ***$p < .001$

partner do not reside with one another during the traumatic experience, which raises issues concerning the mechanisms that are purported to underpin the systemic effects of trauma. The results of this study suggested that the presence of PTSD in trauma survivors fosters psychological disturbance in their intimate partners. This outcome was sustained after the prior trauma exposure of partners was controlled. The PTSD cluster of avoidance and emotional numbing symptoms in officers played the most significant role in this relationship. PTSD avoidance-numbing was associated with the level of severity of all the psychological variables in partners.

A surprising finding was the inverse relationship between police and partner hyperarousal symptoms. Possibly, when the officer appears aroused, such as irritable, excessively jumpy, or demonstrating poor concentration, the partner may consciously reduce their own arousal to preclude any amplification of these symptoms in the officer. Overall, the present study reinforces a considerable body of evidence that PTSD symptomatology places partners of trauma survivors at increased risk of psychological distress, while extending this phenomenon to a previously unexamined high-risk population: police officers.

Several factors might challenge the generalisability of these findings. Police officers and partners who volunteered to respond to this survey constituted less than one quarter of the randomly selected officers to whom the questionnaires were distributed. Hence, the characteristics of individuals who chose not to participate are unknown. To illustrate, participation can be deemed as a form of disclosure. Individuals might agree to participate as a means to disclose traumatic experience that they had previously concealed. Alternatively, individuals might participate because they enjoy expressing their feelings and memories. In other words, the extent of trauma disclosure to partners among this sample of police officers might not be representative of the population of officers. Accordingly, marital dynamics and thus the association between officer and spouse distress might also not be representative.

Second, the psychological adjustment of partners might influence the responses of police to trauma, rather than vice versa. Perceived social support has been shown to ameliorate traumatic stress. Officers who do not feel their partners are able to support them through times of trauma might suppress information about their duty-related traumatic experiences. This inhibition has been demonstrated to augment the emotional consequences of traumatic experiences. Therefore, unstable partners might ultimately aggravate the PTSD responses that police develop in response to trauma. Future research should thus apply a longitudinal design to assess this alternative explanation.

Third, this study did not assess some comorbid problems often associated with PTSD, such as alcohol abuse (Creamer, Burgess, & McFarlane, 2001) or relationship aggression (Byrne & Riggs, 1996), which may be implicated in the distress of partners. For example, alcohol abuse in police might increase their exposure to traumatic events as well as compromise the mental health of their partners. Variations in alcohol consumption across the sample might moderate the effect of police trauma and PTSD on partner adjustment (Savarese et al., 2001). Future research should investigate alcohol consumption to clarify its possible effects on these relationships.

Finally, another factor that may be instrumental in the relationship between officer and partner adjustment is the organisational behaviour of the police service in the management of the event or its consequences for personnel. Officers, partners, or both, may expect organisational support following a critical incident that either is not forthcoming or does not meet their needs or expectations. Should police personnel and their partners feel unsupported following a duty-related traumatic event — or should the officer suffer adverse health, organisational, or legal consequences from that event — the distress of the couple may increase concomitantly. A larger study could examine the influence of the organisational climate and culture that pervades the police force in the systemic effects of police trauma on their partners.

Although this investigation offers important data on the impact of PTSD on the partners of police, similarly to most other studies in this field, the mechanisms for this process were not uncovered. The constructs of secondary traumatisation and vicarious traumatisation seek to explain this process, but assume that the contents of the trauma have been communicated — a condition that is not ubiquitous in partners or other family members. Indeed, limited disclosure is typically found among trauma survivors with PTSD (Carroll et al., 1985; McFarlane, 1988). The role

of avoidance-numbing symptoms certainly suggests that communication and disclosure are reduced and this deficit might coincide with the impaired psychological adjustment of partners. Hence, the partner's knowledge of the traumatic event could be examined as a possible mediator in the association between the psychological adjustment of the officers and their partners in future research. Likewise, characteristics of the marital relationship may mediate or moderate that impact of PTSD on partners.

In short, this study demonstrated that partners of traumatised police officers may also experience psychological distress. Most significantly, the PTSD symptoms of avoidance and emotional numbing in police officers were consistently implicated in the severity of partner distress across a range of psychological variables. An implication of this study is that partners of traumatised, symptomatic police officers may well be in need of support themselves, and whether this need extends to the children in these families warrants investigation.

References

Ben Arzi, N., Solomon, Z., & Dekel, R. (2000). Secondary traumatization among wives of PTSD and post-concussion casualties: Distress, caregiver burden and psychological separation. *Brain Injury, 14*(8), 725–736.

Byrne, C.A., & Riggs, D.S. (1996). The cycle of trauma: Relationship aggression in male Vietnam veterans with symptoms of posttraumatic stress disorder. *Violence & Victims, 11*(3), 213–225.

Calhoun, P.S., Beckham, J.C., & Bosworth, H.B. (2002). Caregiver burden and psychological distress in partners of veterans with chronic posttraumatic stress disorder. *Journal of Traumatic Stress, 15*(3), 205–212.

Carroll, E.M., Rueger, D.B., Foy, D.W., & Donahoe, C.P. (1985). Vietnam combat veterans with posttraumatic stress disorder: Analysis of marital and cohabitating adjustment. *Journal of Abnormal Psychology, 94*(3), 329–337.

Cook, J.M., Riggs, D.S., Thompson, R., Coyne, J.C., & Sheikh, J.I. (2004). Posttraumatic stress disorder and current relationship functioning among World War II ex-prisoners of war. *Journal of Family Psychology, 18*(1), 36–45.

Creamer, M., Burgess, P., & McFarlane, A.C. (2001). Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine, 31*(7), 1237–1247.

Figley, C.R. (1995). Compassion fatigue: Toward a new understanding of the costs of caring. In B. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 3–28). Baltimore, MD: Sidran.

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

Jordan, B.K., Marmar, C.R., Fairbank, J.A., Schlenger, W.E., Kulka, R.A., Hough, R.L., et al. (1992). Problems in families of male Vietnam veterans with posttraumatic stress disorder. *Journal of Consulting & Clinical Psychology, 60*(6), 916–926.

Lev-Wiesel, R., & Amir, M. (2001). Secondary traumatic stress, psychological distress, sharing of traumatic reminisces, and marital quality among spouses of Holocaust child survivors. *Journal of Marital & Family Therapy, 27*(4), 433–444.

Lyons, J.A., & Root, L.P. (2001). Family members of the PTSD veteran: Treatment needs and barriers. *National Center for PTSD Clinical Quarterly, 10*(3), 48–52.

Lyons, M.A. (2001). Living with post-traumatic stress disorder: The wives'/female partners' perspective. *Journal of Advanced Nursing, 34*(1), 69–77.

Maloney, L.J. (1988). Post traumatic stresses on women partners of Vietnam veterans. *Smith College Studies in Social Work, 58*(2), 122–143.

Matsakis, A. (1996). *Vietnam wives: Facing the challenges of life with veterans suffering post-traumatic stress* (2nd ed.). Baltimore, MD: Sidran.

McFarlane, A.C. (1988). The longitudinal course of posttraumatic morbidity: The range of outcomes and their predictors. *Journal of Nervous & Mental Disease, 176*(1), 30–39.

McFarlane, A.C., & Bookless, C. (2001). The effect of PTSD on interpersonal relationships: Issues for emergency service workers. *Sexual & Relationship Therapy, 16*(3), 261–267.

Mikulincer, M., Florian, V., & Solomon, Z. (1995). Marital intimacy, family support, and secondary traumatization: A study of wives of veterans with combat stress reaction. *Anxiety, Stress & Coping: An International Journal, 8*(3), 203–213.

Pearlman, L.A., & Saakvitne, K.W. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors.* New York: Norton & Co.

Riggs, D.S., Byrne, C.A., Weathers, F.W., & Litz, B.T. (1998). The quality of the intimate relationships of male Vietnam veterans: Problems associated with posttraumatic stress disorder. *Journal of Traumatic Stress, 11*(1), 87–101.

Savarese, V.W., Suvak, M.K., King, L.A., & King, D.W. (2001). Relationships among alcohol use, hyperarousal, and marital abuse and violence in

Vietnam veterans. *Journal of Traumatic Stress, 14*(4), 717–732.

Solomon, Z., Waysman, M., Levy, G., Fried, B., Mikulincer, M., Benbenishty, R., et al. (1992). From front line to home front: A study of secondary traumatization. *Family Process, 31*(3), 289–302.

Spasojevic, J., Heffer, R.W., & Snyder, D.K. (2000). Effects of posttraumatic stress and acculturation on marital functioning in Bosnian refugee couples. *Journal of Traumatic Stress, 13*(2), 205–217.

Verbosky, S.J., & Ryan, D.A. (1988). Female partners of Vietnam veterans: Stress by proximity. *Issues in Mental Health Nursing, 9*(1), 95–104.

Waysman, M., Mikulincer, M., Solomon, Z., & Weisenberg, M. (1993). Secondary traumatization among wives of posttraumatic combat veterans: A family typology. *Journal of Family Psychology, 7*(1), 104–118.

Weathers, F.W., Litz, B.T., Herman, D.S., Huska, J.A., & Keane, T.M. (1993). *The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility.* Paper presented at the 9th Annual Conference of the International Society for Traumatic Stress Studies, San Antonio, TX.

Westerink, J., & Giarratano, L. (1999). The impact of posttraumatic stress disorder on partners and children of Australian Vietnam veterans. *Australian & New Zealand Journal of Psychiatry, 33*(6), 841–847.

Wilson, J.P., & Kurtz, R.R. (1997). Assessing posttraumatic stress disorder in couples and families. In J.P. Wilson & T.M. Keane (Eds.). *Assessing psychological trauma and PTSD* (pp. 349–372. New York: Guilford.

Wilson, J.P., & Kurtz, R.R. (2000). Assessing PTSD in couples and partners: The dyadic dance of trauma. *National Center for PTSD Clinical Quarterly, 9*(3), 34–38.

◆