

# Posttraumatic Stress Disorder and Vicarious Trauma in Mental Health Professionals

*Michal Finklestein, Einat Stein, Talya Greene, Israel Bronstein, and Zahava Solomon*

The current study investigated posttraumatic stress disorder (PTSD) and vicarious trauma (VT) symptoms among mental health professionals (MHPs) working in communities exposed to high levels of trauma related to rocket attacks from the Gaza Strip. The study assessed direct and vicarious traumatic exposure. The study also explored the relationship between professional supports (for example, training, supervision) and sense of professional self-efficacy with MHPs' PTSD and VT symptoms. Results indicate that MHPs working in the more severely affected community of Sderot reported higher objective, subjective, and professional exposure as well as higher levels of PTSD and VT symptoms compared with MHPs working in some of the other Gaza-bordering communities. Although PTSD and VT were found to be highly correlated, there were some distinct predictors. PTSD was predicted by professional experience, subjective exposure, and professional self-efficacy. VT was further predicted by years of education and professional support. The findings indicate that MHPs exposed to concurrent primary trauma and VT are at increased risk for psychological distress and may require targeted interventions to boost their resilience. Opportunities for respite, interventions to increase professional self-efficacy, and appropriate professional supports may buffer the effects of concurrent primary trauma and VT exposure.

KEY WORDS: *mental health practice; ongoing exposure; posttraumatic stress disorder; shared traumatic reality; vicarious traumatization*

Mental health professionals (MHPs) are known to be at risk of developing post-traumatic stress disorder (PTSD)-like symptoms through exposure to their clients' traumatic narratives, despite not having been exposed to these events directly (for example, Beck, 2011; Chouliara, Hutchison, & Karatzias, 2009; Cohen & Collens, 2012; Phipps & Mitchell, 2003; Sprang, Clark, & Whitt-Woosley, 2007). This phenomenon has been characterized as vicarious traumatization (McCann & Pearlman, 1990) and may occur if the MHPs overly engage empathetically with traumatized clients (Pearlman & Mac Ian, 1995). Research has found that the more time MHPs spend with traumatized clients and the greater their caseload, the higher their risk of developing vicarious trauma (VT) (Pearlman & Mac Ian, 1995).

In some cases, MHPs are exposed to the same traumatic event or events as their clients. In other words, they are treating clients for trauma-related distress while being exposed to the same traumatic events themselves. This has been described by Baum (2010) as "double exposure" and as working in a "shared traumatic reality." Saakvitne (2002) suggested that

MHPs who are exposed to both primary trauma and VT are at increased vulnerability for psychological distress. This may result from the lack of clinical distance that usually exists between MHPs and clients (Tosone, Nuttman-Shwartz, & Stephens, 2012).

Several professional variables have been suggested as playing a role in VT. These variables are specifically related to the MHPs' training and the on-the-job support they receive. For example, it has been suggested that specialized training, debriefing, supervision, and peer support may buffer the effects of VT (Calderón-Abbo, Kronenberg, Many, & Ososfsky, 2008; Trippany, White Kress, & Wilcoxon, 2004). Michalopoulos and Aparicio (2012) reported that more professional experience and increased support were likely to decrease the vulnerability for VT among social workers. In their review of predictors for vicarious traumatization, Lerias and Byrne (2003) described how life stress, social support, age, gender, education, and socioeconomic status may moderate the impact of VT. In particular, trauma-specific education and training may be required in such cases (Bell, Kulkarni, & Dalton, 2003; Hesse,

2002). In addition, having a high sense of professional self-efficacy, that is, confidence in their professional ability to treat and work with their clients, may also serve to buffer the impact of VT exposure (Cherniss, 1993). However, research ascertaining the effectiveness of these variables is still limited (Bober & Regehr, 2006).

Since 2001, MHPs working and residing in the south of Israel, more specifically, in the communities bordering the Gaza Strip, have been exposed to the same primary trauma as their patients in the form of rocket attacks originating from the Gaza Strip in addition to the VT from their work. The intensity of attacks has fluctuated from light bombardment in periods of relative calm (for example, one to two mortars or missiles in a fortnight) to weeks or months of heavy bombardment (for example, several attacks a day for a prolonged period) during military escalations (Intelligence and Terrorism Information Center at the Israel Heritage & Commemoration Center, 2009). These rocket attacks have caused damage to properties and infrastructure, physical injuries, and some fatalities (Grinberg, 2007). Similarly, the attacks are associated with several psychological distress outcomes among the civilian population. For example, prevalence rates of PTSD among this population range from 5.5 percent to 27.0 percent (for a summary of mental health research on these communities, see Greene, Bronstein, & Solomon, 2015). The ongoing exposure to trauma is also reported to have led to an increase in help-seeking and mental health services utilization in affected communities (Fahri, Lauden, Ifergan, & Fariger, 2008).

## THE PRESENT STUDY

This study aims to investigate the reporting of PTSD and VT symptoms among MHPs working in communities exposed to high levels of trauma related to rocket attacks from the Gaza Strip. One objective is to determine the extent to which primary trauma and VT exposure have an impact on the prevalence of symptoms of PTSD and vicarious traumatization among MHPs working (and often residing) in areas exposed to frequent terrorist attacks, such as those from rockets. The second objective of this study is to investigate the number and type of professional supports that these MHPs receive and whether there is a relationship between these supports and MHPs' PTSD and VT symptoms. The third objective is to assess whether the level of confidence that MHPs have in their abilities to treat

clients exposed to terroristic attacks (professional self-efficacy) is related to their level of PTSD and VT symptoms.

## METHOD

### Sample and Procedure

All MHPs working in the Sderot ( $n = 50$ ) and Gaza-bordering community (GBC) ( $n = 49$ ) areas were invited to participate via a request sent to the local authority welfare managers. All professionals agreed to participate (100 percent) and completed informed consent forms. The majority of the MHPs were social workers. Questionnaires were administered during their working hours, mainly during group meetings. Data were collected between February and September 2009.

### Measures

Socio-demographic characteristics on the participants were collected via self-report questionnaires.

**Professional Support.** Professional support refers to workshops about working with traumatized clients, trauma debriefing sessions, and manager supervision received by the mental health care workers. For each item, participants were asked to rate, on a scale ranging from 1 = not at all to 4 = very much, whether they had received any of these items. A fourth item asked the participants for their subjective perception as to whether the support was helpful.

**Professional Self-efficacy.** This was assessed by asking participants to rate their confidence in their professional abilities to treat rocket attack victims, their perceptions regarding the success of the intervention, and any feelings of helplessness they may have had during the process. Items were rated on a five-point rating scale ranging from 0 = not at all to 5 = a great extent (Cronbach's  $\alpha = 0.70$ ).

**Exposure.** Objective, subjective, and professional exposure were measured using three self-report rating scales. The objective exposure scale assessed 10 items related to the frequency of direct exposure to the rocket fire from 1 = never to 5 = very frequently. (Cronbach's  $\alpha = 0.82$ ). Subjective exposure was assessed by four items that reflected perceived threat (for example, personal and family security) on a rating scale from 1 = not at all to 5 = very much (Cronbach's  $\alpha = 0.70$ ). Professional exposure was assessed with six items related to the frequency of exposure through work (for example, treating victims injured by a rocket attack). Items were answered

on rating scale from 1 = not at all to 5 = very much (Cronbach's  $\alpha = 0.86$ ). These measures were created for the purpose of this study.

**Trauma Measures.** Posttraumatic stress was examined using the PTSD Inventory (PTSDI) (Solomon, Neria, Ohry, Waysman, & Ginzburg, 1994). This is a well-validated, 17-item, self-report questionnaire measuring DSM-IV PTSD (American Psychiatric Association, 1994). The PTSDI measures trauma among the three PTSD symptom clusters: intrusion, avoidance, and hyperarousal. Participants indicate the frequency with which they experienced each symptom in the last month on a four-point rating scale from 1 = not at all to 4 = extremely. The total score for the PTSDI and subscales was computed by averaging all items, with higher scores indicating more posttraumatic symptoms (Cronbach's  $\alpha = 0.94$ ).

VT was assessed using a modified version of the Compassion Fatigue Questionnaire (CFQ) (Figley, 1995). This is a well-validated, 20-item questionnaire. Respondents rate the extent to which they experienced possible vicarious traumatic reactions, from 0 = not at all to 4 = extremely (Cronbach's  $\alpha = 0.92$ ). The CFQ has been widely used with other social work populations for measuring VT and secondary trauma (Adams, Boscarino, & Figley, 2006; Adams, Figley, & Boscarino, 2008).

### Statistical Analyses

Descriptive analyses were performed to check for demographic differences between Sderot and GBC groups using *t* test and Mann-Whitney (*U*) test. Multivariate analysis of variance (MANOVA) was used to compare the effect of location on measures

of exposure, PTSD, and VT. A multivariate hierarchical, multivariate ordinary least squares regression was performed to investigate the effect of the independent variables on the dependent variables. Items were entered into the regression model first by demographic variables (step 1), followed by exposure variables (step 2), and professional support and competence (step 3). A final step to check the relationship between PTSD and VT was included in each regression. All analyses were conducted using SPSS (Version 21) for Windows. Informed consent was obtained from each participant. Tel Aviv University ethics committee and the directors of the welfare agencies of Sderot and GBC municipalities approved this research.

## RESULTS

### Group Differences

Sociodemographic statistics are summarized in Table 1. Significant group differences were only indicated for years of education. MHP from the GBC group reported significantly more years of education compared with their Sderot peers.

MANOVA for professional support and perceived professional competence returned a nonsignificant result, Wilk's lambda = 0.978, Hotelling's  $T = 0.025$ ,  $F(2, 95) = 1.200$ ,  $p = .306$ ,  $\eta p^2 = .025$ .

MANOVA for exposure indicated that Sderot's MHPs reported more objective, subjective, and professional exposure to rockets compared with GBC MHPs, Wilk's lambda = 0.742, Hotelling's  $T = 0.348$ ,  $F(3, 95) = 11.034$ ,  $p = .001$ ,  $\eta p^2 = .258$ . Separate univariate analyses of variance (ANOVA) for support and competence and exposure variables are reported in Table 2.

**Table 1: Demographic Characteristics of the Total Sample and Differences**

Characteristic	Sderot	GBC	Test
Gender, male <sup>a</sup> <i>n</i>	10	10	$U = 1220.00$ , $Z = -0.050$
Family status, married <sup>a</sup> <i>n</i>	37	43	$U = 1100.00$ , $Z = 1.492$
Income, <i>n</i>			
Below average <sup>a</sup>	20	17	$U = 1127.00$ , $Z = -0.730$
Average	18	17	
Above average	12	15	
Job seniority, <i>M</i> ( <i>SD</i> )	10.59 (9.47)	12.06 (8.25)	$t(95) = .815$
Years of education, <i>M</i> ( <i>SD</i> )	15.47 (2.79)	16.66 (2.63)	$t(94) = 2.323^*$
Age, <sup>b</sup> <i>M</i> ( <i>SD</i> )	40.53 (11.02)	42.33 (10.83)	$t(98) = .824$

Note: GBC = Gaza-bordering communities.

<sup>a</sup>Group differences for gender, family status, and income were checked using the nonparametric Mann-Whitney *U* test.

<sup>b</sup>Group differences for job seniority, years of education, and age were assessed using *t* tests.

\* $p < .05$ .

**Table 2: Comparison of Posttraumatic Stress and Vicarious Trauma Symptoms for Mental Health Professionals, by Location**

Variable	Sderot	M (SD)	GBC	$\eta p^2$
	M (SD)		F	
PTSDI total score	1.78 (0.65)	1.38 (0.36)	$F(1, 97) = 13.895^{***}$	.125
Intrusion	1.77 (0.72)	1.37 (0.43)	$F(1, 98) = 11.455^{**}$	.105
Avoidance	1.60 (0.64)	1.18 (0.30)	$F(1, 98) = 17.188^{***}$	.149
Hyperarousal	2.04 (0.76)	1.70 (0.59)	$F(1, 98) = 6.157^*$	.059
Vicarious trauma	15.36 (14.53)	6.77 (6.42)	$F(1, 97) = 14.367^{***}$	.129
Objective exposure	2.64 (0.73)	1.99 (0.46)	$F(1, 97) = 28.085^{***}$	.225
Subjective exposure	2.70 (0.92)	2.15 (0.71)	$F(1, 97) = 11.106^{**}$	.103
Professional exposure	3.24 (0.88)	2.69 (0.86)	$F(1, 97) = 10.087^{**}$	.094
Professional support	2.37 (0.73)	2.57 (0.71)	$F(1, 96) = 1.932$	.020
Professional self-efficacy	3.34 (0.94)	3.34 (0.91)	$F(1, 96) = 0.001$	.000

Note: PTSDI = Posttraumatic Stress Disorder Inventory. GBC = Gaza-bordering communities.  
\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 3: Correlation and Regression Beta Coefficients Predicting PTSD Symptoms**

Step	Variable	Total Adjusted $R^2$	Overall F	$R^2$ Change	F Change	$\beta$ (For Final Step)
1	Group	.243	$F(3, 87) = 10.614^{***}$	.268	10.614 <sup>***</sup>	.203
	Years of education					-.132
	Professional experience					.315 <sup>***</sup>
2	Objective exposure	.347	$F(6, 84) = 8.964^{***}$	.122	5.623 <sup>**</sup>	-.048
	Subjective exposure					.373 <sup>**</sup>
	Professional exposure					.150
3	Professional support	.385	$F(8, 82) = 8.029^{***}$	.049	3.576 <sup>*</sup>	.135
	Professional self-efficacy					-.260 <sup>**</sup>

Note: PTSD = posttraumatic stress disorder.  
\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### PTSD and Vicarious Traumatization

Sderot MHPs had significantly worse scores on PTSD and VT, Wilk's lambda = 0.858, Hotelling's  $T = 0.165$ ,  $F(2, 96) = 7.925$ ,  $p = .001$ ,  $\eta p^2 = .142$ . MANOVA for intrusion, avoidance, and hyperarousal returned a significant effect for groups, Wilk's lambda = 0.841, Hotelling's  $T = 0.189$ ,  $F(3, 96) = 6.056$ ,  $p = .001$ ,  $\eta p^2 = .159$ . Univariate ANOVAs for all results are summarized in Table 2. Bivariate tests indicated a strong correlation between PTSD and vicarious traumatization at  $r = .80$  ( $p < .001$ ).

### Regression

**PTSD.** Results indicate that the independent variables accounted for 39 percent of the total variance in PTSD (adjusted  $R^2 = .385$ ) (Table 3). Step 1 accounted for 24 percent of the variance, step 2 accounted for 10 percent of the variance, and step 3 accounted for 4 percent of the variance. Significant predictors for

PTSD in the final step were professional experience ( $\beta = .315$ ,  $p < .001$ ), subjective exposure ( $\beta = .373$ ,  $p = .001$ ), and perceived professional competence ( $\beta = -.0260$ ,  $p < .01$ ).

**Vicarious Trauma.** Results indicate that the independent variables accounted for 42 percent of the total variance in VT (adjusted  $r^2 = .42$ ) (Table 4). Step 1 accounted for 22 percent of the variance, step 2 accounted for 9 percent of the variance, and step 3 accounted for 11 percent of the variance. Significant predictors for VT in the final step were years of education ( $\beta = -.209$ ,  $p = .03$ ), professional experience ( $\beta = .241$ ,  $p = .005$ ), subjective exposure ( $\beta = .289$ ,  $p = .008$ ), professional support ( $\beta = .243$ ,  $p < .029$ ), and perceived professional competence ( $\beta = -.389$ ,  $p < .001$ ).

### DISCUSSION

This study assessed concurrent primary trauma and VT exposure among MHPs and the potential

**Table 4: Correlation and Regression Beta Coefficients Predicting Vicarious Trauma Symptoms**

Step	Variable	Total Adjusted R <sup>2</sup>	Overall F	R <sup>2</sup> Change	F Change	β (For Final Step)
Step 1	Group	.219	$F(3, 87) = 9.415^{***}$	.245	9.415 <sup>***</sup>	.187
	Years of education					-.209*
	Professional experience					.241 <sup>**</sup>
Step 2	Objective exposure	.306	$F(6, 84) = 7.604^{***}$	.107	4.618 <sup>**</sup>	-.030
	Subjective exposure					.289 <sup>**</sup>
	Professional exposure					.222
Step 3	Professional support	.419	$F(8, 82) = 9.123^{***}$	.119	9.218 <sup>***</sup>	.243*
	Professional self-efficacy					-.398 <sup>***</sup>

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

buffering role of professional support. Results indicate that MHPs working in areas affected by repeated rocket attacks are at risk for both PTSD and VT symptoms; MHPs working in Sderot report significantly higher levels of PTSD and VT symptoms, as well as higher objective, subjective, and professional exposure. Although PTSD and VT were found to be highly correlated, they had some distinct predictors. PTSD was predicted by professional experience, subjective exposure, and professional self-efficacy, whereas VT was predicted by years of education, professional experience, subjective exposure, professional support, and professional self-efficacy.

The responses for the exposure variables and distress variables are consistent with the larger, emerging data concerning populations living in this area (for example, Besser & Neria, 2009; Bleich, Gelkopf, Melamed, & Solomon, 2006; Palmieri, Chipman, Canetti, Johnson, & Hobfoll, 2010). However, professional support may moderate the relationship between exposure and distress. In some cases, working as an MHP in these circumstances may be an empowering and rewarding experience, because this is a role that requires them to take responsibility for others and can make a substantial positive difference to their clients (Lev-Wiesel, Goldblatt, Eisikovits, & Admi, 2009; Pulido, 2007). On the other hand, MHPs may be more vulnerable due to the increased professional caseload; depletion of coping resources; feelings of tension between professional and family responsibilities; and an increased sense of insecurity, uselessness, and helplessness regarding their professional self-efficacy. Professional exposure, although not significant, was approaching significance in the

VT regression ( $p = .053$ ). This suggests another aspect of the dose–response relationship, which is almost exclusively related to the increased exposure to traumatized clients (Bober & Regehr, 2006).

Although we found PTSD and VT to be highly correlated, the regression indicates distinctions that appear to be directly related to the professional role of the worker. Specifically, the predictive nature of education and professional support with vicarious traumatization presents an important insight into potential resilience mechanisms for these professionals. In terms of education, postgraduate training schemes specifically for working with trauma survivors or in a shared traumatic reality could better prepare social workers. As suggested by some (for example, Calderón-Abbo et al., 2008; Trippany et al., 2004), this specialized training may serve as a protective variable, better preparing the workers for VT exposure. Supervision, which is considered important for all mental health workers, may function to influence the impact of trauma exposure, though the type or form of this supervision should be carefully considered (Dekel & Nuttman-Shwartz, 2009). Strong organizational support structures should be built into organizational frameworks for MHPs who are simultaneously exposed to both primary trauma and VT and should be put in place in the event of natural disasters or emerging crises.

Professional self-efficacy was negatively correlated with both PTSD and VT symptoms. Self-efficacy is known to be a significant protective factor regarding traumatization (Solomon, Benbenishty, & Mikulincer, 1991). Traumatic exposure is difficult to prevent, but self-efficacy may be open to manipulation (Bandura, 1986). As such, it is paramount to ensure that MHPs

receive sufficient support in terms of training and supervision to enhance their sense of professional competence, particularly in the context of concurrent exposure to primary trauma and VT.

A difference between Sderot and the GBC, which should be taken into consideration in interpreting these results, relates to these two areas' overall resources for coping (Hobfoll, 1989). Sderot is considered a development town in Israel, as it is deprived and impoverished (Yifachel, 2000). The GBC are smaller, close-knit communities that also tend to be wealthier and contain fewer social problems compared to development towns. This raises the question of whether rocket fire has a greater impact on more vulnerable populations. If so, we would expect the uptake in mental health services to be greater in Sderot, thereby increasing the caseload for the mental health worker.

There are a number of limitations to this study that suggest caution in the interpretation of the findings. First, this research relied upon self-report methods in the collection of data concerning trauma exposure and distress, thus limiting results to the subjective observations of the participants. The cross-sectional design of this research may not correctly reflect the contextual situation of ongoing exposure to trauma. These situations fluctuate in terms of their intensity, and the time of data collection in a cross-sectional design is likely to present a somewhat inaccurate picture of the current level of exposure. Data collection for this research began shortly after one of the acute military escalations between the Gaza Strip and Israel and may therefore reflect higher scores for PTSD and VT.

Nevertheless, this research makes important contributions to determining the impact on MHPs of a concurrent exposure to primary trauma and VT. This is relevant not only for ongoing terror exposure, but also for situations of recurrent trauma. For example, areas vulnerable to repeated natural disasters (for example, flooding) or extremely deprived inner city communities may present conditions of concurrent primary trauma and VT exposure. In particular, this research suggests that MHPs, particularly those who have been in the role for many years, should be provided with supervision and ways in which to enhance their professional self-efficacy in order to increase their resilience. This has important clinical implications not only for the well-being of the professionals, but also for their clients, who are directly affected by the psychological state of the MHPs who are working with them (for example, Elwood, Mott, Lohr, & Galovski, 2011).

We recommend that future research use a larger representative sample, with a longitudinal design, that compares different groups of professionals (for example, social workers, psychologists, psychiatrists). Similarly, the socio-demographic background of the professionals, including their living arrangement (that is, whether they or their families live in the shared traumatic situation area), cannot be overlooked. Given the dire need for mental health interventions in times of ongoing terror, the well-being of MHPs is of utmost importance. As such, the identification of factors that may enhance their personal resilience and professional functioning should be considered a major public health concern. **HSW**

## REFERENCES

- Adams, R., Boscarino, J., & Figley, C. (2006). Compassion fatigue and psychological distress among social workers: A validation study. *American Journal of Orthopsychiatry*, 76(1), 103–108.
- Adams, R., Figley, C., & Boscarino, J. (2008). The compassion fatigue scale: Its use with social workers following urban disaster. *Research on Social Work Practice*, 18(3), 238–250.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.) (DSM-IV). Washington, DC: Author.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy. *Journal of Social and Clinical Psychology*, 4(3), 359–373.
- Baum, N. (2010). Shared traumatic reality in communal disasters: Toward a conceptualization. *Psychotherapy: Theory, Research, Practice, Training*, 47(2), 249–259.
- Beck, C. (2011). Secondary traumatic stress in nurses: A systematic review. *Archives of Psychiatric Nursing*, 25(1), 1–10.
- Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society*, 84, 463–470.
- Besser, A., & Neria, Y. (2009). PTSD symptoms, satisfaction with life, and prejudicial attitudes toward the adversary among Israeli civilians exposed to ongoing missile attacks. *Journal of Traumatic Stress*, 22(4), 268–275.
- Bleich, A., Gelkopf, M., Melamed, Y., & Solomon, Z. (2006). Mental health and resiliency following 44 months of terrorism: A survey of an Israeli national representative sample. *BMC Medicine*, 4(21). doi:10.1186/1741-7015-4-21
- Bober, T., & Regehr, C. (2006). Strategies for reducing secondary or vicarious trauma: Do they work? *Brief Treatment and Crisis Intervention*, 6(1), 1–9.
- Calderón-Abbo, J., Kronenberg, M., Many, M., & Ososfsky, H. (2008). Fostering healthcare providers' post-traumatic growth in disaster areas: Proposed additional core competencies in trauma-impact management. *American Journal of the Medical Sciences*, 336(2), 208–214.
- Cherniss, C. (1993). Role of professional self-efficacy in the etiology and amelioration of burnout. In B. Shaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 135–149). Philadelphia: Taylor & Francis.
- Chouliara, Z., Hutchison, C., & Karatzias, T. (2009). Vicarious traumatisation in practitioners who work with adult

- survivors of sexual violence and child sexual abuse: Literature review and directions for further research. *Counselling and Psychotherapy Research*, 9(1), 47–56.
- Cohen, K., & Collens, P. (2012). The impact of trauma work on trauma workers: A metanalysis on vicarious trauma and vicarious posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5, 570–580.
- Dekel, R., & Nuttman-Shwartz, O. (2009). Posttraumatic stress and growth: The contribution of cognitive appraisal and sense of belonging to the country. *Health & Social Work*, 34, 87–96.
- Elwood, L., Mott, J., Lohr, J., & Galovski, T. (2011). Secondary trauma symptoms in clinicians: A critical review of the construct, specificity and implications for trauma-focused treatment. *Clinical Psychology Review*, 31(1), 25–36.
- Fahri, E., Lauden, A., Ifergan, G., & Fariger, M. (2008). Impact of continuous terrorism missile attacks on the emotional and physical strength of the local population in Sderot, Israel [Conference abstract]. *Epidemiology*, 19(6), S106–S107.
- Figley, C. R. (1995). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 3–28). Baltimore: Sidran Press.
- Greene, T., Bronstein, I., & Solomon, Z. (2015). *Psychological sequelae to ongoing exposure to terror from the Gaza Strip: A critical review*. Manuscript submitted for publication.
- Grinberg, M. (2007, March 7). Sderot bomb shelters not ready for possible Gaza escalation. *Haaretz*. Retrieved from <http://www.haaretz.com/print-edition/news/sderot-bomb-shelters-not-ready-for-possible-gaza-escalation-1.214917>
- Hesse, A. (2002). Secondary trauma: How working with trauma survivors affects therapists. *Clinical Social Work Journal*, 30(3), 293–309.
- Hobfoll, S. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Intelligence and Terrorism Information Center at the Israel Heritage & Commemoration Center. (2009). *Summary of rocket fire and mortar shelling*. Retrieved from [http://www.terrorism-info.org.il/data/pdf/PDF\\_19045\\_2.pdf](http://www.terrorism-info.org.il/data/pdf/PDF_19045_2.pdf)
- Lerias, D., & Byrne, M. K. (2003). Vicarious traumatization: Symptoms and predictors. *Stress & Health*, 19(3), 129–138.
- Lev-Wiesel, R., Goldblatt, H., Eisikovits, Z., & Admi, H. (2009). Growth in the shadow of war: The case of social workers and nurses working in a shared war reality. *British Journal of Social Work*, 39, 1154–1174.
- McCann, L., & Pearlman, L. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3(1), 131–149.
- Michalopoulos, L., & Aparicio, E. (2012). Vicarious trauma in social workers: The role of trauma history, social support, and years of experience. *Journal of Aggression, Maltreatment and Trauma*, 21, 646–664.
- Palmieri, P., Chipman, K., Canetti, D., Johnson, R., & Hobfoll, S. (2010). Prevalence and correlates of sleep problems in adult Israeli Jews exposed to actual or threatened terrorist or rocket attacks. *Journal of Clinical Sleep Medicine*, 6, 557–564.
- Pearlman, L., & Mac Ian, P. (1995). Vicarious traumatization: An empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research and Practice*, 26, 558–565.
- Phipps, A., & Mitchell, K. (2003). Brief interventions for secondary trauma: Review and recommendations. *Stress and Health*, 19(3), 139–147.
- Pulido, M. (2007). In their words: Secondary traumatic stress in social workers responding to the 9/11 terrorist attacks in New York City. *Social Work*, 52, 279–281.
- Saakvitne, K. (2002). Shared trauma: The therapist's increased vulnerability. *Psychoanalytic Dialogues: The International Journal of Relational Perspectives*, 12, 443–449.
- Solomon, Z., Benbenishty, R., & Mikulincer, M. (1991). The contribution of wartime, pre-war, and post-war factors to self-efficacy: A longitudinal study of combat stress reaction. *Journal of Traumatic Stress*, 4, 345–361.
- Solomon, Z., Neria, Y., Ohry, A., Waysman, M., & Ginzburg, K. (1994). PTSD among Israeli former prisoners of war and soldiers with combat stress reaction: A longitudinal study. *American Journal of Psychiatry*, 151, 554–559.
- Sprang, G., Clark, J., & Whitt-Woosley, A. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma*, 12(3), 259–280.
- Tosone, C., Nuttman-Shwartz, O., & Stephens, T. (2012). Shared trauma: When the professional is personal. *Clinical Social Work Journal*, 40(2), 231–239.
- Trippany, R., White Kress, V., & Wilcoxon, S. (2004). Preventing vicarious trauma: What counselors should know when working with trauma survivors. *Journal of Counseling & Development*, 81(1), 31–37.
- Yiftachel, O. (2000). Social control, urban planning and ethno-class relations: Mizrahi Jews in Israel's "development towns." *International Journal of Urban and Regional Research*, 24, 418–438.

---

**Michal Finklestein, PhD, LCSW**, is lecturer, Department of Social Work, Zefat Academic College, Zefat, Israel. **Einat Stein, PhD**, is lecturer, Department of Psychology, Bar Ilan University, Ramat Gan, Israel. **Talya Greene, PhD**, is lecturer, Department of Community Mental Health, University of Haifa, Israel. **Israel Bronstein, PhD**, is researcher and **Zahava Solomon, PhD**, is full professor, head of the I-Core Research Center for Mass Trauma, Bob Shapell School of Social Work, Tel Aviv University, Tel Aviv, Israel. Address correspondence to Michal Finklestein, Zefat Academic College, Zefat, 12360, Israel; e-mail: [michalfi@netvision.net.il](mailto:michalfi@netvision.net.il).

Original manuscript received July 11, 2013  
 Final revision received December 8, 2013  
 Accepted December 18, 2013