

The Cost of Caring? Social Workers in Hospitals Confront Ongoing Terrorism

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Summary

The study reported here assesses the severity of post-traumatic symptoms and emotional distress among hospital social workers who provided emergency treatment to victims after terrorist attacks in Israel. We examined the contributions of personal and professional exposure to terrorism, professional training, supervision, sense of professional confidence, and optimism to the severity of distress among 144 social workers at

eighteen hospitals in various parts of the country. Emotional distress was assessed by two measures: secondary traumatization (post-traumatic symptoms after treating victims of terrorist attacks), and additional psychiatric symptomatology. Only 7 per cent of the workers reported secondary traumatization, and their levels of distress on accompanying psychiatric symptoms were significantly lower than the norms for the general Israeli population. We also found that professional exposure to terrorism, sense of professional confidence and optimism contributed significantly to the explained variance in distress. The discussion deals with the findings in light of the rise in terrorism in recent years and the professional literature on the topic.

Keywords: social workers, secondary traumatization, optimism, terrorism

Terrorism is defined as the deliberate use of violence, or threat of its use, against innocent people, with the aim of intimidating some other people into a course of action they otherwise would not take (Primoratz, 2002/03). There is a general distinction between terror from above, namely terror by the state or government, and terror from below, namely individual terrorism (Holmes, 2002). Nevertheless, a shared international definition of terrorism is still lacking, perhaps because the term 'terrorism' reflects ideological and political values. Consequently, the term 'terrorism' can be used both to condemn and justify particular acts, or to regard the same acts as abhorrent or defensible, depending on the context (Al Roken, 2005).

Studies on the effects of terror have been conducted among various populations at risk, such as children and elderly people, as well as workers who provide emergency care to victims at the scene of the event (e.g. body handlers), and workers who help the victims cope with the long-term effects of the experience. In the present study, we examined the contribution of personal and professional variables to distress among Israeli social workers who have treated victims of terrorist attacks at general hospitals.

Social workers in general hospitals encounter injuries, disease and death as an integral part of their daily routine. However, the need to cope with providing intensive treatment to victims of terrorist attacks has placed them 'in the front line'. Over the five years since the beginning of the Palestinian Intifada in late September 2000, Israeli and Palestinian societies have suffered substantial losses. On the Israeli side, over 1,000 people have been killed and about 7,000 have been injured. On the Palestinian side, over 3,000 people have been killed and about 30,000 have been injured.

When a terrorist attack occurs, hospitals over the country enter a state of emergency alert. Social workers are divided into predetermined teams, and usually perform four major roles: establishing initial contact with casualties in the emergency room, operating an information hotline, organizing a family assembly area, and helping victims with acute stress reactions (Drori *et al.*, 1999).

In each of these roles, social workers are exposed to ongoing stress as they directly encounter experiences of the most horrifying kind. They are expected to react immediately, even though they have very little control over

the situation. On the one hand, they need to remain calm and rational in an attempt to bring the situation under control. On the other hand, they are expected to empathize with the victim and provide emotional support (Talbot *et al.*, 1995).

Trauma-related research has shown that the long-range emotional impact of working with trauma clients is pathogenic and can be transmitted through the process of empathy (Catherall, 1995; Figley, 1995; Pearlman and Saakvitne, 1995). This phenomenon has been identified as secondary traumatization (Figley, 1986) or vicarious trauma (McCann and Pearlman, 1990), and has been defined as 'the transformation that occurs in the inner experience of the worker that comes about as a result of empathic engagement with clients' trauma material' (Pearlman and Saakvitne, 1995, p. 31). As a result of vicarious exposure to traumatic events, social workers have reported physiological symptoms that resemble post-traumatic reactions, and that may manifest themselves in the form of nightmares, intrusive symptoms, emotional exhaustion, and depersonalization and reduced personal accomplishment (Bell *et al.*, 2003).

In light of this situation, researchers have begun to explore some of the risk factors involved in the development of distress on the one hand, and some buffering factors that help reduce distress on the other hand. Among the risk factors identified are intensity of exposure to terrorism, age and professional experience, supervision and training. Evidently, the more time social workers spend with traumatized clients and the more trauma cases they have under their care, the greater the risk of developing secondary stress reactions (Pearlman and MacIan, 1995). Consistent with these findings, some researchers have revealed a positive relationship between extent of work with traumatized clients and severity of distress in therapists (e.g. Baird and Jenkins, 2003). Other researchers, however (e.g. Follette *et al.*, 1994), have argued that secondary trauma may emerge unexpectedly, as a sudden flood of symptoms accompanied by a sense of helplessness, confusion and disassociation.

Moreover, findings have revealed that age and professional experience correlate inversely with the development of secondary traumatization. The less experienced the workers, the more they are at risk when they treat traumatized clients. Notably, they have less time to develop their professional identity and effective coping strategies than do experienced workers. In addition, they have fewer opportunities to integrate their clients' traumatic stories into their system of beliefs and to balance their own personal safety. They are overwhelmed by a sense of futility due to violence around them, tend to be suspicious of others, and lack confidence in their ability to contribute to their clients' well-being (Neumann and Gamble, 1995). By contrast, findings indicate that older and more experienced social workers have a stronger sense of self-efficacy and are better able to separate their professional role from their private life. In this connection, several studies have found a correlation between inexperience and high levels of distress (e.g. Adams *et al.*, 2001; Baird and Jenkins, 2003).

In addition, trauma-specific training and effective supervision have been found to diminish the potential for distress among social workers (Bell *et al.*,

2003). Adequate supervision is conducive to a relationship in which the worker feels safe about expressing fears, concerns and inadequacies (Welfel, 1998). Thus, a responsive and supportive supervisory relationship may enable workers to process traumatic experiences, and thus mitigate the personal effect of those experiences. Supervision may also help alleviate stress by encouraging the worker to take on a smaller or more diverse caseload, and by increasing the worker's awareness of boundaries and professional margins (Sexton, 1999). Pearlman and MacIan (1995) found that workers who were exposed to personal trauma and did not receive supervision experienced higher levels of distress than did those who were exposed to trauma and received supervision.

An additional personal disposition that has been identified as a resource in coping with stress situations is optimism. Optimism is defined as a relatively stable, generalized expectation that good outcomes will occur across important life domains (Scheier and Carver, 1985). People tend to maintain their optimism over time and across different situations. Studies have confirmed cross-sectional and longitudinal relationships between optimism and subjective well-being (Khoo and Bishop, 1997), self-esteem (Dunn, 1996), low depression (Marshall and Lang, 1990), low negative emotions (King *et al.*, 1998) and high life satisfaction (Chang, 1998). A few studies have examined the relationship between optimism and risk of job burnout or distress. A study of employed students revealed that lack of optimism is a risk factor for job burnout, independently of stress (Chang *et al.*, 2000). Another study, conducted among information service workers whose jobs require them to deal with serious global computer programming problems, found that optimism has both direct and moderating effects (Riulli and Savicki, 2003).

Based on this literature, the aims of this study were defined as follows: (i) to assess the severity of distress among social workers who treated victims of terrorist attacks in general hospitals; and (ii) to assess the contribution of personal and professional resources to the severity of their distress. More specifically, we will examine how personal and professional exposure to terrorism, extent of job experience, trauma-related training and guidance, sense of confidence in professional work, and dispositional optimism affect specific trauma-related symptoms as well as additional psychological symptoms.

Method

Sample

The study was conducted at eighteen hospitals in various regions of Israel. Out of 338 social workers in those hospitals, 144 participated in the study (response rate 42.6 per cent). The age range of participants was between twenty-four and sixty-four years ($M = 42.87$, $SD = 11.34$), and 75 per cent of them were married. As for religiosity, more than half defined themselves as secular, approximately 25 per cent defined themselves as keeping Jewish tradition, and the rest

defined themselves as Orthodox. Regarding level of education, 54 per cent had a Master's degree, 41 per cent had a Bachelor's degree, and 5 per cent had a Ph.D. degree. Average seniority on the job was over fifteen years ($M = 15.49$, $SD = 10.48$), and average length of employment as a hospital social worker was approximately twelve years ($M = 11.86$, $SD = 8.72$). Approximately half of the participants in the sample received supervision, and 44 per cent provided supervision.

Regarding the social workers' professional exposure to terrorism, the majority (92.4 per cent, $n = 133$) had been involved in treating victims and their families. They had either worked at the social workers' office following a terrorist attack, treated victims immediately after the attack, or treated victims and their families in the days following the attack. However, the social workers differed in the level of their professional experience. Most of them worked in areas with a high incidence of terrorism (Jerusalem and the central region of Israel, $n = 101$), and belonged to the 'high exposure' group. The rest worked at hospitals in areas with relatively few terrorist attacks (the northern and southern regions, $n = 33$), and belonged to the 'low exposure' group. Participants in those two groups did not differ significantly with regard to background variables or personal exposure to terrorism.

Measures

Socio-demographic characteristics

The questionnaire related to age, family and religiosity.

Professional employment

The questionnaire examined participants' level of education, years of professional experience, years of employment at the hospital, and whether they received or provided supervision.

Personal exposure to terrorist attacks

We asked participants whether they or any of their family members and friends had been exposed to a terrorist attack.

Professional exposure to terrorist attacks

We asked participants whether they had been involved in treating victims and their families (e.g. working at the information centre after a terrorist attack,

treating victims immediately after the attack, or treating victims and their families in the days following the attack).

Trauma-related professional training

We asked participants whether they had participated in specific trauma training programmes, whether they had attended staff debriefing sessions after the event, and whether they felt that those meetings had helped them. The scale of responses ranged from 1 (not at all) to 4 (to a very great extent).

Sense of professional confidence

The participants' sense of professional confidence in their work with victims of terrorism was assessed on the basis of three items, which measured the workers' confidence in their professional skills for treating victims of terrorism, their perceptions regarding the success of the intervention and their feelings of helplessness. Participants were asked to indicate the extent to which they agreed with the three statements, on a five-point scale ranging from 0 (not at all) to 4 (to a very great extent). After reverse coding the last question, one score was derived by computing the mean of the responses on the items. The Cronbach's alpha reliability value for the measure was 0.68.

Optimism

This variable was measured by the Life Orientation Test-Revised (Lot-R) (Scheier *et al.*, 1994). The questionnaire is a six-item self-report measure (plus four filler items), which assesses generalized expectancies for positive versus negative outcomes. We asked participants to indicate the extent to which they agree with statements such as 'In uncertain times, I usually expect the best' and 'I hardly ever expect things to go my way' on a five-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). After reverse-coding the three negatively worded items, the mean of the scores on all of the questions was computed to yield an overall optimism score: the higher the score, the greater their optimism. The Lot-R has good internal consistency and is relatively stable over time (Carver and Scheier, 2005).

Secondary Trauma Scale (STS)

Developed by Motta *et al.* (2001), the scale consists of eighteen items that describe negative reactions following close proximity to a person or family

member who was exposed to a traumatic event. In the present study, we asked participants to relate to their experiences with victims of terrorism. Items are rated on a five-point scale, ranging from 1 (rarely/never) to 5 (very often). Therefore, the possible range of scores was 18–90. The STS was developed using a wide variety of samples, and has strong psychometric characteristics in various domains of reliability and validity (Motta *et al.*, 2004). Internal reliability in the current sample was 0.88.

The Brief Symptom Inventory (BSI) (Derogatis, 1977)

The BSI is a fifty-three-item self-report symptom inventory designed to assess psychological symptoms status in clinical and non-clinical samples. Each item of the BSI is rated on a five-point scale of perceived distress, ranging from 1 (not at all) to 5 (to a great extent). The items examine nine symptom dimensions: somatization, obsessive–compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, public anxiety, paranoid ideation and psychoticism. In addition, the General Severity Index (GSI) was computed as a global measure of distress. The validity and consistency of the inventory have been reported as high in a number of studies conducted in Israel among cancer patients (Ben-Zur, 2001) and new immigrants (Mirsky, 1997). The present study compared levels of distress with updated Israeli norms (Gilbar and Ben-Zur, 2002).

Procedure

The study was conducted with assistance and permission from the Social Services Department of the Israeli Ministry of Health, which is responsible for the social services provided at hospitals. Directors of social services at the various hospitals distributed the questionnaires to the social workers under their supervision. Participants administered the questionnaires themselves, at the time and place that were convenient for them. The name of the hospital was coded, and participants were asked to refrain from listing their names. To avoid control from their supervisors, participants returned the questionnaires personally to the investigators. Of twenty-four hospitals throughout the country, eighteen participated in the study.

Results

Personal exposure to terrorism

Nine participants (6.3 per cent) reported direct exposure to terrorism, seventeen (11.8 per cent) reported that a member of their family had been exposed to terrorism, and forty-seven (32.6 per cent) knew someone who had been

exposed to terrorism. No significant correlation between personal and professional exposure to terrorism was found.

Professional training and supervision

The workers were asked about their participation in trauma-specific training courses. Eighty-six of the workers (60 per cent) reported that they had participated in a relevant training programme such as study sessions organized at the hospital or other workshops and conferences. Following a terrorist attack, 65 per cent of the workers reported that they had participated in debriefing sessions, and 69.9 per cent indicated that the sessions had helped them to a moderate or great extent, whereas the rest indicated that debriefing had not helped them at all.

Secondary traumatization and accompanying emotional distress

Means and standard deviations of workers' scores on the Secondary Traumatization scale, the nine BSI subscales and the GSI are presented in Table 1. Levels of the BSI subscales and the GSI are compared to normative levels among the Israeli population (Gilbar and Ben-Zur, 2002).

As can be seen in Table 1, the mean level of scores on the STS was close to 32 (possible range 18–90). Only 7 per cent of the participants scored higher than 45, which was the cut-off for high distress (Motta *et al.*, 2004).

In addition, levels of distress among social workers were significantly lower than among the general population on all measures, with the exception of anxiety and phobia. Among hospital workers, levels of anxiety were similar to

Table 1 Means and standard deviations of workers' scores on the nine BSI subscales and GSI compared with norms of the Israeli population

Variable	M	SD	Norm	Mean comparison	Percentage of sample above norm
STS symptoms	31.16	9.02	45—suggested cut-off	–	7
GSI	0.55	0.44	0.72	4.46***	30.1
Somatization	0.37	0.46	0.62	6.14***	22.6
Anxiety	0.83	0.63	0.85	0.02	34.6
Hostility	0.43	0.52	0.72	6.53***	18.0
Phobia	0.78	0.68	0.46	5.48***	55.6
Depression	0.60	0.53	0.70	2.14*	30.1
Interpersonal sensitivity	0.56	0.64	0.68	2.52*	34.8
Obsessive–compulsive	0.66	0.64	0.94	4.97***	30.0
Paranoia	0.40	0.52	0.91	11.23***	14.3
Psychoticism	0.35	0.49	0.57	5.12***	32.3

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

those of the general population, whereas levels of phobia were higher than the norm for the general population.

Prediction of distress level

Table 2 presents the matrix of correlations between the research variables. As indicated in the table, receipt of supervision correlated negatively with level of psychiatric symptoms. The higher the participants' level of professional exposure to terrorism, the higher their levels of distress in both measures. The greater their sense of professional confidence and optimism, the lower their levels of distress.

To examine the contribution of the independent variables to specific trauma symptoms and general psychological symptoms, we performed two hierarchical regressions. Both analyses included two steps. In the first step, the variables professional education, years of job experience, supervision (received or provided), personal and professional exposure to terrorism, sense of professional confidence and optimism were entered. In the second step, the interactions between level of professional exposure to terrorism, sense of professional confidence and optimism were entered.

Specific post-traumatic stress disorder (PTSD) symptoms

The set of variables examined in our study explained 28.5 per cent of the variance in the specific PTSD symptoms ($F(9, 121) = 4.96, p < 0.001$). Three variables—professional exposure, sense of professional confidence and optimism—entered significantly in the first step of the regression equation. Workers who were exposed more intensively to terror reported more specific PTSD symptoms (Beta = 0.19, $p < 0.05$). The greater the workers' professional confidence (Beta = $-0.27, p < 0.01$) and the greater their optimism

Table 2 Correlation matrix between the study variables

Variable	PTSD symptoms	GSI
Age	0.09	0.16
Years of professional experience	-0.06	-0.12
Being a supervisor	-0.01	0.15
Receiving supervision	-0.15	-0.22*
Participation in specific trauma training programmes	0.08	-0.03
Participation in staff debriefing following the event	0.04	0.10
Professional exposure to terrorism	0.23*	0.23**
Personal exposure to terrorism	-0.02	0.06
Sense of professional confidence	-0.33**	-0.23**
Optimism	-0.38**	-0.40**

* $p < 0.01$; ** $p < 0.001$.

(Beta = -0.33 , $p < 0.001$), the lower their levels of PTSD symptoms. In the second step, none of the interactions entered significantly.

GSI

The independent variables explained 27.75 per cent of the variance of the specific trauma symptoms ($F(9, 122) = 4.21$, $p < 0.001$). Only two variables entered significantly into the regression equation: professional exposure to terrorism and optimism. Similarly, workers with more extensive exposure to terrorism reported higher levels of additional psychological symptoms (Beta = 0.20 , $p < 0.05$). In addition, more optimistic workers (Beta = -0.38 , $p < 0.001$) reported lower levels of additional psychological symptoms. None of the interactions entered significantly to the regression equation.

Discussion

Considering the intensity and diversity of traumatic events experienced by social workers over a prolonged period of frequent exposure to terrorism, our results are encouraging. The mean level of STS was relatively low and only 7 per cent of the workers experienced STS levels that were higher than the clinical cut-off. Furthermore, hospital social workers were found to experience lower levels of psychological distress on all measures except anxiety and phobia, compared with the norm among the general population. They also expressed high levels of professional confidence, and believed that they are capable of helping their clients. These data substantiate the resiliency of the hospital social workers, who succeeded in performing their professional duties while maintaining their professional and emotional equilibrium.

McFarlane and Yehuda (1996) point out that after a traumatic event, when individuals need to cope with the vicissitudes of the experience, coping strategies are influenced by the meaning attached to the experience. Notably, the internal meaning that the workers attribute to their job may facilitate coping and mitigate psychological distress. Although we did not directly investigate the workers' perceptions of the meaning of their work, the belief that their professional interventions contributed to the well-being of their clients indirectly reflected their perceived sense of mission.

This sense of meaning is further strengthened by the public recognition that workers are accorded within the hospital and by the community. In this regard, mental health interventions have been recognized as an integral part of the agenda for treating victims of terrorism, and have met with appreciation from families, victims and hospital staff as well as from the media (Georgi, 2002; Shavit, 2002). It is possible that this high recognition and appreciation contributed to bolstering the workers' self-esteem and promoting their mental health.

An additional variable that might enhance the workers' ability to function under extreme stress and mitigate job strain is their level of education. As university graduates, it seems that the workers participating in the study had developed skills which enabled them to cope with complex situations and foster a realistic perception of the situation at hand. Furthermore, higher education has been found to influence positive self-perception and capability to cope with new situations (Menaghan, 1983). It is also possible that because hospital workers are constantly exposed to injuries, illness and death, they become resilient over the years. Although they might experience psychological distress at the onset of the traumatic event, within a short period there is a return to normalcy.

Another finding relates to the contribution of personal and professional resources to the severity of distress. Workers employed in close proximity to terrorist attacks, i.e. in Jerusalem and the metropolitan Tel Aviv area, and who had more professional exposure to terrorism reported higher levels of PTSD symptoms and greater psychiatric distress than did their counterparts in less exposed areas. These findings are supported by studies that have found a positive relationship between proximity and intensity to the traumatic event and stress symptoms among direct victims as well as among trauma staff (Schauben and Frazier, 1995). It is important to bear in mind that in a situation of prolonged and ongoing terror, workers are likely to experience increased levels of psychological distress. In that case, hospitals serving victims of terrorism need to acknowledge the impact of trauma on individual workers, and the organization has to be prepared to cope with that situation (Bell *et al.*, 2003).

In addition, professional confidence contributed positively and significantly to lower levels of PTSD symptoms. Workers who felt that their interventions were helpful and that they could alleviate their clients' distress reported lower levels of specific PTSD. To a certain extent, this sense of confidence reflects the concept of perceived self-efficacy which refers to 'belief in one's capabilities to organize and execute the courses of action required producing given attainments' (Bandura, 1997, p. 3). Individuals tend to make a constant assessment of their capabilities to perform specific tasks. Based on these assessments, they develop beliefs regarding their competence to perform prospective roles effectively. Thus, successful functioning tends to increase perceived self-efficacy, whereas failure tends to decrease it (Bandura, 1997). In the present study, workers who felt competent and successful in their work reported fewer specific work-related PTSD symptoms.

Furthermore, sense of optimism contributed significantly to reduced levels of PTSD symptoms as well as to reduced levels of additional psychiatric symptoms. This result is consistent with many other studies, which have shown that optimism has beneficial effects on well-being and health (e.g. Chang, 1998). Although some studies have shown both a direct and moderating effect for optimism (e.g. Lai, 1995), we did not find that optimism moderated the relationship between levels of professional exposure to terrorism and levels of distress. The absence of a moderating effect may be attributed to the relatively low levels of distress among the participants in our sample.

Finally, even though two-thirds of the workers had been debriefed, and even though a similar proportion of those workers reported that they had benefited from the debriefing, participation in debriefing and level of satisfaction with the process were not related to the intensity of secondary traumatization. It is possible that participation, sharing and attentiveness are considered an integral element of the organizational culture of mental health services. Therefore, debriefing as a formal process did not make a unique contribution to the existing informal support system. Furthermore, the debriefing sessions were not conducted in a consistent way, as evidenced in differences in the duration of sessions, extent of participation in the sessions, group leaders, content of sessions and the debriefing process. This inconsistency precludes evaluation of the efficiency of the debriefing method.

Our results are in line with the findings of a study that compared a debriefed group of emergency workers in an earthquake with a group that had not been debriefed (Kenardy *et al.*, 1996). According to that study, despite the satisfaction reported after debriefing, the stress levels following the event were not affected by the debriefing process. Our findings also support empirical research that has questioned the efficiency of debriefing and emphasized the need for systematic reevaluation of its effectiveness (Neria *et al.*, 1999; Emmerik *et al.*, 2002). We therefore argue that this method should not be used without re-evaluating its effectiveness, especially in view of reports that debriefing can even exacerbate psychological distress (e.g. Bisson *et al.*, 1997).

Before concluding, some limitations of the study should be mentioned, which detract from the generalizability of our results to all social workers in hospitals. First, the sample only partially represents the total population working in this field. As mentioned, a number of hospitals refused to participate in the study, and the response rate was moderate, albeit similar to that reported in other studies (Pearlman and MacIan, 1995; Cornille and Meyers, 1999). It is possible that workers with high levels of psychological distress were reluctant to participate in the study because they perceived the questionnaire as adding to their workload and as a source of distress in and of itself. Furthermore, the study was conducted at the peak of the uprising, and we do not have data on the levels of psychological distress experienced by participants prior to that period. Therefore, it is difficult to determine the extent of the impact that the terrorist attacks had on the participants' subsequent functioning and ongoing workload. Additionally, in light of the present situation, we could not examine a control group that had not been exposed to terrorist attacks. Hence, there was no way of comparing the intensity of distress reported by the workers who participated in this study with similar populations that had not been exposed to such attacks.

To conclude, some practical and empirical implications of the present study are noteworthy. With regard to the finding that 7 per cent of the workers experienced STS at levels above the clinical cut-off, these workers need to be identified, and should be provided with appropriate support and assistance. Similarly, workers in highly exposed areas deserve special attention. Efforts to

alleviate their distress and improve their working conditions should be made at the organizational and system-wide levels, in addition to providing personal care in accordance with the specific needs of each worker. In Israel and in other areas that are targets of frequent terrorist attacks, helping workers cope with distress and traumatization should be an integral part of the supervisor's job.

Additionally, as mentioned, future research should re-evaluate debriefing methods and reconsider their effectiveness. In light of the strong and consistent effects of optimism on alleviating stress and facilitating coping, it is important to explore how optimism works to achieve those effects. Research has shown, for example, that optimists use different strategies from pessimists to manage critical life situations (Wrosch and Scheier, 2003). Finally, in light of our findings, which highlighted the importance of personal resources, it would be worthwhile to investigate the combined contribution of resources such as coping styles, sense of meaning and optimism to secondary traumatization. In addition, the contention that exposure to traumatic events can yield positive outcomes as well as contribute to personal development (Tedeschi and Calhoun, 1996) might be examined in relation to social workers' experiences.

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