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The Relationship between War Trauma, Secondary Traumatic Stress, and Anxiety Among Health Professionals Working at Emergency Departments in Gaza-Strip

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Abstract

Aims: The aims of the study were 1) to investigate the type and severity of traumatic event for health professionals working at emergency department, 2) to find the most common mental health problems results from trauma (Secondary traumatic stress and anxiety), and 3) to investigate the relationships between trauma, secondary traumatization, anxiety, and other socioeconomic variables.

Method: The sample consisted of 214 health professionals working in hospitals emergency rooms in Gaza, who completed the Gaza Traumatic Events Checklist, Secondary Traumatic Stress Scale, and Hamilton Anxiety Rating Scale.

Results: Participants reported a range of traumatic events, commonly they reported watching the pictures of corpses, wounded and the killed people in TV (88.79%), witnessed wounded and the killed people and body parts while working in the emergency department (86.45%), and lost a family member or friends in the war (62.6%). According to secondary traumatic stress criteria, 45% of the health professionals met the criteria for secondary traumatic stress meeting all three core diagnostic criteria. While 51.7% had moderate to severe anxiety symptoms. There was a significant relationship between traumatic events and total secondary traumatic stress and anxiety.

Relevance to clinical practice: Secondary trauma is not well considered in research into clinically important topics. Yet health professionals deal regularly with issues of death and dying, and with violence and abuse. Our proposed framework allows for consideration of these so that precautionary measures can be put in place to minimize harm to health staff in the Gaza Strip Hospitals.

Keywords: Anxiety; Emergency; Health professionals; Secondary trauma

Introduction

Secondary traumatic stress is the terminology used most often when referencing the presence of intrusion, avoidance, and arousal symptoms. Secondary traumatic stress disorder is conceptualized to mirror that of post-traumatic stress disorder (PTSD) apart from the Robinson-Keilig 1479 source of the trauma being the client's trauma, rather than the therapist's own [1]. Emergency department nurses are at the frontline of a demanding healthcare system and are required to deal with emotional trauma issues on a daily basis, which may result in them experiencing symptoms of secondary traumatic stress (STS). Gillespie and Mel by's study reported that stress causing emotional exhaustion among emergency department nurses resulted in feelings of distress or anger, often leading to absenteeism [2]. Moreover, a Greek study reported that female emergency department nurses had higher anxiety scores and exhaustion levels than any other nurses, with 25% exhibiting very severe depressive mood and sleep disorders [3].

Professional counselors have much strength and resources that are used to help traumatized clients applying these resources to them, as a means of preventing VT, will surely facilitate their own wellness [4]. Furthermore, Way and Vandeusen, in study compared vicarious trauma in a random sample of male and female clinicians who treat survivors and those who treat offenders [5]. The sample reported high levels of avoidance and intrusions. Variables associated with vicarious trauma differed based on client population served. Sequential regression analyses were used to examine theoretically derived variables. Implications for practice and further research are discussed. In study of relationships between secondary traumatic stress (STS) symptoms and therapist characteristics and assignment variables were examined for 81 disaster mental health (DMH) workers who responded to the terrorist attacks of September 11, 2001. Higher STS was associated with therapist variables of heavier prior trauma caseload, less professionals experience, youth, and therapist's discussion of his or her own trauma or trauma work in his or her own therapy. Assignment variables

associated with higher STS included longer length of assignment and more time spent with child clients, firefighters (who suffered great losses in the tragedy), or clients who discussed morbid material [6]. In study of one hundred and fifteen participants from south-east New South Wales (NSW) in Australia who had not experienced any direct exposure, loss or injury from the 2001-2002 NSW bushfires. Results indicated that specific prey-event, post-event and pre-event characteristics were able to predict at least 75% of those who experienced vicarious traumatization resulting from the 2001-2002 NSW bushfires [7]. In study of vicarious trauma explored vicarious trauma among therapist trainees in relation to history of trauma, experience level, trauma-specific training, and defense style. Results indicated trauma symptoms were significantly associated with defense style, which appeared to moderate personal trauma history and experience level [8]. In another study examined the impact of routine occupational exposure to traumatic aspects of child illness, injury, and medical treatment upon care providers working within a children's hospital. Three hundred fourteen providers completed a demographic data sheet and four questionnaires.

The results suggested that overall this sample endorsed a level of compassion fatigue similar to that of trauma workers. Furthermore, 39% of the sample were at moderately to extremely high risk for compassion fatigue, and 21% were at moderate to high risk for burnout, suggesting a good deal of risk amongst individuals in the sample [9]. Moreover, research on STS among helping professionals indicated rates of 16% to 20% among social workers in a U.S. military hospital [10], and rates of 17% to 19% among physicians in hospitals across New-Zealand. Specifically, among nurse populations STS rates ranged from 25% to 38%, where oncology and hospice nurses' STS rates were the highest [11]. To the best of our knowledge, there is no study that specifically examined STS among health professionals in the Gaza Strip. The aims of the study were 1) to investigate the type and severity of traumatic event for health professionals working at emergency department, 2) to find the most common mental health problems results from trauma (Secondary traumatic stress and anxiety), and 3) to investigate the relationships between trauma, secondary traumatization, anxiety, and other socioeconomic variables.

Method

Participants

The study population consisted of 252 health professionals. Two hundred and fourteen questionnaires were returned (n=214) (response rate was 85%); 193 were males (90.2%) and 21 were females (9.8%).

Measures

Socio- demographic questionnaire: The researcher prepared this questionnaire which included; sex, age, place of residence, type of work, education level, social status, hospitals, and experiences.

Gaza traumatic events checklist: This checklist consists of 25 items covering different types of traumatic events that professional worker may have been exposed to in the particular circumstances during war on Gaza [12]. This checklist covers three domains of trauma. The first domain cover witness acts of violence such as the killing of relatives, home demolition, bombardment, and injury of others. The second domain covers hearing experiences such as hearing to the killing or injury of friends or relatives. The third domain covers personal traumatic events such as being shot, or beaten. Trauma was classified to three levels, mild, moderate and severe according to war on Gaza Traumatic Chick list, if professional worker has 0-5 traumatic events consider mild trauma, 6-10 items consider as moderate trauma, 11 and more items consider as severe trauma. In this study, this measure was also found to have high internal consistency (α=0.73).

Secondary traumatic stress scale (STSS): This is the only scale that exclusively measures STS (Beck, 2011) [13]. Permission to use the STS was granted by Bride. The STSS consists of seventeen items which evaluate the frequency of symptoms among three subscales: intrusion (5 items); avoidance (7 items); and arousal (5 items). The three subscales and the seventeen items correspond with criteria B (re-experiencing), C (avoidance) and D (hyperarousal) in the diagnostic and statistical manual of mental disorders (American Psychiatric Association, 2000) necessary for post-traumatic stress disorder (PTSD) diagnosis [14]. The STSS's psychometric properties were tested on a sample of 287 master's level social workers [15]. Cronbach's alpha coefficient for the full STSS was (α´=0.93) [13]. Further published studies using the STSS have achieved high levels of internal consistency [14]. In addition, Bride et al. demonstrated evidence for the scale's convergent and discriminant validity. In this study, this measure was also found to have high internal consistency (α=0.85) [13].

Hamilton anxiety rating scale (Hamilton, 1959): The HARS is a 14-item clinician administered rating scale developed to assess the severity of anxiety symptoms in adults [16]. Seven of the items address psychic/cognitive anxiety and the remaining seven items somatic anxiety. The items are rated on a five-point scale and summed to provide a score ranging from 0 to 56. A score of 17 or less represents mild anxiety, a score between 18 to 24 mild to moderate anxiety, and a score of 25 and above moderate to severe anxiety. For this study. In this study, this measure was found to have high internal consistency (α=0.88).

Study Procedure

An official letter of approval to conduct the study has been obtained from the Human Resource Development in the Ministry of Health, which allow the researcher to carry out the study directly after that day. Another official letter has been obtained from the General Administration of Hospitals in order to conduct the study in governmental hospitals and facilitate the process of data collection. Every subject in the study has received have an explanatory letter about the study, the researcher explained to all professional's worker that filling the

questionnaire is optional and also emphasized confidentiality. Also, ethical concept, respect for trust, and respect for people have been considered. Data collection took place in the workplace, one year after the end of the 2009 war, i.e. in April 2010.

Statistical analysis

Data were analyses using IBM/SPSS Statistics 20. Frequency tables that show sample characteristics and plot differences between various variables also done. Differences between mean of two groups as sex was calculated by T independent test. The total STS score a was calculated by summing the response value for each item (the highest score possible being 85 and the lowest score being 17). The total anxiety score was calculated by summing the response value for each item (the highest score possible being and the lowest score being). The health professionals' individual scores were compared with the normative scores proposed by [15]. A cut-off score of 38 or above on the STSS is indicative of PTSD symptomatology [15]. Pearson's Chi-square was used to compare the difference in proportions between categorical variables. Parametric data were assessed using ANOVA and Pearson's correlation, and Binary Logistic Regression was used to predict STS. Statistical significance was established when the 95% confidence interval did not contain zero and (α) level was <0.05.

Results

Socio-demographic characteristics of the sample

Two hundred and fourteen were returned (n=214) (response rate of 100%), 90.2% (n=193) were male and 9.8% (n=21) were female. Half of them had BA (112/52.3%), followed by Diploma (55/25.7%). The mean (SD) number of years practicing in emergency was 14 ± (6.9), and the mean duration of nursing experience was 19 ± (8.1). The average age of the nurses was 40 ± (8.1). The youngest aged participant was 20 years old, and the oldest was 60 years. Most of them were married (167/78%) (**Table 1**).

Table 1 Socio-demographic characteristics of the sample.

	N	%
Sex		
Male	193	90.2
Female	21	9.8
Age		
20-29	110	51.4
30-39	71	33.2
40-49	29	13.6
50-60	4	1.9
Marital Status		
Single	44	20.6
Married	167	78
Widower	3	1.4
Divorce	0	0
Place of Resident		
North Gaza	45	21
Gaza	47	22
Middle	35	16.4
Khan Younis	55	25.7
Rafah	32	15
Type of Professional		
Physicians	78	36.4
Nurses	136	63.6
Working Experience		

5 years less than	150	70.1
6-15 years	58	27.1
16 years more	6	2.8
Highest Educational Level		
Practical nurse degree	12	5.6
Diploma degree	55	25.7
Baccalaureate degree	112	52.3
Master degree	14	6.5
Ph.D. degree	1	0.5
MD	20	9.3

Exposure to traumatic events

Health professionals commonly reported the following traumatic events: Watching the pictures of corpses, wounded and the killed people in TV (88.79%), Seeing wounded and the killed people and body parts while working in the emergency department (86.45%), and lost a family member or friends in the war (62.6%) (**Table 2**).

Table 2 Frequency of traumatic events.

Traumatic Events	Yes		No	
	N	%	N	%
Watching the images of corpses, wounded, and killed people in TV	190	88.79	24	11.21
Seeing wounded and the killed people and body parts while working in the emergency department	185	86.45	29	13.55
Loose of a family member or friends in the war	134	62.6	80	37.38
Detention in the workplace because of the war	116	54.21	98	45.79
Seeing death of a friend or relative in front of him in the emergency department	114	53.27	100	46.73
Seeing a wounded friend or a relative by bullets of by shrapnel of bombs	113	52.8	101	47.2
Seeing the death of a friend or relative at home	113	52.8	101	47.2
Forced to leave home with family and relatives to safe place	112	52.34	102	47.66
Witnessing demolishing of neighbor's house by shelling or bulldozers	111	51.87	103	48.13
Witness bombardment of neighbors' homes with heavy artillery and machine guns, and aircraft	108	50.47	106	49.53
Being under fire by the Israeli army with a view to intimidation	104	48.6	110	51.4
Detention at house and cannot leave due to war	103	48.13	111	51.87
Being deprived of water and food, electricity, and going to the toilet due to ground incursion	92	43.9	122	57.01
Subjected to beatings and humiliation while you was helping patients by the army	56	36	158	74
Destroying of your personal belongings during incursion	49	22.9	165	77.1
Seeing your house is bombarded with heavy artillery and machine guns, and aircraft	45	21.03	169	78.97
Had beaten and humiliated by the Israeli army	42	19.63	172	80.37
Witnessing own home demolition	41	19.26	173	80.84
Witnessing wounded father or brother or sister at home	39	18.22	175	81.78
Being threatened with death by the army	39	18.22	175	81.78
Threatened with death by being used as human shield by the army to move from one home to home	38	17.76	176	82.24
Witness killing of a father or brother or sister	37	17.29	177	82.71

Being injured by regular burning bombs and phosphorous	32	14.95	182	85.05
Being injured by shrapnel bomb or a missile or bullet, and you're working in the emergency department	30	14.02	184	85.98
Injured by shrapnel bomb or a rocket or bullet at home	23	10.75	191	89.25

Severity and prevalence of traumatic events

In order to test the severity of trauma according research question from the following table shows that (n=57) 26.6% of study sample have mild traumatic events due to work on emergency department, while (n=145) 67.8% of study sample have moderate traumatic events, and (n=12) 5.6% of study sample have severe traumatic events.

Frequency of reported secondary traumatic stress symptoms

The most frequently reported symptoms for intrusion were sense of reliving patient's trauma (58.9%), cued psychological distress (47.6%). Among avoidance symptoms, the most commonly reported symptom and highest overall individual score was for the emotional numbing (69.7%), foreshortened future (69.6%). Among arousal symptoms, 62.2% reported easily startled (**Table 3**).

Prevalence of secondary traumatic stress

The prevalence of secondary trauma according to subscales are shown in the previous **Table 3** where professional workers were most likely to have arousal symptoms (irritability reported by 75% of professional's workers), followed by avoidance symptoms (avoidance of patients 71.5%), and intrusion symptoms (intrusive thoughts about patients 70%).

Table 3 Frequency of secondary traumatic stress symptoms.

	Never	Rarely	Often	Very often
Criteria B: Intrusive Symptoms				
Cued physiological reaction	23.3	31.8	39.3	5.6
Sense of reliving patient's trauma	13.1	28	42.5	16.4
Cued psychological distress	27.6	24.8	25.2	22.4
Intrusive thoughts about patients	20.6	32.7	28	18.7
Disturbing dreams about patients	37.9	24.8	23.4	14
Criteria C: Avoidance Symptoms				
Emotional numbing	14	16.4	51.9	17.8
Foreshortened future	14	16.4	40.2	29.4
Detachment from others	31.3	22	28	18.7
Diminished activity level	11.2	26.6	42.1	20.1
Avoidance of people, places, and things	38.8	22.9	24.8	13.6
Avoidance of patients	26.6	18.2	42.5	12.6
Inability to recall patient information	28	30.8	27.2	13.6
Criteria D: Arousal Symptoms				
Difficulty sleeping	19.2	30.4	23.6	16.8
Easily startled	11.2	26.6	42.1	20.1
Difficulty concentrating	20.1	36.4	30.8	12.6
Irritability	17.3	22.9	32.7	27.1
Hypervigilance	17.3	22.9	32.7	27.1

Most participants (n=67/64%) met the criteria for secondary traumatic stress meeting all three core diagnostic criteria for PTSD, scoring greater than or equal to three on each subscale for intrusion (B), avoidance (C), and arousal (D). The study showed that 97 of the health professionals (45%) met the criteria for secondary traumatic stress meeting all three core diagnostic criteria, scoring greater than or equal to three on each subscale for intrusion (B), avoidance (C), and arousal (D).

Relationship between secondary traumatic stress and socio-demographic variables

The analysis of the variables was done by using independent T-test and one-way ANOVA. There were statistically significant differences in secondary traumatic stress according to sex toward male professionals (t=8.54, p=0.04), the results showed that there were no statistically significant differences in secondary trauma according to age (F (3/214=0.20, p<0.89).

Anxiety symptoms

The health professional most common anxiety symptoms were general somatic symptoms (muscular) (43.4%), depressed mood (43%), and anxious mood (42%) (**Table 4**).

Prevalence of anxiety

Using the cut-off points of the Hamilton anxiety scale, 99 had no-mild anxiety 46.3%, mild, 100 had moderate anxiety symptoms (46.7%) and 15 had severe anxiety symptoms (7%).

Table 4 Frequency of anxiety symptoms according to Hamilton anxiety scale.

No.	Question	Never	Rarely	Often	Very often
1	Anxious mood	17.8	40.2	30.8	11.2
2	Tension	32.2	38.3	21	7.5
3	Fear	50.5	27.6	16.4	5.1
4	Insomnia	33.6	27.6	25.2	12.6
5	Difficulties to concentration and memory	32.2	28.5	26.2	13.1
6	Depressed mood	30.4	26.6	26.6	16.4
7	General somatic symptoms (muscular)	29	26.6	27.6	16.8
8	General somatic symptoms (sensory)	49.5	26.6	16.4	7.5
9	Cardiovascular symptoms	43	27.6	18.7	10.7
10	Psychological symptoms	35.5	36	18.7	9.8
11	Abdominal and gastric symptoms	38.8	22.9	29	8.4
12	Urinary tract symptoms	46.3	22.4	23.8	7.5
13	Nerves system symptoms	49.1	19.6	21.5	9.8
14	Behavior with meeting	47.2	22.4	15.9	14.5

Relationship between anxiety symptoms and socio-demographic variables

There was a statistically significant difference in anxiety symptoms according to gender toward male professionals (t=3.96, p=0.04). Post-hoc analysis using Scheffe statistical test was done. There were statistically significant differences in anxiety according to age of professionals toward older age 50-60 years old (F (214/3=3.34, p<0.005).

Correlation between traumatic event, secondary traumatic stress, and anxiety

Pearson coefficient correlation test was done. Secondary traumatic stress was significantly correlated with anxiety symptoms (r=0.73, p=0.001) and Secondary traumatic stress was significantly correlated with traumatic events (r=0.27, p=0.001) (**Table 5**).

Table 5 Pearson correlation coefficients of health professional trauma exposure, secondary traumatic stress, and anxiety.

	Secondary traumatic stress	
Variables	**R**	**P-value**
Traumatic event	0.27	0.001
Anxiety symptoms	0.73	0.001

Discussion

The purpose of the present study was to examine the effect of trauma due to war on secondary traumatic stress symptoms and anxiety among health professionals working at emergency departments in Gaza Strip hospitals. Participants reported a range of traumatic events, commonly they reported watching the pictures of corpses, wounded and the killed people in TV (88.79%), witnessed wounded and the killed people and body parts while working in the emergency department (86.45%), and lost a family member or friends in the war (62.6%). This was consistent with previous study of ambulance drivers in the Gaza Strip in which the most common traumatic events ambulance drivers were: witnessing demolition of houses by rockets planes (99%), carrying dead bodies (98%), witnessing martyrs bodies distorted (98%), witnessing house demolition by tanks shells (94%), and exposed to shooting from soldiers (94%). While the most common type of traumatic events control group exposed were: witnessing demolition of houses by rockets planes (96%), witnessing martyrs bodies distorted (85%), witnessing shooting of others (78%), witnessing house demolition by tanks shells (77%), and witnessing beating of others (72%) [12]. Also, Nader et al. in study of nurses in Gaza Strip found that the highest frequencies of reported traumatic events were: 94.1% had watched severe injuries and dead bodies on TV, 78.4% witnessed severe injuries and death at work, and 63.5% witnessed demolishing of neighbors' homes by tanks. This is consistence with previous studies of Thabet and Abu Sultan in a study showed that the most commonly reported traumatic events were watching mutilated bodies on TV (92.7%) [17], witnessing the shelling and destruction of another's home (47.37%), witnessing firing by tanks and heavy artillery at neighbors' homes (47.12%), and being forced to move from home to a safer place during the war (42.86%). Such traumatic events were the most commonly seen trauma among professionals and other Palestinians in the Gaza Strip which was the results of three wars in 2008, 2012, and 2014. Our findings were consistent with studies of which showed that police, firefighters, and ambulance personnel (i.e., first responders) frequently encounter potentially traumatic events in the line of duty. Approximately 60% to 90% of first responders have attended situations involving multiple casualties, 61% to 84% have witnessed the death of a child, 46% to 84% have experienced the death of a person in care, and 55% have witnessed violence against others [18,19].

The study showed that 45% of the sample met the criterion for a diagnosis of secondary traumatic stress. Similarly, a study of 515 mental health social workers found that over half of the sample (53.3%) felt that secondary trauma was having a "negative effect" on their personal and professional lives [20]. Furthermore, Bride found that in a sample of 294 social workers, 23.3% reported feeling "detached from others" in their lives as a symptom of STS [15]. professionals who experience multiple losses, for example, professionals working in palliative care settings, have been shown to be at particularly high risk of psychological stress [21]. Such findings were consistent with a previous study Dominquez-Gomez and Rutledge in exploratory comparative study design, with 67 emergency nurses from three general community hospitals in California [14]. Survey instruments included a demographic tool and the STS survey (STSS). Nurses were most likely to have arousal symptoms (irritability reported by 54% of nurses), followed by avoidance symptoms (avoidance of patients 52%), and intrusion symptoms (intrusive thoughts about patients 46%). The majority of nurses (85%) reported at least one symptom in the past week. Utilizing Bride's algorithm to identify STS, 15% of nurses met no criteria, while 33% met all. Nurse participation in stress management activities was associated with less prevalence of STS symptoms. Our study consistent with study of Robins et al. which that suggested overall that the level of compassion fatigue in this sample was similar to a trauma worker comparison group [9]. In addition, 39% of the sample was at moderately to extremely high risk for compassion fatigue, and 21% was at moderate to high risk for burnout. Also, an NSPCC report identified that social workers [22], especially those who work with abused children, experience increased stress and are at particularly high risk of secondary trauma. Moreover, Duffy et al. in study of emergency department nurses who were required to deal with emotional trauma issues on a daily basis [23], which may result in them experiencing symptoms of secondary traumatic stress, a consequence of stress experienced when helping or wanting to help a person traumatized or suffering. Registered nurses (n=117) working at three emergency departments in the Western geographical region of Ireland were invited to complete the secondary traumatic stress scale (STSS). Most participants (n=67/64%) met the criteria for secondary traumatic stress. Our health professionals rate of STS was higher than that found by of Beck et al. of a sample consisted of 473 certified nurse-midwives (CNMs) who completed the quantitative portion and 246 (52%) who completed the qualitative portion [24]. In this sample, 29% of the CNMs reported high to severe STS, and 36% screened positive for the diagnostic and statistical manual of mental disorders, fourth edition diagnostic criteria for PTSD due to attending traumatic births. The top 3 types of traumatic births described by the CNMs were fetal demise/neonatal death, shoulder dystocia, and infant resuscitation. Our findings of STS was higher that found in Lusk and Sam Terrazas a study of 31 professionals and para-professionals who work directly with refugees in various settings [25], including legal aid offices and counseling centers in United States to address the challenge of coping with traumatized clients showed that 30% of the respondents scored in the severe to high range on the STS. Our study showed that there were statistically significant differences in secondary traumatic stress according to sex toward male professionals. This was inconsistent with Cunningham's finding that 82% of social work clinicians rendering services to victims of trauma were females. As was reported earlier, studies that have examined gender differences in secondary trauma symptoms found that women reported more symptoms than men. Furthermore, these results were inconsistent in Trippany et al. study on factors influencing vicarious trauma, statistically significant difference among the means of vicarious trauma according to sex toward females [4]. This could be due to sample bias in which females who usually likes to work in less stressful departments with shift system and in this sample,

they were very small (21/214) compared to male health professionals. Others found no gender differences in STS, Creamer, and Liddle examined for 81 disaster mental health (DMH) workers who responded
to the terrorist attacks of September 11, 2001 [6]. Higher STS was associated with therapist variables of heavier prior trauma caseload, less professional experience, youth, and therapist's discussion of his or her own trauma or trauma work in his or her own therapy. Therapist gender and personal trauma history were not significantly related to STS.

Our study showed that 51.7% had moderate to severe anxiety symptoms. Heinrichs et al. assessed 43 firefighters during training and at six, nine, 12, and 24 months after beginning the job [26]. Results demonstrated increased levels of PTSD, depression, anxiety, general psychological morbidity, and alexithymia, but only for the participants with higher levels of hostility and lower levels of self-efficacy at baseline

Wagner et al. found that professional firefighters had higher levels of interpersonal sensitivity, anxiety, hostility, and psychoticism compared to a matched group of non-emergency service workers [27]. Our results of anxiety rate was higher that other studies of individual relief workers, with rates ranging from 8% to 20% for depression and 8% to 29% for anxiety [28-30].

Implications for Practice

Palestinian emergency health professionals in Gaza Strip experienced traumatic experiences due to their type of work and as member of wider Palestinian society are more likely to have higher rate of STS and subsequently may utilize more interventions during future traumatic events. Furthermore, if experiencing war traumatic events is leading professionals to have psychological problems and asking to move to another department with less stress and trauma, experiences professional will affect much quality of emergency services in any coming war. These risk factors can be amenable to change. In the immediate aftermath of attending traumatic war experiences, when colleagues are imposing silence (perhaps for legal reasons), it should be feasible to seek supportive psychotherapy in which communication is privileged and not legally subject to disclosure. For some professionals with high to severe STS symptoms, encouragement to seek treatment may be beneficial. Evidence-based treatments for PTSD exist and may be helpful in decreasing our trauma-exposed colleagues' impairment and increasing their capacity to persist in the profession. Within other professions such as law enforcement, mandatory protocols help improve outcomes for those who are exposed to traumatic events on the job. Work-related exposures as traumatic events, now included in DSM-V, could support broader implementation of such programs. Perhaps the profession of emergency rooms can develop standards f or the expected traumatic events in order to help them recognize that they are not alone and to assist them in maintaining a practice. The results of this study highlight the need for education throughout continuous education programs in Palestinian Health Authority Services that focus on STS as a professional risk. Training of professional's curricula should include the signs and symptoms of STS in order to help future midwives to recognize the problem and the need to seek help. Educational programs have been developed to help prevent and treat STS in health professionals.

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