

Psychological Problems of the Nurses- Rescuers: The Psychological Problems of the Nurses-Rescuers working at Ambulance Department in Baghdad City

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Abstract

Objectives: the study aimed to assess the psychological problems among the nurses- rescuers who are working at ambulance department in Baghdad city, and to determine the relationship between the Psychological Problems and some demographic characteristics of sample.

Methodology: A descriptive – analytic study that used the technique of assessment was conducted on 200 male nurses-rescuers staff who are working at ambulance department in Baghdad city from October 29th 2007 to October 15th 2008. A questionnaire was constructed to achieve the study objectives, which consisted of two major parts with (71) items. The first parts were the demographic characteristics, while the second part dealing with psychological problems (Acute stress disorder, Phobia, Depression & Post traumatic disorder) of these Nurses-Rescuers. Data was analyzed through the use of the suitable statistical methods.

Results: The finding of the study showed that most of the NR were suffering from the psychological problems (ASD, Phobia, Depression, PTSD), and the results showed that there was a significant relationship between psychological problems & age, marital status, educational level, monthly income, occupation area, years of experience & type of violence. While, there was no significant relationship between psychological problems & family size, residency, training sessions.

Keywords: psychosocial problems, Nurses- Rescuers, Ambulance Department.

Introduction

Every day thousands of people often face a lot of accidents and different diseases. Actually, many victims face the danger of death because of the shortage of necessary equipment for saving their life. Existence special groups have been formed to give urgent First Aid for patients suffering from accidents in different circumstances such as fire and war crises is important. First Aid is an important job & it requires quick arrival to the place of accidents, and providing nursing care while moving in the road to the health center⁽¹⁾. Iraq, like many countries, faces violence, terrorism, fear of kidnapping people, fear of killing, physical and psychological abuse for both patients and civilians. These factors have many serious effects on psychological status positively or negatively on the rescuers and health providers. The psychological status has come on the rescuers

and their abilities in performing their duties correctly⁽²⁾. The nurses-rescuers must do their job in a calm psychological status and be able to control the situation properly with full confidence. Otherwise, the patient will go frightened & the medical care may be not successful^(3,4). The psychological factors considered to identify the psychological problems, and to find out the relationship of these problems and some variables, that the researcher believes that Iraqi rescuers facing these problems as a result of their work at Ambulance.

Methodology

A descriptive-analytic study using the technique of assessment was conducted on nurses-rescuers staff (NR) from October 29th 2007 to October 15th 2008. A purposive sample of (200) male nurse-rescuer who were working in different places (from each of the four sections at

ambulance department, North and South Karkh, North and South Rasafa) were selected. A questionnaire was constructed by the researcher to achieve the purpose of the study of assessing the psychosocial problems of nurses-rescuers.

Part one: Demographic data Sheet: This part include (7) items is concerned with the demographic characteristics of the NR which includes: age, sex, marital status, educational level, number of years of employment, number of years of experience and number of training sessions.

Part two: Psychological problems, this part consists of (4) sections which contain (64) item distributed as the following: A-(15) item to measures acute stress B-(14) item measures phobia- (20) item measures depression.

D-(15) item measures Posttraumatic stress disorder (PTSD).

The questionnaire was scored according to Likert scale as 3 for (always),2 for(sometimes),and 1 for(never).⁽⁶⁾The higher score of the questioners (RS) indicates the greater psychosocial problems among nurses .A pilot study was carried out on (20) NR in order to determine the reliability of the questionnaire ⁽⁶⁾through the use of Cranach-Alpha and Spearman- Brown formula ,data were collected through the use of questionnaire& interview technique with each Nurse-rescues and they were fulfilled the information needed for this study. Appropriate statistical methods were employed such as frequencies, Chi-Square & relative sufficiency (RS).

Results of the study

Table (1): Demographic characteristics of the sample with comparison significant:

Parameters	Group	Frequency	Percent	Cumulative Percent	C.S. P-value
Age Group	20-29	43	21.5	21.5	P=0.000
	30-39	77	38.5	60	
	40-49	51	25.5	85.5	
	50-59	29	14.5	100	
	Total	200			
Education Levels	School Nurses Graduates	59	29.5	29.5	P=0.000
	Secondary Nurses School Graduates	73	36.5	66	
	Institute Graduates	64	32	98	
	College Graduates	4	2	100	
	Total				
Marital Status	Single	40	20	20	P=0.000
	Married	155	77.5	97.5	
	Divorced	5	2.5	100	
	Total	200			

Cont... Table (1): Demographic characteristics of the sample with comparison significant:

Monthly Income	Sufficient	38	19	19	P=0.000
	Barely Sufficient	85	42.5	61.5	
	Insufficient	77	38.5	100	
	Total	200			
Family Size	Nuclear	105	52.5	52.5	P=0.525
	Extended	95	47.5	100	
Residency	urban	177	88.5	88.5	P=0.000
	Rural	23	11.5	100	
	Total	200			

C.S.=Comparison significant, P(<.01) si \ (P <.05), NS at P (>.05)

The table shows that (38.5%) of the sample was of age group (30-39) years old and the next frequent age group is (40-49) years old, (25.5%). In regard to educational level,(36.5%) of the study sample is secondary school Nurses. This table also shows that (77.5%) of the sample was married .In regard to monthly income, (42.5%) of them had barely sufficient income .Also this table shows that the percentages of family size was nearly the same in family size ,Nuclear Family ,(52.5%) extended family (47.5%) .Relative to residency, (88.5%) of them was from urban, and (11.5%) was from Rural .There was a highly significant with age, educational level, Marital status, Monthly income & residency, While non-significant with family size.

Table (2): Some Related Characteristics of the Study Sample Frequency, Percent, and Cumulative Percent with comparisons significant

Parameters	Groups	Frequency	Percent	Cumulative Percent	C.S. P-value
Training	Yes	156	78	78	P=0.000
	No	44	22	100	
Training location	Inside Iraq	143	71.5	92.3	P=0.000
	Outside Iraq	13	6.5	100	
work Area	North Karkh	40	20	20	P=0.000
	South Karkh	70	35	55	
	1st Rasafa	40	20	75	
	2nd Rasafa	38	19	94	
	Office Center	12	6	100	

Cont... Table (2): Some Related Characteristics of the Study Sample Frequency, Percent, and Cumulative Percent with comparisons significant

Years of experience	1-5	72	36	36	P=0.000
	6-10	41	20.5	56.5	
	11-15	27	13.5	70	
	16-20	27	13.5	83.5	
	21-25	20	10	93.5	
	25 >	13	6.5	100	
Violated	Yes	138	69	69	P=0.000
	No	62	31	100	
Type of violence	threatening	51	25.5	37	P=0.000
	shooting	45	22.5	69.6	
	explosion	29	14.5	90.6	
	Assassination attempt	10	5	97.8	
	kidnapping	3	1.5	100	

HS: at P (<.01) S: at P(<.05) NS: at P(<.05)

Table (2) represents that (78%) of the sample having training sessions, and (71.5%) of them has training inside Iraq .Relative to occupation area (35%) of the sample work at south karkh sector. Also, the table shows that (36%) of the sample has (1-5) years of experience at ambulance department.(69%) of tem was exposed to violence and (25.5%)of them had espoused to menace .This table also shows that there was a highly significant relationships with all these characteristics.

Table (3): Descriptive Statistics of the Psychosocial Problems among the Study Sample

No.	Psychosocial problems	Number	Mean	Std. Dev.	RS
1	Psychological problems part 1 ASD	200	1.8737	.48777	62.45
2	Psychological problems part 11 Phobia	200	2.0189	.46288	67.29
3	Psychological problems part 111 Depression	200	1.8830	.50076	62.76
4	Psychological problems part 1V PTSD	200	1.9490	.45584	64.96
5	Social problems part IV	200	1.8219	.57226	60.69

Table (3)the results shows that phobia was the most severe problems among them(RS=67.29) then the PTSD(RS=64,96),then depression (62.76) and ASD (62.45), while the social problems present at(RS=60.69).

Table (4): Relationship Between Educational Levels and Psychosocial Problems:

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Educational Levels	School Nurses Graduates	Count	21	38	59	Chi.= 21.750 P= 0.000 C.C.= 0.313 P = 0.000
		% of Total	10.5%	19.0%	29.5%	
	Secondary school Nurses Graduates	Count	55	18	73	
		% of Total	27.5%	9.0%	36.5%	
	Institute Graduates	Count	38	26	64	
		% of Total	19.0%	13.0%	32.0%	
	College Graduates	Count	3	1	4	
		% of Total	1.5%	0.5%	2.0%	
Total	Count	117	83	200		
	% of Total	58.5%	41.5%	100.0%		

Table (4) shows that there is a highly significant relationship between educational level and psychosocial problems at P(<.01)

Table (5): Relationship Between Marital Status and Psychosocial Problems :

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Marital Status	Single	Count	18	22	40	Chi.= 7.481 P= 0.024 C.C.= 0.190 P = 0.024
		% of Total	9.0%	11.0%	20.0%	
	Married	Count	98	57	155	
		% of Total	49.0%	28.5%	77.5%	
	Divorced	Count	1	4	5	
		% of Total	0.5%	2.0%	2.5%	
Total	Count	117	83	200		
	% of Total	58.5%	41.5%	100.0%		

The finding shows a significant association between marital status and psychosocial problems at (<.05) .

Table (6): Relationship between Monthly Income and Psychosocial Problems:

parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Monthly Income	Sufficient	Count	14	24	38	Chi.= 13.998 P= 0.001 C.C.= 0.256 P = 0.001
		% of Total	7.0%	12.0%	19.0%	
	Just Sufficient	Count	61	24	85	
		% of Total	30.5%	12.0%	42.5%	
	Insufficient	Count	42	35	77	
		% of Total	21.0%	17.5%	38.5%	
Total		Count	117	83	200	
		% of Total	58.5%	41.5%	100.0%	

The result revealed that shows a highly significant relationship between psychosocial problems & monthly income at P (<0.1).

Table (7): Relationship between Training and Psychosocial Problems:

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Training	Yes	Count	92	64	156	F.E.P. P= 1.000 C.C.= 0.002 P = 0.978
		% of Total	46.0%	32.0%	78.0%	
	No	Count	25	19	44	
		% of Total	12.5%	9.5%	22.0%	
Total		Count	117	83	200	
		% of Total	58.5%	41.5%	100.0%	

Table (7) shows a non-significant relationship between training session and psychosocial problems at P(>.05).

Table (8): Relationship between Work Area and Psychosocial Problems:

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
work Area	North Karkh	Count	13	27	40	Chi.= 21.870 P= 0.000 C.C.= 0.314 P = 0.000
		% of Total	6.5%	13.5%	20.0%	
	South Karkh	Count	40	30	70	
		% of Total	20.0%	15.0%	35.0%	
	North Rusafa	Count	27	13	40	
		% of Total	13.5%	6.5%	20.0%	
	South Rusafa	Count	25	13	38	
		% of Total	12.5%	6.5%	19.0%	
	Office Center	Count	12		12	
		% of Total	6.0%		6.0%	
	Total	Count	117	83	200	
		% of Total	58.5%	41.5%	100.0%	

Table (8) shows a highly significant association between work area and psychosocial problems at P(<.01).

Table (9): Relationship between Years of Experience and Psychosocial Problems:

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Experience years	1-5	Count	57	15	72	Chi.= 46.404 P= 0.000 C.C.= 0.434 P = 0.000
		% of Total	28.5%	7.5%	36.0%	
	6-10	Count	21	20	41	
		% of Total	10.5%	10.0%	20.5%	
	11-15	Count	7	20	27	
		% of Total	3.5%	10.0%	13.5%	
	16-20	Count	7	20	27	
		% of Total	3.5%	10.0%	13.5%	
	21-25	Count	12	8	20	
		% of Total	6.0%	4.0%	10.0%	
	>25	Count	13		13	
		% of Total	6.5%		6.5%	
	Total	Count	117	83	200	
		% of Total	58.5%	41.5%	100.0%	

Table (9) shows a highly significant association between years of experience and psychosocial problems at P (<0.000).

Table (10): Relationship between Nurses-Rescuers Exposure to Violence and Psychosocial Problems:

Parameter			Evaluated by Score		Total	C.S. P-value
			Under cut off point	Upper cut off point		
Violent	Yes	Count	76	62	138	F.E.P. P= 0.164 C.C.= 0.103 P = 0.142
		% of Total	38.0%	31.0%	69.0%	
	No	Count	41	21	62	
		% of Total	20.5%	10.5%	31.0%	
Total		Count	117	83	200	
		% of Total	58.5%	41.5%	100.0%	

Table(10) shows a non-significant relationship between exposure to violence and psychosocial problems at $P(>.05)$.

Table(11) : Relationship between Type of Violent and Psychosocial Problems :

Parameter			Evaluated by Score		Total	C.S. P-value	
			Under cut off point	Upper cut off point			
Type of Violent	menace	Count	26	25	51	Chi.= 9.176 P= 0.057 C.C.= 0.250 P = 0.057	
		% of Total	18.8%	18.1%	37.0%		
	fire	Count	26	19	45		
		% of Total	18.8%	13.8%	32.6%		
	explosion	Count	19	10	29		
		% of Total	13.8%	7.2%	21.0%		
	assassination	Count	2	8	10		
		% of Total	1.4%	5.8%	7.2%		
	abduction	Count	3		3		
		% of Total	2.2%		2.2%		
	Total		Count	76	62		138
			% of Total	55.1%	44.9%		100.0%

Table(11) shows there was a significant between association type of violence and Psychosocial problems at $P(<.05)$.

Discussion

The results of this study in table (1) indicate that the range of age was between (30-39) Years, (38.5%). This means that the age of the members is from the reproductive age. In relation to educational level, (36.5%) of the sample was from secondary school level. The result shows that 77.5% of the sample was married, this because they were passed the age of marriage. Kethry et al (2003)⁽⁷⁾ found that (89.3%) of their study sample which consist of firefighters in Australian were married. Moreover, the study revealed that (42.5%) of the sample has barely in sufficient income, This is due to their satisfaction & depend on monthly salary. The study revealed that family type was nearly equal for Nuclear and Extended family (52.5%, 47.5%) respectively. This result is due to the nature of Iraqi families which were from extended family. The study shows that (88.5%) of the sample was from urban .This is inconsistent with Kethry,⁽⁷⁾ (2003) who found that a number of regional centers, were in rural area.

Table (2) shows that 78% of the sample has training sessions, and 71.5% of them have their training inside Iraq .This result supported by the training programmed in emergency and First Aid men which was conducting by ministry of health as a continuous education session conducting for those employee. The study also revealed that the majority (35%) of nurses-rescuers has worked in south Karkh sector of Baghdad as distributed by the ministry of health related to population in different area in Baghdad. The study reveals that 36% of the sample has 1-5 years of experience .This is because they previously worked at different jobs in Nursing. The study revealed that (69%) of the sample was exposed to the violence & (25.5%) of them was threatened by others. Houston (1993) ⁽⁸⁾ stated that exposure to traumatic event and violent actions lead to psychological distress.

Table (3) although the sample size was 200 nurses-rescuers, the finding revealed important information regarding psychological problems in the Ambulance Department in Baghdad city. Most of nurses-rescuers suffer from psychosocial problems. Psychological First Aid (PFA) is emerging as the crisis intervention of choice in the wake of critical incidents such as trauma

& mass disaster. In the past decade, there had been a growing movement in the world to develop a concept similar to physical first aid for coping with stressful & traumatic events in life. In this regard, WHO,(2003) ⁽¹⁰⁾ stated that psychological first aid (PFA) is a group of skills identified to limit distress & negative health behavior. PFA generally includes education about normal psychological responses to stressful & traumatic events ; skill in active listening understanding the importance of maintaining physical health & normal sleep nutrition and rest; and understanding when to seek help from professional caregivers . Hughes et al .,(2007) ⁽¹¹⁾ stated that it is critical to ensure that nurses-rescuers have the skill & knowledge to respond effectively to contribute to the psychological recovery of survivors of emergencies, particularly as an increasing proportion of the population is at risk of being exposed to a catastrophic & violence . Burton et al,(1999)⁽¹²⁾ found that the nature of mental health of worker was associated with productivity reduction. The study revealed the high rates of acute stress disorder, phobia, depression & Post Traumatic Stress Disorder, RS: (62.45, 67.29, 62.76, and 64.96) respectively, while the social problems was (60.69).Houston,(1993)⁽⁸⁾ shows that emergency workers (nurses-rescuers) are often exposed to traumatic stress when helping people in emergency situations. Clohessy & Ehlers,(1999),⁽¹⁴⁾ indicated that the repeated high daily stress endured by emergency workers who have to cope with events outside the range of human experience easily develop stress and Post Traumatic Stress Disorder. Helps, (1997)⁽¹⁵⁾ shows that any trauma exposure can trigger traumatic stress. Some situations are always traumatic, for example, car accidents, rapes, violence Experience. Anderson et al, (1991) ⁽¹⁶⁾ stated that occupational stress in emergency situations can induce an acute or prolonged stress disorder. Gibbs et al .,(1993) ⁽¹⁸⁾ found that about two thirds of the participants (ambulance workers) experience of traumatic situation and the vast majority (86%) of those were at stress situation in relation to trauma of work. Davidson et al., (1991)⁽¹⁹⁾ stated that the everyday work can lead to occurrence of stress among rescue workers. Also this result is in line with Mayou et al (2000)⁽²⁰⁾ who stated that emergency workers are at risk of developing stress, even

if they are not exposed to major distress. Lois,(2008)⁽²¹⁾ stated that ambulance personnel are working in wide range of settings and environment from emergency medical services to taking care of chronically ill citizen, and they work in hazardous environment and they are exposed to very different types of stressors. James & Wright (1991)⁽²²⁾ agree with the result of this study, they found that some of the ambulance personnel might have symptoms that are the result of series of events called prolonged duration stress has a clinical impact on bodily complaints and on psychiatric disorders. From point of view during nearly every duty day ambulance personnel are exposed to experience that could be characterized as traumatic. The lack of coping strategies may facilitate stress symptoms and physiological illness. Burn et al., (1993)⁽²⁴⁾ reported that stress reaction may be alarming for individuals. Some will be frightened or otherwise distressed by their own responses to an event; some may view their reactions in negative and distressing ways. Mc Millen et al, (1997)⁽²⁵⁾ stated that exposure to disaster and other traumas, is critical to ensure that nurses have the skills & knowledge to respond effectively and to contribute to the psychosocial recovery.. (National Institute of Mental Health, (2002)⁽²³⁾. Mercy, et al (1989)⁽²⁷⁾ stated that simply feeling uncomfortable or uncertain about an object or situation may be normal. If fear is not disrupting life it is not considered a disorder .But if fear becomes irrational and uncontrollable to the point that it affects social interaction or job duties, it requires treatment. Johnson et al. (2003)⁽²⁷⁾ stated that emergency workers, including ambulance personal, must cope with a variety of duty related to stressors including traumatic incident exposures to prevent depression. Lundin, (1995)⁽²⁸⁾ stated that chronic exposure to stress has been shown to be an important factor in the formation of post-traumatic stress symptoms, and job stress was most important factor of sickness among emergency workers .William & the shiel (2008)⁽²⁹⁾ stated that Post Traumatic Stress Disorder is an emotional illness that develops as a result of a terribly frightening, life threatening, or otherwise highly unsafe experience. Vranesic, (2005)⁽³⁰⁾ stated that most psychological responses to trauma are relatively immediate , mild, and traumatized individuals experience more intense stress reactions and develop

post –traumatic stress disorders. Lois (2008)⁽²¹⁾ stated that emergency rescue can be dangerous, virtually any event that is life –threatening and severely compromises the emotion being of an individual may cause Post Traumatic Stress Disorder.

The result also shows a highly significant association between age & psychosocial problems at P (<.01).This result is in line with Follette(2006)⁽³¹⁾ who stated that age was significantly associated with psychosocial problems , and the younger age are more probable to affected with psychosocial distress specially Posttraumatic Stress Disorders . Bowman, (1999)⁽³²⁾ found that Acute Stress Disorder after Vietnam War was observed among youth, and AL-Krenawi,(2004)⁽³³⁾ also found that Posttraumatic Stress Disorders was high among Palestinian adolescents .

Table (4) shows a highly significant association between education level & psychosocial problems among the sample. This result is inconsistent with Follette, (2006)⁽³¹⁾ who stated that Acute Stress Disorder & Posttraumatic Stress Disorders are not associated with education. This finding may reflect the absence of greater number of protective coping strategies and also a multiple exposure to traumatic events are lead to psychological problems.

Table (5) shows a significant relationship between marital states & psychosocial problems among the sample. This result is inconsistent with Follette,(2006)⁽³¹⁾ who stated that Acute Stress Disorder and Posttraumatic Stress Disorder are not associated with education.

Table (6) shows a highly significant relationship between psychosocial problems & monthly income. From the point of view, this is due to that those workers have experienced trauma of previous war and they have continues exposure to daily stress.

Table (7) shows a non–significant relationship between psychosocial problems & Training.

Table (8) shows a high significant association between Occupation area & psychosocial problems among nurses-rescuers. This result is supported by Norris, (2005)⁽³⁴⁾ who reported that location of disaster

influenced the severity of its effects on the people. Also from my point of view of the researcher, the violence in Iraq was more in south of Baghdad and terrorism was not equally distributed among two sides of Baghdad.

Table (9) shows a high significant association between years of experience & psychological problems. This result is agreed with Lundin, (1995)⁽²⁸⁾ who stated that the risk of psychological distress is high among ambulance workers who have many years in ambulance service. Also Kulka ,(1991)⁽³⁵⁾ stated that there is a strong connection between the number of years in ambulance service & Posttraumatic Stress Disorders & other psychosocial problems .These emphasizes the need for a deeper understanding of the psychological outcomes of ambulance work .

Table (10) showed that there was no significant association between exposure to violence and psychosocial problems. This result in the point of view of the researcher is due to the nature of the sample work in the ambulance department and in the period of data collection these workers were attained the violence place in different areas.

Table (11) showed that there was a significant association between type of violence and psychosocial problems. Hughes (2007)⁽³⁶⁾ stated that Psychological distress or problems was common in threatened areas, where fighting is expected to occur, and they exposed to different type of violence.

Conclusions: According to the discussion and interpretation of the study findings , the researcher concluded the following :

1- The high prevalence of psychological problems symptoms (Acute stress disorder, phobia, depression and Post Traumatic Stress Disorder) in ambulance workers indicate an inability to cope with stress in daily work.

2- Ambulance workers have to cope with death, grief and events outside the normal range of human experience; situations that can be risk factors for inducing psychological distress reactions.

3- The all of the nurses –rescuers were males, with

secondary school graduation, married, have just satisfied with their income.

4-The nurses-rescuers have training inside Iraq, and most of them work at south karkh, with (1-5) years of experience.

5-Phobia was the greatest problems among nurse rescuer- Rs : (67. 27) and the next was Post Traumatic Stress Disorder- RS :(64.96) .

6- Social problems among nurse rescuers with their family and at work were evidence RS :(60.69).

7-There was a highly significant association between psychosocial problems and age, educational level, marital status, monthly income, occupation area, years of experience and types of violence.

8- There was a non-significant relationship between psychosocial problems and family size, residency, training and exposure to violence.

Recommendations:

1- To prevent or reduce the upcoming of psychological symptoms among nurse-rescuer it is possible to take leave or absence for a longer time or to be transferred to non-emergency duties.

2- Pointing to emergency personnel underreporting their psychological symptoms, because in the rule of helping others they deny that they are vulnerable to the same risks as the victims.

3- Propose some measures to prevent psychological problems and give further support to ambulance workers (nurses- rescuers) with these problems.

4- Information have to be spread among management to increase awareness of psychological symptoms and take action accordingly.

5- Need of vocational counseling to prevent or reduce the upcoming of psychological symptoms especially post-traumatic stress disorder for those workers.

6- Evaluation of the management organization should be taken into consideration and be done to meet

any change specially from increased workload in the ambulance stations which may use shift rotations to reduce stress of working .

7- Emphasis the need for a deeper understanding of the psychological outcome of ambulance workers.

8- Intervention programs are needed to identify those at risk for promoting recovery in adversely groups.

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Conflict of Interest: None to declare.

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References

- 1- Al-Dakheely N. The Basic Principles for First Aid Men upon Disaster Happen, 1st ed 2002 , Baghdad. Aiad Press.
- 2- Sauter S. Presentation of work –Related Psychological Disorder: A Nation Strategy Proposed by the National Institute for Occupation Area for Occupation Safety & Health (NIOSH), American Psychologist , 1990; 45: 114-1158..
- 3- Ehlers A, Bryant B. Psychological Predictors of Chronic PTSD after Motor Vehicle Accidents .Journal of Abnormal Psychology,2003;107: 508-519.
- 4- Ministry of Health, Iraq,(M.O.H.)Statistical Section of Ambulance Department in Iraq, 2007.
- 5- World Health Organization (W.H.O), World Report on Violence and health. October 3rd.Geneva. 2002.
- 6- Kethry M, Gow , Jane S. Psychological Distress in Career and Auxiliary Fire Fighters, Australasian Journal of Disaster & Trauma Studies, 2003; 1: 1174-4707.
- 7- Houston A, Do Critical Nurse Face Burnout ,PTSD , or is it something else? Getting Help for the Helper. Clinical issues in Critical Care Nursing, 1993; 4: 65-556.
- 8- Marmer,C,Weiss, D, Metzler T, Delucchi K. Longitudinal Course and Predictors of Continuing Distress Following Critical Incident Exposure in Emergency Services Personnel. The Journal of Nervous and Mental Disease, 1999; 187(1): 15-22.
- 9- World health organization, Mental Health in Emergencies – Geneva, New York, Basic Books, 2003.
- 10- Hujhes F. Psychosocial Response in Emergency Situation- The nurses Role., International Nursing Review Journal.2007; 54 (1): 19-27
- 11- Burton, Wayne N, Daniel J, Chin-Yu, The Role of Health Risk Factors and Disease on Workers Productive (JOEM) Journal of Occupational & Environment Medicine :Ul: 1999(10): 863-877.
- 12- Horowitz MJ. Psychological Response to Serious Life Events. In S.Breznitz (ED) The Denial of stress, P.P129-159 New York, International University press. 1983.
- 13- Clohessy S, Ehlers A. PTSD Symptoms, Responsive to Intrusive Memories and Coping in Ambulance Service Workers. Br J.,Clin Psychol ; (38)PP:251-65. 1999.
- 14- Helps S. Experiences of Stress in Accident & Emergency Nurses .Accident and Emergency Nursing 1997 ; (1): 48-33.
- 15- Anderson H, Christensen A, Peterson G. Posttraumatic Stress Reaction among Rescue Workers after a Major Rail Accident. Anxiety research: 1991 ; 155: 1727-32.
- 16- Eriksson N. and Lunndin T. Early Stress Reactions among Swedish Survivors of the m\’s Estonia disaster.Br J psychiatry, 1993.
- 17- Gibbs M., and Durrummond J, et al .Effects of Disaster on Emergency Workers: A Review with Implications for Training and Post Disaster Interventions .Journal of Social Behavior and personality (8) PP: 189-212. 1993.
- 18- Davidson J.,Hughes D, Blaze D., et al ,Posttraumatic Stress Disorder in the Community: An Epidemiological Study .Psychol Med 1991(21) PP:713-21.(Medline).Estonia disaster.Br J psychiatry,1993.
- 19- Mayou R. Psychological Debriefing for Road Traffic Accident Victims : Three-years Follow-up of a Randomized Controlled Trial. British Journal of Psychiatry, 2000 ;(176):589-593.
- 20- Lois M, Collire S. Air Rescuers Are Passionate about Work Despite the Risks: Priority 10 Years after Canyon Crash. 2008.
- 21- James A, Wright I. Occupational Stress in

- the Ambulance Service .Health Manpower Management 1991 ; (17): 4-11.
- 22- O'Brien L, Hughes S. Symptoms of Post-Traumatic Stress Disorder in Falklands Veterans Five Years after Conflict, *Br J Psychiatry*.2000; (59) : 135-41.
- 23- Burn A, Cohen , L, Hall. Control and Intrusive Memories as Possible Determinants of Chronic Stress. *Psychosomatic Medicine* 1993; (55): 247-286. 1991.
- 24- McMillen, J, Smith, E, Fisher R. Perceived Benefit and Mental Health after Three Types of Disaster. *Journal of Consulting and Clinical Psychology*. 1997 ; (65): 733-739.
- 25- National Institute of Mental Health (NIMH): What is Stress , Retrieved 2006 from (<http://www.nimh.nih.gov>).
- 26- Mercy J., and Saltzman L., Fatal Violence among Spouses in the United States, 1975(85) .*American Journal of Public Health* 1989 ; (79) :595-599.
- 27- Lundin T. Stress Reaktior Och Psykiskit Trauma: Diagnostic Och Behanding (Stress Reactions and Psychic Trauma: Diagnostics and Treatment). Helsingborg Sweden Rhone –Poulence Rorer.1995.
- 28- Willian G,Sheil J. Disaster Services Face PTSD . Rish from; <http://www.allabouterssion.com/dia-12html>, 10\10\2007, Electronic version. 1995.
- 29- Vranesic M. Psychiatric and Cognitive Effects of War on Former Yugoslavia, *Journal of the American Medical Association*. 2005; 294: 580-590.
- 30- Follete V, Ruzek J. *Cognitive-Behavioral Therapies for Trauma* .(2nded) New York, Guilford. 2006
- 31- Bowman N. Individual Differences in Posttraumatic Distress: Problems with the DSM-IV Model, *Canadian Journal of Psychology*: 1990.
- 32- Al-Krenawi A, Graham J, Sehwal M. Mental Health and Violence Trauma in Palestine-Implication for Helping Professional Practice .*Comp Fam Studies* 2004; 35: 185-209.
- 33- Norris F, Range , Magnitude And Duration of the Effects of Disorder on Mental Health ,review update 2005 .
- 34- Kulka RA, Schlenger WE, Fairbank JA. Assessment of Posttraumatic Stress Disorder in the Community, Prospect and Pitfalls from Recent Studies of Vietnam Veterans. *Psychological Assessment*. 1991; 3:60-547.
- 35- Hughs F. Psychological Response in Emergency Situation, The Nurses Role, *International Nursing Review Journal*. 2007; 54:19-27.
- 36- <http://www.reliefweb.int/library/documents/psycho.2007>.
- 37- American Psychiatric Association, *Psychological First Aid in Community Disaster*, Washington, DC, 2003.
- 38- Langer K. Depression & Denial in Psychotherapy of Person with Disabilities . *American Journal of Psychotherapy*. 1994; 48(2): 181-194.
- 39- Wiss, D, Marmar, C, Metzler, T, Ronfeldt, H. Predicting symptomatic distress in emergency services personnel .*Journal of Consulting & Clinical Psychology*. 1995 (63): 361-368.
- 40- .Jounsson A, Segesten K, Mattason B. Post-Traumatic Stress among Swedish Ambulance Personnel, *Emerg.Med. J*. 2003;(20): 79-84.