



## Post-Traumatic Stress Disorder among Paramedics in Makkah Region 2022

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### Abstract

**Background:** Post-Traumatic Stress Disorder (PTSD) is a mental and behavioral disorder caused by witnessing or experiencing an actual terrifying event. This study was done to examine the prevalence rate of Post-Traumatic Stress Disorder (PTSD) among paramedics in the Makkah region in 2022.

**Methods:** This descriptive statistical study was done in Umm-Alqura (UQU), Makkah, SA. The questionnaire used in this study was selected from several studies by the (PTSD) national center. Using the questionnaire, we assessed the prevalence rate among paramedics in the Makkah region out of (972) only (200) were included.

**Results:** This study showed a low incidence of post-traumatic stress disorder among paramedics, according to the result we found that the majority of participants have no symptoms of post-traumatic stress disorder

**Conclusion:** This study found low PTSD. A continuing education program on adaptation to PTSD could be somehow helpful to those who have symptoms of PTSD. A screening to recognize high-risk individuals.

**Keywords:** Post-traumatic stress disorder; Paramedics; Behavioral disorder; Anxiety

### Introduction

Post-Traumatic Stress Disorder (PTSD) is a mental and behavioral disorder caused by witnessing or experiencing an actual terrifying event such as Sexual assault, warfare, traffic collection child abuse or other threats on a person's life. PTSD may cause a broad range of symptoms including bad memories and nightmares of the event, anger, anxiety, distress, irritability and weekend concentration. Symptoms should persist for more than a month for a diagnosis of PTSD rather than acute stress disorder [1]. Factors that increase the risk of PTSD are as follows: (I) pre-traumatic factors such as genetic, cultural factors and prior psychiatric disorders; (II) peri-traumatic factors that

include the severity of the trauma, threat to life and personal injury and (III) post-traumatic factors such as poor coping strategies, frequent exposure and social support. Interestingly, emotional support is protective against developing PTSD. According to the report of the National Institute of Mental Health (NIMH), 7.7 million adults or 3.5% of adult people suffer from PTSD. Nayback. According to post-traumatic stress disorder among emergency medical services personnel: A cross-sectional study in Saudi Arabia 26% of EMS personnel had a positive screening for PTSD [2].

This study examined the prevalence of PTSD among paramedics in the Makkah region. From 972 paramedics in the Makkah region according to the general authority of statistics, only 200 paramedics were included in this study, all participants were men. The study targeted all paramedics, students and employees in the Makkah region. Study subjects were privately selected and approached through their email provided by the EMS department [3].

### Materials and Methods

#### Design

This descriptive statistical study was done in Makkah, KSA.

#### Sample and setting

A total of 200 paramedics were included in this study were given the same questionnaire evaluating post-traumatic stress disorder. Each participant received a link to participate in the study. The target and objectives were illustrated and their answers to the designed questionnaire were obtained [4].

#### Questionnaire

Participants from paramedics completed a standardized assessment instrument measuring post-traumatic stress disorder. The questionnaire used in this study was selected from several studies by the (PTSD) national center [5].

The first part examined demographic variables, such as gender, age, marital status, level of education, years of experience, working shift, deal with victim directly and experience traumatic event [6].

The second part measured the common signs and symptoms of (PTSD). Such as the desire to change career, work satisfaction, re-experience of the event, self-blame, isolation, difficulty in daily life, insomnia, flashbacks, nightmares and scary thoughts [7].

#### Data collection and analysis

Information about the study was given to the participants by online form. Privacy was kept by putting no name or other personal information in the questionnaire. The questionnaire was handed out and distributed to the participants through their email provided by Saudi Red Crescent authority and social media. All questions listed in the questionnaire were answered. The data were gathered in Microsoft Excel 2016 version 15.25 and analyzed using SPSS version 29 [8]. Categorical variables are presented as percentages and frequency. Descriptive analysis was used to define the characteristics of the sample and examine the PTSD common symptoms [9].

## Results

### Demographic variables

A total of 200 paramedics participated in the study. All participants were men; 7 (3.5%) were older than 50 years, 153 (76.5%) were between 18-29 years old and 40 (20%) were between 30-49 years old. 154 (77%) were not married and 46 (23%) were married [10]. The majority had a bachelor 113 (56.5%), 49 (24.5%) were students, 33 (16.5%) had a diploma and 5 (2.5%) had a master. The majority had worked for less than 5 years 175 (87.5%), 14 (7%) had worked more

than 15 years and 11 (5.5%) had worked 5 to years. 120 (60%) work in the morning, 20 (10%) work in the evening and 60 (30%) work in the morning and the evening. 86 (43%) work less than 100 hours per month, 71 (35.5%) work 100-150 hours per month, 28 (14%) work 150-200 hours per month, and 15 (7.5%) work more than 200 hours per month. 155 (77.5%) deal with the victim directly and 45 (22.5%) do not deal with the victim directly. 119 (59.5%) had experienced a traumatic event and 81 (40.5%) had experienced a traumatic event (Tables 1-7) [11].

Age		Frequency	Percent	Valid percent	Cumulative percent
Valid	18-29 years old	153	76.5	76.5	76.5
	30-49 years old	40	20	20	96.5
	>50 years old	7	3.5	3.5	100
	Total	200	100	100	-

Table 1: Demographic variables for age.

Marital status		Frequency	Percent	Valid percent	Cumulative percent
Valid	Married	46	23	23	23
	Not married	154	77	77	100
	Total	200	100	100	-

Table 2: Demographic variables for marital status.

Years of experience		Frequency	Percent	Valid percent	Cumulative percent
Valid	Less than 5 years	175	87.5	87.5	87.5
	10 to 15 years	11	5.5	5.5	93
	More than 15 years	14	7	7	100
	Total	200	100	100	-

Table 3: Demographic variables for years of experience.

Working shift		Frequency	Percent	Valid percent	Cumulative percent
Valid	Morning	120	60	60	60
	Evening	20	10	10	70
	Morning and evening	60	30	30	100
	Total	200	100	100	-

Table 4: Demographic variables for working shift.

Working hours per month		Frequency	Percent	Valid percent	Cumulative percent
Valid	<100	86	43	43	43
	100-150	71	35.5	35.5	78.5
	150-200	28	14	14	92.5

	>200	15	7.5	7.5	100
	Total	200	100	100	-

**Table 5:** Demographic variables for working hours per month.

Direct interaction with victim		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	155	77.5	77.5	77.5
	No	45	22.5	22.5	100
	Total	200	100	100	-

**Table 6:** Demographic variables for direct interaction with victim.

Experienced traumatic event		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	119	59.5	59.5	59.5
	No	81	40.5	40.5	100
	Total	200	100	100	-

**Table 7:** Demographic variables for experienced traumatic event.

36 (18%) had the desire to change their career and 164 (82%) had no desire to change their career [12]. The majority were satisfied with their work 125 (62.5%), 50 (25%) were partially satisfied and 25 (12.5) were dissatisfied. 108 (54%) relive or re-experience the event and 92 (46%) do not relive or re-experience the event. 46 (23%) blamed themselves and 154 (77%) did not blame themselves. 92 (46%) avoided certain people, situations or places and 108 (54%) did

not avoid certain people, situations or places. 53 (26.5) had difficulty functioning in their daily life and 147 (73.5) had no difficulty functioning in their daily life. 132 (66%) had adequate sleeping and 68 (34%), had inadequate sleeping. 106 (53%) had the symptoms of (flashbacks, nightmares and scary thoughts), 48 (24%) had flashbacks, 8 (4%) had nightmares, 20 (10%) had scary thoughts and 30 (15%) had all the three symptoms, 94 (47%) had none of these symptoms (Tables 8-17) [13].

Desire to change the career (career shift desire)		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	36	18	18	18
	No	164	82	82	100
	Total	200	100	100	-

**Table 8:** Demographic variables of desire to change the career (career shift desire).

Work satisfaction		Frequency	Percent	Valid percent	Cumulative percent
Valid	Satisfied	125	62.5	62.5	62.5
	Dissatisfied	25	12.5	12.5	75
	Partially satisfied	50	25	25	100
	Total	200	100	100	-

**Table 9:** Demographic variables of work satisfaction.

Self-blame for event		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	46	23	23	23
	No	154	77	77	100
	Total	200	100	100	-

**Table 10:** Demographic variables of self-blame for event.

Re-experience the event		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	108	54	54	54
	No	92	46	46	100
	Total	200	100	100	-

Table 11: Demographic variables of re-experience the event.

Self-blame for event		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	46	23	23	23
	No	154	77	77	100
	Total	200	100	100	-

Table 12: Demographic variables of self-blame for event.

Avoid certain people or places		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	92	46	46	46
	No	108	54	54	100
	Total	200	100	100	-

Table 13: Demographic variables of avoid certain people or places.

Re-experience the event		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	108	54	54	54
	No	92	46	46	100
	Total	200	100	100	-

Table 14: Demographic variables of re-experience the event.

Difficult to function in daily life		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	53	26.5	26.5	26.5
	No	147	73.5	73.5	100
	Total	200	100	100	-

Table 15: Demographic variables of difficult to function in daily life.

Sleeping hours		Frequency	Percent	Valid percent	Cumulative percent
Valid	Adequate	132	66	66	66
	Inadequate	68	34	34	100
	Total	200	100	100	-

Table 16: Demographic variables of sleeping hours.

Do you have any of these symptoms?		Frequency	Percent	Valid percent	Cumulative percent
Valid	Flashback	48	24	24	24
	Nightmares	8	4	4	28
	Scary thoughts	20	10	10	38
	All	30	15	15	53
	None	94	47	47	100
	Total	200	100	100	-

**Table 17:** Demographic variables for do you have any of these symptoms.

### Discussion

This study showed a low incidence of post-traumatic stress disorder among paramedics, according to the result we found that the majority of participants have no symptoms of post-traumatic stress disorder. The following results explain the low incidence.

36 paramedics had the desire to change their career the maximum was for married, >50 years old, students, paramedics. Also, for paramedics with more than 15 years of experience.

25 paramedics were dissatisfied with their work, the majority of which was not married, >50 years old, students and less than 5 years of experience.

Forty-six paramedics blamed themselves for what happened, most of not married, 18-29 years old, had a bachelor's degree and had less than 5 years of experience.

Around half of the participants did not have any of common symptoms of PTSD (flashbacks, nightmares, and scary thoughts) (Tables 18-20).

Desire to change the career (career shift desire)		Marital status	Age	Level of education	Years of experience
Yes	Number	36	36	36	36
	Minimum	Not married	18-29 years old	Master	Less than 5 years
	Maximum	Married	>50 years old	Student	More than 15 years
No	Number	164	164	164	164
	Minimum	Not married	18-29 years old	Master	More than 15 years
	Maximum	Married	>50 years old	Bachelor	Less than 5 years

**Table 18:** Marital status age level of education years of experience\* desire to change the career (career shift desire).

Work satisfaction		Marital status	Age	Level of education	Years of experience
Satisfied	Number	125	125	125	125
	Minimum	Married	>50 years old	Master	More than 15 years
	Maximum	Not married	18-29 years old	Bachelor	Less than 5 years
Dissatisfied	Number	25	25	25	25
	Minimum	Married	18-29 years old	Master	More than 15 years old
	Maximum	Not married	>50 years old	Diploma	Less than 5 years
Partially satisfied	Number	50	50	50	50

	Minimum	Married	18-29 years old	master	10 to 15 years old
	Maximum	Not married	>50 years old	student	Less than 5 years

**Table 19:** Marital status age level of education years of experience\*work satisfaction.

Do you blame yourself for what happened		Marital status	Age	Level of education	Years of experience
Yes	Number	46	46	46	46
	Minimum	Not married	>50 years old	Master	More than 15 years
	Maximum	Married	18-29 years old	Student	Less than 5 years
No	Number	154	154	154	154
	Minimum	Married	>50 years old	Master	More than 15 year
	Maximum	Not married	18-29 years old	Bachelor	Less than 5 years

**Table 20:** Marital status, age, level of education, years of experience, self-blame for event.

## Conclusion

In conclusion, this study found a low PTSD prevalence relative to findings from the results. A continuing education program on adaptation to PTSD could be somehow helpful to those who have symptoms of PTSD. A screening to recognize high-risk individuals, particularly those who want to work in emergency departments could be another way.

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