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Knowledge of Paramedics towards Fighters Saving Lives in the Ground Forces Command

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Abstract

Methodology: : A descriptive design is conducted on paramedics, at Ground Forces Command; the period of the study started from (26th September 2020) to (15th April 2021) A Non-Probability (purposive sample) sample of 100 paramedics who were working in a number of units of the Ground Forces Command in Iraq was selected. A questionnaire was used to measure paramedic's knowledge. Data was collected through the use of a developer questionnaire (Arabic version) and the use of a structured interview technique with each paramedic as a method of data collection. Test-retest reliability of instrument was determined reliability coefficient for the pilot study Alpha Cronbach (α) for the reliability of questionnaire (Internal consistency). And content validity of the instrument validity was determined through a panel of (14) experts. Data were analyzed through the use Statistical Package of Social Science (SPSS) version 23, which included descriptive statistics (frequency, percentage, mean, and standard deviation); and inferential statistics (Contingency Coefficients (C.C.) test).

Results: The results of the study shows a summary statistics for "Paramedics' knowledge towards fighters lives saving at Ground Forces Command questionnaire ", which are consisting of (25) items, including close-ended questions (Yes and No) (9) answers, and (16) items multiple choice question (MCQ). The score of the total domain of participants' knowledge was within moderate level.

Conclusions: The study concluded that the overall assessment of knowledge paramedics is moderate

Recommendations: The study recommends raising the level of proficiency for paramedics by increasing medical training courses and advanced courses.

Keywords: knowledge, paramedics, fighters.

Introduction

The primary causes of death on the battlefield as hemorrhage, 91%; airway obstruction, 7.9%; and tension pneumothorax, 1.1%. Massive hemorrhage was found to include extremity wounds, 13.5%; junctional wounds, 19.2%; and truncal wounds, 67.3%. Because of this, the typical trauma primary survey has been rearranged from airway, breathing, circulation, and disability to follow the MARCH mnemonic of massive hemorrhage, airway, respiration, circulation, and hypothermia [1, 2].

The only initial medical intervention during CUF is the early application of tourniquets for major hemorrhage control. All other interventions are delayed until a secure location is obtained and tactical field care is begun. Tourniquet placement is "high and tight" meaning rapidly placed over the uniform, proximal to the wound, and tightened until bleeding is stopped. If the first tourniquet fails, place the second tourniquet more proximal, leaving the first in place. Multiple tourniquets should be easily accessible by either upper extremity for self-aid [3, 4].

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Trauma triage is the use of trauma assessment to prioritize the injured for care or transportation related to the severity of trauma. The initial screening takes place at the accident site and the secondary screening at the casualty evacuation station at the site of the major accident. Screening is repeated prior to transportation away from the scene of the accident and again at the receiving hospital [5].

These multiple injuries require a series of medical care, reinforced with medical supplies and an effective sort of injuries. These injuries are trained and carried out by the Swedish and NATO forces [6, 7].

As a result of wars and the development of modern weapons, it has led to the development of modern military medicine, which aims to reduce morbidity and mortality, and that the wounded receive prompt care that increases their chance of survival in life [8].

Methodology

The Study Design

A descriptive correlation study design has been carried out assess Knowledge of paramedics towards fighters lives saving. The period of the study started from (26th September 2020) to (15th April 2021).

Administrative Arrangements

After getting the approval of the Council of the Nursing College/ University of Baghdad and Ethical Researches Committee for the study (Appendix A1), the researcher submitted a detailed description of the study including the objectives and methodology (questionnaire) of the study to the Ministry of Planning (Central Statistical Organization) (Appendices A2, A3), and to Ministry of defense in order to obtain official permission to carry out the study. Then, the permission was sent to Directorate of Military Medical Matters in order to ensure the agreement and cooperation .The researcher obtained written informed approval from each paramedic.

The Setting and Sampling of the Study:

The study was conducted at the Ground Forces Command, Salah al-Din Operations Command, Samarra Operations Command, Fifth Division Command, Sixth Division Command, Eleventh Division Command, Seventeenth Division Command and Ninth Armored Division Command., Iraq. A non-probability (convenience) sample of (100) paramedics, who as all paramedics working in each setting of the study. In convenience sampling using.

Instrument Form

1. Demographic Data Form:

Demographic characteristics of the paramedics, which include of age, gender, level of education, number of years in first aid, number of training courses in medical category, training advanced first aid, and place of the courses.

2. Paramedic knowledge concerning of fighters lives saving Form:

This part is comprised of (25) items, including close-ended questions (Yes and No) (9) answers, and (16) items multiple choice question (MCQ). That measure knowledge of paramedics'. It is measured as [(1 – 1.25) for Low (L) evaluation; (1.25 – 1.75) for Moderate (M) evaluation; and (1.75 – 2) for High (H) evaluation].

Data Collection

The data were collected and by means of self-report and interview with each paramedic who are included in the present study. The data collection process started from (11th January to 31th March 2021) in order to achieve the objectives of the study.

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Statistical Analysis of Data

The data was evaluated by Statistical Package for Social Sciences (SPSS) version 25 application of statistical analysis system. The following statistical data analysis approaches were used for analyzing and evaluating the results of the study.

Results and Discussions

The results of the present study showed that the knowledge of paramedics was moderately assessed

1. Discussion of the demographic characteristics of the paramedics

(Table 1): Present study indicated that the majority of the study sample (72%) were within) age group (31- 40) years old. Related to the study educational level, approximately (38) percent have intermediate school qualification and (30) percent have preparatory school qualification

and the highest percent (90 %) were attending training sessions in advanced first aid. All of the training sessions were conducted inside Iraq. Also all samples were male.

With regard to gender, the researcher explained that the majority of military medical personnel in Iraqi society are male, except in rare cases, and on the other hand, the nature of the tasks assigned to the Iraqi soldiers must remain for more than ten days in the camps, which is hundreds of kilometers away from their homes, forcing Females not to enlist in the army.

2. Discussion of the Participants' Knowledge toward Urgent Injuries:

(Table 2): Present study showed that participants' knowledge toward urgent injuries were high in the first, third, fourth, and fifth domain, with moderate level of knowledge in the second domain that related to priority in first aid. In addition, the score of the total domain of participants' knowledge was within moderate level.

Sherafat, et al., (2019) evaluated of the knowledge and performance of the emergency nurses in the Iranian province of Yazd, Data was collected from all the nurses in the trauma and emergency departments of 8 hospitals, and their results revealed that the nurses were moderate in the level of knowledge regarding triage. [(9)]

In a study conducted by Afaya, et al., (2017) this study was conducted on 65 participants in their meta-study in a Ghana hospital, and the results of the study revealed that the nurses' level of knowledge about triage in the emergency departments of various government hospitals in Tamale was slightly above the average score. There is a need to improve a nurse's knowledge and practice of triage in the emergency department, because nurses' knowledge about triage just above average is not impressive. To improve the level of knowledge, in-service workshops / training should be conducted. [(10)]

Bayraktar (2009) The research was conducted to assess the effectiveness of a first aid training program for service drivers and based on these results; it has been proposed to spread first aid education programs on a large scale to entire sections of society in cooperation with various associations, institutions, continuous and practical for this program and nurses who play an effective role in first aid training. [(11)]

3. Discussion of the Relationships between Participants' knowledge toward First Aid with their Demographic Characteristics:

(Table 3): Present study showed that (33) percent of the study sample has intermediate school within moderate level of knowledge, and (25) percent have preparatory school within high level of knowledge. In addition, results indicated that there was a highly significant relationship between level of education and paramedic knowledge at (P value = .000).

Sawyer et al., (2017) this study surveyed a group of paramedic students from two Australian universities and received 260 surveys (response rate 80.5%). The results show that actual knowledge, perceived knowledge, and willingness to manage IPV patients were low.

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Students who had received prior training reported higher perceived knowledge (p <.05) and aptitude (p <.01). Study results indicate that paramedics need increased Intimate partner violence education. Education should improve knowledge and aptitude to identify and refer Intimate partner violence patients. (12)

The highest percent (90%) were attending training sessions in advanced first aid and all of the training sessions were conducted inside Iraq which ,the result indicated that there was no significant relationship between attending training sessions in advanced first aid and all of the training sessions and knowledge at (P value = .75).

Al-Otaibi, (2018). Based on these results, the study recommended the Saudi Arabian government to improve knowledge of disaster preparedness for emergency medical service personnel, such as improving training and education. (13)

Conclusions and Recommendations: The study concluded that the overall assessment of knowledge paramedics is moderate. The study recommends raising the level of proficiency for paramedics by increasing medical training courses and advanced courses. Conducting other field and non-field research studies on a larger sample of participants to be able to generalize results.

Table (1): Study Sample Demographic Data

Age	**F**	**%**
21 - 30	16	16
31 - 40	72	72
41 - 50	7	7
51 years and more	5	5
Attending and Completing training Session in Advanced First Aid	**F**	**%**
Yes	90	90
No	10	10
Level of Education	**F**	**%**
Intermediate School	38	38
Preparatory School	30	30
Diploma	19	19
Bachelor`s degree	10	10
Higher studies	0	0
Others	3	3
Total (samples)	**100**	**100**

Table (2): Main Domain of Knowledge of the Study Participants toward Urgent Injuries:

Main Domain of Knowledge	**Results**		
	M.S	**SD**	**Ass.**

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Respiratory and Cardiovascular System	1.8	0.2	H
Priority in First Aid	1.62	0.22	M
Triage of Injuries	1.75	0.2	H
Life-threatening Injuries and how to deal with them	1.76	0.18	H
Documentation	1.77	0.17	H
Total	1.74	0.13	M

M.S= mean of score, SD= standard deviation, Ass. = Asymptomatic Significant, L =Low (1 – 1.25), M = Moderate (1.25 – 1.75), H = High (1.75 – 2).

Table (3): Relationships between Participants' knowledge toward First Aid with their Demographic Characteristics

Knowledge / Age	**(%) Moderate**	**(%) High**	***C.C. test**	****P-value**	**CS**
21 - 30	7	9	0.198	0.254	N.S
31 - 40	32	40			
41 - 50	5	2			
51 years and more	4	1			
Knowledge / Level of Education	**(%) Moderate**	**(%) High**	***C.C. test**	****P-value**	**CS**
Intermediate Nursing School	33	5	0.53	0.000	H.S
Preparatory Nursing School	5	25			
Diploma	7	12			
Bachelor`s degree	2	8			
Higher studies	0	0			
Others	1	2			
knowledge / Training Sessions In Advanced First Aid	**(%) Moderate**	**(%)High**	***C.C. test**	****P-value**	**CS**
yes	42	48	0.08	0.423	N.S
No	6	4			

*Contingency coefficient, **S= significant (p-value ≤ 0.05)

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