Assessment of Mosul University Students' Knowledge about First Aid

تقييم معلومات طلبة جامعة الموصل عن الاسعافات الاولية

Hanaa Hussein Makhlef /Assistant Lecturer/MSc in Adult Nursing /College of Nursing / University of Mosul

الخلاصـة

الهدف: تقييم مستوى معارف طلبة جامعة الموصل حول الإسعافات الأولية.

المنهجية : أخذت عينة عشوائية لاختيار (124) مشارك ، العينة تألفت من (62) طالب وطالبة من كلية العلوم ، بالإضافة إلى (62) طالب وطالبة من كلية التربية من المرحلة الرابعة في جامعة الموصل. بدأت الدراسة من الأول في كانون الاول2011 ولغاية الخامس عشر من نيسان 2012. وقد قيم الثبات الداخلي للاستبيان بواسطة حساب معامل الارتباط بيرسون الذي كان (0.80)، ونظم التحليل الإحصائي بواسطة برنامج الرزمة الإحصائية لعلم الاجتماع (الإصدار 11).

النتائج: وجدت الدراسة الحالية إن أغلبية الطلبة في الدراسة ونسبتهم (91.9 %) غير مشاركين في دورات للإسعافات الأولية، وكذلك (96 %) منهم يجدون انه من الضروري تعلم فعاليات الإسعافات الأولية. وقد أشارت النتائج إلى إن (46 %) مستوى المعارف للإسعافات الأولية، و(45 %) مستوى معارف الإسعاف الأولي للحالات ، ونسبة المعارف لحالات الإسعاف الأولي كالآتي: الجهاز التنفسي (25 %)، جهاز الدوران (24 %)، النزف (58 %)، الصدمة (38 %)، الحروق (51 %)، الكسور (66 %)، وحالات اللدغات والعضات (53 %).

الاستنتاجات: لوحظ ان أغلبية الطلبة ليس لهم مشاركات في دورات الإسعافات الأولية، ويجدون من الضروري تعلم فعاليات الإسعافات الأولية. بينما كانت النسبة العالية من الأجوبة الخاطئة حول معنى الإسعاف الأولي. بالإضافة لذلك أظهرت النتائج نسبة عالية من الطلبة المشاركين الذين كانت إجاباتهم خاطئة أو ليس لديهم المعرفة حول الإسعاف الأولي للجهاز التنفسي ، جهاز الدوران، الصدمة، الحروق، والعضات واللدغات. لكن كشفت النتائج وجود نسبة عالية من الطلبة الذين كانت إجاباتهم صحيحة حول إسعاف النزف والكسور.

التوصيات: زيادة الدورات الخاصة للاسعافات الاولية لطلبة جامعة الموصل.

المفردات: تقييم معارف ،طلبة الجامعة ،الإسعاف الأولي، حالات الإسعاف الأولي.

Abstract

Objective: to assess students' knowledge about first aid in Mosul University.

Methodology: A random sample was used for selecting (124) participants. The sample consisted of (62) students from the college of science, as well as (62) students from the college of education from the fourth stage of Mosul University. The study started from the 1st of December 2011 to the 15th of April 2012. Internal consistency of the questionnaire was assessed by calculating Coefficient Correlation which was (r = 0.80), and the statistical analysis organized by (SPSS, version 11).

Results: The present study found the majority of the students in the study (91.9 %) have not participated in the first aid courses, also (96%) found the necessity for lean to the first aid activity. The result indicated to (46%) the knowledge level of the first aid, (45%) the knowledge level of the first aid cases, and the percentage of the first aid cases as a following: the respiratory systems (25 %), the circulatory system (24%), the bleeding (58%), the trauma (38%), the burns (51 %), the fractures (66%), and the bites and stings cases (53%).

Conclusion: Majority of the students have not participated in the first aid course, and observe it is necessary to learn the first aid activity. While a high percentage of the false answers about meaning of the first aid. In addition, the result reveals a high percentage of the participated students had false answers or they do not know the first aid about the respiratory systems, the circulatory system, the trauma, the burns, and bites and stings. But the results reveal there is a high percentage of the students had true answers about the first aid of the bleeding and the fractures.

Recommendation: to increase special courses for first aids to all students in Mosul University.

Key Words: Assessment knowledge, University students, First aid, First aid cases.

INTRODUCTION

First aid is the initial assistance or treatment given at the site of accident to someone who is injured or suddenly taken ill, before the arrival of ambulance (Abbas et. al, 2011). A first aid provider should be able to assess the situation quickly and calmly, deal with life threatening conditions meanwhile protecting him/her self from the danger, obtain medical aid and call an ambulance in case of serious injury or illness(Tan et. al, 2006). First aid is the care administered by concerned person as soon as possible after an accident or illness. The most serious of injuries can leave no apparent bleeding or potential life-threatening signs; by using a structured or methodical approach to the assessment process these types of injury can be identified and life altering damage prevented. This is achieved by applying the airway, breathing and circulation (ABC) approach to all client assessments(Evans and Tippins 2008) . To be done studies had been indicated that death to happen after an accident first five minutes (35 %), first thirty minutes (54 %). First aid usually to be made by a person which is event place and unfortunately this interference showed to become too distant from rescue life. Conscious and effect first aid that will made this situation to be known which increasing success treatment will do after event and decreasing death (20%) (Polat and Turac 2003).

Objective: to assess students' knowledge about first aid in Mosul University.

METHODOLOGY

A descriptive study was designed to assess of Mosul university students' knowledge about first aid. A random sample was used for selecting (124) participants. The sample consisted of (62) students from the college of science, as well as (62) students from the college of education in fourth stage of Mosul University. The study conducted from the 1st of December 2011 to the 15th of April 2012. Data was collected from Mosul University, by using a constructed questionnaire dependence on previous studies and related literature and throughout interview techniques(Cuttle and Kimble 2010, Metin and Mutlu 2010). The questionnaire was designed in English and then translated into Arabic. An independent back translation was done, compared with the original questionnaire and the discrepancies were corrected, part one is related to their demographic characteristics of the sample (age, sex, participated in a first aid course, and found it is necessary to learn the first aid activity), and part two consists of (3) questions about the knowledge of the first aid, and (21) questions about the knowledge of the first aid cases. Data was analyzed by using descriptive statistics (Frequency and percentage) mean, and standard deviation.

RESULTS

Table (1) Age distributions of the students participants in the study

Variable	No.	Minimum	Maximum	Mean	Std deviation
Age	124	20	27	22.92	2.584

Table (1) demonstrates the minimum (20) year, the maximum (37) year, the mean (22.29), and the standard deviation (2.584) of the students age in the study.

Table (2) Sex distributions of the students' participants in the study

Sex	Frequency	Percentage %
Male	62	50
Female	62	50
Total	124	100

Table (2) shows frequency of the sex distributions between male students (62) and female students (62), and the percentage for both equal (50%) in the study sample.

Table (3) Distributions whether students participated in a first aid course

Participated in a first aid course	Frequency	Percentage %
Yes	10	8.1
No	114	91.9
Total	124	100

Table (3) indicates that their majority of the students (91.9 %) had not participated in the first aid course, and minority of the students (8.1 %) had participated in the first aid course.

Table (4) Distributions whether students find it is necessary to learn the first aid activity

Necessary to learn the first aid activity	Frequency	Percentage%
Yes	119	96
No	5	4
Total	124	100

Table (4) indicates that their majority of the students (96%) found necessity for the first aid activity, while minority of the students (4 %) found no necessity for the first aid.

Table (5) Distributions of the answers of the knowledge level about the first aid

Knowledge about the first aid	True answer		False answer		Don't know	
	f	%	f	%	F	%
First aid means treating the injured person for trauma	38	30.6	59	**47.6**	27	21.8
Practicing the First aid activity is performed by a health profession by legal (doctor, nurse etc.).	60	**48.4**	56	45.2	8	6.5
No drug is available in the first aid bag	72	**58.1**	32	25.8	20	16.1

Table (5) shows a high percentage (47.6 %) false answers about meaning of the first aid, while high percentage (48.4 %) of the true answers about first aid practice is make only person a health profession by legal (doctor, nurse etc), and (58.1 %) first aid bag hasn't a drug.

Table (6) Distributions of the answers of the knowledge about the first aid cases

Knowledge about the first aid cases	True answer		False answer		Don't know	
Firstly : Respiratory System	**f**	**%**	**f**	**%**	**f**	**%**
Opening the airway should be done within the first 3 minutes	51	41.1	11	8.9	62	**50**
Breathing rate is (12-20) breath/minute for an adult	28	22.6	14	11.3	82	**66.1**
It is necessary to check the pulse of the injured person when there is an obstructed in the airway	13	10.5	82	**66.1**	29	23.4
Secondly : Circulatory System						
The pulse rate is (60-100) pulse/minute of an adult.	74	**59.7**	13	10.5	37	29.8
Cardiopulmonary resuscitation (CPR) is done to treat the cases which threaten life.	5	4	65	**52.4**	54	43.5
When the Cardiopulmonary resuscitation (CPR) is done, it should be (30press/2 breath per minute)	10	8.1	18	14.5	96	**77.4**
Thirdly : Bleeding						
A bloody vomiting occurs when there is an internal hemorrhage in the stomach	93	**75**	5	4	26	21
The effective way to stop an external bleeding is to press on the bleeding area.	106	**85.5**	9	7.3	9	7.3
The first treatment for an epistaxis(a nose bleeding) is by pressing the nose directly then lifting and pressing in order to control the bleeding	17	13.7	80	**64.5**	27	21.8
Fourthly : Trauma						
A person affected by a trauma should be transported by supine on the strict ground	79	**63.7**	14	11.3	31	25
The unconscious person should be given water for recovery	34	27.4	60	**48.4**	30	24.2
The appropriate position for carrying an unconscious person is to put in a chair held by four persons	27	21.8	67	**54**	30	24.2
Fifthly: Burns						
First aid for burn is to keep the injured person away from the source of burn	133	**91.1**	7	5.6	4	3.2
Chemical burns should be washed with plenty of water	41	33.1	39	31.5	44	**35.5**
In order to treat the first-degree burn, you should put a cream or burns ointment of a good quality	15	12.1	87	**70.2**	22	17.7
Sixthly : Fractures						
The region of the fracture must be fixed first for the person with a fracture	133	**91.1**	5	4	6	4.8
The first treatment for a cut finger is to keep it in ice pack and to carried with the injured person to the hospital.	66	**53.2**	7	5.6	51	41.1
The first treatment for sprained ankle is to keep the shoes on and apply a bandage for support, then elevate and apply cold towels	46	37.1	17	13.7	61	**49.2**
Seventhly: Bites and stings						
A scorpion sting can cause pain and instant burns around the infected area followed by numbness and tingling.	86	**69.4**	3	2.4	35	28.2
The insects stuck on body should be removed immediately.	109	**87.9**	4	3.2	11	8.9
The snake bite must be absorbing a mark immediately.	3	2.4	111	**89.5**	10	8.1

Table (6) shows a high percentage (50%), (66.1 %), answer don't know and (66.1 %) false answers in respiratory system. In circulatory system reveals a high percentage of the false answers (52.4 %), also (77.4 %) don't know, and low percentage of the true answers (4%) in CPR. Bleeding reveals a high percentage of the true answers (75 %), and (85.5 %), but low percentage of the true answers (13. 7%) about epistaxis. Trauma shows a high percentage of the false answers (48.4%), (54%). Burns demonstrates a majority (91.1%) of the true answers about first aid of burns, while a high percentage (35.5%) answers don't know, and (70.2 %) false answers. Fractures show a majority of the true answers (91.1 %) and (53.2%). Bites and Stings revels a high percentage of the true answers (69.4 %), and (87.9%).

DISCUSSION

Data analysis of the present study shows that the majority of the students (91.9 %) had not participated in the first aid course, and minority of the students (8.1%) had participated in the first aid course (table 3), also that their majority of the students (96%) found necessity to learn the first aid activity, and others (4%) found no necessity the first aid activity (table 4). Thein et al. (2005) found the overall mean score of the students was very low university students are indicative of the fact that only a few people have formal first aid, where 80% had not attended a first aid course. Also reveals even if students wanted to get first aid training very few (12.3%) knew of places in Pakistan that offered first aid courses. Many students (94%) realized that first aid training should be part of the curriculum with 84% suggesting that it should be part of pre-university curriculum. This percentage is comparable to the one stated in the study conducted in Singapore, where 85.5%of respondents said that first aid course will be useful. Khan et.al (2010) emphasized that only (26.6%) of medical students had first aid training, and (11.26%) of non-medical students had first aid training. Only (6) out of (59) students of a government medical college had first aid training, and (32.4%) students had first aid training in one private medical college and (38.2%) had first aid training in another medical college. Table (5) shows (47.6 %) same as above answers about meaning of the first aid, while (48.4 %) of the true answers about first aid practice is make only person a health profession by legal (doctor, nurse etc), and (58.1 %) first aid bag hasn't a drug. Metin and Mutlu (2010) found that (65,7%) of students didn't take first aid education. But some students explain to except for education especially drivers license course (34.3%). Also (98,5%) find necessity of first aid education, while (1.5%) don't know of first aid practice is make only person a health profession by legal (doctor, nurse etc.). Table (6) shows a high percentage of false answers for it is necessary to check the pulse of the injured person when there is an obstruction in the airway (66.1 %) , when cardiopulmonary resuscitation (CPR) is done to treat the cases which threaten life, (52.4 %), and (64.5 %) of the first treatment for an epistaxis (a nose bleeding), (48.4%) of the unconscious person should be given water for recovery, and (54 %) the appropriate position for carrying an unconscious person is to put in a chair held by four persons. A majority of (89.5%) false answers of the

snakebite must be absorbing a mark immediately. The present study demonstrates a high percentage of answer don't know (50%) if opening the airway should be done within the first 3 minutes, (66.1 %) for breathing rate is (12-20) breath/minute an adult, (77.4 %) when the cardiopulmonary resuscitation (CPR) is done, it should be (30press/2 breath per minute), (35.5%) if the chemical burns should be washed with plenty of water, and (49.2 %) don't know for the first treatment for sprained ankle. Metin and Mutlu (2010) found a high percentage about true answers in opening the airway should be done within the first 3 minutes(65.7%) , and breathing rate is (12-20) breath/minute an adult (56.7%). Also majority (82.8%) true answers about the pulse rate is (60-100) pulse/minute an adult. But (47%) don't know answers from the Cardiopulmonary resuscitation (CPR) are done, it should be (30press/2 breath per minute), and a high percentage (69.4%) false answers about snakebite must be absorb a mark immediately, and low percentage (24.6%) about true answers from snakebite must be absorb a mark immediately, (0.7%) false answers about (CPR). Hatzakis et al (2005) showed the results on multiple choice questions mainly concerning vital signs [pulse, breathings, and cardiopulmonary resuscitation (CPR), in percentages of correct answers for the total sample, as well as for groups A and B of the workers surveyed, 38.6% were acquainted with the Normal Values (NVs) of cardiac pulse, and 33.5% knew the NVs of breaths/min. CPR definition was known to 76.3% of the total, 25.8% answered correctly about the number of chest compressions required in the case of a cardiac arrest. Wiese et al (2008) in a study carried out by in Germany on bystanders trained for BLS (basic life support) 66% of the participants did not check for breathing at all (18 participants with previous knowledge and 48 participants without previous knowledge). In cardio-pulmonary resuscitation the knowledge of trained students was far better than untrained. Khan et.al (2010) shows the commonly witnessed emergencies by the students were fractures (51.8%), epistaxis (47.8%) and burns (44.6%). Seventy eight students (17.5%) had formal first aid training of which forty six were male and the rest female. Finally the present study shows (46%) the knowledge level of the first aid, and (45%) the knowledge level of the first aid cases, and the percentage of cases as a following the respiratory systems (25 %), the circulatory system (24%), the bleeding (58%), the trauma (38%), the burns (51 %), the fractures (66%), and the bites and stings cases (53%).

CONCLUSIONS

The present study observe majority of the students have not participated in the first aid course, and a high percentage of the false answers about meaning of the first aid. In first aid cases demonstrates a high percentage of the students had poor knowledge and don't know in the respiratory systems, the circulatory system, the trauma, the burns, and bites and stings, but reveals a high percentage about the students had true answers in the bleeding and the fractures.

RECOMMENDATIONS

The present study recommended it is necessary to increase special courses for first aid to all students in colleges of Mosul University by preparing lectures from college of nursing, and more studies may conduct to evaluate the knowledge, attitude, and practices of the first aid among university students.

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