

## Knowledge about First Aid Measures to Skin Injuries among Suez Canal University Dorms Students

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### Abstract

First aid is an immediate and temporary care given to a victim of an accident or sudden illness before the services of a physician is obtained. The first hour after injury is critical to both survival and injury outcome of the injured. Many of emergency patients die before they reach a hospital. Even the world's best doctor cannot treat a patient who was "too late" to arrive at the hospital. Thus, our study was to assess knowledge about first aid measures to skin injuries among students residing youth dorms, Suez Canal University.

**Aim:** To prevent consequences of skin injuries through assessing the knowledge of first aid measures of skin injuries

**Methodology:** Cross- sectional study conducted in Ismailia governorate, among students residing university dorms representing sample of Suez Canal University student. the study assessed the students' knowledge about first aid measures to be done for different skin injuries" burns ,wounds , bleeding and bruises through self-administered questionnaire .The sample composed 102 student from all faculties that was selected by simple random sample from girls' and boys' dorms.

**Results:** Knowledge about first aid measures to skin injuries was relatively low among study participants, for burns correct answer was expressed by 56%, and 47 % about wounds while for bites the percentage was 24% and 44% for bruises . Regarding the main source of information about first aid, of the 78 students who had previous information about first aid , 25 students got their information from TV (32.1%) , 11 students from internet (14.1%), 12 students from courses ( 15.4%)and 30 students from other sources (38.5%). While 75.5% of students believe that first aid for skin injuries could contribute to save patients' lives, about (2.9% ) don't think so and (21.6%) had neutral perception about the importance of learning first aid measures to save patients' lives .

**Key Words:** First aid, Skin injuries, Dorms, Suez Canal University

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## Introduction

First aid is an immediate and temporary care given to a victim of an accident or sudden illness before the services of a physician is obtained. It is usually performed by non-expert, but trained personnel to a sick or injured person until definitive medical treatment can be accessed. Certain self-limiting illnesses or minor injuries may not require further medical care past the first aid intervention. It generally consists of a series of simple and in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment

The overriding aim of all medical care, including first aid, is to save lives and to prevent further harm: this covers both external factors, such as moving a patient away from any cause of harm, and applying first aid techniques to prevent worsening of the condition, such as applying pressure to stop a bleed becoming dangerous .It aims at promoting recovery: first aid also involves trying to start the recovery process from the illness or injury, and in some cases might involve completing a treatment, such as in the case of applying a plaster to a small wound. First aid training also involves the prevention of initial injury and responder safety, and the treatment phases.

Whether it's a minor situation or something more serious, first aid knowledge will give you the confidence to act. You could be the difference between life and death. It is recommended that everybody should have knowledge of first aid in their lifetime because it not only teaches you how to treat emergency wounds but also makes you the first person on the scene that can actually save a life. Believe it or not in most cases, the first aid provider (FAP) are usually the people who are responsible for saving the person's life more than the doctor. This is because you are able to stop bleeding, able to secure the patient from any dangers (unfavorable surroundings) and also help contact the emergency services for further help. Without these, even the world's best doctor cannot treat a patient who was "too late" to arrive at the hospital.

According to a study has been done in Kayseri ,Turkey , published in journal of Emergency Nursing on 10 August 2007 , it was determined that most of the teachers do not have correct knowledge and attitudes about first aid. For example, 65.1% of teachers gave incorrect answers regarding epistaxis, 63.5% for bee stings, and 88.5% for abrasion. It was found out that as the age of the teachers increases, appropriate first-aid practice becomes more and more unlikely. The results of this study showed that teachers did not have enough knowledge about first aid.

One of most important first aid measures are first aid measures for skin injuries .Skin Injuries are external factors can harm the skin, including heat, sharp objects, ultraviolet radiation, and even excessive rubbing or pressure. Skin injuries can be as minor as a simple scrape or as major as a 3<sup>rd</sup> degree burn. The quicker treating an injury takes place, the faster the healing occurs.

### Subject and Method

The study conducted in Ismailia governorate in Egypt, students residing in dorms were chosen to be our target population of the study. The sample consists of 102 students from various faculties (medicine, engineering, commerce, agriculture,etc.). The 102 students were males & females randomly selected. As girls' and boys' dorms divided into 3 compartments, they were selected at range 17 students from each compartment. The population was chosen as undergraduate (university students) are the proper target to be award about first aid regarding to its importance for saving people's lives.

### Results & Discussion

The age distribution of students ranged from 18 to 23 years old. The highest percentage was in the group 18 and 19 years (24.5%) while the lowest was in the group 23 years (4.9%). Students were in different 14 faculties and from 16 governorates in Egypt.

**Table (1): Frequency distribution of having previous information\ training about first aid among studied participants**

	Frequency	Percent
Yes	78	76.5
No	24	23.5
Total	102	100.0

Of the 102 students , 76.5% said they had already information about first aid while 23.5% said they didn't have information about it.

**Table (2): Frequency distribution of sources of information of first aid of the students**

	Sources of Information				Total
	TV	Internet	Courses	Others	
Number	25	11	12	30	78
Percent	32.1%	14.1%	15.4%	38.5%	100.0%

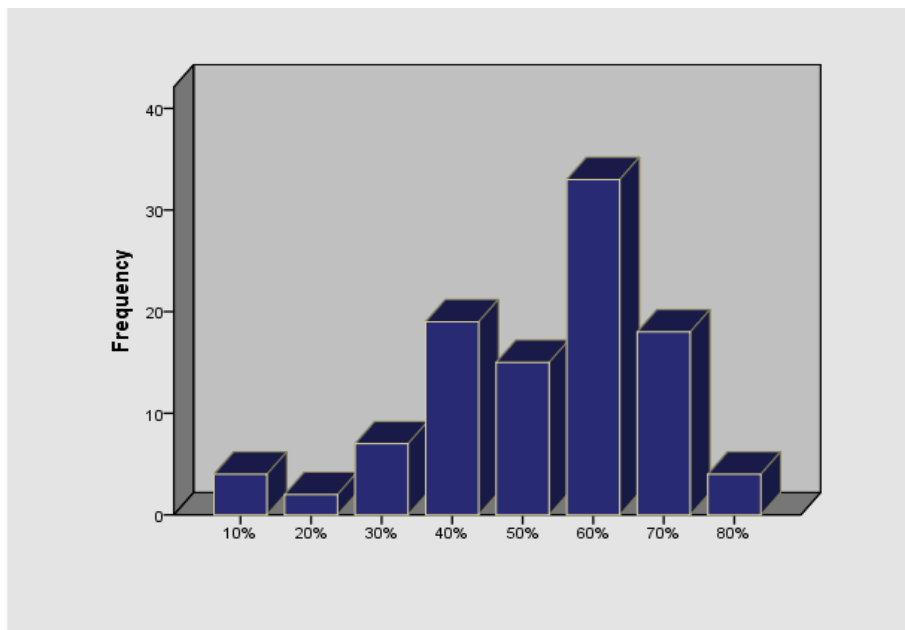
Of the 78 students (76.5%) who said they had information about first aid , 25 students got their information from TV (32.1%) , 11 students from internet (14.1%), 12 students from courses (15.4%) and 30 students from other sources (38.5%).

Of the 24 students who said they didn't have information about first aid , 13 students found difficulty to get source of information , 3 students have not known about first aid yet , 8 students doesn't concern about first aid .

The majority of the students (59.8%) didn't encounter emergency situation , and about 40.2% have exposed to emergency situation needing first aid .

Of the 41 students (40.2%) who said they faced a emergency situation, the majority of the students (31.7%) needed first aid.

**Graph (1): Frequency distribution of percentage of correct answers assessing knowledge of first aid measures for burns among students**



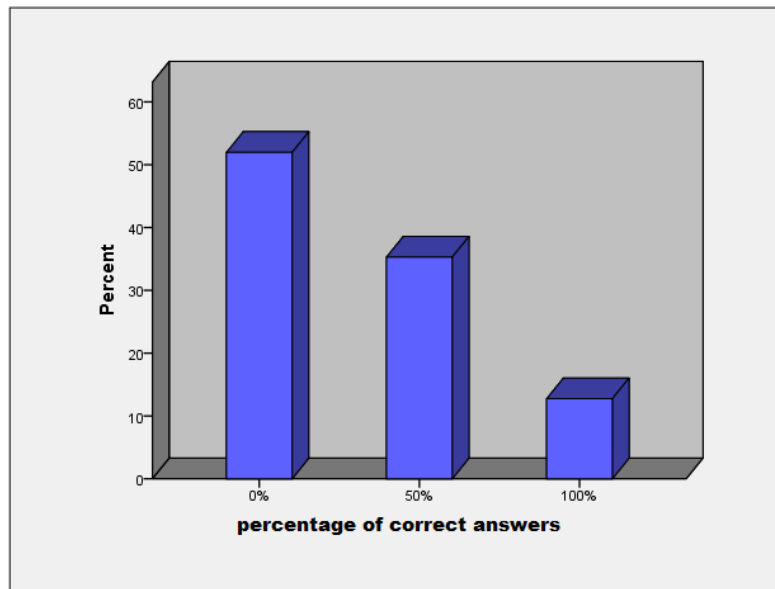
There were 10 questions to assess knowledge of first aid techniques for burns. We found that: the majority of the students (32.4) answered 6 questions correctly and there wasn't any student that answered 100% of questions correctly.

**Table (3): Frequency distribution of assessment of knowledge of first aid techniques for bleeding**

No. of correct answers	Frequency	Percent
0\7	3	2.9
1\7	8	7.8
2\7	23	22.5
3\7	27	26.5
4\7	15	14.7
5\7	16	15.7
6\7	7	6.9
7\7	3	2.9
Total	102	100.0

There were 7 questions to assess knowledge of first aid measures for bleeding. We found that 2.9% of students ( 3 students ) answered all questions correctly , 26.5 % of students (27 students) answered 3 out 7 questions correctly and 2.9 % of students ( 3 students ) didn't answer any question correctly.

**Graph (2): Frequency distribution of assessment of knowledge of first aid of bites**



There were 2 questions to assess knowledge of first aid of bites, we found that majority of students (52%) didn't give any correct answer while (12.7%) of students answered all questions correctly.

**Table (4): frequency distribution of mean of correct answers of different types of skin injuries**

	Burns	bleeding	Bites	Bruises
Mean	56.08%	47.352 %	24.02%	44.6%
Standard deviation	16.3%	23 %	25.1%	39.74%
Range	20-100%	0-100%	0-50%	0-100%

In our sample population sample, mean percentage of correct answers is relatively low. It is highest (56% ) in case of burns , ( 47%) in case of bleeding , lowest ( 24%) in case of bites & (44%) in case of bruises .

**Table (5): frequency distribution of correct answers between medical students and non-medical ones**

Type of skin injuries		Medical Students	Non-medical Students
Burns	Mean	60.29%	53.88%
	Standard deviation	15.05%	16.6%
	Range	30-100%	20-100%
Bleeding	Mean	56.74%	37.4%
	Standard deviation	25.79%	19.87%
	Range	14.3-100%	0-85.7%
Bruises	Mean	42.86%	45.52%
	Standard deviation	34.6%	42.4%
	Range	0-100%	0-100%
Bites	Mean	22.86%	24.63%
	Standard deviation	25.27%	25.18%
	Range	0-50%	0-50%

In our present study we found that mean of correct answers of medical students ( students in medicine , pharmacy and dentistry faculties ) is more than non medical ones by high ratio in case of burns and bleeding but it is higher in non medical by small ratio in case of bruises and bites. Mean of correct answers of medical student : (  $60.29 \pm 15.05$  % ) in case of burns , (  $42.86 \pm 34.6$  % ) in case of bleeding , (  $42.86 \pm 34.6$  % ) in case of bruises and (  $22.86 \pm 25.27$  % ) in case of bites .

While mean of correct answers of non medical ones : (  $53.88 \pm 16.6$  % ) in case of burns , (  $37.4 \pm 19.9$  % ) in case of bleeding , (  $45.52 \pm 42.4$  % ) in case of bruises and (  $24.6 \pm 25.18$  % ) in case of bites

In our study of the 102 students, 76.5% said they had already information about first aid while 23.5% said they didn't have information about it.

A study conducted by Metin, C. Mutlu in a total of 134 university students to find out their knowledge about first aid. The mean age of the students participating in research was found to be 20 – 25 years and 50% male, 50% female. It has been determined 65.7% students didn't get first aid knowledge before.

This difference may be a result of attending and participating in first aid courses, getting information from media, school training in first aid even from medical websites. This result were supported by a study conducted by CH. Lavonia among adolescents about the CPR program the study result had revealed that there is no association between knowledge and selected demographic variables like age, gender, class studying, type of family, family income.

One of the questions included in our study to assess knowledge of first aid for skin injuries was “should we put the burnt part under tap water? and if it is (Yes) for how many minutes? “We found that 32.4 % of students (33 students) answered (No) while 67.6% of students (69 students) answered (Yes). 46.6 % of students who answered (Yes) believe that it should be under tap water less than 5 min even if pain isn't relieved while 53.3 % of students who answered (Yes) believe that it should be under tap water more than 5 min. until pain is relieved.

Another study conducted in Kirklareli University in 2009-2010 aims to determine the level of knowledge of university students about first aid. A question ( should the burn be taken hold under cold water ) revealed that : students with correct answers were 98 students ( 73.1% ) , students with false answers were 28 students ( 20.1% ), and do not know answers we 9 students ( 6.7% ).

This difference because of the traditional ways spread in the Egyptian society to cool pain these ways thought to be the best solution to heal the burn without remains or marks, the beliefs should be corrected by providing instructions and recommendation on PHC and clinics

## Conclusion

Although most of the students consider the importance of the first aid in saving or wounded patient, large proportion of university students doesn't have correct knowledge about first aid measures to skin injuries.

Majority of the students wish but cannot have access to practical first aid training.



## Recommendations

- 1- Conduction of multiple effective training courses and workshops in the university community.
- 2- Raising awareness through different media channels e.g. social communication web sites and TV which are favorable ones to this age group.

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