

THE EFFECTIVENESS AND TEACHING METHODS OF FIRST AID MODULE IN PAAET-KUWAIT (QUALITATIVE STUDY)

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ABSTRACT: *In this qualitative study, students from both genders were randomly targeted from PAAET. A questionnaire were designed in order to investigate the effectiveness of teaching methods and the benefit from learning First Aid. Results shows that most students strongly agrees that First Aid modules are very important to their life. Students were divided regarding gender and social status. Females were more eager to learn First Aid and married students feel that they need it more than non-married. Forty six percent feel embarrassed when dealing with subjects, and only(63%) believe that they can deal with most cases thoroughly. Females were significantly more capable of rescuing and more confident than males ($p<0.00$). Significant difference between the firms with respect to student rescue embarrassment was noted, with College of Health sciences responded the least. This study showed some weakness concerning with application capabilities, confidence and personal attitude toward subjects.*

KEYWORD: First Aid, Gender, Application, PAAET

INTRODUCTION

Injuries from violence or accidents claim more than 5.8 million lives or 10% of global fatalities annually, making them one of the leading causes of death and morbidity [1]. Such injuries may also cause long life disabilities and the impact will not only affect the injured but their families, society and the overall economy. The National First Aid Science Advisory Board defined first aid as making an assessment and implementing interventions that can be performed by a bystander (or by the victim) with minimal or no medical equipment [2]. However, this practice requires certain levels of both knowledge and training. Furthermore, safety in colleges and institutes is very important especially in laboratories and workshops. And not only do teachers have to be aware of first aid emergency practices but also administrators and students. First aid training not only provides knowledge and skill to give life support and other emergency care but it also helps to develop awareness that promotes safety at educational institutes [3]. Special training and education in first aid can improve the chances to save someone's life. Necessary intervention at early stages after an injury or any sudden health crisis, avoids "death by delay" pending the arrival of more professional paramedics [4]. The person giving first aid as a care giver is assumed to be in control of the entire situation and differentiates between life and death [5]. In PAAET (Public Authority for Applied Education and Training) First Aid modules are optional in all colleges and institutes expect for the College of Health Sciences and the College of Nursing. These modules are of a practical nature in these institutes and colleges. In PAAET all institutes and college are equipped with primary clinics to serve its community. However, it is important that students learn such skills to be capable of dealing with emergency situation inside or outside PAAET premises. The objective of this study is to assess the level of knowledge of students and the effectiveness of learning First Aid by examining students opinion regarding First Aid training and its implementation.

METHODS

Objectives

To determine the effectiveness and teaching methods in coincidentally selected sample using self-reported questionnaire as a diagnostic tool. Data collected from students who were selected from colleges and institutes are analyzed and statistically related to demographic confounders to determine possible significant differences through chi-square measurements.

Design

This qualitative study is assessed through cross sectional approach by questionnaire to retrospective reporting of students demographic information, teaching methods, and questions related to First Aid effectiveness on students lives. Cross-sectional analysis to determine differences within gender and colleges and institutes groups with respect to set of questions related to First Aid effectiveness during their academic years.

Setting

Students were randomly selected from the Institute of Communication and Navigation, College of Basic Education, College of Health Sciences, and College of Nursing during the academic year of 2014-2015.

Subjects:

This is a non-probability sample (convenience sample) which depends on the availability of subjects in the study area. The subjects were both genders, Kuwaitis and aged from 17 to 24+ years old.

Main outcome measure:

A personally designed questionnaire was adopted to screen the students for this study. Reporting of personal experience on dealing with the module is solely dependent on subjects. Percentages of demographic characteristics was calculated. Cross-tabulation between the groups were also investigated to assess significant differences and determine highest proportions expected from student response in relation to question addressed in the questionnaire. All analysis were done with SPSS version 17.

RESULTS

In the randomly selected sample of students, most of them were females (63%). Age group distribution shows that the age groups between 20-23 represent nearly three quarter of the sample. Also married students dominate the sample (85%). Forty four percent of the sample are newly enrolled students and 32% of them graduates. Most students' academic achievement were of a GPA between 2-3 (74%). Results show that nearly half of the sample were selected from the Institute of Communication and Navigation (46%), and the least (12%) were from Nursing College (table 1).

First Aid module characteristics vary in term of teaching methods, language, exams, and intensity. Seventy three percent agree that most content is in practical format rather than theory,

with 71% of the students learn the module in English. The module intensity and teaching hours varies, 63% of the students learn introductory modules, but more than 70% of them have more than three contact hours, with 45% of the students report that they are assessed by both written and practical exams. More than 75% of the modules were taught by staff and 76% use black boards in their teaching with only 24% of the teachers use Mannequin for illustrations (table 2).

In table 3 most of the sample (90%) strongly agrees that First Aid modules are very important to their life. It affects their life as it impacts and strengthens work values if they worked as volunteers (94%). Students believe that team work is very important in such fields (84%). A split in response was noted with respect to First Aid practices on social life. Students were divided regarding gender, 37% believe that female students needs to learn about First Aid more than males. Also they reported that married students (42.4%) need First Aid courses more than non-married with 38% disagree. Forty six percent of students said that they would feel embarrassed if they rescued some body on the street.

Students report their rescue skills in table 4. Students disagree that accidents only occur outdoors (82.8%). Most students agree that First Aid will help in rescuing casualties, even in schools and colleges. And will help injured cases to stay alive. Moreover, most students believe that First Aid helps in reducing danger of injuries. And nearly 66% disagree that First Aid will not help rescue the casualties. Most students also noted that accidents are different in the way of rescue and occurrence. But only 77% of the students think that learning First Aid will help rescue their families. Only 80% of students report that they can treat cases of simple burns and fainting, and less than that (63%) believe that they can deal with most cases thoroughly.

Table 5 shows the response of students with respect to First Aid in the curriculum of the college. Eighty two percent of the students agree that First Aid course is suitable at secondary level education compare with 52% and 68% at elementary and intermediate school respectively. Also nearly 86% say that First Aid is important at university level but 78% think it should be an elective course rather than required course (54%). And more than half of the student believe that First Aid should be reviewed.

In table 6 students responses for First Aid training and application were noted. Most student report that training and application will help to understand the course, and most of them agree that visits to medical centers and external classes enhance the understanding of the module. Eighty six percent report that practical exams are more important, and nearly three quarter of them can apply First Aid with confidence when they get an "A" grade in the course. Learning First Aid in two languages (Arabic and English) also can have a positive effect as high proportion (84%) of students believe so. Three quarter of the students think that lectures using Video illustrations are more useful than theory classes. Students response with respect to the use of media were divided, 42% believe that the internet and modern instrumentation will not substitute class learning and 40% disagree whereas, 40% agree that the only way to know and learn First Aid is through media and 38% disagree with nearly 20% do not know.

Table 7 shows the comparison between the two genders and rescue variable. Cross tabulating male/female response to rescue capabilities, confidence and embarrassment were tested. Significant difference were found between the males and females students with respect to rescue variables. Females were significantly more capable of rescuing than males ($p < 0.00$). Also females were significantly more confident with their First Aid skills than males ($p < 0.01$).

Whereas, rescue embarrassment were not of significant difference between the two sexes despite females were more embarrassed when applying First Aid to any case.

Table 8 illustrates the comparison between the Colleges\Institutes and rescue variable. Cross-tabulating Colleges\Institutes response to rescue capabilities, confidence and embarrassment were investigated. Tendency toward significant difference were observed for both rescue capabilities and student rescue confidence which were $p < 0.08$ and $p < 0.06$ respectively. In both categories College of Health Sciences show the highest response. Furthermore, significant difference between the firms with respect to student rescue embarrassment when dealing with subjects were observed ($p < 0.00$). College of Health sciences once again responded the least, with 80% of them responded with disagreement that they would feel embarrassed when dealing with subjects.

DISCUSSION

This study has limited numbers of students which participated in the projects. That's due to low response level at the time of questionnaire distribution. This will affect the accuracy and validity of the findings. However, this investigation indicates that students do learn the theory part, and practice is more evident in the health and Nursing Colleges. Lack of illustration from teachers was obvious as only 24% of student learnt from using Mannequins. Which may affect students capabilities at application level. That was reported in several studies. A study from Kuwait reported that university students have poor levels of first aid knowledge [6]. Others reported that more than half of the medical students who had training in management of medical emergencies had poor knowledge about First Aid [7]. And in a Dutch study more than 80% of junior doctors had poor knowledge about first aid.[8]. Female students reported that they needed to learn First aid more than male students, and that is also evident in rescue capabilities and confidence with significant difference compared with males. But females showed more embarrassment when dealing with subjects. Such differences were noted in the Peruvian study where they found a significant association between knowledge about first aid and female gender [7]. Furthermore, a study from Karachi found that females had slightly better knowledge about first aid than males [9]. In this study it was noted that married students believe that they need to learn more about first Aid that non married ones, and that may be obvious because of social responsibilities which students to feel that they had to fulfill, and this is noted in table 4 where more than three quarters of the sample believe that they had to learn First Aid to help their families. But that 46% of the students feel embarrassed reflected the poor training of some students especially with high proportions noted in the non-scientific colleges and institutes. That was observed in Jordan where students from the health sciences and scientific colleges had better first aid knowledge compared to students of literary and sport colleges [10]. Another observation is that nearly one third of the students do not know how to deal with an emergency case. This was also noted when comparing the scientific and non-scientific colleges where rescue capabilities and confidence were more supportive in the scientific colleges and embarrassment was less evident in the scientific colleges. It is clear from this study and from other studies conducted elsewhere that schools and health policies need to be reviewed with global overview [11,12]. Teachers proper training and mannequins extensive use [13] should be implemented at all education levels. This study clearly focus on the level of knowledge and effectiveness of training associated with First Aid modules, which showed some weakness concerning with application capabilities, confidence and personal attitude toward subjects.

Such weakness needs a more comprehensive and extents assessment of teaching methods, application compared with international standards [14] and a professional medical supervision.

Table 1 Demographic Distribution of Selected Students from PAAET (N=140)

Variables	Frequency (%)
Male	52 (37.1)
Female	88 (62.9)
Age groups	
17-19	21 (15)
20-23	103 (73.6)
>24	16 (11.4)
Marital Status	
Single	24 (17.1)
Married	116 (82.9)
College year	
1 st	61 (43.6)
2 nd	20 (14.3)
3 rd	15 (10.7)
4 th	44 (31.4)
GPA	
2-2.49	53 (37.9)
2.5-2.99	50 (35.7)
> 3	26 (18.6)
Colleges	
Insti. of communication	64 (45.7)
Basic education	39 (27.9)
Nursing	17 (12.1)
Health sciences	20 (14.3)

Table 2 Characteristics of First Aid Module in PAAET Colleges and Institutes (N=140)

Variable	Frequency (%)	
Practical Contents	Yes	No
	102(71.9)	38(27.1)
Teaching Methods	Yes	No
	Black board	106(75.7) 34(24.3)
	Video	13(9.3) 127(90.7)
	Data show	26(18.8) 114(81.4)
	Mannequin	33(23.6) 107(76.4)
	others	16(11.4) 124(88.6)
Teaching Language	Arabic	English
	41(24.3)	99(70.7)
Module type	Introduction	Advanced
	87(62.1)	53(37.9)
Lecturers	Staff	External
	106(75.7)	34(24.3)
Module belong to	PAAET	Job Market

	74(52.9)		65(48.1)	
Exams type	Theory 73(52.1)	Practical 3(2.1)	Both 64(45.1)	
Class hours/week	1 1(0.7)	2 40(28.6)	3 32(22.9)	4 67(45.1)

(N=140)

Table 3 Percentage of Students Response to First Aid Importance and Social Effects

Questions	Disagree	Do not know	Agree
First Aid important to our life	3.6	4.5	98.8
First Aid will implant work values of the volunteers	1.4	4.3	94.3
Team work has a positive effect than individual ones	9.5	6.5	84.0
Female-students need First Aid course more than male students	34.3	28.5	37.2
Married students need First Aid course more than non-married	37.9	19.7	42.4
I feel embarrassed when try to rescue a victim on the street	36.5	17.5	46.0

Table 4 Percentage of Students Response to Rescue skills (N=140)

Questions	Disagree	Do not know	Agree
Accidents occur only outdoors	82.8	9.3	7.9
First Aid help more in rescuing the casualties	2.2	2.9	94.2
First Aid improves skills of rescuing at school and college	3.5	6.4	89.2
Application of First Aid helps injured to stay alive	1.4	3.6	95.0
First Aid courses will assist to reduce the danger of injuries	3.5	9.3	86.5
first Aid classes will not help to rescue the casualty	65.7	6.5	26.8
Accidents are different in the way of rescue and occurrence	2.1	5.0	92.1
First Aid course help rescue my family from unexpected injuries	10.4	13.0	76.6
I can rescue and help some cases (simple burns, Fainting)	3.6	15.3	79.6
I can deal with most cases thoroughly	6.5	30.4	63.1

Table 5 Percentage of Students Response to First Aid in Curriculum (N=140)

Questions	Disagree	Do not know	Agree
First Aid is important for elementary schools	24.3	22.1	52.0
First Aid is important for intermediate schools	12.8	17.1	69.3
First Aid is important for secondary schools	10.8	5.7	82.1

First Aid to be added to the curriculum of the universities	10.0	4.3	85.7
First Aid as an elective course for colleges	16.5	4.3	78.5
First Aid as a required courses for college	32.9	12.1	54.3
First Aid course should be reviewed	21.2	24.0	50.8

Table 6: Percentage of Students Response to Training and Application

Questions	Disagree	Do not know	Agree
Training and application will help to understand the course	2.9	5.1	92.0
Visits to the medical centers will help to understand the course	6.5	5.8	87.7
External classes will enhance the understanding of First Aid	5.7	10.1	84.2
Practical exams are more important than theoretical ones	5.1	13.8	86.1
“A” grade indicate that I can apply First Aid with confidence	15.2	12.3	72.5
Learning First Aid course in (Arabic-English) has a positive effect	8.0	8.0	84.0
I’ve got a benefit of video lectures more than theoretical classes	13.9	16.1	70.0
Learning First Aid from the internet and modern instruments will substitute class learning	42.8	17.2	40.0
Media is the only way to know First Aid	38.6	19.3	40.5

Table 7 Cross-tabulation of gender with rescue variables

Variables	Male %	Female %	p-value
Rescue capabilities			
Disagree	13.5	0	0.00
Do not know	23.0	10.6	
Agree	63.5	89.4	
Rescue confidence			
Disagree	19.2	4.8	0.01
Do not know	25.0	17.6	
Agree	55.8	77.6	
Rescue embarrassment			
Disagree	36.5	36.5	0.15
Do not know	25.0	12.9	
Agree	38.5	50.6	

Table 8 Cross-tabulation of Colleges\Institutes with rescue variables

Variables	Communication Institute %	Education College %	Nursing College %	Health College %	p-value
Rescue capabilities					
Disagree	9.8	0	5.9	0	
Do not know	16.4	17.9	23.5	0	
Agree	73.8	82.1	70.5	100	0.08
Rescue confidence					
Disagree	19.6	2.6	5.9	0	
Do not know	19.7	23.6	17.6	15.0	
Agree	60.7	71.8	76.5	85.0	0.06
Rescue embarrassment					
Disagree	24.6	25.6	52.9	80.0	
Do not know	16.4	28.2	17.6	0	
Agree	59.0	40.2	29.4	20.0	0.00

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