

ORIGINAL RESEARCH

Impact of training program regarding first aid knowledge and practices among preparatory schools' teachers at Assiut City

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Received: June 11, 2017

Accepted: July 18, 2017

Online Published: August 7, 2017

DOI: 10.5430/jnep.v7n12p89

URL: <https://doi.org/10.5430/jnep.v7n12p89>

ABSTRACT

Teachers and children spend considerable time together within the school environment. Schools are places where one can find a noticeable risk of traumatic injuries. The study aimed to evaluate the impact of training program regarding first aid knowledge and practices among preparatory schools' teachers. Subjects and methods: Quasi-experimental study with one group pre/post test research design was used. Multistage random sample used to select the five preparatory schools and the participated teachers which included 150 teachers. A structured self-administered questionnaire included two tools: Tool I: Part I: Demographic data. Part II: Assessment of knowledge about first aid and Tool II included observational checklist about first aid. The findings of the study revealed that Mean \pm SD of teachers' age were 38.78 ± 8.83 , 26.7% of the teacher attended training program about first aid, there was statistical significant differences between total score of teachers' knowledge (p -value = .000) in pre and immediate post-test. There was statistical significant differences between the performance level of preparatory schools teachers (p -value = .000*). The study concluded that: there was improvement of teachers' knowledge and practices regarding first aid after implementation of the training program. The study recommended that: Continuous educational and training programs for teachers and public as a whole about first aid.

Key Words: First aid, Preparatory teachers, Training program

1. INTRODUCTION

School children spend most of their life time in school where they may have different forms of minor accidents, which have impact on their present and future state of health. Because of their developmental and behavioral properties including unawareness of hazards and being active as well as physical properties including narrower airways, smaller body mass children are exposed to injuries and carry a higher risk. Usually, children have minor bruises but at times, they may face major injuries resulting in fractures, bleeding, fainting thus, first aid like medical management is importance.^[1]

Accidents and injuries are part of daily events and many of these injuries are initially treated by untrained personnel due to lack of health care providers on the accident site.^[2]

First aid is usually performed by a non-expert or lay person 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.^[3]

Often, the knowledge regarding first aid reported is poor and disintegrated. Every teacher should be equipped with first

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aid techniques so that the teacher can handle basic emergencies in the classroom. Every school should have standard operating procedures based on the school's requirements and teachers should be trained well in first aid response.^[4]

In Egypt a study reported that school age children were had higher rates of fracture injuries (37.5%), wounds (31.4%) and burns (15.6%). The least reported injuries in this age group were electric shock and sunstroke. In terms of the setting where the injury took place were more likely to be injured on the road or at school than at home.^[5]

Because situations which requiring first aid are often encountered in primary and preparatory schools, so effort should be made for the prevention and management of injuries and accident occurred among children.^[6]

1.1 Significant of the study

Availability of first aid measures is an important service in all public settings. The capacity to provide prompt basic first aid is particularly important in education and other educational services. Therefore, students are highly predisposed to traumatic events. School staff members are frequently in proximity to children and are often called upon to provide for initial emergency treatment.^[7]

In Egypt, there are little researches about first aid knowledge and practices measures among schools' teacher, also the researchers observed that teachers were had poor knowledge and unfavorable practices in dealing with accidents and injuries in school. So the current study aimed to improve knowledge and practices of teachers through the implementation of training program regarding first aid measures.

1.2 Aim of the study

- (1) To assess knowledge and practices of preparatory schools' teachers regarding to first aid.
- (2) To evaluate the impact of training program on knowledge and practices of preparatory schools' teachers regarding to first aid.

1.3 Research questions

- (1) What are level of teachers' knowledge and practices regarding first aid?
- (2) How will the training program affect on teachers' knowledge and practices regarding first aid?

2. SUBJECTS AND METHODS

2.1 Research design

A Quasi-experimental study with one group pre- and post-test research design was conducted to achieve the objectives of the current study.

2.2 Settings

Number of preparatory schools at Assiut City is estimated to be forty four schools (20 schools in West city and 24 schools in East city). One school from every ten schools was selected randomly to reach 5 school (2 from West and 3 from East Assiut city), the selected five schools named Hoda Shaarawy, Elkhiat, Taha Hanfy, Nasr, Asmat Afify which selected by systematic random sample.

2.3 Sample

Number of teachers in the previously selected schools was 335 teachers; the study sample selected by systematic random sample from the teachers' attendance file. The total study sample is estimated to be 120 teachers with increase by 20% reached to be 150 teachers to avoid dropout and refusal.

2.4 Tools of data collection

After reviewing the relevant literature to elicit information a structured self-administered questionnaire was constructed; it was included two tools:

Tool (I): It was consisted of two parts:

Part (I): It included demographic characteristics such as: name, sex, residence, marital status, educational level, etc.

Part (II): This part included questions to assess teachers' knowledge about first aid included the following: definition of first aid, definition, causes, S&S and first aid for fainting, fracture, wound, nose bleeding and burn.

This part was done during pre and immediately post the training program.

A scoring system was designed for the assessment of teachers' knowledge contains of 17 questions; a score of 1 was given for each correct answer and a score of zero was given for an incorrect answer and don't know. The total score of knowledge was determined by taking points as the following: Poor ≤ 50 ; Satisfactory = 50-70; Good > 70 as previous research done by Abdelrahim et al. (2015).^[8]

Tool (II): It included observational checklist to observe teachers' practices before and after implementation of the training program. This checklist consisted of forty four points. Total score was calculated by summing up and converted into a percent; adequate $\geq 60\%$ and inadequate $< 60\%$ as previous researches done by Ahmed F.S. (2016).^[9]

2.5 Validity of the observational checklist

Checked and revised by panel of three experts from Community Health Nursing and Public Medicine staff at Assiut University who reviewed the instruments for clarity, relevance, comprehensiveness, understanding and applicability.

2.6 Pilot study

It was conducted before starting of data collection on 10% of teachers which were excluded from the total study sample due to modifications done in the questionnaire. The aim of pilot study is to test the clarity of the tool and to estimate the time required to fill in the questionnaire.

2.7 Ethical considerations

- Research proposal was approved from the ethical committee in the Faculty of Nursing, Assiut University.
- There was no risk for the study subjects during the application of the research.
- The study followed common ethical principles in the research.
- Oral consent was obtained from teachers who were willing to participate in the study after explaining the nature and purpose of the study.
- Confidentiality and anonymity was assured.

- Study subjects had the right to refuse to participate or withdraw from the study without any rational at any time.
- Study subjects privacy was considered during collection of the data.

2.8 Data collection

An official approval letters were obtained from the Dean of Faculty of Nursing; Assiut University to directors of every selected school at Assiut City. These letters included a permission to carry out the study and explain the purpose and nature of the study.

2.9 The educational program

The educational program had been developed by the researchers based on the relevant literature. This program aimed to improve the teachers’ knowledge and practices regarding first-aid (see Table 1).

Table 1. Time table of the educational training program regarding first aid for preparatory schools’ teachers

Days	Contents	Teaching methods	Media	Time	Evaluation
First day Session I	<ul style="list-style-type: none"> • Orientation of the participants, explain the purpose and nature of the study for them • Orientation of the program • Pre test • Introduction about first aid & ambulance number • Nose bleeding (definition, causes, signs and symptoms and application of first aid 	<ul style="list-style-type: none"> - Discussions - Lecture - Role play - Demonstration 	<ul style="list-style-type: none"> Blackboard Handout Data show Video about nose bleeding first aid 	1 hour for each researcher	<ul style="list-style-type: none"> - Participation in discussion during session - Re-demonstration - Observational checklist
The second day Session II	<ul style="list-style-type: none"> • Definition, causes, signs and symptoms and application of first aid for wound and burn. 	<ul style="list-style-type: none"> - Discussion - Lecture - Role play - Demonstration 	<ul style="list-style-type: none"> Blackboard Handout Data show Video about wound and burn first aid 	1 hour for each researcher	<ul style="list-style-type: none"> - Participation in discussion during session - Re-demonstration - Observational checklist
The third day Session III	<ul style="list-style-type: none"> • Definition, causes, signs and symptoms and application of first aid for fainting and nose bleeding. 	<ul style="list-style-type: none"> - Discussion - Lecture - Role play - Demonstration 	<ul style="list-style-type: none"> Blackboard Handout Data show Video about nose bleeding and fainting first aid 	1 hour for each researcher	<ul style="list-style-type: none"> - Participation in discussion during session - Re-demonstration - Observational checklist
The four day Session IV	<ul style="list-style-type: none"> • Definition, causes, signs and symptoms and application of first aid for fracture Post-test was done. 	<ul style="list-style-type: none"> - Discussion - Lecture - Role play - Demonstration 	<ul style="list-style-type: none"> Blackboard Handout Data show Video about fracture first aid 	1 hour for each researcher	<ul style="list-style-type: none"> - Participation in discussion during session - Re-demonstration - Observational checklist - Post-test

I-Assessment phase: The researchers developed the training program to improve teachers’ knowledge and practices, it based on pre-test assessment of teachers’ knowledge and practices regarding first aid which denoted knowledge deficit and unsatisfactory practices level, after that the program and the educational materials were prepared.

II-Planning phase: This phase included the arrangement for conduction of the program such as: teaching place, sessions,

audiovisual aids, handout, etc. The study sample was divided into 16 groups in a variety of numbers ranged between 10-12 teachers in each group according to the numbers of sample size in each school. Also every group divided into subgroup according the number of researches.

Teaching place the program was conducted in the schools’ libraries; according to the arrangements which were done with the directors of schools.

Teaching Time: The time of the program decided according to the schedule of teachers in every school and the coordination between the researchers and participants.

Teaching methods and materials: The researchers used simple teaching methods such as: lecture, discussion, demonstration and re-demonstration and role play. The media as power point presentation, blackboard, video and handouts regarding first aid prepared by the researchers and distributed to every teacher at the end of the program.

Sessions: The content of the program divided into four sessions: the first session included: introduction about first aid, ambulance number, nose bleeding, definition, causes, signs and symptoms and application of first aid. The second session included: definition, causes, signs and symptoms and application of first aid for wound and burn. The third session included: definition, causes, signs and symptoms and application of first aid for fainting. The last session included definition, causes, signs and symptoms and application of first aid for fracture and immediate post test was done.

Implementation stage: The educational program was conducted in three months; every group take four sessions for four days to complete the program content according to teachers' available time; and finally after completed the program content followed by an immediate post test.

Evaluation stage: The evaluation was done through post-test which done immediately after implementing and completing the course to assess teachers' knowledge and practices.

2.10 Field work

In the first session, the researchers introduced themselves to participants and explain the purpose of the study. Pretest was done before the implementation of the program to assess the teachers' knowledge and practices, each session started by a summary about what was given during the previous session and the objectives of the new topics. Finally the post test was done to evaluate the gained knowledge and practices after the training program. This program conducted in the period from the beginning of July 2015 until the end of September 2015 according to the availability of teacher by their rotatory presence.

2.11 Data analysis

Date entry and data analysis were done using SPSS version 19 (Statistical Package for Social Science). Data were presented as number, percentage, mean, standard deviation. Chi-square test was used to compare between qualitative variables. Mann-Whitney test was used to compare quantitative variables between two groups and Kruskal Wallis test

for more than two groups. *P*-value considered statistically significant when *p* < .05.

3. RESULTS

Table 2 reveal that, about two fifths of teachers were aged up to 40 years and the majority of them was from urban area and were had institute and bachelorette degree. In referral to sex; it was observed that more than two thirds of teachers were female and the majority of them were married. The Range of experience years were between 1.0-39.0, on the other hand more than one quarter of teachers attended training programs about first aid.

Table 2. Personal characteristics of the preparatory schools teachers at Assiut City, 2015

Items	No. (150)	%
Age (years)		
< 35	55	36.7
35-40	36	24.0
> 40	59	39.3
Mean ± SD (Range)	38.78 ± 8.83 (23.0-59.0)	
Residence		
Rural	25	16.7
Urban	125	83.3
Level of education		
Secondary	17	11.3
Institute/Bachelor	126	84.0
Postgraduate	7	4.7
Sex		
Male	48	32.0
Female	102	68.0
Marital status		
Single	14	9.3
Married	132	88.0
Widow	3	2.0
Divorced	1	0.7
Years of experience		
< 10 years	52	34.7
10-20 years	54	36.0
> 20 years	44	29.3
Mean ± SD (Range)	15.09 ± 9.40 (1.0-39.0)	
Attending training program		
Yes	40	26.7
No	110	73.3
Time of training program		
< 1 year	18	45.0
1-5 years	14	35.0
> 5 years	8	20.0

Figure 1 clears that mass media was the main source of

information for two fifths of the teachers.

Table 3 illustrates that there was statistical significant difference between preparatory schools teachers' total score of knowledge about first aid in pre and post-test p -value (.000).

Table 4 shows that 42.0%, 55.3%, 73.3% and 48.7% respectively had correct answer regarding first aid for epistaxis, wound, fracture and fainting in pre test compared with 66.0%, 84.7%, 97.3% and 88.0% in posttest.

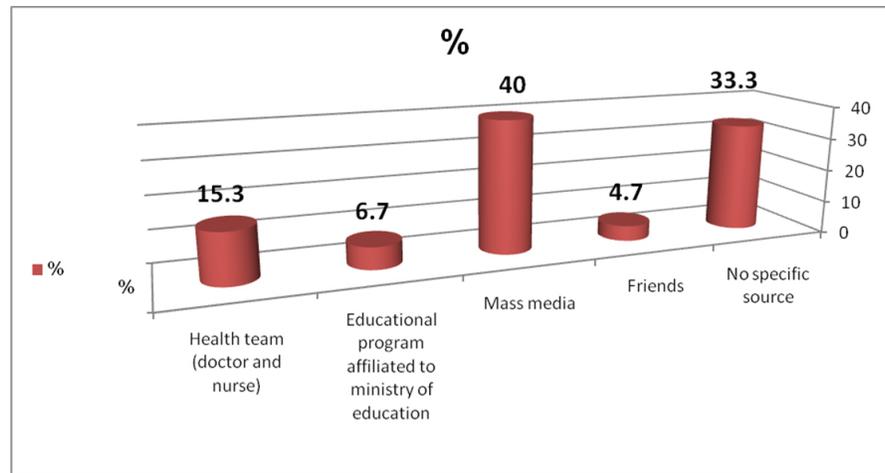


Figure 1. Sources of information about first aid among preparatory schools' teachers at Assiut City, 2015

Table 3. Relationship between total score of knowledge of preparatory schools' teachers about first aid in pre and post-test at Assiut City, 2015

Knowledge	Pre-test (No = 150)		Post-test (No = 150)		p
	No.	%	No.	%	
Poor	146	97.3	0	0.0	.000*
Satisfactory	4	2.7	37	24.7	
Good	0	0.0	113	75.3	

* $p < .05$

Table 4. First aid performance pre and post test among preparatory schools' teachers in Assiut City, 2015

Items	Pre-test (No = 150)		Post-test (No = 150)		χ^2	p
	No.	%	No.	%		
First aids for epistaxis					17.39	
Correct	63	42.0	99	66.0		.000*
Incorrect	87	58.0	51	34.0		
First aids for wounds					30.73	
Correct	83	55.3	127	84.7		.000*
Incorrect	67	44.7	23	15.3		
First aids for fracture					34.52	
Correct	110	73.3	146	97.3		.000*
Incorrect	40	26.7	4	2.7		
First aids for fainting					53.62	
Correct	73	48.7	132	88.0		.000*
Incorrect	77	51.3	18	12.0		
First aid for burn					38.46	
Correct	73	48.7	124	82.7		.000*
Incorrect	77	51.3	26	17.3		

Table 5 reveals that there was statistical significant difference between the first aid performance level among preparatory schools' teachers in pre and post-test (p -value = .000).

Table 6 clears that there weren't any statistical significance differences between teachers' age, level of education, sex and experience with the total score of knowledge in pre/posttest (pre test p -values = .100, .411, .411, .436 and .273 compared with p -values = .311, .895, .509 and .282 respectively in post test). In referral to residence there wasn't any statistical significant difference with the total score of knowledge p -value

= .082 compared with presence of statistical difference in post test p -value = .010.

Table 7 observes that there weren't any statistically significant differences between personal characteristics of preparatory schools teachers' age, level of education, sex, marital status and experience with the total score of performance in pre/post the training program p -value in pre test were .87, .788, .088, .969, .335 and .753 respectively, compared with post test p -values = .841, .347, .915, .630, .260 and .964 respectively.

Table 5. Relationship between first aid performance pre/post-test among preparatory schools' teachers in Assiut City, 2015

Performance level	Pre-test (No = 150)		Post-test (No = 150)		<i>p</i>
	No.	%	No.	%	
Inadequate practice (< 60%)	141	94.0	92	61.3	.000*
Adequate practice (≥ 60%)	9	6.0	58	38.7	

Table 6. Relationship between score of knowledge about first aid and personal characteristics of preparatory schools' teachers at Assiut City, 2015

Items	No.	Pre-test		Post-test	
		Mean ± SD	<i>p</i> -value	Mean ± SD	<i>p</i> -value
Age (years)					
< 35 years	55	11.11 ± 5.64	.100	36.25 ± 4.09	.311
35-40 years	36	14.06 ± 6.94		34.97 ± 3.95	
> 40 years	59	12.08 ± 5.87		36.61 ± 3.82	
Residence					
Rural	25	14.16 ± 5.93	.082	34.08 ± 3.51	.010*
Urban	125	11.81 ± 6.11		36.49 ± 3.96	
Level of education					
Secondary	17	10.41 ± 6.68	.411	35.76 ± 2.91	.895
Institute/Bachelor	126	12.36 ± 6.04		36.15 ± 4.17	
Postgraduate	7	13.71 ± 6.29		35.71 ± 2.63	
Sex					
Male	48	11.67 ± 5.53	.436	35.67 ± 3.71	.509
Female	102	12.45 ± 6.39		36.28 ± 4.10	
Marital status					
Single	14	8.79 ± 6.34	.027*	34.07 ± 4.23	.115
Ever-married	136	12.55 ± 6.02		36.29 ± 3.91	
Experience					
< 10 years	52	11.71 ± 5.91	.273	35.38 ± 3.80	.282
10-20 years	54	11.65 ± 6.87		36.35 ± 4.28	
> 20 years	44	13.45 ± 5.29		36.59 ± 3.76	
Attending training program					
Yes	40	14.52 ± 5.98	.005*	--	--
No	110	11.35 ± 5.98		--	
Exposed to sudden injury or accident					
Yes	79	13.18 ± 6.17	.039*	--	--
No	71	11.11 ± 5.93		--	

* $p < .05$

Table 7. Relationship between score of first aid performance and personal characteristics of preparatory schools' teachers at Assiut City, 2015

Items	No.	Pre-test		Post-test	
		Mean \pm SD	<i>p</i> -value	Mean \pm SD	<i>p</i> -value
Age (years)					
< 35 years	55	14.82 \pm 7.24	.087	24.89 \pm 7.04	.841
35 - 40 years	36	12.28 \pm 7.06		25.69 \pm 6.75	
> 40 years	59	14.85 \pm 6.78		25.07 \pm 6.47	
Residence					
Rural	25	14.04 \pm 6.41	.788	26.28 \pm 6.85	.347
Urban	125	14.26 \pm 7.20		24.93 \pm 6.69	
Level of education					
Secondary	17	15.71 \pm 5.77	.088	24.94 \pm 6.15	.915
Institute/Bachelor	126	14.29 \pm 7.21		25.22 \pm 6.82	
Postgraduate	7	9.29 \pm 5.53		24.43 \pm 7.00	
Sex					
Male	48	14.27 \pm 6.84	.969	25.58 \pm 6.73	.630
Female	102	14.20 \pm 7.19		24.95 \pm 6.73	
Marital status					
Single	14	15.07 \pm 6.53	.335	27.00 \pm 6.21	.260
Ever-married	136	14.13 \pm 7.13		24.96 \pm 6.76	
Experience					
< 10 years	52	13.83 \pm 7.29	.753	25.02 \pm 7.10	.964
10-20 years	54	14.65 \pm 7.27		25.07 \pm 6.06	
> 20 years	44	14.16 \pm 6.63		25.41 \pm 7.14	
Attending training program					
Yes	40	14.85 \pm 8.15	.807	--	--
No	110	13.99 \pm 6.64		--	
Exposed to sudden injury or accident					
Yes	79	14.72 \pm 7.56	.423	--	--
No	71	13.66 \pm 6.46		--	

4. DISCUSSION

In many countries around the world school health services are often ignored. This is resulting in lack of knowledge and education regarding first-aid care.^[10]

Educating teachers in first aid increase the safety of every student they come in contact with. Also, a teacher trained in first aid is more motivated to avoid personal injury, because their first aid training gives them a greater appreciation of the potential serious consequences. Moreover, teachers trained in first aid can be taught to appreciate the importance of safety, prevention and risk reduction, making them ideal advocates for spreading safety awareness for students.^[10]

The present study aimed to evaluate the impact of training program regarding first aid on knowledge and practices of

preparatory schools' teachers.

In referral to the personal characteristics of the participated teachers; the present study shows that about two fifths of them aged > 40 years, this finding was in agreement with Sunil et al. (2013)^[4] who found that nearly half of the teachers were in the age group of more than 40 years. In referral to sex of the participated teachers, it was observed that more than two thirds of them were female; this result was in congruent with Sunil et al. (2013)^[4] who found that 59.5% of the teachers were males.

Regarding teachers' years of experience, it was recorded that more than one third of them had 10-20; this disagreed with Sunil et al. (2013)^[4] who found that 24.4% of the teachers had teaching experience for 16-20 years.

In a study carried out in Saudi Arabia by AL-Samghan et al, 2015,^[10] reported that less than one third of primary school teachers in Abha, KSA had previous training in first aid. Also, Sunil et al. (2013)^[4] in their study reported that only 16.4% of the teachers had received training about first aid.

These findings were matching with the current study which indicated that less than one third of teachers had attending training program about first aid. This reflects lack of passion among school teachers toward the importance of receiving training courses about first aid. On the other hand these findings were in contrast with Yurumez et al. 2005^[11] who observed that 61.9% of the participants had previously taken the first aid education.

In the present study mass media was the main source of information for two fifths of the studied teachers. This is due to T.V. and radio are the most reachable source of information for large sector of people in our country.

This finding is in contrast with Amro and Qtait (2017)^[12] who found that nurses and doctor was the main sources of teachers' knowledge about first aid.

A study in Egypt conducted by Ali et al. (2008)^[13] who assessed the effect of an educational program on the knowledge of newly graduated nursery teachers regarding common accidents and emergencies among preschoolers and their first-aid management, indicated that most of the teachers had inadequate knowledge and performance.

Moreover, Abdella et al. (2014)^[14] reported that there was poor knowledge about pediatric first aid among staff in the preschools before the program intervention while their results showed that the knowledge score to be significantly higher among them after the program implementation. In addition in a study performed by Behairy and Al-Batany, (2015)^[15] who observed that the study participants, generally, had poor knowledge and incorrect situational practice in the pretest. A statistically significant improvement was shown in the knowledge and practice at post and follow-up tests.

Also, Thomas and Therese (2012)^[16] who carried out a study to assess the effectiveness of self instructional module on knowledge regarding selected first aid measures among primary school teachers in ernakulam district; who observed that 100% of primary school teachers had inadequate knowledge in the pre-test, after distribution of self-instructional module; 78.33% of the teachers had excellent knowledge regarding selected conditions of first aid. Moreover, in a study carried out by Al-Robaiaay (2013),^[17] who reported that more than three-quarters of the teachers had lack of knowledge regarding first aid. These results agreed with the finding of the current study which found that the vast

majority of teachers had poor knowledge before application of the educational program.

While, these results were in disagreement with Joseph et al. (2014),^[18] who carry out a study to assess awareness, attitudes and practices of first aid among school teachers in Mangalore, South India and found that there was poor and moderate knowledge of first aid was observed among 13% and 87% of the teachers respectively.

Moreover, the current study noticed that there was a statistically significant difference between teachers' performance during pre/post test the training program ($p = .000$).

In a study carried out by Masih et al. (2014),^[11] who found that the knowledge and practices posttest score of primary school teachers were significantly higher compare to pretest knowledge and practice score about first aid management of selected minor injuries such as minor fracture, burn, scald, epistaxis, minor wounds, etc.

This result is in congruent with Abd El-Hay et al. (2015)^[19] who study the effect of training program regarding first aid and basic life support on the management of educational risk injuries among students in industrial secondary schools and found that were significant improvement in the level of knowledge among students post program.

In the study performed by Amro and Qtait (2017),^[12] who found that there was a significant difference between male and female in compare to their total knowledge scores regarding first-aid. This observation was in disagreement of the finding of the present study which found that there wasn't any relation between teachers' sex and their knowledge regarding first aid pre/post the program ($p = .436$ and $.509$ respectively).

Also, Devashish et al. (2010),^[20] in his study reported that there was significant relationship between training received and practices score regarding first-aid ($p < .05$). this results disagreed with the finding of the present study, which reported that there wasn't any relation between attending training program about first aid pre/post the program ($p = .807$ and $.256$ respectively).

In a study performed by Sönmez et al. (2010)^[21] to assess knowledge levels of pre-school teachers related with basic first-aid practices, Isparta and recorded that there was no statistically significant relation between the mean score of first-aid knowledge and professional working time. In the same line, Al-Robaiaay (2013)^[17] observed that there was no statistically significant difference between level of knowledge and years of experience.

Moreover, in a study carried out by Devashish et al.

(2010),^[20] reported that there wasn't any relationship between age, sex, years of experiences and school level and practice score regarding first aid ($p > .05$). These results were congruent with the finding of the current study which observed that there wasn't any relation between years of experience and first aid knowledge among teachers pre/post the program ($p = .273$ and $.282$ respectively).

5. CONCLUSION

In conclusion, there was improvement of knowledge and practices regarding first aid measure among preparatory schools' teachers after application of the training program at

Assiut City.

Recommendations

- In the future more researches toward first aid.
- Continuous educational and training programs for teachers and public as a whole about first aid for early management of injuries and emergencies.
- First aid knowledge and practices should be incorporated in the educational curricula.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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