

First Aid Program For Nursery School Teachers

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Abstract

Background: Children are the most vulnerable group to accidental injuries. The nursery school plays an important role in preventing and caring for those injuries. **Aim:** The study aimed to evaluate the effect of first aid program on nursery school teachers' knowledge and practices. **Research design:** A pre/post research design was used in this study. **Sample:** A convenient sample of 60 nursery school teachers, 30 from private and 30 from governmental nursery schools. **Setting:** The selected nursery schools represented all geographic areas of Minia city. **Tool:** pre-designed questionnaire sheet was used to collect data from teachers which include: Demographic data, Teachers' knowledge about first aid and observational checklist was used for first aid measures. **Results:** There was an observed improvement in the percentage of correct answers in most items of first aid knowledge as well as in the total mean scores of practice after implementation of the program with statistical significant differences at (p -value 0.0001) between pretest, immediate posttest and posttest after 3 months. **Conclusion:** The current study concluded that there was an observed increase in the teachers' knowledge and practices about first aid after implementation of the program. **Recommendation:** The school authority should provide teachers with booklet, posters, brochures, charts, equipment's and supplies to improve their knowledge and practices about first aid.

Key Words: First Aid, Nursery School, teachers, Knowledge, Practice

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I. Introduction

First aid is an urgent attention delivered to the victims of a sudden illness or even medical injury up. Thus, early treatment for these emergency cases decreases morbidity and mortality (calligraphy, 2016) first aid can be obtained by everyone and includes self-care, so that the paramedic can be anyone present in the emergency scene and provide such care as parents, teachers, policemen, First responder, firefighters, physicians, etc. (Singletary, et al, 2015).

Almost every day, 300 children and teenagers die from injuries sustained from car injuries, drowning, poisoning, falls, burns and violence.

Through children growing they are susceptible to accidental injuries, as they spend most of their day in kindergarten. Therefore, unintentional accident that may result in physical injuries. Kindergarten is the best place to give care to children specially in the absence of parents or caregivers, (Muneeswari, 2014).

Constant supervision are required during toddler period in a controlled environment to encourage autonomy and prevent injury. Inadequate supervision or the environment is unsafe, tragedy often results and accidents may lead to death for children between the ages of 1 and 4 years.

Car accidents, falls, drowning, burns, poisoning, are the most common causes of injury or death. The number of motor deaths in this age group is more than three times greater than the number of deaths due to burns or drowning (Waver, 2014). Nurses can play an important educational role by educating caregivers about the expected behaviors of their child's next growth stage. This alerts them to common types of infections for this age group, and potential environmental hazards (Potts and Mandleco, 2012). Nurses can start safety programs in schools, neighborhoods and cities. Nurses have important roles especially in education. Unfortunately, not all schools have health professionals.

Thus, even minor accidents can cause difficult situations because teachers who do not know how to interfere or who make a mistake. For example, as s/he does not know how to do first aid, the teacher gets nervous and therefore cannot help the student. Therefore, nurses, especially those who have the role of health educator, should visit schools at certain periods and give primary education first aid. In this way, teachers can conduct first aid in a more conscious and rapid manner (Arli & Yildirim, 2017).

Nearly the first teachers and primary care represents the first line of child protection, in addition to the role of teachers complement the role of the mother. Teachers during school hours, is the real defendant of the emergency and injuries caused by school accidents. Therefore, they must be able to work accurately with health emergencies affected school children (Sönmez et al., 2014).

The aims of the current study were to:

1. Assess the nursery school teachers' knowledge and practices about first aid measures for common childhood accidents.
2. Develop and apply the program for nursery school teachers' about first aid measures for common childhood accident.
3. Evaluate the effect of first aid program on nursery school teachers' knowledge and practices.

Research hypothesis

1. There will be a significant difference between the nursery school teachers' knowledge and practices about accident prevention and first aid after receiving an educational program.
2. There will be a significant association between teachers' knowledge and reported practice and demographic characteristics of the studied teachers.

Significance of the study

Children who spend a large part of their day in kindergarten and even emergencies for children like occasional physical injuries are likely to occur in these settings. Kindergartens are the best place to care for these children in the absence of mothers (Muneeswari 2014). Kindergarten teacher has a crucial role in child care, supervision and prevention of health risks. They should be well trained on first aid and emergency life-saving control and must have sufficient knowledge and skills about what to do and be encouraging and reassuring to the victims (Olympia et al., 2010). In Egypt 2009, more than 746,000 cases were recorded in Ministry of Health hospitals. About 38% of all injuries occur among children and young people less than 20 years of age (El-Sayed, 2009). While in Egypt 2013 the mortality rate from injury in children less than five years was 3% of total death (WHO, 2013) and the mortality rate of children under five years from injury at 2014 was 4% of total death in Egypt (WHO, 2014) and in Egypt too the mortality rates from unintentional poisoning were 0.5 per 100,000 population in 2015 (WHO, 2015).

In the nursery schools at Minia city, children are more susceptible to accidents and injuries because of their large numbers in relation to teachers' numbers which predispose them to accident because of lack of supervision.

II. Subject And Methods

Research Design: Pre posttest research design was used in this study. This research design is one type of experimental design very similar to the true experimental design except there are one loss criteria which is control, manipulation, or randomization (Burns and Orchard, 2012).

Setting: The selected nurseries schools represent all the geographical areas of the city of Minia including the private nurseries (Al Zahraa - Ganobia and Salah El Din) and the governmental nurseries (El Fath Nursery and LogatKafr El Mansoura) Kafr El Mansoura Nursery school was changed to (El -Tagrebia nursery school) Because of the director's refusal to implement the program there.

Sample: A convenient sample of 60 nursery school teachers, 30 from private and 30 from governmental nursery schools.

Sample size was calculated by G power program depending on mean Score of total knowledge pre (17.40 ± 15.35) and post (39.40 ± 11.61) as resulted by (Mersal and Aly, 2016) at power of 97%. The calculated sample was 52 increased to 60 to avoid dropouts.

Tools for data collection: Pre-designed questionnaire sheet for nursery school teachers as pre/ posttest that was designed by the researcher in an Arabic language after reviewing of the related literature to assess the nursery school teachers' knowledge toward accident prevention and first aid. It comprised the following parts;

Part 1: Demographic data on teacher as, age, marital status, qualifications, years of experience and previous training courses

Part 2: This part was including the following;

1. Teachers Knowledge about first aid to the common childhood accident which included: Meaning of first aid, consisting of first aid kit and first aid measures around wounds, paralysis, convulsion, choking, poisoning, fracture, burning and fainting.
2. An observational checklist was used to evaluate first-aid measures around wounds, epilepsy, convulsions, and choking, poisoning, fractures, burning and fainting.

Scoring system:

Scores of teachers' knowledge of one degree for the correct answer and zero for the answer were incorrect. These points were converted to percent score. Teachers' knowledge is considered satisfactory if the percent result is 60% or more and unsatisfactory if they are less than 60%. While the scoring of teachers' practices was given one degree for skill to be done, zero was given as a result of skill not done. These points were converted to percent score. Teachers' practices were considered satisfactory if the result was 60% or more and unsatisfactory if they were less than 60%. Observations were carried out in the pre-test and post-test to evaluate the teacher's practice on first aid measures.

Educational and training program was designed in Arabic form of educational program by the researcher based upon the actual need assessment of teachers. It was also supplemented with information based on review of relevant literature (nursing textbook, journals and internet resources) about first aid in nursery schools.

The program

The program was designed by the researcher. It was a review of previous and current literature available in various aspects of problems in the use of textbooks, materials, periodicals and magazines needed to identify all aspects of the study problem and also to develop relevant tools for data collection. The time and methods of training courses were arranged according to the time available to the teacher at each nursery school, the time required to implement the program was six months, the total duration was 12 hours the program, 1 hour orientation, 2 hours and 9 hours duration of the program sessions. The program was implemented in each set with 3 hours theoretical and practical 6 hours, and program sessions were 6 sessions two sessions per day.

Each session (60- 120 minutes), two sessions a day, nursery school teachers divided into 8 groups each group had 7- 8 teachers, teachers were interviewed two days a week from 9:00 to 12:00 to cover all information about first aid. Various teaching methods were used to stimulate and promote teaching such as praises and recognition during program sessions.

The teaching method used during sessions was a program of lectures, discussion, photos, post, brochure and videos to easily understand and pretend

Validity and reliability

Data collection tools were tested for content and face validity by three of experts in the field of pediatric nursing to test tool validity. Cronbach alpha coefficient test were 0.70 & .71 respectively used to assess the reliability of the tool to confirm its consistency.

Pilot study

After developing the tools, a pilot study was conducted on 10% (6) of the teachers at Minia city nursery schools.

Ethical consideration

The initial approval was obtained from the Ethics Committee, Faculty of Nursing, Minia University. It was taken for verbal approval from all teachers to participate in the study. They explained the purpose and nature of the study prepared by the researcher through personal contacts prior starting to the conduction of the study. These data are confidential and have been used for research purposes only.

Data collection procedure

The initial approval was obtained from the Ethics Committee and the College of Nursing. An official permission was obtained from Minia University. A total of 60 nursery teachers were randomly assigned into two groups, 30 from private and 30 from governmental nursery schools, and the researcher collected the study data through interviews of the studied teachers, and the tribal test was conducted to assess the knowledge of nursery school teachers and first aid practices. Time management and training courses were conducted according to the time available for teachers in each nursery school and teachers were interviewed two days / week from 9:00 am to 12:00 pm The program was conducted over two sessions / day to cover all information about first aid. Lecture sessions, Discuss, use illustrated images to understand and pretend easily.

Statistical analysis

The data was entered using a compatible PC. Statistical analysis has been done using SPSS 20 software package statistical. The content of each tool was analyzed, categorized and then encoded. Data were presented using descriptive statistics in the form of frequency and percentage of qualitative variables, arithmetical averages and standard deviations of quantitative variables. Quantitative continuous data were compared using the Friedman test when comparing the mean scores of more than two studied groups. The qualitative variables were compared to the lesson using the Chi-square test. The statistical significance used in the value of $P < 0.05$.

III. Results

Table (1) Illustrated that more than two fifth of the studied teachers (45%) had >30 years old with a mean of age 33.32 ± 7.478 . All teachers (100%) had Bachelor of Science, while more than two fifth of them (41.7%) attended training courses, more than half of those who attended training courses (56%) attended one course. The majority of the studied teachers (85%) were married; more than half of them (51.4%) had one child.

Figure (1) showed that less than half of teachers (48.3%) had years of experience >10 years with a mean 10.23 ± 6.919 years.

Table (2) proved that more than half (57.5%) of teachers has confronted with closed wounds to their children compared to 10% of them has exposed to epistaxis during their years of working in nursery school.

Table (3) regarding teachers' knowledge about first aid, this table illustrated that there was significant difference regarding priority in first aid in pretest, immediate post, and after 3 months with p-value 0.02. While there were highly statistical significant differences between pretest, immediate post, and after 3 months in first aid for burn, wound, epistaxis, fainting, convulsion, fracture, choking, and poisoning.

Table (4) Illustrated that in immediate posttest the teachers had the highest mean scores related to their practices about wound, fracture, burn, epistaxis, convulsion, fainting, poisoning, suffocation and total score of first aid with highly statistical significant difference in pretest, immediate posttest and posttest after 3 months at p-value 0.0001.

Table (5) clarified that there were no statistical significant correlation between the teachers' knowledge and all items of their demographic characteristics.

Table (6) proved that there were no statistical significant correlation between the teachers' practices and all items of their demographic characteristics except for number of children where there was positive statistical correlation with $p < 0.01$.

Table (1): Distribution of the Studied Teachers According to their Demographic Characteristics (No. = 60)

Demographic data	No.	%
Age / years		
20 < 25	9	15.0
25- < 30	24	40.0
≥ 30	27	45.0
Mean ± SD	33.32 ± 7.478 years	
Qualification of teachers		
Bachelor	60	100.0
Marital status		
Single	9	15.0
Married	51	85.0
Previous attendance of training courses about accident prevention and first aid		
No	35	58.3
Yes	25	41.7
<i>If yes (n = 25)</i>		
One	14	56.0
2	6	24.0
≥ 3	5	20.0
Mean ± SD	1.62± .0780 course	
Have children in preschool years		
Yes	33	55.0
No	27	45.0
<i>If yes , how many(n = 33)</i>		
One	19	51.4
Two	12	32.4
Three	6	16.2

Figure (1) Distribution of the Studied Teachers According to Their years of Experience (No. = 60)

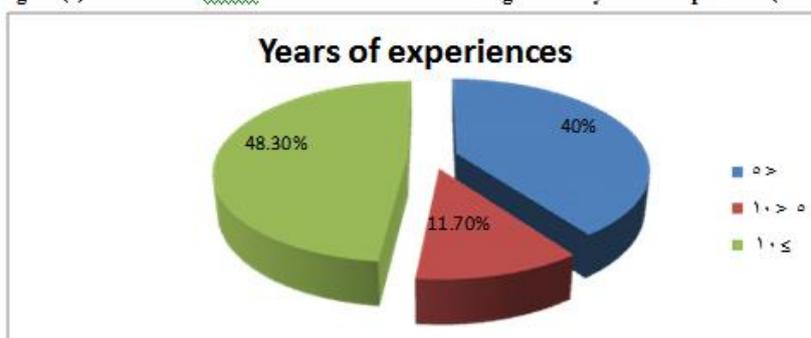


Table (2): Frequency Distribution of Teachers' knowledge about Past History of Accident

Knowledge about past history of accident	Past history of accident No = 60	
	No	%
Yes	40	66.7
Type		
Closed wound	23	57.5
Open wound	7	17.5
Epistaxis	4	10
Fracture	6	15

Table (3) Teachers' Knowledge about First aid as Pretest, Immediate and After 3 Months Posttest According to Correct Answer

Knowledge about first aid	Pretest		Immediate post test		After 3 months		X ²	P – value
	No.	%	No.	%	No.	%		
Definition	50	83.3	59	98.4	60	100.0	17.622	.0001**
priority of first aid in dealing with accident	45	75.0	48	80.0	56	93.3	7.500	.02*
For first degree burn	19	31.7	57	95.0	59	98.4	90.311	.001**
For wound	32	53.3	55	91.7	55	97.0	35.293	.0001**
For epistaxis	29	48.3	57	95.0	60	100.0	63.602	.001**
For fainting	32	53.3	56	93.3	55	91.7	37.626	.0001**
For convulsion	23	38.3	56	93.3	55	91.7	61.733	.0001**
For fracture	43	71.7	52	86.7	55	91.7	9.360	.0001**
For choking	36	60.0	54	90.0	54	90.0	22.500	.0001**
For poisoning	45	75.0	48	80.0	52	86.7	59.575	.0001**
Component of first aid bag	50	83.3	58	96.7	58	96.7	9.914	.007**

Table (4): Comparison of Teachers' Practices about First Aid Pretest /Immediate and after 3 Months Posttest

Teachers ' practice	Pretest	Immediate post test	Post test after 3 months	F	P
Wound	1.33± 0.774	6.43±0 .909	5.82±0.965	98.879	0.0001*
Fracture	1.45±.964	5.62±.846	5.22±.804	97.700	0.0001*
Burn	0.88±.885	5.62±.846	4.02±.770	101.971	0.0001*
Epistaxis	1.48±1.112	5.38± 0.922	4.80±0.840	94.731	0.0001*
Convulsion	0.57±0 .722	5.18±.930	4.57±0.909	102.945	0.0001*
fainting	1.20±.898	5.59 ± .938	5.45±1.016	101.591	0.0001*
poisoning	1.15±0.860	5.73 ±0.880	5.43±1.064	97.714	0.0001*
suffocation	1.92±1.046	5.97± 1.057	5.85±1.143	93.945	0.0001*
Total mean scores of practices.	9.98± 2.891	44.20±4.701	41.20±4.881	97.414	0.0001*

Table (5) : Correlation between the Total Scores of Teachers' Knowledge about First Aid and Their Demographic Characteristics.

Demographic characteristics	Total score of First aid Knowledge					
	Pretest		Immediate Posttest		Posttest after 3 months	
	R	P- value	R	P-value	R	P-Value
Age	0.095	0.469	-0.071-	0.588	0.162	0.216
Marital status	0.059	.656	-.011-	0.931	0.185	0.157
Have children in preschool years	0.220	0.091	-0.095-	0.469	0.099	0.451
If yes how many children	-.309-	.063	-.096-	0.572	-.137-	0.418
Years of experience	0.083	.529	-.025-	0.847	0.201	0.124
Attended training courses	0.529	0.203	.065	0.620	0.072.	0.583

Table (6): Correlation between the Total Scores of Teachers' Practices and Their Demographic Characteristics.

Demographic Characteristics	Total practice scores					
	Pretest		Immediate		Posttest after 3 months	
	R	P – value	R	P – value	R	P – value
Age	0.005	0.968	0.060	0.647	0.053	0.687
Marital status	0.063	.0634	0.212	0.103	0.060	0.650
Have children in preschool years	0.147	0.263	0.206	0.115	0.030	0.817
If yes how many	0.418*	0.010*	0.003	0.984	.069	0.684
Years of experience	0.000	0.999	0.021	0.874	0.021	0.874
Attended training courses	-.066-	.617	0.015	0.912	0.077	0.560

IV. Discussion

Accidents are a major cause of morbidity and mortality in children. Together with cardiovascular disease, cancer and accidents are currently the three leading causes of morbidity and mortality in developed and developing countries (Suguna, 2015). Toddlers and preschoolers are at risk for many types of accidents and unintentional injuries such as those caused by unsafe toys, fall, burns or scalds, drowning, motor vehicle crashes and poisoning (Allender et al., 2013).

As regard personal characteristics, It was observed that more than two fifth of the studied teachers aged ≥ 30 years with a mean of 33.32 ± 7.478 years. This result contradicted with Mersal and Ali (2016) Who found in their study about developing disaster management and first aid guidelines for school teachers in Cairo Egypt that more than two fifth of the school teachers aged 40 years and more

With regard to the marital status of studied sample. The majority of the studied teachers were married, and this result is consistent with Yunus and Sharma Abassy (2015) who conducted a study on "First Aid Management for Children" Primary School Teachers Accidents Day: Video assisted the teaching method versus the lecture method and found that the vast majority of teachers studied were married. With regard to the birth of pre-school children. More than half of the teachers studied one child. This is in contrast to Christ (2014), which conducted a study on primary school teachers' knowledge and practices related to first-aid management for children. It was reported that nearly three-quarters were more than one child.

This was contraindicated with Masih (2014) who conduct a study on primary school teachers' knowledge and practice regarding first aid management for children and stated that nearly three quarters had more than one child. The number of children might contribute to the experience with first aid and care of childhood accidents. Regarding years of experience nearly half of the teachers had work experience >10 years with a mean 10.23 ± 6.919 years. This attributed to reduction in the employment rate by Ministry of Education in Egypt in the last years which lead to reduction of numbers of recently employed teachers.

The results of the study were consistent with Bhesania et al., (2014) who found in their study on the knowledge, attitudes and practices of school teachers towards school children epilepsy in Karachi, Pakistan that half-year teachers and teaching experience over 10 years. This finding differed with Thomas and Therese (2016) in their study on "assessment the effectiveness of the self-instructional module on knowledge on the selection of First Aid measures among primary school teachers in the Ernakulam district." Nearly half of the participants were found to have 0-5 years of experience.

Regarding previous attendance of training courses about accident prevention and first aid; more than half of the studied teachers didn't attended training courses, this result was matched with Mersal and Ali (2015) who found that more than two thirds of the teachers were not trained on first aid. Similarly the current study results were in the same line with Younis and El-Abassy (2015) in their study about Primary teachers' first aid

management of children's school day accidents: Video-assisted teaching method versus lecture method and indicated that the highest percentage of the school teachers did not attend any training courses.

With regard to the previous attendance of training courses on accident prevention and first aid. More than half of the teachers who did not attend the training courses were matched with **Mersal and Ali (2015)**, who found that more than two thirds of the teachers were not trained in first aid. Similarly, the results of the current study were in the same line with **Yunus and Sharma Abassy (2015)** in their study on Primary teachers' first aid management of children's school day accidents: The Method of Video-Assisted Instruction vs. Lecture Style. The highest percentage of school teachers did not attend any training courses.

Knowledge and practices about first aid were sufficient in pretesting before the program was implemented, so teachers were in great need of the program on this subject.

Lack of knowledge and practices of teachers about first aid in pre-test can be attributed to the intervention of the lack of effective emergency care training practice in the school curriculum of quality education, the absence of training programs on first aid conducted in kindergarten schools for teachers, as well as the lack of images, educational posters or films illustrating how to provide first aid and a lack of supplies and equipment "in the designated kindergartens.

The teachers' knowledge on first aid showed immediate post-test improvement; the vast majority of teachers had the correct answers to first aid for burns, wounds, fainting, convulsion and choking compared with pre-test, where the correct response rate was less than the post-test. The results of the study conducted by **Ali et al (2010)**, which announced that the first-aid educational training program for newly graduated nursery school teachers in the city of Zagazig have improved the knowledge and skills of nursery school teachers in the field of first aid and dealing with wounds, fainting, burns, epilepsy, seizures Epilepsy, and fractures.

On other hand direct first aid knowledge about the wound with bleeding indicated that there was an increase in the correct post-response ratio than in the pre test, with significant statistical differences in (p. 0.0001 value). This result was agreed with **Hassanzadeh (2010)** He pointed out that he has a degree of knowledge in using the correct method of area bandage injured, and proper ways to carry the patient a significant increase in study groups after education. In addition to **Abbas et al. (2011)** comparing first aid knowledge to untrained medical students for training, the correct answers by trained students on bleeding were much better than those who were untrained.

Regarding knowledge about first aid for epistaxis, the current study revealed that there was an observed improvement in the percentage of correct answers in immediate posttest as well as in posttest after 3 months, the majority and all of the teachers compared to near half in pretest with highly statistical significant difference at (p -value.0.0001). In the same field **Rekleiti et al (2013)** detected that more than one quarter vs the majority respectively; had correct answer concerning nose bleeding before and after the educational intervention, a statistical significant difference between pre and post intervention program was detected.

Concerning knowledge about first aid of burn; an improvement in knowledge post program compared to pre -program was detected. The study results showed that most of the teachers versus nearly one third of them had correct answer in immediate posttest versus pretest regarding first aid knowledge about burn with highly statistical significant difference (p - 0.0001) . This finding was in congruence with **Behairy and Al-Batanony (2015)** who clarified that the teachers had good knowledge about first aid of burn in immediate posttest and in the follow up phase; the most was compared with 11.3% in pretest with a significant difference at p-value <0.001.

Concerning knowledge about first aid of fracture there were an improvement in knowledge post program compared to pre -program. The study results showed that more than two third of the teachers versus the majority had correct answer in pretest versus immediate posttest with highly statistical significant difference (p - 0.0001). The study results was in the same context with **Thomas and Therese,(2016)** who stated that there was an increase in the total mean score of first aid knowledge about fracture in immediate posttest compared to pretest with highly statistical significant difference at p- value 0.0001 .

The current study revealed that more than two thirds of the studied teachers reported that they confronted with accidents during their years of experience, between these accidents more than half of the teachers confronted with closed wounds followed by open wounds, fractures and nose bleeding. The study results was similar to the results of the study done by **Masih et al (2014)** about Knowledge and practices of primary school teachers about first aid management of selected minor injuries among children and indicated that more than two thirds of them experienced previous injuries in school children. Similarly, in the study conducted by **Kumar et al (2013)** it was observed that wound was found to be the most common event in the school campus requiring first aid. High percentage of wounds and bleeding denoted among pupils as a type of incidence.

Teachers' practices

Our study revealed that there was an improvement in performance of the studied teachers toward common first aid of emergency situations such as wound, fracture, burn, epistaxis, convulsion, fainting and total first aid practice, in immediate posttest compared to pretest with highly statistical significant difference .

The results of the current study matched with the results of **Hegazy et al (2014)** in their study about impact of a disaster educational program on knowledge and practices of teachers among primary governmental schools, Cairo governorate that the mean score of teachers' practices showed significant increase in immediate posttest regarding wounds, bleeding, fainting ,burn, fracture and mean score of total practices with highly statistically significance differences between all practice subscales scores regarding applying first aid procedures .

The study results was supported by **Abdella et al (2015)** who found that the total practice was improved in immediate posttest compared to pre intervention regarding wounds, fractures, epistaxis, chocking and burns and total first aid. in posttest.

During studying correlation between the teachers' knowledge and their demographic characteristics the present study results revealed that there was no statistical significant correlation between the teachers' pre and post program knowledge and their demographic characteristics such as age, years of experience, marital status and previous attendance of training courses.

Concerning the teachers' age; the study results is agreed with **Deepak (2012)** who concluded that there was no statistical significant correlation between participants' age and first aid knowledge ($p>0.05$). While **Morsey et al (2017)** showed that a positive correlation was found between age, knowledge, and practices regarding first aid and crisis management.

Moreover the study results disagreed with **Mersal and Ali, (2016)** who found that there was positive correlation ($p > 0.000$) between age, previous training and experience, and between their knowledge and practice of first aid.

In studying correlation between the teachers' practices and their demographic characteristics the present study results revealed that there was no statistical significant correlation between the teachers pre and post practices and their demographic characteristics; except for number of children the results revealed that there was positive correlation for teachers who had the large number of children in pretest at p - value < 0.01 .So having more than two children can make deference especially with female teachers.

The result of the current study was agreed with **El –Wardany et al (2017)** in their study about “Impact of training program regarding first aid knowledge and practices among preparatory schools’ teachers at Assiut City” and clarified that there weren’t any statistical significance differences between teachers’ age, level of education, sex and years of experience with the total score of practices in pre/posttest. These results are contradicted with **Riad et al (2013)** who revealed a positive correlation between age, knowledge, experience and practices regarding first aid and crisis management.

V. Conclusion

In light of the results of the study it was found that the majority of teachers studied were married. More than half did not attend training courses two-thirds. Two teachers studied may face with childhood accidents during years of work, and knowledge and practices about first aid teachers showed significant increase with significant statistical differences in most items in immediate post-test and in post-test after comparing 3 months to testing with a probability value of 0.0001. In addition there was a statistically significant relationship between teachers' knowledge and practices and their demographic characteristics, with the exception of a number of children.

Recommendations

- [1]. The contents of the course should be from the Department of University Nursery in the Faculty of Specific Education training alongside theoretical lectures on first aid.
- [2]. The school authority should provide teachers with brochures, posters, brochures, maps, equipment and supplies to improve their knowledge and practices about first aid.
- [3]. Health education and training program should be implemented by researchers in similar settings to improve the knowledge and practices of kindergarten teachers in first aid.
- [4]. Provide medical staff of doctors, nurses and specialists to train teachers on first aid, in cooperation with the Ministry of Education.
- [5]. Recommends the study to achieve extensive coverage and implementation of this research results throughout the Minia city nursery.

References

- [1]. Abbas, A. Bukhari, S.I.& Ahmad, F (2011). Knowledge of first aid and basic life support amongst medical students: a comparison between trained and un-trained students. JPMA .The Journal of the Pakistan Medical Association, 61 (6), 613-616 .
- [2]. Abdella, N. A., Abu-Elenen , N. M., El-kazaz ,R. H., & Moussa, M.(2015). Intervention program for the kindergarten teachers aboutpediatrics first aids. American Journal of Research Communication, 3(5), 178-194.

- [3]. Ali, S. A., Abu-Elseoud, A. R., Heybah ,S. M.,& Mohamed, A. A. (2010). Implementation of an educational training program in first aid for newly graduated nursery school teachers at Zagazig city. *Zagazig journal of occupational health and safety*, 3(1), 20-29.
- [4]. Allender, J., Rector, C., & Warner, K. (2013) .Community & public health nursing: Promoting the public's health. Lippincott Williams &Wilkins. chapter 21, Maternal child health: working with perinatal, infant, and preschool clients; p. 673.
- [5]. Arli S.K., Yildirim, Z.(2017) .The Effects of Basic First Aid Education on Teachers' Knowledge Level: A Pilot Study Volume 10 | Issue 2| 813 *International Journal of Caring Sciences*.
- [6]. Behairy, A.S.,& Al-Batanony, M. A.(2015) .Effectiveness of First-Aid and Basic Life Support Intervention Program on School Health Advisors *Journal of Health, Medicine and Nursing-An International Peer-reviewed Journal*, 24, 136-144.
- [7]. Bhesania, N.H., Rehman, A., Savul ,I. S., & Zehra, N. (2014). Knowledge , attitude and practices of school teachers towards epileptic school children in Karachi, Pakistan. *Journal of medical sciences*,30(1), 220-224.
- [8]. Burns, N., & Grove, S.K.(2009). *The practice of nursing research : appraisal, synthesis, and generation of evidence*. St. Louis, Mo: Saunders Elsevier.
- [9]. Deepak, M. (2012). A study on assessment of knowledge on practice regarding first aid measures among the self-help groups in selected areas of Mangalore with a view to develop information module. *Age (yrs)*, 1, 25-30.
- [10]. El-Sayed H, Zekry O, Abdel Hamid S, et al. Pattern and severity of childhood unintentional injuries in Ismailia city, Egypt. *African Safety Promotion Journal*.2012 ; b10 (2).World Bank; 2014.
- [11]. Elwardany , A. S.,& Khalaf, S. A. R. (2017) .Impact of training program regarding first aid knowledge and practices among preparatory school teachers at Assiut City. *Journal of Nursing Education and Practice*,7(12), 89.
- [12]. Hassanzadeh, A., Vasili, A., &Zare, Z.(2010).Effects of two educational methods of lecturing and role playing on knowledge and performance of high school students in first aid at emergency scene. *Iranian journal of nursing and midwifery research*, 15(1), 8-13.
- [13]. Hegazy, M.,Shounoda ,M.,& Ismail, G.(2014). Impact of a disaster educational Program on knowledge and practices of teachers among Primary Governmental schools, Cairo Governorate. *Journal of Education and Practice*, 5(29), 175-184.
- [14]. Khatatbeh ,M. (2016) . First Aid Knowledge among University Students in Jordan. *Int. J. Preventive Med.*, 7(24), 1–5.
- [15]. Kumar, S. D., Kulkarni, P.,Srinivas, N., Prakash, B., Hugara, S., & Ashok, N. C. (2013). Perception and practices regarding first-aid among school teachers in Mysore. *Natl. J. Community Med.*, 4(2), 349–352.
- [16]. Leifer, G.(2014). *Introduction to Maternity and Pediatric Nursing .7th ed.*, Louis Missouri : Elsevier Health Sciences.chapter:18 : P. 429 -30.
- [17]. Masih S., Sharma, R. K. & Kumar,A. (2014). Knowledge and practice of primary school teachers about first aid management of selected minor injuries among children. *International Journal of Medicine and Public Health*, 4(4).
- [18]. Mersal , F. A., & Aly, R. A. (2016). Developing disaster management and first aid guidelines for school teachers in Cairo Egypt. *Journal of Nursing Education and Practice*, 6(7) , 41.
- [19]. Morsy, W.Y., Badawy, A . Elayat W. (2017) .Empowerment of Female Governmental Preparatory School Teachers 'Knowledge and Practices Concerning First Aid & Crisis Management at Al Jouf Region, Saudi Arabia . *International Journal of Novel Research*, 4 (1), 139-148.
- [20]. Muneeswari , B. (2014). A study to assess the effectiveness of planned health teaching program using child-to-child approach on knowledge of selected first aid measures among school children in selected schools at Dharapuram in Tamil Nadu, India. *Glob J Med Public Health*, 3(1).
- [21]. Olympia, R. P., Brady, J., Kapoor, S., Mahmood, Q., Way, E., & Avner , J. R. (2010). Compliance of child care centers in Pennsylvania with national health and safety performance standards for emergency and disaster preparedness. *Pediatric emergency care*, 26(4), 239-247.
- [22]. Potts, N. L., & Mandelco , B. L. (2012). *Pediatric nursing: Caring for children and their families . 3rd^{ed}.* , Canada: Delmar Cengage Learning . Chapter 1, P. 14.
- [23]. Rekleiti, M., Saridi, M., Toska, A ., Kyriazis, I., Kyloudis, P., Souliotis, K., & Wozniak, G. (2013). The effects of a first-aid education program for middle school students in a Greek urban area. *Archives of medical science: AMS*, 9(4), 758-760.
- [24]. Riad, N. A., Rabea, F. M., &Badawy, A. I. (2013) .Capacity Building of Females Governmental Secondary School Teachers in Abha City For Crises Management & First Aid. *Journal of Education and Practice*, 4(23), 33-41.
- [25]. Singletary, E. M., Charlton, N. P., Epstein, J. L., Ferguson, J. D., Jensen, J. L., MacPherson, A. I., Zideman, D. A. 2015. Part 15: First aid: 2015 American Heart Association and American Red Cross guidelines update for first aid. *Circulation*, 132(18), 574–589.
- [26]. Sönmez, Y.,Uskun, E., & Pehlivan, A. 2014. Knowledge levels of pre-school teachers related with basic first-aid practices, Isparta sample. *Turkish Pediatric Association*, 49(3), 238–246.
- [27]. Sugun, T. C. (2015).Women's Awareness about domestic accidents among toddlers . *IJDR*, 5(3), 3729 - 3733.
- [28]. Thomas, L., and Therese ,M . (2015).studv to assess the effectiveness of self-instructional module on knowledge regarding selected first aid measures among primary school teachers in Emakulam district. *International Journal of Medicine and Health Profession Research*: 2(1), 17 – 31.
- [29]. World health organization (WHO),(2015) . Global Health Estimates deaths by cause, age, sex, by country and by region.2015.Geneva: World Health Organization; 2016 (http://www.who.int/healthinfo/global_burden_disease/estimates/en/index1.html, accessed 22 March 2017).
- [30]. World health organization, (WHO) (2013).World Bank list of economies (July 2012).Washington, World Bank 2013 <http://siteresources.worldbank>.
- [31]. World Health Organization, (WHO),(2014).World Bank analytical income of economies for fiscal year; (July 2013).Washington, DC.
- [32]. World health organization,(WHO).(2015) Children's environmental health: Injuries; 2015. Available at: <http://www.who.int/ceh/risks/cehinjuries/en/>. Accessed November 9, 2015.
- [33]. Younis J. R.,& El-Abassy, A. (2015) .Primary teachers' first aid management of children's school day accidents: Video-assisted teaching method versus lecture method. *Journal of Nursing Education and Practice*, 5(10), 60.

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