



## Original Research

# Effectiveness of Educational Program on Teachers' Knowledge about First Aid in Primary School

فاعلية برنامج تعليمي في معارف المعلمين حول الإسعافات الأولية في المرحلة الابتدائية

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### Abstract:

This study evaluates the effectiveness of an educational program on primary school teachers' knowledge regarding first aid in Muthanna Governorate, Iraq. Utilizing a pre-experimental design, a pretest-posttest was conducted among 30 teachers to assess their first aid knowledge. Initial assessments revealed a significant knowledge deficit, with 80.9% of participants scoring poorly. An educational program was subsequently developed and implemented over seven days, focusing on key first-aid procedures. Post-intervention results demonstrated a substantial improvement in teachers' knowledge, with 86.7% achieving a good level of competency compared to 26.7% in the pretest phase. The study highlights the critical role of educational interventions in enhancing first-aid capabilities among teachers, who are often the first responders in school emergencies. By equipping teachers with essential first aid skills, the program aims to reduce the severity and impact of school-related injuries, ultimately contributing to a safer school environment.

**Keywords:** First Aid- Educational Program- Primary School Teachers- Knowledge Improvement- School Safety

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### Introduction:

Unintentional injuries encountered in childhood are a global public health problem and are to be found as a first order among, the causes of morbidity and mortality <sup>(1)</sup>

First aid is defined as the assessments and interventions that can be performed by a bystander (or by the victim) immediately with minimal or no medical equipment <sup>(2)</sup>, it is the provision of initial care for an illness or injury. A non-expert person usually performs it on 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 <sup>(3)</sup> Children are vulnerable to injuries and accidents. Usually, one comes across minor bruises but at times, children may face severe accidents resulting in fractures, bleeding, fainting or even drowning, and thus, first aid becomes as important as taking a child to a medical facility <sup>(2)</sup>, Children's time is mostly spent in school under the direct supervision of teachers.

Consequently, first-aid should be well-known by teachers who are the key personnel in dealing with urgent health needs during school hours <sup>(4)</sup>

Primary school pupils are particularly vulnerable due to their young age and potential need for healthcare, but they may not know how to seek help or care for each other during medical emergencies. In non-medical unusual situations, teachers serve as the primary support system, acting as counselors and directing pupils' activities. As adults in the school setting, teachers are seen as role models and are typically the first point of contact for pupils <sup>(5)(6)</sup>

Teachers are almost the first and the main caregiver represented the first line to protect school children, in addition, teachers' role complements the parent's role. School teachers during school hours, are the real first responders to emergencies, and injuries resulting from school accidents. Therefore, they have to be capable of acting accurately in health emergencies affecting school children (3??).

The primary objective of first aid is to alleviate suffering, facilitate the healing process, and minimize damage. Often the first action taken for the management of injuries and common illnesses decides the future course of disease and complication rates <sup>(2)</sup>.

A basic knowledge and understanding of first aid can be invaluable for individuals to be able to provide emergency care in the event of an accident, possibly saving lives and minimizing injury. It may on occasion obviate the need to visit a hospital or clinic, not only providing convenience for the individual but lessening demand on medical facilities <sup>(3)</sup>.

## **Methodology:**

### **Description of the Study Design**

A pre-experimental design (one group pretest-posttest design) has been carried out. The period of the study started from (4<sup>th</sup> January 2024 to 4<sup>th</sup> March 2024) at Muthanna Governorate\Muthanna Education Directorate to study effectiveness of educational program on teachers' knowledge about first aid in primary school.

## **Ethical Considerations:**

Ethical consideration is the moral kindness necessary to take care of someone's facts associated with the information collected and confidential and to promote professional study conduct, the following ethical issues have been applied; It depends on The Research Ethics Committee of the College of Nursing, University of Baghdad, accepted the tool that will be used in the study

## **The setting of the study:**

The study had been done in AL Muthanna Governorate\Muthanna Education Directorate.

## **Steps of the Study**

[The Teachers' educational program was carried out by the following steps]:

-Preliminary Assessment of teachers' knowledge about first aid in primary school.

The initial need assessment for the program was performed before the beginning of the study in order to assess teachers' knowledge about first aid in primary school. The researcher has constructed a close-ended questionnaire in order to assess the need for a program. The test was applied to a sample consisting of (10) teachers who work at primary school in AL Muthanna Governorate\Muthanna Education Directorate.

The results of the preliminary assessment revealed that most of the teachers had a knowledge deficit. The results showed the overall level of participants was unacceptable with a mean (of 33.9) and the majority of them (80.9%) with poor levels.

This result clarified the need to construct an educational program that highlights the main important issues necessary for primary school teachers to improve teachers' knowledge about first aid in primary school.

## **- Construction of the Educational Program**

The program was designed and constructed based on the results of need assessment of primary school teachers' knowledge about first aid in primary school and through <review of literature, and previous studies relative to develop teachers' knowledge about first aid in primary school. The

content of the program was evaluated by experts in different fields

"The revision was made on the program contents based on these experts' recommendations and suggestion. The experts have agreed that the program able to improve the teachers' knowledge about first aid in primary school. The program was designed to provide information regarding the first aid in primary school

### **- Instrument Construction**

To evaluate the effectiveness of an educational program for teacher's knowledge about first aid in primary school, the researcher has constructed the study instrument after reviewing the study carried out by Abdi et al., (2021). Where the researcher requested the questionnaire that was used to assessment of teachers' knowledge about first aid in Basra city schools as a tool for collecting the sample, wherever the researcher obtained the questionnaire with approval to use it(Appendix10). After that, the researcher obtained approval to modify some items of the questionnaire to achieve the objectives of the study, according to the opinion of experts. The questionnaire designed according to the study objectives to assess effectiveness of educational program on teachers' knowledge about first aid in primary school. It is composed of two parts which include:

**Part one:** demographic data;

This part includes (gender, Level of education, and years of working experience) to assess Socio-demographic for primary school teachers.

**Part two:** teacher's knowledge about First Aid in Primary School

The researcher used a questionnaire contain a 15-item on 3-point Likert scale to assess teacher's knowledge in primary school. Where each item is measured on a 3-point scale ranging from natural (3), mild Disagree (2), and strongly disagree (1).

Cronbach's alpha was utilized to evaluate the tool's reliability, and reliability value came out at (0.742). Perceived Social Support axis has been options (12 items) on ranging from L = low (1 – 3), M = Moderate (3.01- 5) and H= High (5.01 -7). This knowledge test took about (10-20) minutes to complete.

### **Data Collection**

The researcher met with the teachers in AL Muthanna Governorate\Muthanna Education Directorate to obtain their consent to participate in the study and to clarify the objectives of the study, and after the researcher obtained the consent of the participants. Whereover, the data collection process began as of (25<sup>th</sup> March 2024 to 25<sup>th</sup> April 2024) in order to achieve goals study.

Data was collected through the use of the Arabic version questionnaire the data was collected in a unified self-report questionnaire that includes three parts. The first axis includes socio-demographic data; the second axis includes teacher's knowledge, and about first aid in primary school in AL Muthanna Governorate\Muthanna Education Directorate.

The implementation of the program which was implemented on the study sample began as of (15<sup>th</sup> March 2024 to 22<sup>th</sup> March 2024) which includes the following steps:

**Step One:** [Obtaining “the approval of <the teachers staff to participate in <the study and conduct the pre-test].

**Step Two:** The educational program about UTI among children is designed and presented in (four) lectures throughout the seven days. Every lecture took approximately 45 minutes and the number of teachers (30) teacher in the classroom in AL Muthanna Governorate\Muthanna Education Directorate, the lectures of the program include the following sessions:

Results of the Study:

Table 1. Distribution of Study Sample by their Socio-Demographic Variables (SDVs)

SDVs	Classification	Study Group		Control Group		Sig.	CS*
		No.	%	No.	%		
Age/ years	20 to less than 30	2	6.7	5	16.7	.289	NS
	30 to less than 40	12	40.0	10	33.3		
	40 to less than 50	7	23.3	6	20.0		
	>50	9	30.0	9	30.0		
	<i>Mean± SD</i>	41.73±9.702		41.65±9.669			
Gender	Male	23	76.7	21	70.0	.471	NS
	Female	7	23.3	9	30.0		
Education level	Diploma	4	13.3	5	16.7	.842	
	B.Sc	24	80.0	24	80.0		
	Post-graduated	2	6.7	1	3.3		
Marital status	Single	1	3.3	3	10.0	.686	NS
	Married	27	90.0	24	80.0		
	Divorced	1	3.3	2	6.7		
	Widow	1	3.3	1	3.3		
Years of experience	<5	5	16.7	5	16.7	.362	NS
	5 to less than 10	10	33.3	7	23.3		
	>10	15	50.0	18	60.0		
Type of school	Governmental	28	93.3	26	86.7	.171	NS
	Private	2	6.7	4	13.3		
Training courses	Yes	7	23.3	5	16.7	.931	NS
	<b>No</b>	<b>23</b>	<b>76.7</b>	<b>25</b>	<b>83.3</b>		

No.= Number; %= Percentage; Sig. Significant level at 0.05 conducted by Chi-square

The study provides a thorough analysis of school teachers' demographics. Both the study and control groups had similar average ages (around 41 years), with a slight male predominance (76.7% in the study group, 70% in the control group). Bachelor's degree holders constituted the majority in both groups (80% each). Most participants were married

(90% in the study group, 80% in the control group). A significant portion had over a decade of experience (50% in the study group, 60% in the control group). The majority of the sample came from governmental schools (93.3% in the study group, 86.7% in the control group). Notably, a large proportion in both groups (around 80%) had not attended any training sessions.

**Table 2. Comparative Analysis of Teachers Knowledge about First Aid in Primary School in the Pre-test among Study and Control Groups**

Pre-test Knowledge Items	Study Group					Control Group				Sig.
	Class	n	%	M.s	Ass	n	%	M.s	Ass	
1-When a child gets wounded, which of the following is a wrong measure?	Incorrect	17	56.7	0.43	M	17	56.7	0.43	M	.584
	Correct	13	43.3			13	43.3			
2-In regard to cleaning a wound, all the following is correct except:	Incorrect	18	60.0	0.40	M	19	63.3	0.37	M	.784
	Correct	12	40.0			11	36.7			
3-When there is a foreign body embedded in a wound, which of the following is the correct first aid measure?	Incorrect	18	60.0	0.40	M	19	63.3	0.37	M	.757
	Correct	12	40.0			11	36.7			
4-When a wound involves a large blood vessel, which of the following is wrong?	Incorrect	21	70.0	0.30	P	19	63.3	0.37	M	.531
	Correct	9	30.0			11	36.7			
5-When a child is wounded and bleeds severely, the first measure to take is:	Incorrect	22	73.3	0.27	P	20	66.7	0.33	P	.858
	Correct	8	26.7			10	33.3			
6-When bandaging a wound, which of the following is wrong?	Incorrect	18	60.0	0.40	M	19	63.3	0.37	M	.969
	Correct	12	40.0			11	36.7			
7-When an upper or a lower limb of a child gets injured, which of the following is correct?	Incorrect	21	70.0	0.30	P	22	73.3	0.27	P	.478
	Correct	9	30.0			8	26.7			
8-When a child bleeds due to a fallen tooth, which of the following is wrong?	Incorrect	25	83.3	0.17	P	22	73.3	0.27	P	.874
	Correct	5	16.7			8	26.7			
9-When a child has a nosebleed, which of the following is wrong?	Incorrect	23	76.7	0.23	P	19	63.3	0.37	M	.753
	Correct	7	23.3			11	36.7			
10-When a child has a nosebleed, which of the following is wrong?	Incorrect	20	66.7	0.33	P	23	76.7	0.23	P	.237
	Correct	10	33.3			7	23.3			
11-All the following is a sign of a fractured limb except:	Incorrect	23	76.7	0.23	P	20	66.7	0.33	P	.462
	Correct	7	23.3			10	33.3			
12-When a child suffers a fracture, all the following is correct except:	Incorrect	25	83.3	0.17	P	24	80.0	0.20	P	.769
	Correct	5	16.7			6	20.0			
13-When a child suffers a fracture, which of the following is the wrong measure is?	Incorrect	21	70.0	0.30	P	19	63.3	0.37	M	.622
	Correct	9	30.0			11	36.7			

Each items Assessment as Poor [P]=1-1.66, Moderate [M]=1.67-2.33, Good [G]=2.34-3

The study results reveal that, in the pretest phase, the study group responses regarding first aids were predominantly categorized as poor responses (M.s

≤ 0.33) for all items, except for specific items (1, 2, 3, and 6), where responses were moderate (M.s=0.34-0.66). Similarly, among school teachers in

the control group, responses were mostly rated as poor for all items under investigation, except for those specific item (1, 2, 3, 4, 6, 9 and 13), which exhibited moderate ratings. Furthermore, there

were no statistically significant differences in school teacher's knowledge scores between the study and control groups during the pretest assessment period ( $p > 0.05$ ).

**Table 3. Overall School Teachers Knowledge about First Aid in Primary School in the Pre-Test**

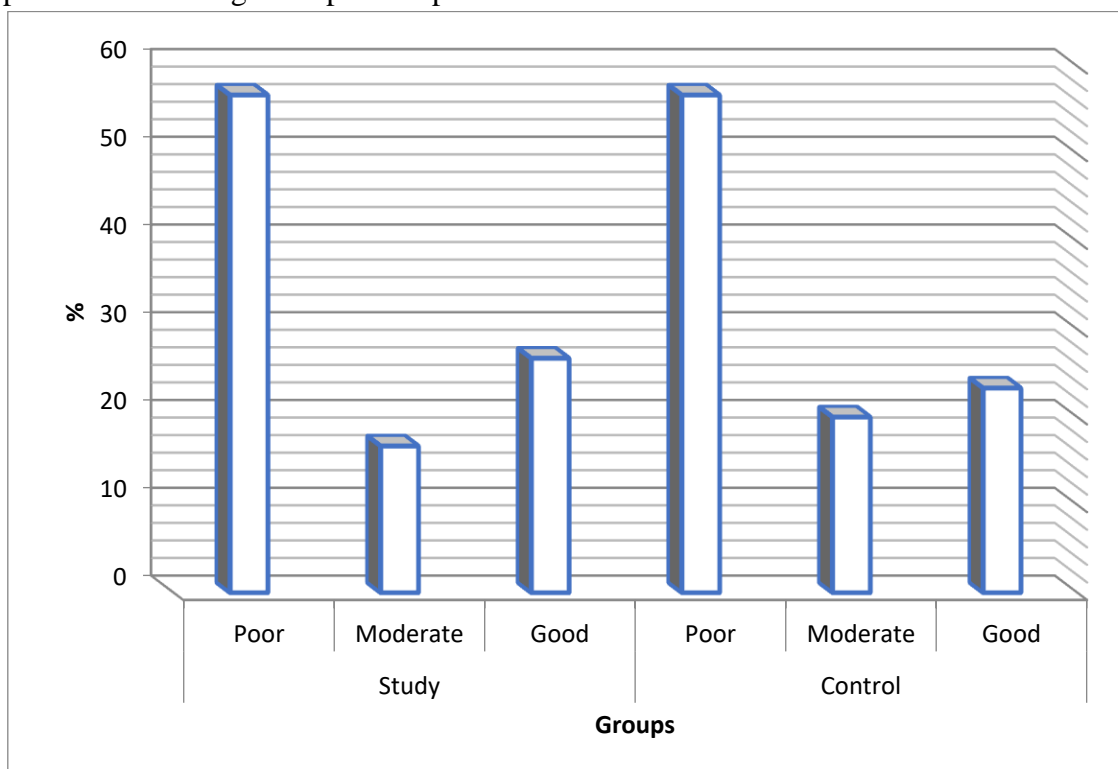
<i>Pre-test Knowledge</i>									
Groups	Levels	No.	%	M	SD	t-value	d.f	$\eta^2$	Sig
Study	Poor	17	56.7	3.93	4.432	0.299	58	0.002	.766
	Moderate	5	16.7						
	Good	8	26.7						
Control	Poor	17	56.7	4.26	4.193				
	Moderate	6	20.0						
	Good	7	23.3						

*Level of Assessment of  $\sum$  mean [Poor=0-4.33, Moderate=4.34-8.66, Good=8.67-13]*

*M: Mean, SD: Standard deviation, t: t-test, d.f: Degree of freedom,  $\eta^2$ = Eta squared; Sig: Significance level at 0.05.*

The study's findings reveal that a significant percentage (56.7%) of school teachers in both the study ( $3.93 \pm 4.432$ ) and control ( $4.26 \pm 4.193$ ) groups exhibited inadequate knowledge regarding first aid procedures during the pretest period.

Notably, both groups displayed similar levels of poor knowledge, with no statistical differences observed ( $t=0.299$ ;  $p=0.766$ ) and a small effect size ( $\eta^2=0.002$ ).



**Fig. 1. School Teachers Knowledge in the Pre-Test**

**Table 4. Comparative Analysis of Teachers Knowledge about First Aid in Primary School in the Post-test among Study and Control Groups**

Post-test Knowledge Items	Study Group					Control Group				Sig.
	Class	n	%	M.s	Ass	n	%	M.s	Ass	
1-When a child gets wounded, which of the following is a wrong measure?	Incorrect	2	6.7	0.93	G	16	53.3	0.47	M	.000
	Correct	28	93.3			14	46.7			
2-In regard to cleaning a wound, all the following is correct except:	Incorrect	4	13.3	0.87	G	18	60.0	0.40	M	.000
	Correct	26	86.7			12	40.0			
3-When there is a foreign body embedded in a wound, which of the following is the correct first aid measure?	Incorrect	4	13.3	0.87	G	18	60.0	0.40	M	.000
	Correct	26	86.7			12	40.0			
4-When a wound involves a large blood vessel, which of the following is wrong?	Incorrect	14	46.7	0.53	M	18	60.0	0.40	M	.000
	Correct	16	53.3			12	40.0			
5-When a child is wounded and bleeds severely, the first measure to take is:	Incorrect	1	3.3	0.97	G	19	63.3	0.37	M	.000
	Correct	29	96.7			11	36.7			
6-When bandaging a wound, which of the following is wrong?	Incorrect	1	3.3	0.97	G	19	63.3	0.37	M	.000
	Correct	29	96.7			11	36.7			
7-When an upper or a lower limb of a child gets injured, which of the following is correct?	Incorrect	14	46.7	0.53	M	22	73.3	0.27	P	.000
	Correct	16	53.3			8	26.7			
8-When a child bleeds due to a fallen tooth, which of the following is wrong?	Incorrect	8	26.7	0.73	G	22	73.3	0.27	P	.000
	Correct	22	73.3			8	26.7			
9-When a child has a nosebleed, which of the following is wrong?	Incorrect	1	3.3	0.97	G	21	70.0	0.30	P	.000
	Correct	29	96.7			9	30.0			
10-When a child has a nosebleed, which of the following is wrong?	Incorrect	5	16.7	0.83	G	23	76.7	0.23	P	.000
	Correct	25	83.3			7	23.3			
11-All the following is a sign of a fractured limb except:	Incorrect	3	10.0	0.90	G	20	66.7	0.33	P	.000
	Correct	27	90.0			10	33.3			
12-When a child suffers a fracture, all the following is correct except:	Incorrect	9	30.0	0.70	G	26	86.7	0.13	P	.000
	Correct	21	70.0			4	13.3			
13-When a child suffers a fracture, which of the following is the wrong measure is?	Incorrect	13	43.3	0.57	M	21	70.0	0.30	P	.000
	Correct	17	56.7			9	30.0			

*Each items Assessment as Poor [P]=1-1.66, Moderate [M]=1.67-2.33, Good [G]=2.34-3*

The study results reveal that, in the posttest, the study group responses regarding first aids were predominantly categorized as good responses (M.s  $\geq 0.67$ ) for all items, except for specific items (4, 7 and 13), where responses were moderate (M.

s=0.34-0.66). Inversely, among school teachers in the control group, responses were mostly rated as poor for all items under investigation, except for those specific item (1, 2, 3, 4, 5 and 6), which exhibited moderate ratings. Furthermore, there

were statistically significant differences in school teacher's knowledge scores between the study and

control groups during the pretest assessment period ( $p < 0.05$ ).

**Table 5. Overall School Teachers Knowledge about First Aid in Primary School in the Post-test I**

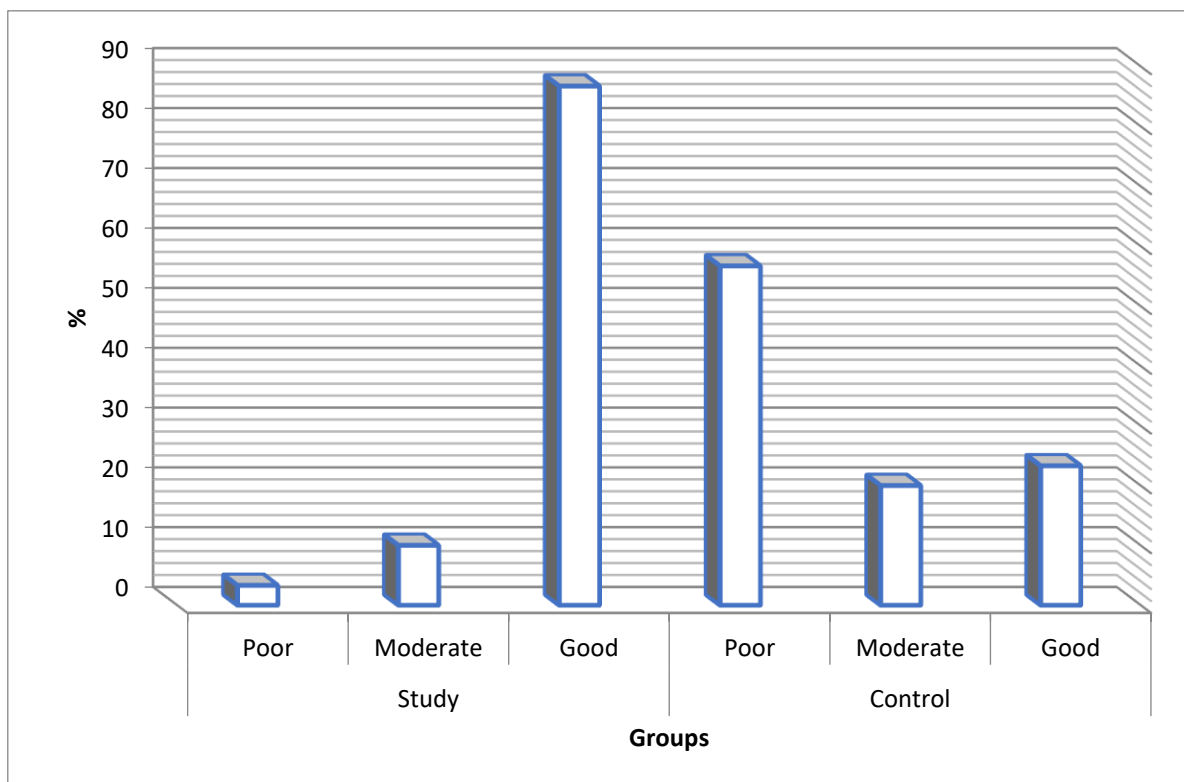
<i>Post-test Knowledge</i>									
Groups	Levels	No.	%	M	SD	t-value	d.f	$\eta^2$	Sig
Study	Poor	1	3.3	10.4	2.671	6.759	58	0.441	.000
	Moderate	3	10.0						
	Good	26	86.7						
Control	Poor	17	56.7	4.23	4.190	6.759	58	0.441	.000
	Moderate	6	20.0						
	Good	7	23.3						

Level of Assessment of  $\sum$  mean [Poor=0-4.33, Moderate=4.34-8.66, Good=8.67-13]

M: Mean, SD: Standard deviation, t: t-test, d.f: Degree of freedom,  $\eta^2$ = Eta squared; Sig: Significance level at 0.05.

The study findings reveal that a substantial proportion (86.7%) of school teachers in the study group exhibited a commendable competency level ( $10.4 \pm 2.671$ ) in first aid procedures, whereas a significant portion (56.7%) in the control group showed a deficiency ( $4.23 \pm 4.190$ ) during the

posttest phase following the educational intervention. Importantly, statistical analyses revealed marked disparities between the study and control groups, with a significant t-value of 6.759 ( $p=0.000$ ) and a considerable effect size ( $\eta^2=0.441$ ).



**Fig. 2. School Teachers Knowledge about First Aid in Primary School the Post-test**

## Discussion of The Result:

### Discussion of the Socio-Demographic Characteristics of the Study Sample, as shown in (Table 1):

results showed the study provides a thorough analysis of school teachers' demographics. Both the study and control groups had similar average ages (around 41 years).

High percentage of participants were male and this result agree with study done by <sup>(7)(8)(9)</sup>

And disagree with study done by <sup>(10)(11)(12)(13)</sup>

Also Bachelor's degree holders constituted the majority in both groups (80% each). Most participants were married (90% in the study group, 80% in the control group). A significant portion had over a decade of experience (50% in the study group, 60% in the control group). The majority of the sample came from governmental schools (93.3% in the study group, 86.7% in the control group). Notably, a large proportion in both groups (around 80%) had not attended any training sessions.

This result is confirmed by study done by <sup>(14)</sup> showed that 50% of the participant belongs to age group of 19 -34 year, and 45% belongs to age group of 35- 50 years and 5% belongs to age group of 51 -65 years. Among total sample 65.0% were males and 35.0% were females. Regarding education of father, 31.7 % have no formal education. Regarding occupation of father 25% had government /private employee, 30 % were self-employed and 45% had no occupation. 35% of the participants' mothers have no formal education and 81.7 % were home makers.

Other result is confirmed the study done by <sup>(15)</sup> who stated A total of 302 primary school teachers were enrolled in this study, with a mean age of  $43.5 \pm 9.1$  (range: 22 - 62) years. Majority of participants aged more than 30 years. Females represented 76.5% of the studied group. (97.4%) participants of urban residents, (87.1%) were married, (79.8%) participants had at least one child. More than two thirds of participants, (69.9%), had an institute level of education and 27.2% had a college level while only 3% had higher education. Majority

(78.8%) of the participant teachers had an experience of more than 10 years.

This result was also confirmed the study done by <sup>(16)</sup>, who stated that more than half had diplomas (52.3%), and the mean age was  $43.85 \pm 8.27$ , most teachers were married (86.4%), and had not attended basic life support training courses (86.4%).

### Comparative Analysis of Teachers Knowledge about First Aid in Primary School in the Pre-test among Study and Control Groups, as Shown in Tables (2):

The study results reveal that, in the pretest phase in table (2), the study group responses regarding first aids were predominantly categorized as poor responses ( $M.s \leq 0.33$ ) for all items, except for specific items (1, 2, 3, and 6), where responses were moderate ( $M. s=0.34-0.66$ ). Similarly, among school teachers in the control group, responses were mostly rated as poor for all items under investigation, except for those specific item (1, 2, 3, 4, 6, 9 and 13), which exhibited moderate ratings. Furthermore, there were no statistically significant differences in school teachers' knowledge scores between the study and control groups during the pretest assessment period ( $p > 0.05$ ). The study's findings reveal that a significant percentage (56.7%) of school teachers in both the study ( $3.93 \pm 4.432$ ) and control ( $4.26 \pm 4.193$ ) groups exhibited inadequate knowledge regarding first aid procedures during the pretest period. Notably, in table (3-3) both groups displayed similar levels of poor knowledge, with no statistical differences observed ( $t=0.299$ ;  $p=0.766$ ) and a small effect size ( $\eta^2=0.002$ ) shown (Fig. 3-1).

This study was supported by <sup>(17)</sup>, who conducted Quantitative evaluative approach as Pre experimental one group pretest posttest to identify the effectiveness of structured teaching program (STP) in improvement of knowledge of primary school teachers on first aid management. Design self-administered questionnaires schedule was used to assess the levels of knowledge among primary school teacher regarding first aid management. In the pre-test 44(73%) teachers had inadequate knowledge, 16(27%) teachers had

moderately adequate knowledge, no teachers had adequate knowledge regarding first aid management.

Other previous study also support study findings done by <sup>(15)</sup> who stated descriptive cross-sectional study aimed to assess participants' knowledge and their attitudes toward first aid, as well as, to find any significant relation for teacher's socio-demographic characteristic with their knowledge and attitudes regarding first aid. Therefore, by using SPSS a simple random sample of thirty governmental primary schools were selected, and then 302 primary school teachers were selected randomly. The result showed that 287 (95%) of participants had total fair knowledge and only 15 (5%) of participant teachers had poor knowledge, besides no one of them had good knowledge.

#### **Comparative Analysis of Teachers Knowledge about First Aid in Primary School in the Post-test:**

The study results reveal that, in the posttest I as shown in tables (4), the study group responses regarding first aids were predominantly categorized as good responses ( $M.s \geq 0.67$ ) for all items, except for specific items (4, 7 and 13), where responses were moderate ( $M.s=0.34-0.66$ ). Inversely, among school teachers in the control group, responses were mostly rated as poor for all items under investigation, except for those specific item (1, 2, 3, 4, 5 and 6), which exhibited moderate ratings. Furthermore, there were statistically significant differences in school teachers' knowledge scores between the study and control groups during the pretest assessment period ( $p < 0.05$ ). The study findings reveal that a substantial proportion (86.7%) of school teachers in the study group exhibited a commendable competency level ( $10.4 \pm 2.671$ ) in first aid procedures, whereas a significant portion (56.7%) in the control group showed a deficiency ( $4.23 \pm 4.190$ ) during the posttest phase1 following the educational intervention. Importantly, statistical analyses revealed marked disparities between the study and control groups, with a significant t-value of 6.759 ( $p=0.000$ ) and a considerable effect size ( $\eta^2=0.441$ ).

#### **Conclusion:**

The study titled "Effectiveness of Educational Program on Teachers' Knowledge about First Aid in Primary School" aimed to assess and enhance the first aid knowledge of primary school teachers in Muthanna Governorate, Iraq. Initially, a pretest revealed a significant lack of first aid knowledge among teachers, with 80.9% scoring poorly. An educational program was subsequently implemented, focusing on essential first aid procedures over seven days. Post-intervention results showed a remarkable improvement, with 86.7% of teachers achieving good competency levels, a significant increase from the pretest. The findings underscore the importance of targeted educational interventions in empowering teachers with critical first aid skills, thus fostering a safer school environment and enhancing the ability to respond effectively to emergencies. This study highlights that educational programs can play a crucial role in mitigating the impact of school-related injuries.

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