

Study of relationship between Primary Schools Teachers' Knowledge and their socio demographic characteristics about First Aids in Al-Najaf City

دراسة العلاقة بين معرفة معلمي المدارس الابتدائية وخصائصهم الديموغرافية الاجتماعية حول الإسعافات الأولية في مدينة النجف الاشرف

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الخلاصة:

خلفية البحث: الإسعافات الأولية هي الرعاية الأولية للمريض أو المصاب. تتمثل أهداف الإسعافات الأولية في الحفاظ على الحياة وحمايتها، ومنع المزيد من الإصابات أو تدهور المرض والمساعدة في تعزيز التعافي.

الأهداف: هدفت الدراسة إلى التعرف على العلاقة بين معرفة معلمي المدارس الابتدائية في مرحلة ما بعد الاختبار وخصائصهم الديموغرافية مثل الجنس والعمر والحالة الاجتماعية والمستوى التعليمي وسنوات الخبرة.

المنهجية: استخدمت الدراسة تصميم شبه تجريبي للتعرف على العلاقة بين معرفة معلمي المدارس الابتدائية بعد الاختبار وخصائصهم الديموغرافية في المدارس الابتدائية الحكومية في مدينة النجف، العراق. باستخدام عينة مناسبة من 50 معلمًا تم تقسيمهم إلى مجموعتين (دراسة وضبط)، 25 مدرسًا لكل مجموعة. تم جمع البيانات في الفترة من 10 / تشرين الأول / 2019 إلى 9 / حزيران / 2021، وباستخدام الاستبيان الذاتي.

النتائج: أظهرت النتائج أنه تم إثبات ضعف العلاقات بين معرفة المعلمين بالمتغيرات الاجتماعية والديموغرافية عند $P > 0.05$. **الاستنتاج:** تشير نتائجنا إلى عدم وجود دلالة إحصائية بين البيانات الديموغرافية لعينة الدراسة الجماعية ومعرفتهم في متابعة البرنامج التعليمي (بعد الاختبار) بقيمة $p > 0.05$.

التوصيات: أوصت الدراسة بضرورة تطبيق برامج تعليم الإسعافات الأولية والتدريب في جميع المدارس الابتدائية في مدينة. بالإضافة إلى تعزيز معرفة المعلمين من خلال استخدام أدوات نشر المعرفة مثل الملصقات.

الكلمات المفتاحية: الإسعافات الأولية، المدارس الابتدائية، معارف المعلمين، الخصائص الديموغرافية والاجتماعية.

ABSTRACT:

Background: First aid is the initial care of the ill or injured. The aims of first aid are to preserve and protect life, prevent further injury or deterioration of illness and help to promote recovery.

Aims of the study: The study aimed to identify the relationship between primary schools teachers' knowledge at post-test and their demographic characteristics of gender, age, social status, level of education, and years of experience.

Methodology: The study used a quasi-experimental design to identify the relationship between primary schools teachers' knowledge at post-test and their demographic characteristics at governmental primary schools in Al-Najaf City, Iraq, by using a convenient sample of 50 teachers that divided into two group (study and control), 25 teachers each group. Data were collected from ten from October 20th 2019 to Jun 9th 2021, and by using self by self-administered questionnaire.

Results: Results shows that a weak relationships are a proved between teachers' knowledge with socio-demographic variables at $P > 0.05$.

Conclusion: Our findings shows that there is no statistical significant between demographic data of group study sample and their knowledge at (post-test) educational program follow up p-value > 0.05 .

Recommendations: The study recommended that there is a need to application of first aid education and training programs in all primary schools in the city of .In addition, to enhance teachers' knowledge through the use of knowledge dissemination tools such as posters.

Keywords: First Aids, Primary School, Teachers' knowledge, Socio-demographic characteristics.

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INTRODUCTION

School children are more susceptible to injuries and carry a greater risk due to developmental and behavioral characteristics including unawareness of hazards and being active as well as bodily properties including narrower airways, smaller body mass, and thinner extra susceptible skin⁽¹⁾. Children spend their time in school under the direct supervision of teachers. Therefore, first-aid should be well-known by teachers who are the key personnel to deal with urgent health needs during school hours. The healthy harmless circumference is very pivotal to avoid these hazards furthermore eligible teachers can identify any health problem and able to provide first aid for commonly happening contingencies in school

⁽²⁾.Children are vulnerable to unexpected injuries due to their physiological development and their underdeveloped awareness of numerous environmental threats. Also, health crises and traumas can occur anywhere and at any moment ⁽³⁾.

Injuries often occur in areas far from hospitals and health centers, so first aid is an important authority for the persons providing it. It is unreasonable to wait for professional medical attention, as well as the fact that many cases do not require specialist intervention; they can be treated with simple techniques such as stop nosebleeds. In addition to accidents, chronic childhood diseases can suddenly become an emergency during the school era. Schools today have higher numbers of children with long-lasting and serious illnesses that suffer from disorders such as epilepsy, asthma, and diabetes mellitus that need extra treatment and urgent care. We must be eligible for this responsibility ^(4,5).

Global studies have found an assorted explanation of awareness about first aid among primary school teachers and a diverse readiness to learn first aids. Simple awareness and comprehension of first aid can be useful in delivering medical treatment in the event of an accident, potentially saving lives and mitigating injury ⁽⁶⁾. Clearly, primary school teachers' knowledge improves as a result of their abilities and proper application of first aid, and one of the best methods to raise primary school teachers' knowledge is to provide them with enough information on first aid. As a result, the introduction of first-aid education and awareness-raising campaigns has a significant influence ^(7, 8). Our study aims to recognize the relationship between teachers' knowledge at primary schools and their demographic variables of gender, age, social status, level of education, and years of experience.

Important of the study

Teachers are almost the first and the main caregiver represented the first line to protect school children, also, teachers' role complements the parent's role. School teachers during the school hours are the real first-respondent to emergencies, injuries resulting from school accidents. Therefore, they have to be capable to act accurately with health emergencies affected the school children. School students' have a close relationship with their teachers; they spend most of their time at school. Consequently, teachers are closer to children than health care providers and can use that to provided appropriate education and training to qualify teachers to provide first aid Knowledge of first aid is priceless for teachers and their communities. It makes teachers able to help themselves and their students when accidents happen until emergency help arrives. Teachers can use first aid skills at school, at home, and in their community. So, the more certified teachers in first aid, the safer the community becomes and promotes a safer and healthier environment. Having staff and teachers who are well equipped with first aid skills contribute to reinforcing the safety of the schools ⁽⁹⁾.

AIMS OF THE STUDY

The study aimed to identify the relationship between primary schools teachers' knowledge at post-test and their demographic characteristics of gender, age, social status, level of education, and years of experience.

METHODOLOGY

By using a quasi-experimental design, a study was carried out on teachers' knowledge about first aids at primary schools in Al-Najaf city from November 30th 2020 to 18th February 2021. The sample were (15) Male and (35) Female. Data were gathered from November 30th 2020 to 18th February 2021, and by using a questionnaire method. Schools selection by simple random sample are selected; (10) primary schools from (235) total of governmental primary schools in Al- Najaf city; (5) schools in the North sector, and (5) schools in the South sector. Fifty teachers were selection by accidental sample (convenience sample), (25) teachers study group (25) teachers control group.

The instrument developed from more than one source and includes ^(9, 10, and 11). The final study instrument consisted of two major parts; **part I:** involved, to describe the teachers' socio-demographic characteristic such as (gender, age, marital status, academic achievement, years of experience), **part II:** involved the using scale to measure teachers' knowledge concerning first aids. This scale included (8) major fields; **(1):** "general information about first aid", **(2):** "asphyxia, tongue swallowing and cardiopulmonary resuscitation (CPR)", **(3):** "injuries, fractures, sprains and articular dislocations", **(4):** "wounds and bruises", **(5):** "bleeding" **(6):** "burns", **(7):** "exposure to a dog bite, snakebite and insect stings", and **(8):** "other medical conditions". The overall scale consisted of 47 items, each item including one response from four options multiple choice question (MCQ), such that (True, and False) which has responding with integer numbers (1, and 0) respectively.

The data was computerized and verified using the SPSS version 22 to perform tabulation and statistical analysis. Data were provided using descriptive statistics e. g: frequencies and percentages, and arithmetic mean, and standard deviation. Also, summary statistics tables including: (observed Frequencies, percent, Mean of score (MS), Percentile Grand Mean of Score (PGMS)). Besides inferential data analysis which include (Contingency Coefficients (C.C.) test, Wilcoxon Signed Ranks test, McNemar test).

RESULTS:

Table (1): Distribution of the studied groups according to (SDCv.) with comparisons significant

SDCv.	Classes	Study		Control		C.S. ^(*)
		No	%	No	%	P-value
Gender	Male	7	28	8	32	C.C.=0.044 P=0.758 (NS)
	Female	18	72	17	68	
Age Groups Yrs.	< 30	1	4	1	4	C.C.=0.082 P=0.952 (NS)
	30 _	5	20	6	24	
	40 _	12	48	10	40	
	50 _ 60	7	28	8	32	
	Mean ± SD	43.88 ± 8.03		44.32 ± 8.49		
Marital status	Single	1	4	1	4	C.C.=0.000 P=1.000 (NS)
	Married	21	84	21	84	
	Divorced	1	4	1	4	
	Widow	2	8	2	8	
Academic achievement	Graduated teacher's house	4	16	2	8	C.C.=0.191 P=0.596 (NS)
	Institute	11	44	13	52	
	College	10	40	9	36	
	Others	0	0.00	1	4	
Years of Experience Yrs.	< 10	6	24	4	16	C.C.=0.134 P=0.821 (NS)
	10 _ 19	6	24	5	20	
	20 _ 29	9	36	12	48	
	30 _ 39	4	16	4	16	
	Mean ± SD	18.36 ± 9.50		20.36 ± 9.89		

NS: Non Sig. at $P > 0.05$; Testing based on a contingency coefficient (C.C.) test

Table 1 shows the distribution of studied socio-demographical characteristics variables (SDCv.), as well as comparisons significant were represented to be sure that the two independent groups are thrown from the same population in light of that variables.

Respect to subjects of studied (SDCv.), results shows that studied groups recorded no significant differences at $P > 0.05$, and that is reflecting validity of the selected subjects due to their similarity status in light of (SDCv.), as well as preceding results indicating that the two studied groups are thrown from the same population due to that variables, and that are more reliable for this study, since any meaningful deviation between studied groups should be interpretation by the effectiveness of applying the suggested educational program.

In addition to that, gender variable has vast majority with female in each group, age groups has a similar statistically distribution in each group, with mean and standard deviation at the study and controlled (43.88 ± 8.03) yrs., and (44.32 ± 8.49) yrs. respectively, and marital status are focused at the married class, and education levels (Academic Achievement) has a similar statistically distribution in each group, with vast majority for who had institute, and college graduations. In addition to that, studied experience variable showed that three quarters of studied subjects has at least ten years of experience, with mean and standard deviation at the study and controlled (18.36 ± 9.50) yrs., and (20.36 ± 9.89) yrs. respectively.

Table (2): ANCOVA of Teacher's Knowledge about first aids at primary schools and (SDCv.) for the studied groups

Group	Source of Variations	Type III Sum of Squares	d.f.	Mean Square	F Statistic	Sig. Levels	C.S. (*)
Study	Corrected Model	54.9	12	4.579	0.489	0.885	NS
	Intercept	31139	1	31139.0	3324.2	0.000	HS
	Gender	3.3	1	3.345	0.357	0.561	NS
	Age Groups	4.8	3	1.615	0.172	0.913	NS
	Marital status	7.3	3	2.433	0.26	0.853	NS
	Educational level	14.0	2	7.014	0.749	0.494	NS
	No. of yrs. Service	34.9	3	11.644	1.243	0.337	NS
	Error	112.4	12	9.367	R-Squared = 0.328		
	Total	242454	25				
Control	Corrected Model	779.9	13	59.995	2.093	0.114	NS
	Intercept	2231.7	1	2231.7	77.87	0.000	HS
	Gender	3.9	1	3.871	0.135	0.720	NS
	Age Groups	5.3	3	1.767	0.062	0.979	NS
	Marital status	121.0	3	40.327	1.407	0.293	NS
	Educational level	577.7	3	192.57	6.719	0.008	HS
	No. of yrs. Service	47.0	3	15.668	0.547	0.661	NS
	Error	315.3	11	28.659	R-Squared = 0.712		
	Total	23410.8	25				

HS: Highly Sig. at $P < 0.01$; Non Sig. at $P > 0.05$; Statistical hypothesis based on Analysis of Covariance (ANCOVA).

To find out relations for studying "Teachers' Knowledge" resulted by proposed of an educational program and socio-demographic characteristics variables, as well as experience variables regarding of (Gender, Age Groups, Marital status, Educational levels, Number of years of service in the teaching field), and after applying the suggested of proposed program, interchange resulted by overall assessment due to measuring effectiveness of an educational program on "Teachers' Knowledge" about first aids at primary schools by percentile transformation of global means of score in compact form in contrast of an overall assessments before and after applying program due to transforming the recorded responses of the pre period and post period quantitatively measurement scale using percentile transformation technique.

Tables 2 included analysis of covariance (ANCOVA) resulted for the teacher's knowledge of first aids at primary schools improvements that occurrence due to applied suggested educational program distributed in relative to different of (SDCv.), and experience of services' years at the teaching field of the studied subjects regarding the study and controlled groups independently.

Results shows that weak relationships are a proved with (SDCv.), as well as number of service's years in the teaching field, since no significant relationships were accounted at $P > 0.05$. And that are accounted in the study group, while regarding control group, educational level has recorded highly significant relationship at $P < 0.01$. Since a relative differences were accounted for who had graduated teacher's house, and institutes, compared with who had awarded college and others of non-mentioned level of education.

DISCUSSION

- Discussion of distribution of the teachers according to their socio-demographic characteristics

Table 1 shows that the study sample consists of 50 teachers who were accidental allocated to either a control group ($n=25$) and a study group ($n=25$), it constituted (50% and 50 %) equally (Table 4-1). Female teachers were accounted for most of the teaching staff, where women represented 68% in the control group compared to 32% for men, while women represented 72% in the study group compared to 28% for men. These results may suggest the fact that most of the primary school faculty is women, due to that females have a greater desire and ability to work in the education sector than males, and that working hours in Iraq schools' are most suitable for females ⁽¹²⁾, that who found that the majority of the sample are women.

These results depict that both of study and control groups share that majority of the participants were over the age of 40, this study agreement with ⁽¹⁴⁾ that who found that majority of participants were above 40 years of age. Regarding social status, the majority of teachers (84%) both study and control group were married. This findings is in line with ⁽¹⁵⁾ that who found that the most of the teachers were married. Also, our results agree with study has been conducted a effectiveness of educational program on nurses' knowledge regarding pre and post-operative nursing management in AL-Najaf AL-Ashraf City. Their results confirmed most common nurses in their study was male in study group (55%) and (65%) in control group ⁽¹³⁾.

In terms of academic achievement, the study found that most teachers graduated from the teachers' Institute. Concerning to years of experience, the study showed that most of the participants have more than 20 years of service. The findings of this study corroborate those of ⁽¹⁴⁾ which found that the majority of primary school teachers in Baghdad city have more than twenty years of experience.

- Discussion of relationship between Teachers' Knowledge at post-test and their Socio-demographic Variables

Table 2 shows that there is no statistical significant between demographic data of group study sample and their knowledge at (post-test) educational program follow up p -value > 0.05 . The educational program when analyzed of Covariance (ANCOVA).

Also, our findings depicts that there is no statistical significant between demographic data of control sample and their knowledge at (Post-test) educational program follow up p value > 0.05 . With the exception of the educational level of the control group teachers, which was statistically significant at $P < 0.01$.

According to that it could be concludes that studied questionnaire of teacher's knowledge of first aids at primary schools improvements through applying the suggested educational program could be generalize on the studied population even though differences

within socio-demographical characteristics variables, as well as differences with their experience variable for the study subject's group, and that are accounted in the study group. Such findings are supported by ⁽⁹⁾ who indicated that it is no significant relationship between teachers' knowledge after application of education program and their demographic characteristic at primary school in Bangalore city. Furthermore, our findings are consistent with the findings of a study conducted by ⁽¹⁴⁾ that found that first-aid knowledge among teachers was not statistically related to their personal characteristics.

CONCLUSIONS

The proposed educational program can be generalized to the studied community despite the differences in the variables of social and demographic characteristics.

RECOMMENDATION

The study recommended that there is important role to teach the primary school teachers about first aids through application of the education program. Besides, to reinforce teachers' knowledge through the use of knowledge dissemination tools such as posters.

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