



Journal Homepage: -www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI:10.21474/IJAR01/7040
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/7040>



RESEARCH ARTICLE

LEVEL OF AWARENESS AMONG PARENTS IN PEDIATRICS FIRST AID AND THE LEVEL OF PROTECTION FOR THEIR CHILDREN FROM RISKS IN AL-MADINA AL-MUNWWARAH, SAUDI ARABIA 2016.

Nuha Osailan, Shatha Almogherbi, Mohammed Alnuman, Ryan Alruhaili and Bassam Khoshhal.

Manuscript Info

Abstract

Manuscript History

Received: 06 March 2018
 Final Accepted: 08 April 2018
 Published: May 2018

Copy Right, IJAR, 2018,. All rights reserved.

Research objectives:-

Main aim:-

Our main aim is to make the parents the first qualified paramedic who can save their children life in emergency cases

Specific objectives:-

1. to measure the level of parents awareness about the pediatric first aid
2. to associate between the pediatric first aid and their sociodemographic variables

Introduction and literature review:-

Millions and millions of children are getting hurt or even die by injuries happen to them due to inadequate response by their parents or lack of Immediate assistance . accidents tend to happen with kids a lot more frequently , knowing how to perform first aid techniques can save your children's life and keep them away from any harm [1].Taking rapid action while waiting for professional help, can dramatically reduce deaths and injuries [2] .The prognosis of any injuries after accidents mainly depends on management provided to the child immediately following the incident. This reflects the major importance of the first-aid provided to the child , which can be life-saving . [3]

Many previous studies have studied this issue in depth , in south India children under 15 years old are more vulnerable to the morbidity and mortality resulting from injuries. As caregivers of children, parents play a crucial role in the care of children immediately following injuries [4] .

A study happen in Turkey showed that Many children ranging from 0 to 14 years old .Among 130 families, a total of 53 children (40.80%) experienced highly frequent burn event throughout the year which explain the extent of riskiness about these injuries .[5]

Another study in İzmir, Turkey , was taken by parents against home accidents for 0-6 Years old children. There appears to be a meaningful relationship between mothers' educational status and incidents of accidents ($p=.050$) and fathers' educational status and incidents of accidents has been observed ($p=.002$). There wasn't statistically relationship among mothers age group ($p=.430$).[6]

A study in Baghdad included 1032 mothers aged from 15–50 years. The results revealed that the level of knowledge of mothers is so low regarding the following cases: prevention of injuries from chemicals and detergents, preventing electrical accidents caused by power sockets and electrical appliances, accidents caused by fire, accidents caused by sharp instruments in the kitchen. The study also showed that older mothers were statistically found to have a better level of knowledge than younger mothers. Higher educated mothers were statistically associated with a lower level of knowledge in accident prevention.[7]

There is a study in Taiwan conducted on 445 parents, which showed that parents' overall rate of knowledge of first aid was 72%. Knowledge regarding choking and cardiopulmonary resuscitation (CPR) were significantly low. There was a significantly positive correlation between parents' knowledge and self-efficacy of first aid ($p < 0.01$). [8]

Based on these studies, it is observed that the awareness of parents about dealing with injuries was poor for their children, and there is insufficient awareness to deal with these cases. Ignoring this disaster problem leads to an increase in the proportion of accidents in hospitals, health centers and an increase in the proportion of death. So we chose them as our target population. As far as the literature review was done, it was found out that no one has done this research on the parents in Almadinah Almonawarah. At the end of this research we are going to measure the level of parents' awareness about the pediatric first aid, to associate between the pediatric first aid and their sociodemographic variables. Our main aim is to make the parents the first qualified paramedic who can save their children's life in emergency cases.

Method:-

A cross-sectional descriptive study was adopted in this study to measure the level of parents' awareness about the pediatric First Aid, and to describe the effect of parents' socio-demographic variables in relation to pediatric First Aid knowledge. Subjects of this study are parents who have children from 1 month to 14 years old and living in Medina, while non-parents and those who don't live in Medina are excluded.

Data were statistically analyzed with the use of the Statistical Package for Social Sciences software (SPSS version 16.0 for Windows, Chicago, IL). Data was presented using frequencies, mean and standard deviation as appropriate. Data entry and analysis was done using Excel. Chi-square test of significance was used to measure the association between variables with p -values of 0.05 as a cut-off level of significance.

For the purpose of assessing the knowledge of subjects regarding First Aid, a well-structured questionnaire was developed by the researchers to ease the computation of the score of knowledge. The questionnaire consists of thirty questions covering socio-demographic data, descriptive data, and questions assessing the knowledge for most of pediatric First Aid as sun stroke, wounds, choking, burns, convulsions, foreign body in the eyes, ears, and nose, snake bite/scorpion sting, animal bites, poisoning, bleeding. The information in the questionnaire is based on EMERGENCY GUIDELINES FOR SCHOOLS 3RD EDITION, 2007 Ohio Department. [10]

The survey of knowledge, attitudes, and practices (KAP) score was calculated according to the number of correct responses (Table 2 & 3). Each correct answer was given one point and each wrong answer was given zero. Parents who correctly answered 50% or more of the questions were categorized as having a good level of knowledge, while parents who scored below this were classified as having poor knowledge. Associations of respondents' KAP score (≥ 12 marks) with gender and education level was analyzed using Chi-Square test. 95% confidence interval was also mentioned.

Official permissions were obtained from the scientific ethical committee of the college. Informed consent was obtained from all the participants after describing the aim of the study. Privacy and confidentiality will be assured as questionnaires will be filled anonymously.

Results:-

A total of 1715 parents participated in the study. Nearly an equal percentage of fathers (815, 47.5%) and mothers (900, 52.5%) filled the questionnaire. All of the parents were married and have kids. Table 1, shows the socio-demographic distribution of the study subjects. There was no significant difference in the distribution of fathers and mothers in the study ($p = 0.6715$). Some demographic differences were noticeable between mothers and fathers in

the sample; a statistical significance was noticed regarding the living place, education, and number of kids among the participants.

Table 1:-Socio-demographic Data.

Variable parameter	Fathers	Mothers	Total %	p - value
Gender of Participant parents:	<u>815 (47.5%)</u>	<u>900 (52.5%)</u>	1715 (100 %)	0.6715
Living place:				
Urban area (in madinah)	780	840	<u>1620 (94.5%)</u>	< 0.0001*
Suburb area (outside madinah)	35	60	<u>95 (5.5%)</u>	
Education:				
Illiterate	24	31	<u>55 (3.2%)</u>	< 0.0001*
Primary level	62	120	182 (10.6%)	
Preparatory level	48	60	108 (6.3%)	
High school level	159	199	358 (20.9%)	
University level	467	432	<u>899 (52.4%)</u>	
Post-Graduated	55	58	113 (6.6%)	
No. of kids:				
Only one kid	160	214	<u>374 (21.8%)</u>	< 0.0001*
More than one kid	655	686	<u>1341 (78.2%)</u>	

*Significantly different using Chi-square test ($P \leq 0.05$).

At the beginning of the questionnaire, nearly 1000 parent out of 1715 (58.3%) thought that they have an average knowledge about pediatric First Aid, figure 1. Only 593 of parents (34.6%) conducted a proper action when faced pediatric First Aid situations, figure 2.

Almost all participants are aware of the importance of learning First Aid in general even without the presence of kids suffering of chronic diseases, but unfortunately 55.5% of them didn't own First Aid bag at home. The ones who didn't own a First Aid bag explain this as they are not aware of its importance and they don't know its contents.

A percussive result revealed that 1139 parent (66.4%) didn't receive training on First Aid but the want to get it, and only 360 parent (21%) had this training more than a year ago.

Figure 1:-How parents think that they know about pediatric First Aid.

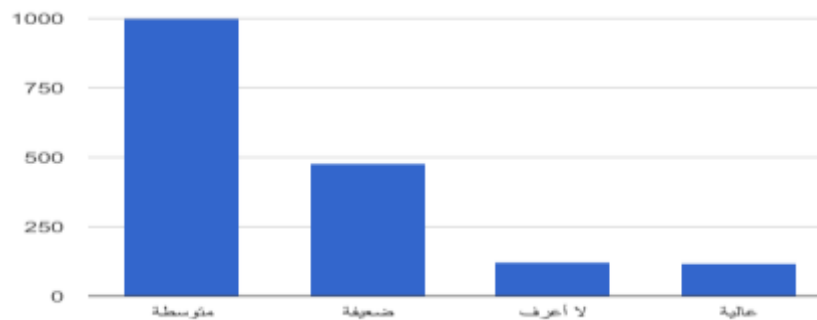


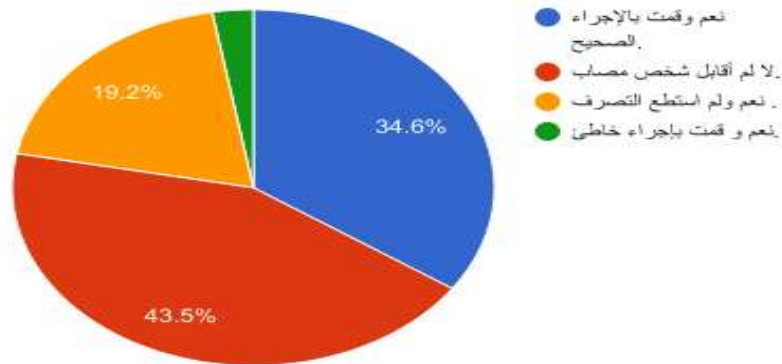
Figure 2:-Parents' response when asked if they exposed to a case needing First Aid.**Knowledge of subjects regarding First Aid:-**

Table 2 & 3 shows the knowledge of First Aid as reported by the study population. The individual responses to various statements of the questionnaire have been mentioned and were used for the survey of knowledge, attitudes, and practices (KAP) score.

In table 2, higher percentage of participant parents answered correctly to management of sun-stroke, deep wounds, choking, epistaxis, and some of the diabetic emergencies. While most of them answered wrongly regarding management of hypoglycemic coma, epilepsy.

In table 3, higher percentage of participant parents answered correctly to management of burns, cardiac arrest, fracture, electric shock, acute asthma, eye exposure to chemicals, foreign body in ear&nose, snake bites, and hypothermia. While wrong answers were prominent when dealing with loss of conscious level, poisoning and high grade fever.

Table 2:-Responses to various statements of questionnaire (Part 1)

Statement	Number	%	95% CI
If your kid exposed to sun-stroke, what will you do?			23.45 - 29.30
o give him a large amount of fluid	436	25.4	
o Undress him and make cool compresses with fluids*	795	46.4	42.56 - 49.18
o bath in cold water	174	10.1	
o I do not know and ask for help	310	18.1	8.44 - 13.15
			14.48 - 19.46
If your kid has deep wound, what first step you make?			69.4 - 74
o Wash the wound and stop the bleeding by pressing it and take it to the nearest clinic*	1220	71.1	8.2 - 13.9
	185	10.8	11.2 - 16.3
o put coffee or honey on the wound and press the wound and took him to the nearest clinic	235	13.7	1.8 - 7.3
	75	4.4	
o remove foreign body and took him to the nearest clinic			
o I do not know and ask for help			
During choking & your kid can breathe & move, what should you do?			10.6 - 15.8
o inform him that to bend his back	221	12.9	22.8 - 30.3
o inform him to coughs strongly to get-out the foreign body*	474	27.6	51.4 - 59.1
o hit his back several times	943	55	2.2 - 7.3
o I do not know and ask for help	77	4.5	
If your kid exposed to choking during eating and could not breath, what would you do?			13.6 - 18.4
	262	15.3	29.9 - 37.8
o trying to take food out of his mouth by inserting a finger	582	33.9	44.6 - 49.7
o bend him forward and hit him on the back continuously	807	47.1	1.2 - 5.5
o press with my fist below the chest and above the navel, in upward direction*	64	3.7	

o I do not know and ask for help			
If your baby exposed to choking after feeding and could not breath, what would you do?			18.9 – 24.1
o change feeding position immediately and blow in his face	372	21.7	24.1
o put the baby on my left arm with head facing downward and hit him with the right hand on his back*	955	55.7	52.8 – 58.4
o put his head on my shoulder and hit his back	304	17.7	58.4
o I do not know and ask for help	84	4.9	15.5 – 20.1
			2.2 – 7.9
If your kid is a diabetic and fall unconscious, What is the first thing you do?			7.1 – 10.7
o give him an injection of insulin	156	9.1	8.9 – 14
o give him an injection of glucose	200	11.7	44.1 – 50.5
o measurement of his glucose level*	815	47.5	50.5
o I do not know and ask for help	544	31.7	27.5 – 34.8
If your kid is diabetic and suffers a severe decrease in his serum glucose level with loss of consciousness, what is the first step you do?			42.3 – 48.9
o give him honey or sugar by mouth in a glass with water	785	45.8	23.7 – 28.9
o give him an injection of glucose*	441	25.7	28.9
o Re-measure his glucose level again	125	7.3	4.9 – 9.1
o I do not know and ask for help	364	21.2	17.8 – 24.1
If your kid is diabetic and suffers a severe decrease in his serum glucose level without loss of consciousness, what is the first step you do?			58.9 – 64.5
o give him honey or sugar by mouth in a glass with water*	1049	61.2	2.9 – 9.4
o give him an injection of glucose	107	6.2	11.8 – 17.6
o Re-measure his glucose level again	247	14.4	17.6
o I do not know and ask for help	312	18.2	15.9 – 22.4
If your kid is a diabetic and suffers high serum glucose level and loss of consciousness, what is the first step you do?			6.2 -10.8
o give him honey or sugar by mouth in a glass with water	137	8	1.8 – 7
o give him an injection of glucose	71	4.1	49.5 – 58.2
o give him an injection of insulin*	914	53.3	29.7 - 38
o I do not know and ask for help	593	34.6	
While the kid suffered an epileptic seizure, you should:			18.9 – 26.2
o put away any objects that may hit his head and put him on his left side*	382	22.3	26.2
o put water on his face to wake up and give him water to drink	151	8.8	6.1 – 9
o put something in his mouth in order not to bite his tongue and take him to hospital	868	50.6	46.6 – 54.8
o I do not know and ask for help	314	18.3	54.8
			14.8 – 23.4
When a kid has epistaxis, what will you do to help him?			9.8 – 15.8
o inhalation of cold water and raise the head up	230	13.4	30.6 – 37.9
o put cold water or ice on the nose & head and stop the bleeding using tissues	567	33.1	37.9
o put his head facing downward so he could breathe without swallowing blood with pressure on the nose*	795	46.4	42.7 – 49.8
o I do not know and ask for help	123	7.2	49.8
			5.3 – 9.2

* indicates correct response which was scored as 1 point each

Table 3:-Responses to various statements of questionnaire (Part 2)

Statement	Number	%	95% CI
What was the first thing to do if your kid exposed to burn?			
o put the burn area under normal temperature water*	760	44.3	41.2 – 47.1
o put a clean sterile cloth on the burn	250	14.6	47.1
o put sedative material like toothpaste, salt or flour	595	34.7	11.9 –

o I do not know and ask for help	110	6.4	17.3 31.2 – 36.7 3.6 – 8.9
What will you do if your kid's heart stopped? o do resuscitation CPR* o pressure on the chest several times o left without doing anything and continue yelling o I do not know and ask for help	705 497 427 86	41.1 29 24.9 5	38.7 – 44.5 26.4 – 31.8 21.9 – 27 2 – 7.9
If you find your kid unconscious, what would you do? o Bring a strong smelling material like perfume or onions and try to wake him up o I clear the area visually & remove any possible risk* o measure serum glucose level o I do not know and ask for help	1069 123 158 365	62.3 7.2 9.2 21.3	58.8 – 64.2 5.2 – 9.1 7 – 12.9 18.3 – 24
How do you deal with a fracture in any part of the kid's body? o trying to put the fracture bone to normal position & rush to hospital o fix the fracture in its position over a straight board and taken to the hospital* o wrapped with cloth and taken to the hospital o I do not know and ask for help	130 906 374 305	7.5 52.8 21.8 17.8	6.1 – 9.8 47.9 – 56.1 18.2 – 24.9 14.8 – 21.4
What is the right thing to do when your kid experience an electric shock? o ask him in run away from the power source o Trying to push the child away. o switch off power and try to move the kid using electricity neutral material* o I do not know and ask for help	50 194 1343 128	2.9 11.3 78.3 7.5	0.6 – 4.9 9.1 – 13.9 74.6 – 81.4 3.8 – 12.5
If your kid has asthma and is suffering from acute respiratory crisis, what would you do? o ask him to lie down and don't move o transfer to hospital immediately o give him asthma medication and then taken to hospital* o I do not know and ask for help	74 444 1091 106	4.3 25.9 63.6 6.2	1.3 – 8.2 22.6 – 28.9 58.2 – 66.1 4.8 – 9
What would you do if your kid's eyes are exposed to chemical material? o take him to the hospital quickly o wash eyes with excess water and then take him to the hospital* o cover the eyes with a cloth and took him to the hospital o I do not know and ask for help	147 1424 69 75	8.6 83 4 4.4	7 – 10.2 78.5 – 86.3 1.4 – 7.9 2 – 7.3
What would you do if your kid put a strange object in his ear or nose? o cover the ear or nose with a sterile cloth after washing with cold water and take him to the hospital o If the strange object is seen clearly I gently drag out it, but in case of resistance or bleeding I should stop and take him to the hospital* o I drag out the strange object in all cases with a sterile instrument and then take him to the hospital o I do not know and ask for help	118 1190 261 146	6.9 69.4 15.2 8.5	3.4 – 9.2 66.3 – 74.2 12.4 – 17.5 6.1 – 10.9
If your kid is exposed to snake or scorpion bite, the first thing you're doing? o tie a piece of cloth over bitten area & communicate with the Poison Center and take him to the hospital*	1074 81	62.6 4.7	57.2 – 65.8

o strip the bitten area by scalpel and then communicate with the Poison Center and take him to the hospital	303	17.7	2.2 – 8.1
o suck the poison by my mouth and then communicate with the Poison Center and take him to the hospital	257	15	14.7 – 20.4
o I do not know and ask for help			12.6 – 18.4
If your kid was poisoned, what is the first thing you're doing?	821	47.9	44.3 – 49.8
o force him to vomit in all cases	293	17.1	15.1 – 21.4
o give him water or honey or lemon to drink	340	19.8	16.8 – 22.8
o communicate with Poison Center*	261	15.2	12.1 – 17.9
o I do not know and ask for help			
If your child's temperature exceeds 38 °C, you should:			
o bathe him with cold water.	202	11.8	8.9 – 14
o give him anti-pyretic.	1134	66.1	62.2 – 69.7
o put on him light clothing and transport to pediatrician immediately*	328	19.1	15.7 – 23.5
o I do not know and ask for help	51	3	0.7 – 7.8
If your kid become hypothermic and feel cold, you should:			
o take him to an average temperature place and cover him with blanket and give warm drink*	1357	79.1	75.6 – 82.8
o bathe him with very hot water.	82	4.8	1.8 – 9.1
o drinking cold water.	86	5	2.3 – 6.9
o I do not know and ask for help	190	11.1	7.8 - 14

* indicates correct response which was scored as 1 point each

Table 4 shows the association of baseline knowledge of First Aid in the study population and their socio-demographic variables. High KAP scores (≥ 12 marks) were observed among participating fathers than mothers, p-value = 0.0444. Parents living in Urban area (in madinah) got more KAP score than those living Suburb area (outside madinah), p-value < 0.0001. Responders with higher level of education have a remarkable higher KAP score, with 87.6% answered correctly with KAP score more than 12 marks. On the other hand, only 12.7% of illiterate parents get a KAP score ≥ 12 marks.

There was extreme significant association between KAP score and some socio-demographic variables, such as the parents' gender, living place & level of education.

Table 4:-Showing association of KAP Score with gender, living place & level of education.

KAP Score (≥ 12 marks)	Total participants	Number of right answers (%)	P-value
Gender			
Fathers	815	<u>587 (72 %)</u>	0.0444*
Mothers	900	<u>496 (55.1 %)</u>	
Living place:			
Urban area (in madinah)	1620	<u>1060 (65.4 %)</u>	< 0.0001*
Suburb area (outside madinah)	95	<u>23 (24.2 %)</u>	
Education:			
Illiterate	55	<u>7 (12.7 %)</u>	< 0.0001*
Primary level	182	36 (19.7 %)	
Preparatory level	108	44 (40.7 %)	
High school level	358	218 (60.8 %)	
University level	899	679 (75.5 %)	
Post-Graduated	113	<u>99 (87.6 %)</u>	

***Significantly different using Chi-square test ($P \leq 0.05$).**

Discussion:-

First aid is considered to be a vital initial step for providing effective and rapid intervention that helps to reduce serious injuries and improve the chances of survival. The lower the awareness of first aid techniques, the greater the risk associated with domestic accidents. All parents should be educated about basic first aid. Increasing the training level will increase the ability to face the most common of accidents without panicking but by doing the right thing [10].

Our result found that most of parents have an average knowledge about children first aid but also near 500 parent have a weak knowledge. Although many parents agree on the importance of learning about first aid, only 55.5% of them didn't have first aid bag at home. Majority (66.4%) of parents were didn't receive training regarding First Aid in present study. This is in similar with the previous observation made in Taiwan noted that was a significantly relation between parents' knowledge and self-efficacy of first aid ($p < 0.01$) [8].

In present study higher percentage of parents have adequate management of sun-stroke, deep wounds, choking, epistaxis, and some of the diabetic emergencies. In other hand most of them have wrong management of hypoglycaemic coma, epilepsy. This is similar to the observation made also in Taiwan noted that parents' overall rate of knowledge of first aid was high and Knowledge regarding choking and cardiopulmonary resuscitation (CPR) were significantly low.

Our result indicate that High KAP scores were observed among participating fathers than mothers. This gets along with the result in Baghdad were it showed that the level or awareness of mothers is so low against many serious cases. [7]

Study results shown extreme significant relation between KAP score and some socio-demographic variables, such as the parents' gender, living place & level of education.

Reference:-

1. Bálint Bánfai, Accident prevention and first aid knowledge among preschool children's parents, Kontakt, 2015, Volume 17, Issue 1, Pages e42–e47.
2. The International Federation of Red Cross and Red Crescent Societies, First aid, <http://www.ifrc.org/en/what-we-do/health/first-aid-saves-lives/>, 2016.
3. SPINKS A.B., MCCLURE R.J., BAIN C. and MACPHERSON A.K. Quantifying the association between physical activity and injury in primary school-aged children. Ped. 2006, Vatr. Vcs., 118: 43-50.
4. Rekha Sonavane, Knowledge and assessed practice regarding first aid among mothers of under 15 years children – A community based study in a rural area of south India, Al Am een J Med Sci, 2014, 7(4):284-290.
5. Banu Karaoz, First-aid Home Treatment of Burns Among Children and Some Implications at Milas, Turkey, journal of emergency nursing, March 2010 Volume 36, Issue 2, Pages 111–114.
6. Candan ÖZTÜRK, HOME ACCIDENTS and MOTHERS MEASUREMENTS IN PRESCHOOL CHILDREN, AJCI, 2010, Cilt 4, Sayı 1.
7. Riyadh K. Lafta, Mothers' knowledge of domestic accident prevention involving children in Baghdad City, pubmed, Qatar Med J. 2013; 2013(2): 50–56.
8. Yu-Li Wei^a, Self-efficacy of first aid for home accidents among parents with 0- to 4-year-old children at a metropolitan community health center in Taiwan, Accident Analysis & Prevention, March 2013, Volume 52, 28, Pages 182–187.
9. Angela Norton, EMERGENCY GUIDELINES FOR SCHOOLS 3rd edition, The Ohio Department of Health, School and Adolescent Health, 2007.
10. <http://www.ifrc.org/PageFiles/53459/First%20aid%20for%20a%20safer%20future%20Focus%20on%20Europe%20%20Advocacy%20report%202009.pdf?epslanguage=en>.