

## Knowledge, Attitude and Practices of First Aid Management among School Teachers

Tehreem Khalid, Sana Bashir, Farwa Joseph, Junaid Abdul Hameed, Ali Khan, Fareeha Shahid

### ABSTRACT

**Objective:** To assess the knowledge, attitude and practices of first aid management among school teachers of Karachi.

**Study design and setting:** This cross-sectional study was conducted at 4 schools in Karachi, from April to September 2018.

**Methodology:** School teachers of class 1<sup>st</sup> to class 8<sup>th</sup> were included and teachers of coaching centers and academies were excluded. Data was collected through non-probability, convenient sampling technique. Data was obtained using a self-administered closed-ended questionnaire. Data was entered and analyzed using SPSS version 23. Frequencies were calculated. Informed consent was obtained and anonymity of the subjects was maintained.

**Results:** Total 162 participants aged 20-40 years participated in this study. Among the participants, 84% were females. Participants had inadequate knowledge of first aid and attitude towards first aid management was found to be positive and more than 90% of the respondents were ready to be trained for First Aid management. Data showed unsatisfactory results to manage common childhood injuries at school. Most of participants had poor knowledge regarding the management of epistaxis, choking, fainting and knocked out tooth.

**Conclusion:** Although the overall attitude of the school teachers regarding first aid practices was favorable, levels of knowledge as well as practice of first aid found to be inadequate and many recognized the need for the introduction of the formal first aid training program at the school level.

**Keywords:** Attitude, Children, First aid, Knowledge, Practice, Schools.

### How to cite this Article:

Khalid T, Bashir S, Joseph F, Hameed JA, Khan A, Shahid F. Knowledge, Attitude and Practices of First Aid Management among School Teachers. *J Bahria Uni Med Dental Coll.* 2020; 10(4): 306-309 DOI: <https://doi.org/10.51985/JBUMDC2019111>

### INTRODUCTION:

Childhood injuries are an important public health issue that occurs across the globe equally.<sup>1</sup> School students are especially at risk of unintentional injuries which need immediate and appropriate lifesaving management.<sup>2</sup> First aid is initial assistance or treatment given to a person who is injured.<sup>3</sup> It generally consists of a series of simple and sometimes potentially life-saving techniques that an individual can be

trained to perform using minimal equipment.<sup>4</sup> According to a survey conducted in Karachi in 2014; based on awareness level of first aid in the general population, 88.8% people in Karachi aged 20-40 years were aware of term first aid.<sup>5</sup> Pakistan is identified as a high-risk country in terms of injury-related mortality for children and adolescents.<sup>6</sup> The overall annual incidence of unintentional injuries was estimated at 45.9 per 1000 per year for Pakistanis, over the age of five years.<sup>7</sup> Unintentional injuries rank third in importance behind cancer and heart disease and are the leading cause of death in children.<sup>4</sup>

School children are vulnerable to a number of risks due to their still maturing physical and mental abilities. During school hours, teachers are first responders in cases of disasters and emergencies.<sup>8</sup> The training also needed to be updated periodically to keep them up with current first aid guidelines.<sup>9</sup>

A healthy safe environment is very important to avoid these hazards besides qualified teachers who can detect any health problem and can give first aid for commonly occurring emergencies in school.<sup>10</sup>

In the light of above evidence, this study was aimed to assess knowledge, attitude and practice among school teachers regarding first aid management.

### METHODOLOGY:

This cross-sectional study was conducted from April to September 2018 among school teachers of four schools in

**Tehreem Khalid**  
Final Year Student,  
Bahria University Medical and Dental College, Karachi  
Email: ktehreem143@gmail.com

**Sana Bashir**  
Final Year Student,  
Bahria University Medical and Dental College, Karachi

**Farwa Joseph**  
Final Year Student,  
Bahria University Medical and Dental College, Karachi

**Junaid Abdul Hameed**  
Final Year Student,  
Bahria University Medical and Dental College, Karachi

**Ali Khan**  
Final Year Student,  
Bahria University Medical and Dental College, Karachi

**Fareeha Shahid**  
Assistant Professor, Department of Community Health Science  
Bahria University Medical and Dental College, Karachi

Received: 08-Oct-2019  
Accepted: 10-Nov-2020

the region of Defense Housing Authority Karachi. A total of 162 school teachers were selected employing non-probability convenient sampling. Inclusion criteria were school teachers of class 1<sup>st</sup> to 8<sup>th</sup>, aged 20-40 years. Exclusion criteria was teachers of coaching centers and academies. A self-administered closed-ended questionnaire was used, comprising of four parts, the first part consisted of socio-demographic characteristics of participants, the second, third and fourth part included questions regarding knowledge, attitude and practices about first aid, respectively. Informed consent was obtained and anonymity of the subjects was maintained. Data was entered and analyzed using SPSS version 23 and frequencies were calculated. Ethical permission was taken from the ethical review committee of Bahria University Medical and Dental College.

### RESULTS:

From the total (n=163) majority of the participants were between the age group of 20 – 30 years (89%) and were female (84%). Most respondents had attained tertiary education with Bachelor degree (70%) followed by Masters (60%) Table-1, depicted the demographic characteristics of the participants. Table (2) revealed about knowledge aspect of the study; majority of teachers (96.9%) were aware of first aid knowledge. Most of the teachers (82.7%) knew the common playground injuries of the students. Few teachers (40.7%) knew that a layman could provide the first aid to the injured student if trained successfully. Only about half of them (50%) remembered the emergency number. The attitude of teachers towards first aid management has shown in Table (3) as most of the teachers (93.2%) were interested in learning first aid management and 94.4% of teachers recognized that first aid training should be given to the school teachers. Few teachers (30.2 %) admit their hesitation in giving first aid. Around 98.1% agreed to have a first aid kit in reach all the time, while 91.4% stated that the first aid kit should be cleaned regularly.

Regarding the first aid practice; majority of teachers (95.7%) stated that parents should be informed if the child's condition is not manageable. Almost two-thirds of them (73.5%) provide the correct first aid management of headache while the majority (97%) knew the immediate first aid management when a child gets an attack of asthma. Most teachers (59.3%) aware of the management of First aid of dehydration and 46.9% knew how to manage the limb fracture. Almost one-third of them (29%) knew the management of a child who faints suddenly (Table-4).

### DISCUSSION:

Unintentional injuries are the most common cause of morbidity and mortality in children<sup>4</sup> and timely appropriate management can prevent serious outcomes. In Pakistan, nurses are not present in every school, so teachers should be proficient in basic first aid skills. Regarding the knowledge aspect; 82.7% participants had knowledge regarding first

Table 1: Demographic Characteristics of Participants N = 162

Variables		N(%)
Gender	Male	26(16)
	Female	136(84)
Age	20-30	72(44.4)
	30-40	54(33.3)
	40-50	27(16.7)
	50-60	9(5.6)
Marital status	Married	81(50)
	Single	69(42.6)
	Widow	9(5.6)
	Divorced	3(1.9)
Education	Matric	6(3.7)
	Intermediate	26(16)
	Bachelors	70(40.3)
	Masters	60(37.0)

Table 2: Knowledge of Participants Regarding First Aid N=162

Knowledge		Response%
Term First aid	Yes	96.9
	No	3.1
Common playground injuries	Yes	82.7
	No	17.3
A layman should give first aid without training	Yes	40.7
	No	59.3
Emergency numbers (115)	Yes	50
	No	50

Table 3: Attitude of Participants N= 162

Variable		Response (%)
Interested in learning first aid	Yes	93.2
	No	6.8
First aid training should be given	Yes	94.4
	No	5.6
First aid kit should be present in school all times	Yes	98.1
	No	1.9
First aid kit should be updated regularly	Yes	91.4
	No	8.6
Would participants hesitate in giving first aid	Yes	30.2
	No	69.8

aid of common playground injuries and these results are comparable with the study conducted in Turkey and Karachi showed that 81%<sup>11</sup> and 88.5%<sup>12</sup> of people are aware of the importance of first aid respectively.

While addressing attitude; in this study 94.4% agreed that first aid training should be given, 91.4% agreed that first aid kit should be cleaned regularly. These results were comparable with the study conducted in Karachi (2014) and revealed that 90.3% of participants agreed that training

Table 4: Correct Responses to Study Questions Regarding First Aid Practice

Practice response	Correct Knowledge N(%)
Checking expiry dates on medicines before giving them to children	59(36.4)
Should parents be informed when a child's condition is not manageable?	155(95.7)
First aid for headache	119(73.5)
Immediate management when a child gets an attack of asthma	97(59.9)
First aid of a child has been bitten by a bee/wasp	48(29.6)
First step of treating a bleeding wound	63(38.9)
Immediate treatment of a bruise	60(37)
Immediate action in case of chemical burn after calling ambulance	96(59.3)
Management of a child jamming the finger in a door	96(59.3)
Management after an attack of seizure	61(37.7)
Treatment of an electrical burn	89(54.9)
Management of epistaxis	35(21.6)
Dealing in case of choking	32(19.8)
Manage the bleeding with knocked out tooth	27(16.7)
Management of heat stroke	85(40.1)
First aid for ankle sprain	50(30.9)
Management of Head injury	97(59.9)
First aid of dehydration	96(59.3)
Management of limb fracture	76(46.9)
Fainting	47(29)

should be given in school, 76.2% agreed that regular cleaning of first aid kit should be done.<sup>5</sup>

Regarding practice component; 21.6% of the teachers answered correctly about the management of epistaxis, these findings were lower (66.4%)<sup>13</sup> than the study conducted in Palestine<sup>13</sup> in 2017 and comparable with the study conducted in Egypt where (18%)<sup>14</sup> cases of epistaxis were given correct first aid. In this study 38.9% of the participants answered correctly about the management of bleeding wound, in another study done in India showed that 80.8% people had correctly practiced first aid for bleeding wound.<sup>15</sup>

In this study 29.0% of the teachers correctly answered about the management of a child who faints suddenly and this is comparable with the other studies stated that 18.4% people give correct answers about management of loss of conscious,<sup>11</sup> 15.8% cases were correctly managed,<sup>2</sup> respectively. Total 46.9% of teachers answered correctly about the first aid management of limb fracture in our study and this is inconsistent with the another study which stated that 10.5% of school teachers answered correctly.<sup>2</sup> This study revealed that 37.7% of teachers had correct knowledge about managing the child with seizures and these results are much improved than the study of Shanghai, China; which reported that 16.5% of teachers had correct knowledge about managing the child with fits.<sup>16</sup>

Our study showed that 29.6% of teachers knew the correct first aid of treating bee/wasp bite and these results are better

than the study of Fiaydali 2018; which showed that 10.3% of participants answered correctly.<sup>11</sup>

Majority of participants (54.9%) knew the correct first aid of electrical burn, while other study in Turkey showed that only 1.8% cases were correctly given first aid of electric burn.<sup>11</sup> In this study, 59.3% of teachers answered correctly about managing the child with a chemical burn, while another study of China showed only 23.05% of participants know the correct first aid.<sup>16</sup> In this study 40.1% of teachers know the correct first aid of heatstroke, other study of China showed that 46.7% of teachers know the correct first aid.<sup>17</sup> Studies have been emphasized that administration of first aid to students soon after injuries can be lifesaving and disability preventing.<sup>16</sup> To keep students safe and healthy, teachers must acquire first aid training.<sup>16</sup> Every school should have standard operating procedures based on school requirements.<sup>15</sup>

The subjective nature of the study was one of the important limitations of the study which increases the chances of response bias. In addition; this study was performed in 4 schools of Karachi, therefore the results cannot be generalized. Also this study assessed knowledge regarding first aid practices only, and not the practical skills. Assessment of practical skills can guide to address the problems faced during practice.

It is strongly recommended to train the school teachers regarding the management of the first aid.

These results showed the importance to train teachers for First aid management and to assure that their skills are updated for practical application. There is a need to establish a compulsory training session for teachers during each academic year.<sup>19,20</sup> First aid kits with all the necessary items must be made available at all times while the students are in the school premises. The government should provide a policy statement on the provision of first aid in all government and private sector schools. In addition; special workshops should be organized in order to teach the basic first aid skills to all the faculty members.

### CONCLUSION:

Although the overall attitude of the school teachers regarding first aid practices was favorable, levels of knowledge as well as practice of first aid found to be inadequate and many recognized the need for the introduction of the formal first aid training program at the school level.

#### Author Contribution:

Tehreem Khalid: Synopsis, sample collection, data entry, discussion, results.

Sana Bashir: Sample collection, data entry, discussion, results. Farwa Joseph: Synopsis, Questionnaire.

Junaaid Abdul Hameed: Synopsis, data collection, data entry

Ali Khan: Synopsis, data collection, data entry

Fareeha Shahid: Data Entry

### REFERENCES:

1. Bhatti JA, Farooq U, Khan UR, Zia N. School based injury outcomes in children from a low socioeconomic setting: results from pilot injury surveillance in Rawalpindi city, Pakistan. *BMC Research Notes*. 2013; 6(86), 1-6
2. Adib-Hajbaghery M, Kamrava Z. Iranian teacher's knowledge about first aid in the school environment: *Chinese Journal of Traumatology*. 2019; 22(4):240-245
3. Piazza GM. ACEP First Aid Manual 5th edition. 2014 sep.p.11
4. Khalaf Y, Al-Robaiaay H. Knowledge of primary school teachers regarding first aid in Baghdad Al-Rusafa: *Al- Kindy Col Med J* 2013;9(1):54-59
5. Ahmad T, Javed A, Kausar R, Sherwani SK, Usman A, Zaidi SA, et al. Awareness level of First Aid in General population, Karachi Pakistan: A survey report. 2014; 2(5):2
6. Lasi S, Peermohamed H, Rafique G. Childhood Injuries in Pakistan: Results from Two Communities. *J Health Popul Nutr*. 2010; 28(4):392-398
7. Fatmi Z, Hadden WC, Razzak JA, Qureshi HI, Hyder AA, Pappas G. Incidence, patterns and severity of reported unintentional injuries in Pakistan for persons five years and older: Results of the national health survey of Pakistan 1990-94: *BMC public health*. 2007, 7; 152-10.1186/1471-2458-7-152
8. Al-Samghan AS, Al-Shahrani FM, Al-Shahrani FH. Primary school teachers knowledge about first-aid: *Med. J. Cairo Univ*, 2015,06;83(1):541-547
9. Joseph N, Narayanan T, Zakaria SB, Nair AV. Awareness, attitudes and practices of first aid among school teachers in Mangalore, South India: *Journal of primary health care*. 2015, 12; 7(4): 274-281
10. Masih S, Sharma RK, Kumar A. Knowledge and practice of primary school teachers about first aid management of selected minor injuries among children: *Int J Med Public Health*. 2014; 4(4): 458-462
11. Faydali S, Kucuk S, Yesilyurt M. Incidents that require first aid in school: Can teachers give first aid?. *Disaster Medicine and public health preparedness*. 2018; 13(3):1-7
12. Qureshi FM, Khalid N, Nigah-e- Mumtaz S, Assad T, Noreen K. First aid facilities in the school settings: *Pakistan Journal of Medical Sciences*. 2018; 34(2): 272-6
13. Amro NR, Qtait M. General knowledge and attitude of first aid among school teachers in Palestine: *International Journal of Innovative Research in Medical Science*. 2017; 2(4):5. DOI: 10.23958/ijirms/vol02-i04/05
14. Younis JR, El-Abassy A. Primary teacher's first aid management of children's school day accidents: Video-assisted teaching method versus lecture method: *Journal of Nursing Education and Practice*. 2015; 5(10). DOI: <https://doi.org/10.5430/jnep.v5n10p60>
15. Kumar SD, Kulkarni P, Srinivas N, Prakash B, Hugara S, Ashok nC. Perception and practices regarding first-aid among school teachers in Mysore: *Natl J community Med*. 2013; 4(2): 349-352
16. Li F, Jiang F, Jin X, Qui Y, Shen X. Pediatric first aid knowledge and attitude among staff in preschools of Shanghai, China: *BMC Pediatrics*. 2012,12; 121: 1-7
17. Li F, Sheng X, Zhang J, Jiang F, Shen X. Effects of pediatric first aid training on preschool teachers: a longitudinal cohort study in China: *BMC Pediatrics*. 2014;14(209): 1-8
18. Claire C, Leslie E, Enoch J.P, SueAnn F, Carol P. *First Aid Guide For School emergencies*. 2003
19. Dempsey P. Children's Service Local code of practice 5 First aid arrangements in schools. 2003 Aug.
20. World report on child injury prevention, Peden M, Oyegbite K, Smith JO, Hyder AA, Branche C, Rahman AF, et al. [https://www.who.int/violence\\_injury\\_prevention/child/injury/world\\_report/World\\_report.pdf](https://www.who.int/violence_injury_prevention/child/injury/world_report/World_report.pdf)

