

ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE  
DEPARTEMENT OF EMERGENCY MEDICEN AND CRITICAL CARE



A STUDY ON ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF  
TEACHERS ABOUT FIRST AID SERVICE PROVISION IN GOVERNMENTAL  
PREPARATORY AND HIGH SCHOOL, ADDIS ABABA, ETHIOPIA. 2017

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## **Acronyms**

**A.A:** Addis Ababa

**AOR:** Adjusted Odd Ratio

**CPR:** Cardio Pulmonary Resuscitations

**ESEP:** Ethiopian Society of Emergency Medicine Professionals.

**FMOH:** Federal Ministry of Health

**KAP:** Knowledge Attitude and Practice

**LMIC:** Low and Middle Income Community

**OR:** Odd Ratio

**PWE:** People with Epilepsy

**RTA:** Road Traffic Accident

**SPSS:** Statistical package for Social Sciences

**USA:** United States of America

**WHO:** World Health Organization

## Abstract

**Background:** **First aid** is the treatment of any injury or sudden illness before professional medical help can be provided. The aim is to prevent the condition getting worse, ensuring fast recovery and preserving the precious human life. This study will contribute to identify the gap on Knowledge, attitude and practice of first aid among high schools and preparatory teachers of kolfe keranio Sub City in Addis Ababa, Ethiopia.

**Objective:** - To assess knowledge, attitude and practice of first aid among high school and preparatory teachers in kolfe keranio Sub City, Addis Ababa, Ethiopia, 2017.

**Method:** - A cross-sectional quantitative study was conducted from December 2016 to July 2017 in governmental high school and preparatory teachers of kolfe keranio Sub City in Addis Ababa City. The study was conducted on 3 samples from 8 selected high schools. Data was collected by using pretested, structured self-administer questionnaire consisting knowledge, attitude and practice questions.

**Result:** -: About 163(95.9%) knew about first aid, their source of information was 62.2% from media, and poor knowledge about From a total respondents were poor knowledge about first aid 37(21.8%) of choking, 39(22.9%) neck and back injury, 42(24.7%) fracture, 43(25.5%) human/animal bite,49(28.8%) swallowed poison, 61(35.9%) breathing difficulty, 65(38.2%) nose bleeding,74(43.5%) burning and 76(44.7%)epilepsy. Out of 74 (43.5%) who faced child with breathing difficulty, 42 (24.7%) has breath slowly and deeply, 39(22.9%) they encourage the student to calm down and sit quietly, 38 (22.4%) contacted responsible school authority and parent, while 26(15.3%) called ambulance. About 123(72.3%) had faced child with fainting. Eighty three (48.8%), of respondents kept the child on the flat position, 63 (37.1%), contacted responsible body, 55 (32.4%), loosen clothing around the neck and waist 41 (24.1%), had given nothing by mouth and 34(20.0%), called ambulance.

Above half of the respondents (58.2%) felt good attitude towards giving and learning first aid. Most of the respondents (63.5%) strongly agreed that learning first aid is fair and few respondents (5.3%) strongly agreed that ministry of health give first aid training only few teachers.

**Conclusions:** The study revealed practices knowledge and attitude toward first aid were limited, especially with cause, and management. Moreover, there were statistically significant differences between respondents with and without training of first aid.

**Keyword:**-first aid KAP of high school teachers in kolfe keranio sub city

# **CHAPTER ONE**

## **1. INTRODUCTION**

### **1.1 Background**

First aid is the treatment of any injury or sudden illness before professional medical help can be provided. The aim is to prevent the condition getting worse, ensuring fast recovery and preserving the precious human life. Most injuries are minor and can be treated without medical attention such as bruises, minor fractures, sprains, and strain. The knowledge of first aid, when properly applied, can bridge the gap between temporary or permanent injury, rapid recovery, or long-term disability [1].

Children spend most of the time in school under the direct supervision of teachers. They are also exposed to various types of epidemiological factors in the school, which influence their present of health [2]. Hence, first aid should be known by school teachers to meet the urgent needs of these school children during minor injuries. Teacher is the key person in school who attend such type of victims and always in a position to save the life. Healthy safe environment is very important to avoid these hazards beside qualified teachers who can detect any health problem and can give first aid for commonly occurring emergencies in schools [3].

First-Aid skills can save many lives and therefore this should be considered as a priority in training staff of all agencies being involved in the management of situations where emergency patients can potentially be met. This training should not be restricted to medical personnel but also extended to public safety personnel (police, fire, security, and traffic enforcers), schoolteachers, community volunteer, drivers, and industrial workers. On the other hand a more appropriate level of EMS training is required for emergency response organizations like rescue groups of Civil Defense and Ambulance services. As a strategy, first aid training certification can be made as a pre requisite to secure a license or part of pre-employment requirement and be renewed in an annual basis for update [4].

Evidence-Based African First Aid Guidelines and Training Materials indicate in sub-Saharan Africa, 41% of all deaths and 39% of the morbidity burden can potentially be addressed by first aid [5].

Ethiopia has the highest rate of RTAs, owing to the fact that road transport is the major transportation system in the country. The Ethiopian traffic control system archives data on various aspects of the traffic system, such as traffic volume, concentration, and vehicle accidents. With more vehicles and traffic, the capital city of Addis Ababa takes the lion's share of the risk, with an average of 20 accidents being recorded every day and even more going unreported [6].

WHO technical report series showed that schools had the potential to provide an excellent base for large scale programming and there is a need to strengthen the school as a setting for health intervention. Schools can provide many services to young people, in addition to formal education, such as health education, skill development in the areas such as lifesaving skills. A school is an appropriate setting for the introduction of teaching and training on life saving first aid skills and is often economically efficient and there are possibilities for short term and long term evaluation [7].

According to the National safety council's report, on the location at which injuries occur, it was Reported that 57% was school related injuries occurred in the school building, school playground or while going or coming back from the school and only 43% were non-school injuries and occurred either at home or in public places. Immediate medical attention and early medical help is essential to reduce morbidity and mortality associated with such trauma [8].

Our environment is full of accidents, emergency illnesses and other health problems that have different level of severity and magnitude. The problems can be generally classified into two. These are accidents (deliberate and incidental) and emergency illnesses. The consequences of these health problems could end up in physical disability and death. However, the physical disability or death can be significantly reduced and/or prevented by first-aid treatment using locally available materials [9].

In America, to ensure the safety and wellbeing of students while they are in school, the students and school personnel are trained to provide first aid and this is the first critical link in the management of trauma (American School Health Association, 2000), each school should have a well-equipped first aid room, a trained first aider available in the first aid room or on call, at least one student from each class trained in first aid. They have also pointed out that their peoples will be an asset to children/school at the time of emergency and there is no substitute for proper training [10].

## **1.2. Statement of the Problem**

Children spend a significant portion of their day in high school, so students' emergencies such as the accidental physical injuries are more likely to occur in those settings. Schools are the best place to give care to those children in absence of mothers [11- 12]. High school teacher has crucial role in caring for children, supervision and prevention of health hazards. They should be well trained on first aid and emergency control to save student lives and the first aider should have adequate knowledge and skills about what is he doing and be encouraging and reassuring to the victims [13-14].

Injuries are very common now a day and can occur at any point of time in day to day life. Among them, injuries in school children rank a major part. The most frequent causes of school related injuries requiring hospitalization are falls and sports activities. Playground equipment related injuries occur on school playground during school hours and these require adequate supervision [15].

In Midwestern, USA one third of the study subjects have no specific training in first aid and most of them strongly agreed that emergency care training is required while deficiencies in recognition and appropriate treatment of student emergencies with 58% average score in emergency care test. Most of public school teachers were deficient in both training and knowledge of emergency care and basic life support modalities [16].

Study showed in Turk that most of the teachers do not have correct knowledge and attitude about first aid with 65.1%, 63.5% and 88.5% giving wrong answer for epistaxis, bee stings and abrasion, respectively. The result showed that teachers did not have enough knowledge about first aid [17].

In China Shanghai the knowledge level of the teachers toward first aid was low that is only 3.7% of respondents have good knowledge. Majority agreed that giving first aid is helpful and felt that it is important and useful for them to learn first aid [18].

Despite the accidents are common in school student, previous studies show that the knowledge, attitude and practice of first aid are low. Also, the investigator got that the study done on the KAP of First Aid in high school teachers in the study area is minimal.

### **1.3. Significance of the Study**

The study focuses on teachers' knowledge, attitude and practice of first aid at preparatory and high school teachers the result will help as baseline information for:

- The school by assessing the KAP of the teacher toward first aid
- The teachers will be able to know their KAP status and to put their effort on it
- The student also will be benefited while their teachers identify the gap on KAP and attempt to improve it
- Ministry of Education also will able to use the result to plan appropriate interventions
- Other policy maker also can use it to generate a new policy on it
- Researchers will use it as baseline data while they want to do further studies on it.

## CHAPTER TWO

### 2. LITERATURE REVIEW

A review of literature on the research topic makes the researcher familiar with the existing studies and provides information which helps to focus on a particular problem, lays a foundation upon which to base new knowledge. It creates accurate picture of the information found on the subjects [19].

#### **Knowledge of high school teachers towards first aid**

In Mangalore (city in India) teachers in five high schools were surveyed for their knowledge about epilepsy. An analysis of 113 teacher responses revealed knowledge deficits. Misconceptions regarding first aid were also common. Few teachers had not attended any educational program on epilepsy. Only about one-fifth of the teachers were confident in dealing with an epileptic student [20].

A cross sectional study was conducted to assess knowledge, attitude, and practice of first aid measures in under graduate students of Karachi. Study was carried out at six colleges, knowledge was assessed regarding various emergency situation with the help of a questionnaires. The target population size was 460, based on 50% prevalence and 95% confidence interval. The eventual sample size achieved was 446 a total students were interviewed. Seventy eight students (17.5%) had formal First Aid (FA) training. The mean number of correct answers of students with FA training was 10.3 (+/- 3.5) as opposed to 8.58 (+/- 4.0) in those without FA training ( $p < 0.001$ , 95% CI) with a mean difference of 7.84%. The mean number of correct answers by medical students with FA training was 11.2 (+/- 2.9) as opposed to 7.2 (+/- 3.43) by non-medical students ( $p < 0.001$ , 95% CI) with a mean difference of 18.14%. Students having received formal first aid training scored better than those who had not ( $p < 0.001$ ). First aid training program should be introduced at school and college level in developing countries to decrease the early mortality and morbidity of accidents and emergencies [21]

The study was done in Brazil to assess the knowledge of 89 teachers about dental trauma. A questionnaire divided into three parts containing questions about the emergency procedures in

cases of dental trauma was applied. Only 13% of teachers would replant the tooth in the socket, and only 7% said they would put the tooth in some liquid and 58% would store in a piece of paper, cloth or clean container. In relation to re-plantation, 75% reported that they would hold the tooth by the crown, 79% reported that first they would refer to the dentist, and 80% thought that the treatment had to be immediate. With regard to tooth preparation, 46% would keep it in saline, 24% in water, and only 11% in milk. Concerning to the avulsed tooth, only 15% correctly answered that they would replant the avulsed tooth and then referred to the dentist [22].

In the study done to evaluate the effectiveness of health educational program on the student first aid knowledge among high school teachers at Port Said, the sample is convenience type and included 50 governorate high school teachers. Data were collected using questionnaire to test teacher's knowledge concerning first aid. The study results revealed that the mean of the knowledge of participants was  $22.2 \pm 5.0$ . A prospective intervention study conducted with 1000 teachers (500 urban, 500 rural) randomly selected from the entire government high school as well as secondary schools of Nellore district of Andhra Pradesh, India. Study was carried out in three phases and was completed over a period of 9 months. The teachers' overall knowledge with respect to the emergency management of the traumatic injuries was deficient and significant differences were found in the knowledge of teachers before and after the informative promotion. Informative promotion programs to improve the knowledge and awareness of this group of community, who are generally the first line of assistance in case of dental trauma in schools, are mandatory [23].

The study was conducted to assess the knowledge level of Emergency measures for tooth avulsion in Kuwait intermediate school teachers and to determine if a short lecture about tooth avulsion and replantation could improve teachers' knowledge on this topic. Eighty-five teachers at two intermediate schools (children 16–18 years old) in Kuwait were interviewed using a questionnaire about their first-aid knowledge. An informative 30-min lecture about tooth avulsion and replantation was presented to a group of 43 teachers. After the lecture, the knowledge level of the teachers was re-tested using the same method. Improvement in teacher knowledge to an adequate (score of 2) or complete (score of 3) level was observed after the lecture in all five categories. The general knowledge of tooth avulsion and replantation improved

from 39% to 97% and knowledge of avulsed permanent and primary teeth from 8% to 71%. Knowledge of how to clean an avulsed tooth improved from 5% to 93%. Many avulsed Permanent teeth in school children can be saved by replantation if school teachers learn what to do when a tooth is avulsed. A lecture followed by discussion proved to be an effective and efficient method of intervention to enhance the knowledge level of teachers so that proper dental first-aid procedures can be achieved [24].

A study was conducted among the high school teachers of Dehradun district of Uttarakhand, India. Fifty high school teachers were selected by non-probability convenient sampling. Data were collected by knowledge questionnaire (maximum possible score 42). Majority (94%) of the teachers were female. The result showed that the mean score of the knowledge of first aid was  $27.32 \pm 5.73$ . Findings stress the need for such training programs, which in turn may enhance the overall health standard of the children [25].

People aged 16 years or older were interviewed as part of the 2007 New South Wales Populationa continuous telephone health survey of NSW residents. Main outcome measure: Weighted proportion of the population with optimal first aid knowledge for burns. In total, 7320 respondents were asked questions related to burn injuries and first aid. Of the surveyed population, 82% reported that they would cool a burn with water, and 9% reported that they would cool the burn for the recommended 20 minutes. Few respondents reported that they would remove the patient's clothing and keep the injured person warm. The most common sources of first aid information were a first aid book (42%) and the internet (33%). Speaking a language other than English at home, and being over 965 years of age were associated with a lack of first aid knowledge. A minority of people living in NSW know the optimal time for cooling a burn injury and other appropriate first aid steps for burns. This study demonstrates a gap in the public's knowledge, especially among non-English speaking people and older people, and highlights the need for a clear, consistent first aid message [26].

Study was conducted in Afyonkarahisar province, Turkey on high school teachers working in school district. The written questionnaire was formed with 34 questions. These multiple choice questions, varied from demographic to first aid and basic life support, aimed on testing the

knowledge of the employees on related topics. All 118 participants answered the questionnaire. The mean age of the sample population was  $27.7 \pm 9.1$  years and 111 (94.1%) participants was female. 61.9% of participants stated that they have previously taken the first aid education with 54.2% of mentioning that it was theoretical one. Besides, 84.7% of participants felt being inadequate in first aid and 85.6% of them made inquiry to have the first aid education. The mean score of achievement for the participants in first aid and basic life support is found to be 48.9. The study recommends that, as the 10 high school educations is wide spreading; participating people in this field should have urgent, true and repetitive training on the first aid providing [27].

In the longitudinal cohort study done to assess the effects of student first aid training among high school teachers in China, 1067 people responded pre-test with a mean of 21.0 correct answers to 37 questions, whereas in the post-test period, the mean score increased to 32.2 correct answers of 37 questions. At the 4-year mark, the majority of high school staff (>70%) had administered correct first aid for injuries. The mean score of the subjects' emotions in the post-test period increased to 81. This study demonstrated that the acquisition of knowledge, both short and long term improvement [28].

The incidence of epilepsy in Ethiopia was reported to be 64/100,000 population as indicated in a community-based study in rural Central Ethiopia [29].

### **Practice of high school teachers towards first aid**

Cross sectional descriptive study was conducted in the southern district of Tumkur in India within three months from January to March 2011 and covered the population including all police, ambulance personnel, taxi drivers, bus and auto drivers, and high school teachers within the study area. Nearly 60% of the responders had witnessed more than two emergencies in the previous six months and 55% had actively participated in helping the injured person. The nature of the help was mainly by calling for an ambulance (41.5%), transporting the injured (19.7%) and consoling the victim (14.9%). Majority (78.1%) of the responders informed that they had run to the victim (42.4%) or had called for an ambulance. The predominant reason for not providing help was often the 'fear of legal complications' (30%) that would follow later. Significant number (81.4%) of respondents reported that they did not have adequate skills to manage an

emergency and were willing to acquire knowledge and skills in first aid to help victims. Regular and periodical community-based first aid training programs for first care responders will help to provide care and improve outcomes for injured persons [30].

In the study done to evaluate the effectiveness of health educational program on the student first aid practice among high school teachers at Port Said, an intervention study, the sample is convenience type and included 50 government high school teachers. The study was observational to assess their practice

towards first aid of common emergency problems as wounds, fractures, epistaxis, choking and burns. The study results revealed that high significant improvement practice of the studied group in the post and follow up intervention in comparison to pre intervention. Also, the total practice was improved in post and follow up intervention compared to pre intervention as cleared by mean and SD of  $17.4 \pm 6.6$ ,  $16.1 \pm 7.8$  and  $9.2 \pm 5.1$  respectively [31].

In the study conducted on 269 teachers of twenty randomly selected high schools of Ahvaz, Iran, asked to fill out the self-report questionnaires for data collection. 41.6% male and 58.4% female answered the questionnaire. The results showed that 15.2 % of the teachers had an experience of avulsed tooth at school, all of them knew the importance of emergency management and 36.4% would look for a dentist for treatment of the cases. Only 6.3% re-implanted the tooth themselves. Regarding the storage media, 6.7% would keep the avulsed tooth in milk. There was no significant difference between gender and education level ( $P > 0.05$ ). The results of the current study showed that school teachers' lacked knowledge regarding dental trauma and especially tooth avulsion [32].

According to cross sectional study done on 262 randomly selected teachers of Mysore schools on practice of first aid using self-administered questionnaire, overall practice regarding first aid was found to be poor [33].

About 51.6% of teachers considered epilepsy to be contagious. Similar findings were reported in Cameroon (49.9%). In Ethiopia, few studies do suggest that epilepsy is a major problem within the country [34]

### **Attitude of high school teachers towards first aid**

In Midwestern state, USA, even though one third of the study subjects have no specific training in first aid, most of them strongly agreed that emergency care training is required while deficiencies in recognition and appropriate treatment of student emergencies. Most of public school teachers were deficient in both training and knowledge of emergency care and basic life support modalities [17].

Study was conducted in Afyonkarahisar province, Turkey on high school teachers working in school district. the educators of high school in the study are interested in getting proper training the first aid and basic life support providing,. The study recommends that, as the high school education is wide spreading, participating people in this field should have urgent, true and repetitive training on the first aid providing [28].

More than 85 % of PWE in Ethiopia do not receive epilepsy treatment. Ninety percent of the untreated were unaware of the existence of treatment for epilepsy, while only 4 % of them cited cost as a reason for not receiving treatment [34].

## **CHAPTER THREE**

### **3. OBJECTIVE**

#### **3.1 General Objective**

To determine knowledge attitude and practice towards first aid service provision among governmental preparatory and high school teachers in Kolfe keranio Sub City, Addis Ababa, Ethiopia, 2017.

#### **3.2 Specific Objectives**

- To describe knowledge level of high school and preparatory teachers towards first aid.
- To determine the attitude of high school and preparatory teachers towards first aid
- To identify scope of practice of first aid among high school and preparatory teachers

## **CHAPTER FOUR**

### **4. METHODS**

#### **4.1 Study Area**

The study was conducted in kolfe keranio Sub City, Addis Ababa, Ethiopia. Under Addis Ababa city Administration of Education, there are 86 governmental preparatory and high schools. Among these 8 were owned by government in kolfe keranio and employing 702 teachers from these 532 were male and 170 female.

#### **4.2 Study Design and Period**

Institution based cross sectional quantitative study design was employ. The study was conducted in kolfe keranio Sub City, Addis Ababa, Ethiopia from December to June 2017.

#### **4.3 Population**

##### **4.3.1 Source of Population**

All governmental preparatory and high school teachers in kolfe keranio Sub City, Addis Ababa, Ethiopia

##### **4.3.2 Study population**

Selected governmental preparatory and high school teachers in kolfe keranio Sub City, Addis Ababa, Ethiopia

##### **4.3.3. Study Units**

All teachers working among selected governmental preparatory and high school teachers in kolfe keranio Sub City, Addis Ababa, Ethiopia

## 4.4 Inclusion and Exclusion Criteria

### 4.4.1. Inclusion Criteria

All teachers who were working in selected school in kolfe keranio Sub City, Addis Ababa, and had willingness to participate in the study.

### 4.4.2 Exclusion Criteria

Preparatory and high school teachers those who were sick and on annual leave during data collection and unable to participate

## 4.5 Sample size Determination and Sampling Procedure

Sample size was determined using the formula for single population proportion based on the following

$$n_i = \frac{(Z_{\alpha/2})^2 p (1-p)}{d^2}$$

$$n_i = (1.96)^2 0.5(1-0.5) / (0.05)^2 = 384$$

Where: n= is the size of the sample

$Z_{\alpha/2}$ = is the standard normal value corresponding to the desired level of confidence

d=error of precision

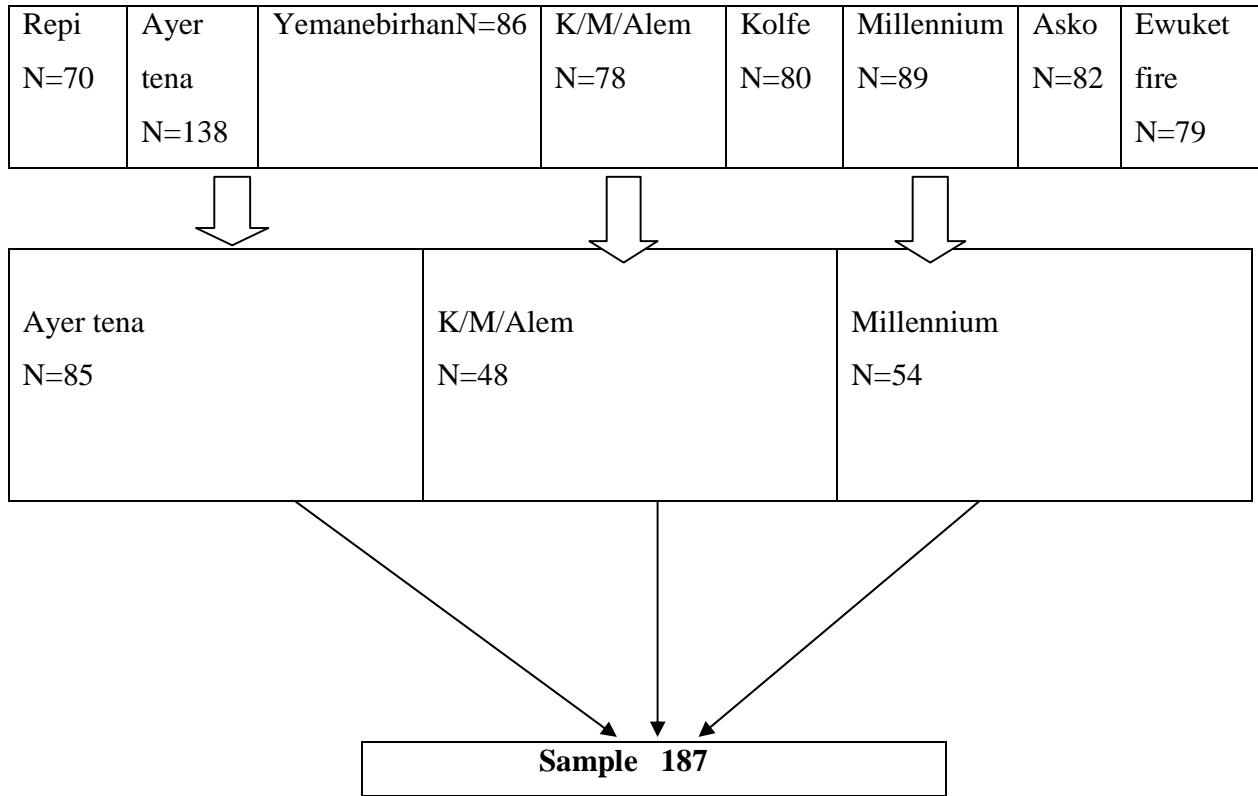
P= is the estimated proportion of an attribute

Assumptions:

- ✓ Prevalence of KAP of first aid 50%, since similar study conducted on the same topic in the study setting is not available, 50% of population proportion is considered.
- ✓ Margin of error d= 5% is accepted
- ✓ A confidence interval of 95% is assumed ( $Z_{\alpha/2}=1.96$ ).

**Schematic presentation of sampling procedure**

**Figure 1: Schematic presentation of Sampling Procedure**



**Selection** is based on lottery method

Since the study population is less than 10,000 (384 total source population 305 was found Kolfe Keranio Sub city administration Education Office) then I consider correction formula.

$$i.e. n_f = n_i / (1 + n_i / N) = 384 / (1 + 384 / 305) = 170$$

Where:  $n_i$  = initial sample size = 384

$N$  = source population = 305

$n_f$  = final sample size = 170

When I consider the 10% non response rate/ contingency the final sample size is as follows

$$n_f = 170 + 10\% \text{ of } 177 = 170 + 17 = 187$$

we can use proportional allocation formula to select final population from the three schools as follows  $n = \frac{n_i \times n_f}{N}$

$$n_1 = \frac{89 \times 187}{305} = 54$$

$$n_2 = \frac{138 \times 187}{305} = 85$$

$$n_3 = \frac{78 \times 187}{305} = 48$$

$$n_f = n_1 + n_2 + n_3 = 54 + 85 + 48 = 187$$

Where  $n_1$ - $n_3$  samples from each schools

$N$ = total population of study area

$n_i$  =total population in each school

#### 4.6 Sampling procedure

Among 8 governmental preparatory and high schools in kolfe kerancio Sub city, 3 were selected by taking total schools to meet sample size. Then the schools were stratified according to their type i.e. government schools were allocated proportionally. Finally, lottery sampling method was used to collect information from all teachers in randomly selected schools.

**Table 1: Name of selected schools and their number of teachers in kolfe keranio Sub-City, Addis Ababa, Ethiopia, 2017**

S.No	School Name	Type Of School	Number Of Teacher
1.	Ayer Tena	Government	138
2.	Millennium	Governmental	89
3.	K/M/Alem	Government	78
	TOTAL		305

## **4.7 Data Collection Methods**

### **4.7.1 Data Collection Tool**

Data was collected by using pretested, structured self-administer questionnaire which consists of socio-demographic information, knowledge questions which consists of 12, Attitude 8 and 10 Practice questions adopted and modified from American Academy of Pediatrics [35]. The questionnaire was prepared by English version and translates to Amharic language.

### **4.7.2 Data Collection Procedure**

Data collectors were 8 diploma nurses with two BSc supervisors. Training were given for one day on clarification of some terms and assessment tools, aim of the study, concerning need for strict confidentiality of respondent's information, time of data collection and reorganization of the collected data on time. The questionnaire were filed by high school teachers and the data was collected for approximately 15 days including training and pretest, facilitated by data collection facilitators and supervisors.

## **4.8 Variables**

### **4.8.1 Dependent Variable**

- Knowledge
- Attitude
- Practice

### **4.8.2. Independent Variables**

- o Age
- o Sex
- o Marital status
- o Level of education
- o Service year
- o Previous first aid training

## 4.9 Operational Definitions

**Attitude:** - a complex mental state involving beliefs and feeling and value and disposition to act in certain ways.

**First aid:**- help given to a sick or injured person until full medical treatment is available

**Good knowledge:**-if the respondents were able to answer 70% or more of correctly.

**Good practice:**-when the study participants were able to answer 70% or more practical item

**Knowledgeable:** - Participant who has scored mean and above mean for knowledge questions.

**Negative attitude:** - Preparatory and high school teachers those responded correctly below mean for attitude questions.

**Poor knowledge:**-if the respondent answer less than 70% or more of knowledge items

**Poor practice:**-when the participants were unable to answer 70% of practice item

**Positive attitude:** - Preparatory and high school teachers those responded correctly mean and above mean for attitude questions

**Practice:** - a customary way of operation or behavior

**High school:**-a public secondary school usually including grade 9 and 12.

**Preparatory school:**-a private secondary school.

#### **4.10 Data Quality Management**

Data quality was ensured during collection, coding, entry and analysis. Before actual data collection, pretest was done on 5% of similar population out of study area in Kolfe Keranio Sub-city. During data collection, adequate training and follow up were provided to data collectors and supervisors. Supervision of data collectors included observation on how the data collectors are administer questions. Codes were given to the questionnaires during the data collection so that any identified errors were traced back using the codes. The filled questionnaires were checked for completeness by data collectors, supervisors and PI on a daily basis. Consequently, any problem encountered was discussed among the survey team and were solve immediately. Data first was checked manually for completeness then coded and entered into Epi-Data version 7.1 statistical software and cleaned thoroughly before transferred to SPSS version 20 for further analysis.

#### **4.11 Data Processing and Analysis Plan**

The collected data were checked for its completeness, consistency and accuracy before analysis. Data were coded entered and cleaned using Epi-data 7.1 and exported to SPSS 20 for analysis. It was processed and analyzed by using descriptive statistics like percentage, and frequency. Result was presented by text, table, pie chart and histogram. Bivariate and Multivariate logistic regression analysis were conducted to identify factors affecting the knowledge of high school teachers on first aid. Variables reaching  $p < 0.05$  at bivariate analysis level were considered further for multiple logistic regression analysis. The statistical significance was declared at  $p < 0.05$  with 95% confidence level.

#### **4.12 Ethical Consideration**

Ethical clearance was obtained from Addis Ababa University, College of Health Science, emergency medicine and critical care nurse, Research Review Board Committee and official letter was written to Addis Ababa City Education bureau, permission was obtained from kolfe keranio Sub City education bureau. Informed consent was obtained from respondents who were participated in the study. In addition, all the responses were kept confidential and anonymous by

assuring that any information was never be passed to any individual or institution without their agreement and participant were not compel to the study.

#### **4.13 Dissemination of the Result Plan**

The results of this study were disseminated or communicated to University of Addis Ababa emergency medicine and critical care nursing, kolfe keranio Sub City Education Bureau, Addis Ababa Education Bureau, Federal Ministry of Education, Ministry of Health, Regional health bureau, local institutions and other concerned bodies through publication on an appropriate journal. Effort was made to present on professional association meetings.

## CHAPTER FIVE

### RESULTS

#### 5.1 Socio-Demographic Characteristics of Respondents

**Table 2: Socio demographic characteristics of teachers working in kolfe keranio sub city preparatory and high school Addis Ababa 2017**

Socio-demographic characteristics	Frequency	Percent %
<b>Age n=170</b>		
20-24	14	8.2
25-29	71	41.8
30-34	39	22.9
<u>35-39</u>	28	16.5
<u>40-44</u>	9	5.3
<u>45-49</u>	5	2.9
<u>50-54</u>	3	1.8
<u>55-59</u>	1	0.6
<b>Sex n=170</b>		
Male	113	66.5
Female	57	33.5
<b>Marital status n=170</b>		
Single	82	48.2
Married	82	48.2
Separated/divorce	3	1.2
Widowed	3	1.2
<b>Type of school n=170</b>		
High school	0	0
Preparatory	0	0
Both	100	100

<b>Educational status n= 170</b>	135	79.4
Degree (BSc)	35	20.6
Masters degree		
<b>Service years n=170</b>	36	21.2
<5year	67	39.4
6-9 years	43	25.3
10-15 years	24	14.1
>15 years		
<b>Do you have training on first aid?</b>		
yes	45	26.5
no	125	73.5

A total of 170 respondents with a response rate of 90% and the majority of study Participants 113 (66.5%) were males. Seventy-one (41.8%) of study participants fall in the age group of 25-29. Thirty-nine (22.9%) 28 (16.5%) fall in the age group of 30-34 and 35-39, respectively. The mean age of respondents was 31.7 (+5.5) years with the minimum age of 20 years and 58 the maximum.

Among surveyed respondents, 82 (48.2%) were married and 82 (48.2%) were singles. The maximum qualification of teachers were 135 (79.4%) first Degree and the rest 35(20.6%) held Mistreat Degree. Regarding the service experience of high school and preparatory teachers 67 (39.4%) had served 6-9 years, 43 (25.3%) for ten to fifteen years, 36 (21.2%) less than five years;

While others had served more than fifteen years were 24 (14.1%). Hundred seventy (100%), of respondents were respond both high school and preparatory. Out of 170 respondents, only 45 (26.5%) had previous first aid training.

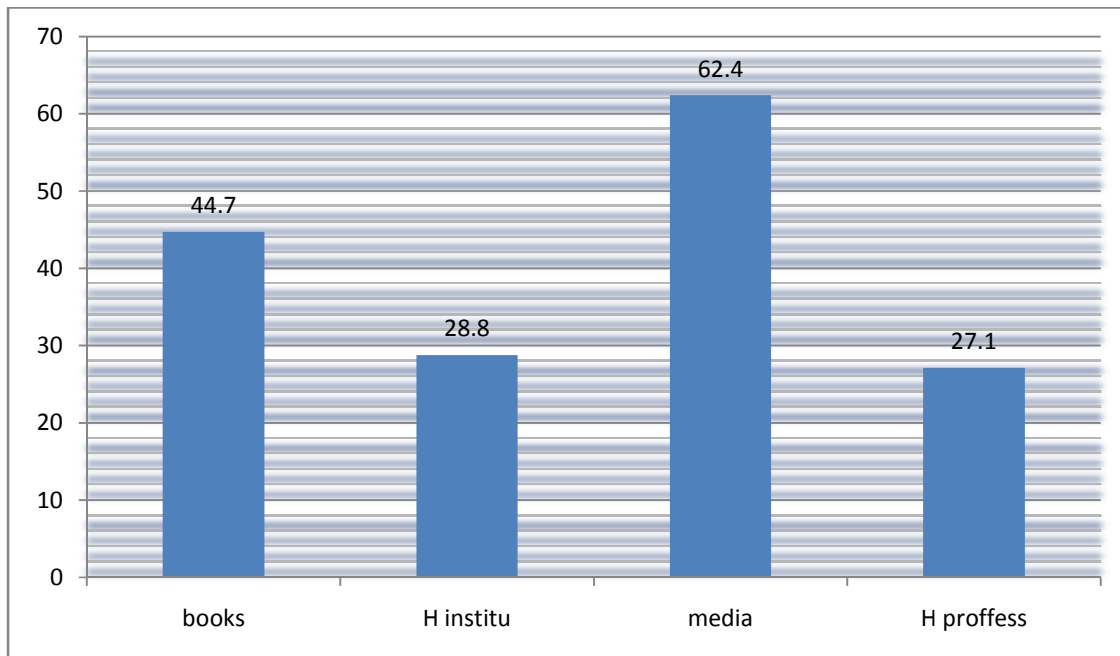
## **5.2 Knowledge of High School and Preparatory Teachers on First Aid**

All 163 (95.9%) respondents had knew about first aid and 106 (62.4%), from media and a total respondents were poor knowledge about first aid 37(21.8%) of chocking, 39(22.9%) neck and

back injury, 42(24.7%) fracture, 43(25.5%) human/animal bite,49(28.8%) swallowed poison, 61(35.9%) breathing difficulty, 65(38.2%) nose bleeding,74(43.5%) burning and 76(44.7%)epilepsy.

Among the study participants of respondents, 118 (69.4%) reported that bleeding, 82 (48.2%), fainting 76(44.7%), epilepsy 74(43.5%), burning were knew about first aid.

**Figure 2: Source of knowledge about first aid inkol fekeranio sub city preparatory and high school teachers Addis Ababa 2017**



**Table 3: Respondents' response for cases required first aid in kolfe keranio Sub-City, Addis Ababa, 2017**

<b>Need first aid n=194</b>	<b>Frequency</b>	<b>Percent</b>
Bleeding	118	69.4
Fracture	42	24.7
Epilepsy	76	44.7
Human/animal bite	43	25.3
Burning	74	43.5
Nose bleeding	65	38.2
Choking	37	21.8
Neck and back injury	39	22.9
Fainting	82	48.2
Swallowed poison	49	28.8
Breathing difficulty	61	35.9

**Table 4: Respondents' answers frequency and Percent of questions for knowledge assessment in kolfe keranio Sub-City, Addis Ababa, 2017**

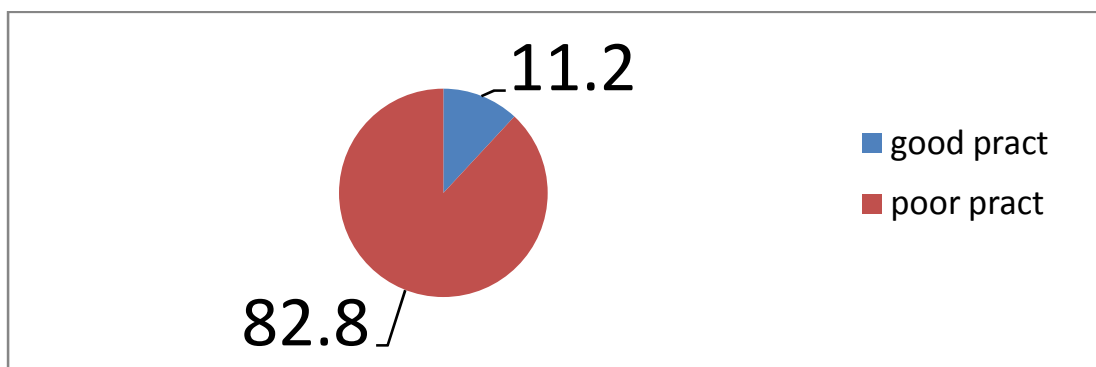
<b>Questions</b>	<b>Yes</b>		<b>No</b>	
	<b>Frequency</b>	<b>Percent</b>	<b>frequency</b>	<b>percent</b>
Have you ever heard about first aid?	<b>163</b>	<b>95.9</b>	<b>7</b>	<b>4.1</b>
Do you know stop bleeding from the body?	<b>120</b>	<b>70.6</b>	<b>50</b>	<b>29.4</b>
Do you know the first aid of fainting?	<b>106</b>	<b>62.4</b>	<b>64</b>	<b>37.6</b>
Do you know epileptic person in the school?	<b>113</b>	<b>66.5</b>	<b>57</b>	<b>33.5</b>
Do you know about choking child?	<b>96</b>	<b>56.5</b>	<b>74</b>	<b>43.5</b>
Do you know neck and back injury?	<b>92</b>	<b>54.1</b>	<b>78</b>	<b>45.1</b>
Do you know human/animal bit?	<b>89</b>	<b>52.4</b>	<b>81</b>	<b>47.6</b>
Do you know the first aid of nose bleed/epistaxis?	<b>108</b>	<b>63.5</b>	<b>62</b>	<b>36.5</b>
Do you know child with difficulty of breathing?	<b>106</b>	<b>62.4</b>	<b>64</b>	<b>37.6</b>

### 5.3 Practice of Preparatory and High School Teachers on First Aid

Out of all respondents, 138(81.2%) had faced the child in need of first aid, 92 (54.1%) of them were given first aid, 48 (28.2%) of respondents transfer to hospital and 24(14.1%), 14(8.2%) had called ambulance and transfer to police respectively. Out of 74 (43.5%) who faced child with breathing difficulty, 42 (24.7%) has breath slowly and deeply, and 39(22.9%) they encourage the student to calm down and sit quietly, 38 (22.4%) contacted responsible school authority and parent, while 26(15.3%) called ambulance. About 123(72.3%) had faced child with fainting. Eighty three (48.8%), 63 (37.1%), 55 (32.4%), 41 (24.1%), 34(20.0%) of respondents kept the child on the flat position, contacted responsible body, loosen clothing around the neck and waist, had given nothing by mouth and called ambulance respectively.

One hundred six (68.2%) participants faced student with epistaxeis (nose bleed). Eighty (47.1%) and 60 (35.1%) placed student sitting comfortably with slightly forward, laid on side with head raised on pillow respectively. Fourty five (26.5%)applied uninterrupted pressure by pressing nostrils together and contact responsible school authority and parent, while 38(22.4%), 37(21.8), applied ice to nose and called ambulance respectively. Eighty eight (51.7%) of respondents faced a child with bleeding on the body. Out of this 47 (27.6%), 46 (27.1%), 45 (26.5%),34(20.0%),31(18.2) and28(16.5%) pressed firmly with clean bandage to stop bleeding, contacted responsible school authority and parent bandaged bleeding wound without interfering circulation and, elevate the injured extremity ,called 939 and covered student with blanket respectively

**Figure: 3: Respondents of practice preparatory and high school teachers in kolfe keranio sub city Addis Ababa 2017**



**Table 5: Frequency and Percent respondents of practice assessment of preparatory and high school teachers on first aid in kolfe keranio Sub-City, Addis Ababa, 2017**

<b>Faced a student with in need of first aid n=138</b>	<b>frequency</b>	<b>Percent</b>
Yes	138	81.2
No	32	18.8
Total	<b>170</b>	<b>100</b>
<b>Given first aid n= 92 frequency</b>	<b>percent</b>	
Yes	92	54.1
No	78	45.9
Total	<b>170</b>	<b>100</b>
Called for ambulance	24	14.1
Transfer to hospital	48	28.2
Transfer to police	14	8.2
<b>Student with difficulty of breathing n= 74</b>	<b>frequency</b>	<b>Percent</b>
Called for ambulance	26	15.3
Encouraged the student to sit quietly	39	22.9
Breathe slowly and deeply	42	24.7
Contacted school authority and parent	38	22.4
<b>student with fainting n= 123</b>	<b>frequency</b>	<b>Percent</b>
Called EMS/Ambulance	34	20.0
Kept student on flat position	83	48.8
Loosen clothing around the neck and waist	55	32.4
Kept air way clear and monitored breathing	63	37.1
Gave nothing by mouth	41	24.1
Contact school authority and parent	63	37.1
<b>Nose bleeding/epistaxis n= 116</b>	<b>frequency</b>	<b>Percent</b>
Called EMS/Ambulance	37	21.8
Placed student sitting comfortably with slightly forward	80	47.1
Laid on side with head raised on pillow	60	35.3
Applied uninterrupted pressure by pressing nostrils together	45	26.5
Applied ice to nose	38	22.4
Contacted responsible school authority and parent	45	26.5
<b>Bleeding from student body n=88</b>	<b>frequency</b>	<b>percent</b>
Called EMS/Ambulance	31	18.2
Pressed firmly with clean bandage to stop bleeding	47	27.6
Elevated bleeding body part gently	34	20.0
Bandaged bleeding wound without interfering circulation	45	26.5
Covered student with blanket	28	16.5
Contacted responsible school authority and parent	46	27.1

**Table 6: Respondents of Attitude of high school and preparatory teachers towards first aid**

**Attitudes towards Giving First Aid**

	<b>Strongly Agree N%</b>	<b>Agree N%</b>	<b>Disagree N%</b>	<b>Strongly Disagree N%</b>
Giving first aid at school is fair	97(57.1)	52(30.6)	14(8.2)	7(4.1)
Giving first aid at school is unpleasant	27(15.9)	59(34.7)	48(28.2)	36(21.2)
Giving first aid is very good	80(47.1)	66(38.8)	18(9.4)	8(4.7)
It is good for me to learn first aid	101(59.4)	58(34.1)	7(4.1)	4(2.4)
It is useful for me to learn first aid	104(61.2)	50(29.4)	12(7.1)	4(2.4)
It is important for me to learn first aid	108(63.5)	45(26.5)	12(7.1)	5(2.9)
MOH should give first aid training for all teachers	90(52.9)	38(22.4)	24(14.1)	18(10.6)
First aid training is mandatory only few teachers	9(5.3)	20(11.8)	70(41.2)	71(41.8)

**Table 7: Chi- square result of knowledge test of first aid with socio demographics in kolfe keranio sub city high school and preparatory teachers Addis Ababa 2017**

Variables	Knowledge of first aid		chi square( $X^2$ )	df	p value
	Yes	No			
Sex	male	5(4.4)	0.081	1	0.777
	female	108(95.6)			
Age	<=30	55(96.5)	3.725	1	0.054
	>30	79(92.9)			
Level of education	degree	84(98.8)	0.177	1	0.674
	master	129(95.6)			
Service Year	<10 years	34(97.1)	1930	1	0.165
	>=10 years	97(94.2)			
first aid training	Yes	66(98.5)	0.557	1	0.456
	No	44(97.8)			
		119(95.2)			

From the table above of chi-square( $X^2$ ) test shows that all the characteristics age, sex, level of education, service year and first aid training were not significant with knowledge of first aid with p value of  $>0.05$  each.

**Table 8: Chi- square result practice test of first aid with socio demographics in kolfe keranio sub city high school and preparatory teachers Addis Ababa 2017**

Variable	practice of first aid		chi square( $X^2$ )	df	p value	
	Yes	No				
Sex	Male	15(13.3)	98(86.7)	0.678	1	0.41
	Female	5(8.9)	51(91.1)			
Age	<or=30	14(16.7)	70(83.3)	3.738	1	0.053
	>30	6(7.1)	79(92.9)			
Level of education	Degree	16(11.9)	118(88.1)	0.007	1	0.933
	Master	4(11.4)	31(88.6)			
Service year	<10 years	15(14.7)	87(83.3)	2.033	1	0.154
	>=10years	5(7.5)	62(92.5)			
Training of first aid	Yes	12(26.7)	33(73.3)	12.932	1	0.000
	No	8(6.5)	116(93.5)			

Based on Chi square( $X^2$ ) test result explained that training of first aid has significantly associated with practice with a p value of  $< 0.05$ , whereas sex, age, level of education and service year were not associated with practice with a p value of  $> 0.05$ .

## CHAPTER SIX

### 6. DISCUSSION

Students spend their major part of day in schools along with their school and teachers. They are at larger risk of injuries and emergencies due to the higher level of involvement in sports and extracurricular activities. School teachers acting as the guardians of these students as long as they are in the school need to be equipped with the adequate knowledge regarding first aid practices. In this study an attempt was made to explore the knowledge of school teachers in first aid and what actually they practice at the incident requiring first aid.

In my study it was observed that 95.9% of school teachers know first aid. This is quite a satisfactory response but when an enquiry was made in depth regarding the actual knowledge they were found to be largely inadequate. This implies that even though teachers are briefly introduced about first aid but they were not having a detailed knowledge about it. This study shows that the knowledge of high school and preparatory teachers on first aid is low with 40% of respondents replied correct answers for knowledge questions. The result is in line with the study done in Mangolar (city in India), in which the mean score of the respondents is found to be low [21]. Most of respondents were poor knowledge about first aid of epistaxis 44.7% was higher difference the study in Turk 65.1% [18].

Out of 74 (43.5%) practice respondents who faced student with need of first aid, (24.7%) give first (15.3%) called ambulance and other study showed that greater than 70% administer correct first aid and 45.1% called for ambulance [30,32].

In particular, subjects lacked knowledge regarding first aid for neck and back injury (only 22.9% answered correctly), fracture (24.7%), and choking (21.8%). It was greater than when compared to the study done in China (58%) respondents had good knowledge. As the study shows, 73.3% of respondents had no previous first aid training which compare to 69.1% was conducted in Midwestern, USA, in which one third of respondents had no previous training. This may be due to low accessibility of training in developing countries [17].

The poor knowledge in the present study can be attributed to the fact that very little importance is given by school functionaries and administration towards training of school teachers on first aid. This may also be explained by the fact that the majority of studied teachers did not attend any training courses in first

aid. Most respondents agreed that giving first aid was helpful; the vast majority felt that it was important and useful for them to learn first aid. This result is in line with the study done in Shanghai, China, in which majority of the participants felt the importance of providing first aid and learning first aid. [19].

The chi-square( $X^2$ ) knowledge test shows that all the characteristics age, sex, level of education, service year and first aid training were not significant with first aid with a p value of  $>0.05$ . Based on Chi square( $X^2$ ) test result explained that training of first aid has significantly associated with practice with a p value of  $< 0.05$ , whereas sex, age, level of education and service year were not associated with practice with a p value of  $> 0.05$ .

## **6.1 Limitations**

Being cross sectional is one limitation for this study. There may be level of understanding since it is self-administered questionnaire. Being quantitative one is the other limitation. The study was also limited in that it used self-report checklist for practice assessment. Observational study is better for practice assessment but didn't carry out due to time constraint. First aid knowledge alone does not ensure proper conduct during an emergency case.

## **6.2 Conclusion**

The study revealed practices knowledge and attitude toward first aid were limited, especially with cause, and management. Moreover, there were statistically significant differences between respondents with and without training of first aid training. As the study shows there is a lack of first aid training among high school and preparatory teachers. Teaching first aid offers an opportunity to educate teachers about risk factors for specific injuries. Identification and actions taken to reduce risk delivered alongside first aid training may reduce the overall rate of child injury. It also shows that they are interested in obtaining proper training.

### **6.3 Recommendation**

- Ministry of Education should include first aid course in the high school and preparatory teachers' curriculum.
- Since large numbers of children spend their longer time in school, Ministry of Health should consider working with schools in order to reduce childhood injury by providing first aid training for teachers.
- High schools and preparatory should consider working with the catchment health institutions in order to fill the existed gap on first aid and invite health professionals to give first aid training for teachers.
- Schools should have a link with health institutions for immediate referral in case there is injury to the students.
- Teachers should use any opportunity to update their knowledge and skill on first aid.
- Catchment health institutions should consider assessing and supporting the primary schools in regard to first aid knowledge and practice.
- Researchers may use this result as baseline for further study

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## 8. ANNEXES

### Annex I: Information sheet and consent form

#### Addis Ababa University

Emergency Medicine and Critical Care Nursing

Consent form: - Hello! I am \_\_\_\_\_ i am conducting the survey on the assessment of Knowledge, attitude and practice of first aid among high school teachers in kolfekeranio Sub City, Addis Ababa, Ethiopia, 2017. The assessment is made for the partial fulfillment of Master's Degree in emergency medicine and critical care, Addis Ababa University College of emergency Department. The results of the study will be used as base line information to design appropriate intervention strategies to increase high school teachers' knowledge, attitude and practice of first aid. The questionnaire contains both closed and open ended questions and will be provided in self-administered form. You are therefore kindly requested to provide genuine answers to the questions. The information you provide is confidential and is used only for the purpose of this study. If you have any question, don't hesitate to ask the data collector. Your cooperation and participation until the completion of the questionnaire is very necessary for the successful completion of the study. We therefore ask your genuine willingness. However, you have the right to refuse if you are not voluntary to participate by making thick mark in -No' in the box below.

If you are voluntary                      Yes    No

Thank you in advance for your cooperation

Data collectors Name \_\_\_\_\_, date \_\_\_\_\_ sign: \_\_\_\_\_

Questionnaire code: \_\_\_\_\_

Persons to contact:

If you have any question to ask, please contact

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## **Annex II: English Questionnaires**

### **Part I: Socio-demographic characteristics of preparatory high school teachers in kolfe keranio Sub City, Addis Ababa, 2017**

#### **Socio-Demographic Response Remark**

1. Sex a. Male b. Female
2. Age \_\_\_in years
3. Level of education
  - a. Degree
  - b. Masters
  - c. Other (specify) \_\_\_\_\_
4. Marital status a. Married b. Single c. Divorced d. Widowed
5. Service year
  - a. <5 yrs.
  - b. 5-10 yrs.
  - c. 10-15 yrs.
  - d. >15yrs
6. Type of school
  - a. high school
  - b. Preparatory
  - c. both
7. Do you have training on first aid?
  - a. Yes
  - b. No

**Part II: Questions to assess Knowledge of preparatory and high school teachers towards first aid inkolfe keranio Sub City, Addis Ababa, 2017**

1. Have you ever heard about first aid?	a. Yes b. No
2. If yes for Q 1, from where did u hear? You can choose more than one option	a. Family b. books c. media d. health professionals e. health institution f. others, specify_____
3. Yes for Q 1, what is first aid?	a. The immediate care given for a person who sustained any injury or accident before the victim arrive health institution. b. The care given only in health institution c. The care given only by health profession d. Other specify, _____
4. What type of injuries/accidents need first aid? You can choose more than one option	a. Bleeding b. Fracture c. Epilepsy d. Human/animal bite e. Burning f. Nose bleeding g. Choking h. Neck and back injury i. Fainting j. Swallowed poison k. Breathing difficulty l. Others, specify.....
5. Do you know that one measure to stop bleeding is pressing firmly with clean bandage on the bleeding part?	a. Yes b. No
6. Do you know giving nothing by mouth is one of the first aid measures for fainting student?	a. Yes b. No
7. Do you know one of the first aid measures for epileptic student is keeping air way clear by placing the child on the side?	a. Yes b. No

8. Do you know standing behind the student encircling the child's chest by hands and squeezing is the first aid measure for choking student?	a. Yes b. No
9. Do you know for child with neck and back injury avoiding head and neck movement and keeping body straight is one measure of first aid.	a. Yes b. No
10. Do you know, in case student has bitten by his friend, cleansing wound with soap and water for 5 minutes is one measure of first aid for human bite.	a. Yes b. No
11. Do you know one of the first aid measures for nose bleed/epistaxis is placing student sitting comfortably with slightly forward and applying uninterrupted pressure by pressing nostrils together.	a. Yes b. No
12. Do you know encouraging the student to sit quietly, breathe slowly and deeply in through the nose and out through the mouth is first aid measure for the student with difficulty of breathing?	a. Yes b. No

**Part III: questions to Assess attitude of preparatory and high school teachers towards first aid inkolfe kernio Sub City, Addis Ababa, 2017.**

1. I should give first aid is fair	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
2. I should give first aid is unpleasant	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
3. I should give first aid is very good	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
4. It is good for me to learn first aid	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
5. It is useful for me to learn first aid	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
6. It is important for me to learn first aid.	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
7. Ministry of health give first aid training for all teachers	a. Strongly agree b. Agree c. Disagree d. Strongly disagree
8. First aid training is mandatory only few teachers	a. Strongly agree b. Agree c. Disagree d. Strongly disagree

**Part IV: Questions to assess practice of high school teachers towards first aid in kolfe keranio Sub City, Addis Ababa, 2017**

1. Have you ever faced a child with in need of first aid in your school		a. yes b. no
2. If yes for Q 1, did you give first aid?		a. yes b. no
3. If yes for Q 2, what was your first action?	a. Called 939	a. yes b. no
	b. Transferred to hospital	a. yes b. no
	c. Gave first aid	a.yes b. no
	d. Transferred to police station	a. yes b. no
	e. Other, specify,	
4. Have you ever faced a child with difficulty of breathing?		a. Yes b. no If NO skip to Q. 6
5. If your answer for Q 4 is “yes”, what did you do? You can choose more than one option	a. Called EMS/ambulance	a.yes b.no
	b. Encouraged the student to sit quietly,	a.yes b.no
	c. Breath slowly and deeply in through the nose and out through the mouth	a.yes b.no
	d. Contacted responsible school authority and parent or legal guardian	a.yes b.no
	e. Others, specify ____	
6. Have you ever faced a student with fainting?		a.yes b.no If NO skip to Q.8
7. If your answer for Q 6 is “yes”,what did you do? You can choose more than one option	a. Called EMS/Ambulance a.	a.yes b.no
	b. Kept student on flat position	a.yes b.no
	c. Loosen clothing around the neck and waist	a.yes b.no
	d. Kept air way clear and monitored breathing	a.yes b.no

	e. Gave nothing by mouth	a.yes b.no
	f. Contacted responsible school authority and parent or legal guardian	a.yes b.no
	g. Others, specify	
8. Have you ever faced a student with bleeding from his/her nose?		a.yes b.no If NO skip to Q. 10
9. If your answer for Q 8 is "yes", what did you do? You can choose more than one option	a. Called EMS/ambulance	a.yes b.no
	b. Placed student sitting comfortably with slightly forward	a.yes b. no
	c. Laid on side with head raised on pillow	a. Yes b. no
	d. Applied uninterrupted pressure by pressing nostrils together	a.yes b.no
	e. Applied ice to nose	a.yes b.no
	f. Contacted responsible school authority and parent or legal guardian g. Others, _____	a.yes b.no
10. Have you ever faced a student with bleeding on his/her body?		a.yes b.no If NO skip to Q. 12
11. If your answer for Q 10 is "yes", what did you do? You can choose more than one option	a. Called EMS/Ambulance	a.yes b.no
	b. Pressed firmly with clean bandage to stop bleeding a.	a.yes b.no
	c. Elevated bleeding body part gently	a.yes b.no
	d. Bandaged bleeding wound without interfering circulation	a.yes b.no
	e. Covered student with blanket	a.yes b.no
	f. Contacted responsible school authority and parent or legal guardian	a.yes b.no
	g. others _____	

Thank you for your cooperation!!!!