ASSESSMENT OF GENERAL APPROACH FOR APPROPRIATE PEDIATRICS FIRST AID AND ASSOCIATED FACTORS AMONG PRIMARY SCHOOL TEACHERS IN ADDIS-ABEBA, ETHIOPIA.

A RESEARCH RESULT SUBMITTED TO THE DEPARTMENT OF EMERGENCY MEDICINE ADDIS ABEBA UNIVERSITY; IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF EMERGENCY MEDICIN AND CRITICAL CARE SPECIALITY

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Abstract

Background: Accidents and injury is the leading cause of death in children 0-14 years of age in the world. Children are prone to unintentional and intentionalinjuries (drowning, falls, burn, transport injury , choking , poisoning , blunt force, intentional self harm).. Because children spend a significant portion of their day in schools, pediatric emergencies such as the exacerbation of existing medical conditions or accidental physical injuries are more likely to occur in those settings.

Objective: To assess general approach of appropriate first aid in primary school teachers and associated factors among teachers in Addis-Ababa, Ethiopia.

Methodology: Cross sectional study was conducted to assess general approach for appropriate first aid of primary school teachers towards pediatrics emergency at selected governmental and nongovernmental primary schools in Addis- Ababa Ethiopia. This study was conducted from the November, 01 to November 30,2014. Multi-stage sampling was used to select those participants from the ten sub-cities & each primary schools. The number of staff members in each school were selected based on the proportion of staffs in the schools. Pre-tested and structured questionnaire was used to collect data about general approach for appropriate first aid of primary school teachers towards pediatrics emergency and the data was collected by trained health extension supervisor .

Result:A total of 273 respondents participated in and completed this study. From the study participants those who were knowledgeable, Only three (4.4%) of themhad positive effect on general approach for appropriate pediatrics first aid.. Thirty three (48.5%) of them had positive attitude towards pediatrics first aid, 39(57.4%) of the study participants practiced when cases came to the school and from those responded as there is good set up of school to apply appropriate pediatrics first aid 37(54.4%) had positive effect on general approach for appropriate pediatrics first aid.

Conclusion and Recommendation:Of all study participants 75% had no effect on general approach for appropriate pediatrics first aid. Knowledge, attitude, practice, ethnicity and school set up were found to be independent factors for general approach for appropriate pediatrics first aid. There is an urgent need to train primary school teachers regarding general approach for appropriate pediatric first aid .

Budget: The budget required to complete the study was 15,500 EBR.

Acknowledgement

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List of Acronyms

AACAHB Addis Ababa City Administration Health Bureau

AACAEB Addis Ababa City Administration educational Bureau

CDC Centers for Disease Control and Prevention

CPR Cardio-pulmonary resuscitation

FMOH Federal Ministry of Health of Ethiopia

MOE Ministry of Education

WHO World Health Organization

Chapter One: Introduction

1.1 Background

Child injury and accident related death rates are higher in low- and middle-income countries than in high-income countries. In Ethiopia too it has become a concern.[1]

Injuries and accidents are the leading causes of death in children worldwide.[2] Children are prone to unintentional injuries(drowning, falls, fires or burns, transportation-related injuries, poisoning, and suffocation,) [3] and are at a higher risk of experiencing injuries, because their bodies are developing and they have not yet learned to be aware both of themselves and various environmental dangers. Because children spend a significant proportion of their day in school, pediatric emergencies such as the exacerbation of medical conditions, behavioral crises, and accidental/intentional injuries are likely to occur. [4].

In the United States, injuries are the leading cause of death, disabilities, and health care utilization for children [5]. Injury alone accounts for almost one-half of all deaths in primary school-aged children in the USA [6]. In the United States, annual injury rates range from 0.7 to 5.1 injuries per child [6]. Non-fatal injuries also cause a tremendous socioeconomic burden, as nearly one in four children is injured each year seriously enough to require medical attention, resulting in $17 billion dollars in medical costs [7]. The leading causes of nonfatal injuries for

children ages 0 to 14 include falls, being struck by or against something, being cut or pierced, drowning, burns, and suffocation [8]. Primary schools are important locations in which to focus on the prevention and management of injuries and accident in children because situations requiring first aid are often encountered there. The response time in emergency situations is critical, but the first aid provided must be performed properly to prevent further complications and to potentially save lives[9] . The correct first aid approach in childhood emergencies can be life-saving[10] .In schools, the person closest to the child and the first to apply first aid is often a teacher.[11] In China, injury accounts for a third of all deaths in children aged 1 to 4 years, and one half of all deaths in children between 5 to9 years of age [12].

In another study conducted in Tanzania (Africa), transport-related nonfatal injuries were higher in the urban area of Dar es Salaam, while nonfatal injuries due to falls and cuts were higher among rural residents.[13]

For instance, in South Africa, the rate of urbanization has increased dramatically over the past few years, partly as a result of natural population growth and migration into urban areas. The 2001 Census indicated that the majority (56%) of South Africans lived in urban areas). These areas are characterized by inadequate housing, poor sanitation and high levels of unemployment and poverty conditions that increase children‟s risk of accident and injury. [14]Africa has been described to be the least healthy place in the world to live.[15]

Against this most African governments to industrialize their nations with the attendant increase in the influx of motorized machines, cars and motorcycles. This has increased the incidence of trauma in these countries including pediatric trauma, and trauma is fast becoming a leading cause of death among the pediatric age group of 0 – 15 years.[16,17] This epidemiological profile is similar to the situation in most high-income countries of the world, where injuries are the most common cause of death in this age group.[18]Governmental and private primary schools are increasing in number in Addis –Ababa.

Globally, the magnitude and patterns of injury and accident death and disability among children are influenced by factors such as stage of development, inexperience, and the physical and socioeconomic environments in which they live. Geography is as an important explanatory factor in accounts of injury variation.[19]

It will be of paramount importance to look knowledge , attitude and practice of primary school teachers regarding management of pediatric accident (injury) and emergencies in Addis- Ababa. Therefore , this study tried to assess knowledge, attitude and practice of teachers regarding pediatric first aid in selected primary schools in Addis- Ababa, Ethiopia.

1.1 Statement of the problem

Studies have shown that Every year, approximately 875,000 children are killed and nonfatal injuries affect the lives of between 10 million and 30 million more globally. Moreover, 95% of these deaths and injuries occur in low and middle income countries. [20]About 20 children die every day from a preventable injury – more than died from all diseases combined.[21] Childhood injuries are also a problem in high income countries such as the United States, where approximately 12,000 children die annually from unintentional injury-related causes.[22] In the United States, injuries continue to be the leading cause of death among children.[23,24]

According to the WHO‟s 2008 World Report on Child Injury Prevention, injury and violence is a major killer of children throughout the world , responsible for about 950,000 death in children each year. Unintentional injuries account for almost 90% of these cases. They are the leading cause of death for children age 10-19 years. Overall , more than 95% of all injury deaths in children occurs in developing countries. Although the child injury death rate is much lower among children from developed countries , injuries are still a major cause of death , accounting for about 40% of all child deaths.[25]

According to the WHO‟s 2008 World Report on Child Injury Prevention, approximately 950,000 children aged 17 and under were killed by an injury in 2004, and 87% of these were due to

unintentional and potentially preventable causes. Among the various age groups, children under five years of age have the highest drowning mortality rates worldwide.[26]

Studies have shown that in China, injury accounts for a third of all deaths in children aged 1 to 4 years, and one half of all deaths in children between 5 to 9 years of age .[12]

The study conducted in Western Pacific and some countries in South-East Asia identified that drowning is the leading cause of child death ,more than 175, 000 children and teenagers die from drowning each year – that is approximately 480 children per day. In high-income countries most drowning occurs during recreational activities in swimming pools or the sea. Burns are the only child injury which occur more commonly in girls than boys.
More than 95 000 children and teenagers die from burns each year – that is approximately 262 children per day. Burns are particularly prevalent among teenage girls in the Eastern Mediterranean and South-East Asia regions. [27]

About 2270 children die every day as a result of an unintentional injury. Injury and violence are a major killer of children under the age of 18 years throughout the world responsible for approximately 950 000 deaths. About 90%, or 830 000, of these deaths are categorized as "unintentional". Road traffic injuries and drowning together account for nearly half of all unintentional injury child deaths. In addition to these deaths, tens of millions of children require hospital care every year for non-fatal injuries, many of whom are left with lifelong disabilities. Road traffic injuries are the leading cause of death among 10 to 19 year olds More than 260 000 children and teenagers die from a road traffic injury each year. That is about 718children per day. Approximately 10 million more are non-fatally injured. In high-income countries most children killed are occupants of vehicles (except in some like the Netherlands where bicycle riding is common place) while in developing countries they are usually pedestrians or cyclists. [27]

WHO reported that there are nearly 90% of injuries to children are the result of unintentional or "accidental" incidents. Around 830 000 children die from such injuries every year, nearly 2300 each day. More than 1000 of these children could be saved if proven injury prevention measures were applied worldwide. Road traffic crashes are the leading cause of death among children ages 10 to 19. Drowning is the leading cause of death from injury among children in many Asian

countries. Around the world 480 children die from drowning every day. Globally, 260 children die from burns every day. Falls account for up to one half of all visits by children to hospital emergency departments. Although most falls do not cause more than a few scrapes or bruises, 130 children die from falls every day. Thousands of calls are made to poison control centres around the world each day. Although the majority of cases are resolved over the phone, 125 children die from poisoning daily.[28].

Studies conducted in Australia, Canada, Ireland and the United States of America (USA) have found that unintentional injury death rates are considerably high[29].

Children in developing countries are at increased risk of injury and accident. They often lack spaces and facilities for safe play. In developing countries drowning usually occurs in open bodies of water or water collections systems during everyday activities like playing, washing or collecting water.[27]

Chapter Two: Literature Review

2.1 Literature Review

Worldwide, childhood injuries are a growing problem. Overall rates of injury and death increase dramatically from childhood to late adolescence.[30]Due to developmental and social factors, such as time spent without adult supervision and increasing independence, adolescents are more likely to engage in risk-taking behaviors than either younger children or adults. Biology also plays a role. The maturation of brain networks responsible for self-regulation often does not occur until late adolescence, making adolescents more likely to engage in risk-taking behaviors.[31]

2.1.1 Socio-demographic factors

The growing evidence that higher social and economic status is associated with better health has led most researchers to conclude that these factors are fundamental determinants of health.[32] Socioeconomic gradients have been associated with risks of falls, burns, motor vehicle injuries, poisonings, as well as with intentional injuries such as assault and homicide.[33]

Child injuries are strongly related to social determinants. The burden of injury on children is unequal. Children in developing countries and those from poorer families in better-off countries are the most vulnerable. More than 95% of all child injury deaths occur in developing and middle-income countries. Although the child injury death rate is much lower in high-income countries, injuries still account for about 40% of all child deaths in these countries.[27]

In England and Wales, a study examined injury mortality data by occupational group of the parents for children aged 1–15 years over two time periods – 1979–1983 and 1989–1992 (*100*). All childhood injury deaths had declined between the two periods of study, but the associations

of injury deaths with socioeconomic factors had become stronger. Social gradients were particularly steep for certain types of injury such as homicide, fire burns and pedestrian Injuries.[34].

A study in South Africa explored the incidence and causes of injury across socioeconomic and environmental settings in six neighborhoods in a poor area of Johannesburg – two informal settlements, two neighborhoods of council houses and two of council-built apartment buildings.[35]

2.1.2 Knowledge, attitude and practice of the respondents on pediatric first aid

In the U.S., Gagliardi et al. has indicated that most teachers are deficient in knowledge of emergency care and basic life support modalities. Significant deficiencies were noted for recognition and appropriate treatment of student emergencies involving basic life support (BLS) and airway interventions, diabetic emergencies, and treatment of profuse bleeding. The results of a study carried out by Gagliardi on the extent of training and emergency care knowledge of public school teachers in the U.S. indicated that one-third of surveyed teachers had no specific training in first aid, and 40% had never been trained in cardiopulmonary resuscitation .[36]

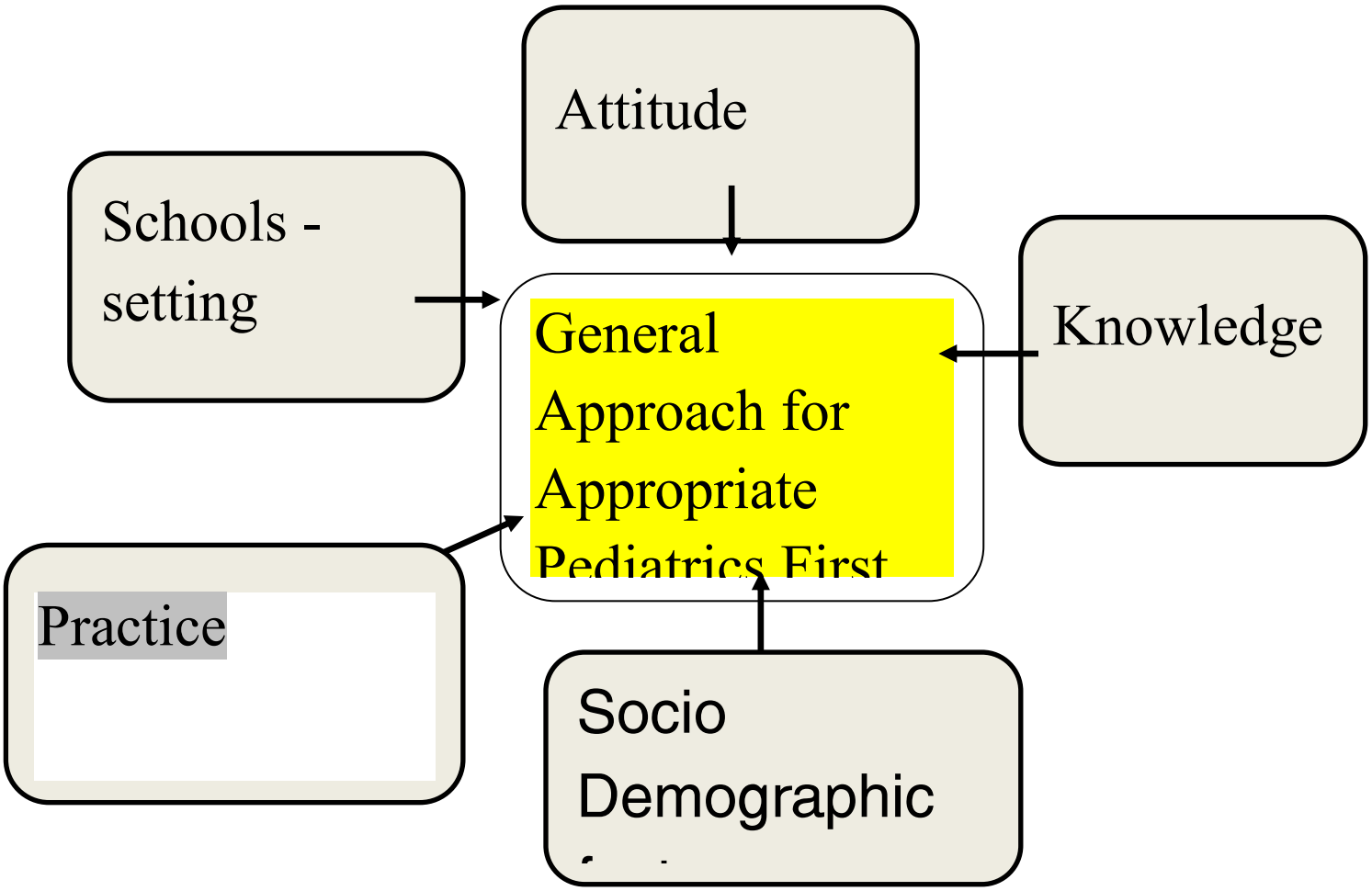
A study conducted in Turkey evaluating the first aid knowledge and attitudes of 312 primary school teachers showed that most of the teachers lacked accurate knowledge about first aid. Consequently, it is understood from the result of studies that teachers don‟t have enough knowledge to save a life. As the age of the teachers‟ increases, appropriate first-aid practice becomes more and more unlikely. A further matter, according to knowledge in first aid of female teachers was considerably higher than male teachers .[37]

Physical education teachers at schools in Ireland also showed poor knowledge of how to treat children during emergencies.[38]

This is also in keeping with other studies from North America, which found that 30% of teachers had no specific training in first aid, and 40% had never been trained in CPR. [39]

Study conducted in china indicates overall staff knowledge of first aid to be lacking, evidenced by the low but visible frequency of incorrect responses to common illnesses and injuries. The American Academy of Pediatrics has set 80% as the passing level in its written knowledge exam of pediatric first aid training for caregivers and teachers. According to that criterion, only 3.7% of the surveyed teachers had an adequate knowledge of first aid.[40]

Conceptual Framework



2.3 Rational of the Study

Studying general approach for appropriate first aid in primary school teachers and its determinants in Addis Ababa helps to pinpoint factors which facilitate or inhibit the uptake of recommended school health service regarding first aid for common accident and injury in children .The findings from this study may possibly identify determinants potentially related to general approach for appropriate first aid in primary school teachers.

It may also bring facts to all stakeholders that could establishing and demonstrating transparency and shared responsibility for which they should be accountable and to invest their potential and actual available resource in acceptable approach in line with accepted standards for basic life support in school setting . So, intervention could be made which enhance owner ship and commitment among all the concerned bodies under the level of influences that the findings of this study could impose.

Furthermore the study could possibly generate information in the area of the topic for large scale researchers to investigate further empirical evidences to control those factors attributable low KAP of the teachers to general approach for appropriate pediatrics first aid in the study area.

Chapter Three: Objectives of the Study

3.1. General Objective

To assess general approach of appropriate first aid in primary school teachers and associated factors among teachers in Addis-Ababa, Ethiopia

3.2. Specific Objectives

- To determine the KAP of primary school teachers on first aid with regard to common pediatric emergencies.
- To determine the proportion of general approach for appropriate pediatrics first aid of the primary school teachers.
- To assess the school setting, presence of first aid kit in the schools, and presence of health professionals in the school.
- To identify factors associated with general approach for appropriate pediatrics first aid.

Chapter Four: Methods and Materials

4.1 Study Area and Period

This study was conducted in Addis Ababa, the capital city of Ethiopia which covers an area of 520.14 km2; it has ten sub cities which encompasses116 districts. According to the National population and Housing Census of Ethiopia projection figures in 2011, the total population of Addis Ababa is 2,980,001 with a male to female ratio of 47.64 % & 52.36 %. (42).Addis Ababa city Administration of Education there were 795 primary schools , among these, 214 were owned by the government,2 public schools ,579 private and others and employing 9501 males and 9556 females .

4.2. Study Design

Cross- sectional survey was conducted in the study area. Pre-tested and structured questionnaire was used to collect data using self-filled structured questionnaire.

4.3. Source Population

All teachers working in primary schools in Addis Ababa, Ethiopia.

4.4 Study population

Sampled teachers working in primary schools in Addis Ababa, Ethiopia.

4.5 Inclusion and exclusion criteria

Inclusion criteria: All teachers working in primary schools in Addis Ababa Ethiopia in the selected sub-city and schools.

Exclusion criteria: Study participants who were sick, were unable to give response in the questioner, and were not present during data collection and whose service year is less than one year.

4.6 Sample size and sampling techniques

4.6.1 Sample size determination

The sample size was determined by using a single population proportion formula considering the following assumptions:

Proportion of general approach for appropriate pediatrics first aid in primary school teachers 3 % [40]

Level of significance to be 5% (α = 0.05), Zα/2= 1.96

Margin of error to be 3 % (d = 0.03), (as prevalence rate is under 20)

Design effect = 2

The formula for calculating the sample size,

$$n = \frac{(Z\alpha/2)^2 \times P(1-P)}{d^2} \times \text{Design effect} = \frac{1.96^2 \times 0.03(1-0.03)}{(0.03)^2} \times 2$$

n= 248

By adding 10% non-response rate, the final sample size will be **273**

4.6.2 Sampling Techniques:

In Addis Ababa there are ten sub cities and these sub cities encompass 116 districts. Of those sub cities with WHO recommendation 30-40% of the study area and with scarcity of resources four were selected and from each sub city four districts were identified again by multistage sampling technique. Then simple random sampling technique was used by considering the list of primary schools from each district as a sampling frame. Lastly the total sum of primary school teachers who were interested for the study from all sixteen selected districts primary schools was calculated. Then the study units were allocated proportionally from each districts of primary

Schools. Finally the total number of study units was ensured in line with the inclusion criteria.

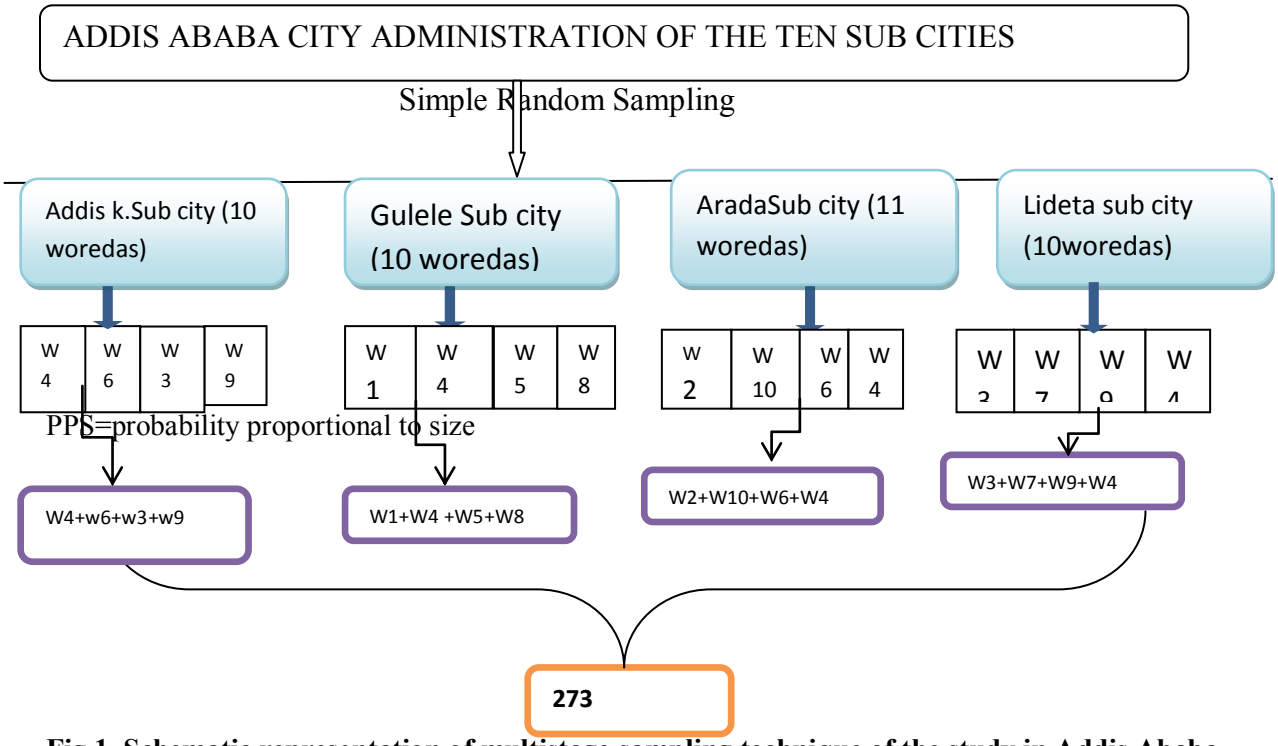


Fig 1. Schematic representation of multistage sampling technique of the study in Addis Ababa

4.7 Variables of the study

4.7.1. Dependent Variable

- General approach for appropriate pediatrics first aid in primary school teachers

4.7.2. Independent Variables

- Socio demographic variables
- KAP
- Schools setting

4.8. OPERATIONAL DEFINITIONS

First aid: Emergency care or treatment given to an ill or injured person before regular medical aid can be obtained. The level KAP of primary school teachers determined by using American Academy of Pediatrics in which questions are written using modified questions from Ped FACTs textbook**. [**42**]**

Knowledge: knowledge items with equal weight with a scoring system designed to assess the level of knowledge, those who answered 60% and above of knowledge items will be taken as knowledgeable to the topic of interest and ,<60% will be taken as have not knowledgeable (41).In this study those who answered 10 or more of the 19 items will be taken as knowledgeable.

Attitude about first aid: Those who were responded above the mean was considered as had positive attitude and below the mean was considered as had negative attitude.

Practice about first aid: Those who were responded above the mean was considered as good practice and below the mean was considered as had poor practice. In this study those who answered 2 or more of the 4 items will be taken as good practice.

General approach for appropriate pediatrics first aid in primary school teachers: response rate of above the mean was considered as they had effect on general approach for appropriate pediatrics first aid and those responded below the mean was considered as they had no effect.

4.9. **Instruments and Measurements**

Pretested and structured questionnaire was used. Translation of instrument was made from medical terminology to simple English language by different experts who are familiar on the flied of area and blind to the original version of the questionnaire (English version) in order to facilitate reliable responses to underline questions and keep the original meaning of the instrument and was translated in to Amharic.

Questionnaires for each item were adapted from examination guide lines from the American Academy of Pediatrics in which questions were written using modified questions from PedFACTs textbook to the local context. The questionnaires were filled in the selected primary schools & the data was collected by trained peoples after they got consent from the school head & teachers. [42]

4.10 Data Collection Procedure

The data was collected for thirty days in each study districts and schools. It was collected through Pretested and structured questionnaire is used in those selected districts and schools. Sixteen trained health extension supervisors were involved in data collection and was supervised by three master students. For both data collectors and supervisors one day training was given on data collection instrument, interview technique and importance of taking informed consent before data collection starts. Each day data was checked for completeness and consistency.

4.11. Data Processing and Analysis

All filled questionnaires was checked for completeness and consistency, edit manually and entered into SPSS statistical package version 20.0 for further analysis. Frequencies, proportion and summary statistics was used to describe the study population in relation to relevant variables . Finally the variables which have significant association (P-value < 0.05) identified on the basis of Odds ratio with 95% Confidence interval**.**

4.12 Data Quality Control

To ensure the quality of data, first the questionnaire was pretested. The pretest was conducted in 5% of the participants at randomly selected districts‟ primary schools away from the study schools by inviting teachers to avoid contamination and by giving training for the data collectors and supervisors before the actual data collection. Appropriate modifications weremade after reviewing the pre-test result and overall supervision was made by the principal investigator.

Every day after data collection, questionnaires was reviewed and checked for completeness, accuracy and clarity by the supervisors and principal investigator and the necessary feedback was offered to data collectors in the next morning.

4.13 Ethical Considerations

Primarily, ethical clearance was ensured from emergency medicine department and Medical Science Research and Publication Committee of Addis- Ababa University. Then formal letter was addressed to Addis Ababa Administrative education bureau, Sub City health offices, districts and respective primary schools. All respondents were asked for their willingness of participation in the study and verbal consent was obtained after convincing respondents‟ issues of confidentiality. Questionnaire was labeled with questionnaire ID, not to the respondents‟ name.

4.14. Dissemination of the result

The result of the study will publicly defended as per schedule of Addis- Ababa university school of emergency medicine, copies of the result will be sent to the sponsor, Addis Ababa educational Bureau, Sub-cities and other concerned body to utilize it.

Chapter Five: Results

5.1.1 Socio-demographic characteristics

A total of 273 respondents participated in this study making the response rate of 99.6. Most of the participants 132(48.5%) were in 25-30 age groups. One hundred fifty nine(58.5%)were males. The mean age of the respondents was 29 years with SD of 0.6. One hundred fifty four (56.6%) of the study participants were single. The two major ethnic groups were Amhara and Oromo accounting for 155 (57%) and 53(19.5%) respectively. More than three fourth (78.7%) of the respondents were Orthodox. Regarding education 130 (47.8%) of respondents were degree holders. Two hundred forty eight (91.2%) of the respondents were Governmental school teachers. One hundred seventy one of the respondents had monthly income between1501-3000ETB.

Table 1: Socio-demographic of the participants

Characteristics	Frequency (N = 272)	Percent (%)
Age		
25-30	132	48.5
31-49	122	44.9
≥50	18	6.6
Sex		
Male	159	58.5
Female	113	41.5
Marital status		
Married	114	41.9
Single	154	56.6
Widowed	2	0 .7
Divorce	2	0.7
Work experience		
1-5	135	49.6
6-10	76	27.9
11-15	18	6.6
>16	43	15.8
Educational status		
TTI certificate	14	5.1
Diploma	124	45.6
Degree	130	47.8
Master	1	0.4
Others	2	0.7
Ethnicity		
Amhara	155	57
Oromo	53	19.5
Tigre	28	10.3
Gurage	32	11.8
Others	4	1.5

Characteristics	Frequency (N = 272)	Percent (%)
Religion		
Orthodox	214	78.7
Muslim	27	9.9
Catholic	1	0.4
Protestant	29	10.7
School type		
Govern	248	91.2
Private	20	7.4
Others	4	1.5
Monthly Income ETB		
<1500	27	9.9
1500-3000	171	62.9
3001-4500	70	25.7
>4500	4	1.5

5.1.2 Knowledge variable

Of all study participants only 6% have found to be knowledgeable towards pediatrics first aid in the study area. In the description of knowledge items; explicit observation revealed that items "What does pediatric first aid mean?","Which statements about first aid treatment is correct?" and "To care for an obviously broken bone:" were properly responded by 91.9%,81.6% 73.9% of respondents. However item" which pediatric emergency is your priority ? " was properly responded almost on average by 44.1% study participants**.**

Table 2: Distribution of knowledge

Characteristics	Frequency (N= 272)	Percent (%)
Knowledge		
Not knowledgeable	256	94
Knowledgeable	16	6

5.1.3 Attitude

From the total of the respondents 167(61.4) had positive attitude to words pediatrics first aid in the primary school, With the mean of 0.6 and SD of 0.5.

Table 3 : Distribution of Attitude

Do you believe that it is necessary to provide first aid immediately for a child presented with any emergency situation in school?		frequency	Percent	
	yes	**237**	**87.1%**	
	No	**35**	**12.9%**	
Do you have willingness to provide first aid for a child presented with any emergency situation in school?	**yes**	**17**	**6.3%**	
	No	**255**	**93.8%**	
Do you believe that your school teachers provide appropriate first aid for pediatric emergency in the school?	**yes**	**114**	**41.9%**	
	No	**158**	**58.1%**	

5.1.4 **Practice**

From the total of the respondents 175(64.3) were properly practiced towards pediatrics first aid in the primary school, With the mean of 0.6 and SD of 0.5.

Table 4: Distribution of Practice

Items	response	percent	%
Have you ever attended first aid for pediatric emergency in school?	Yes	170	62.5
	No	102	37.5
Did you have a trend victim with air way problem?	Yes	45	16.5
	No	227	83.5
Did you have a trend victim with bleeds heavily in your school?	Yes	45	16.5
	No	227	83.5
Did you have a trend victim with c- spine injury in your school?	Yes	0	0
	No	272	100

5.1.5 School set up

From the total of the respondents only 45(16.2%) had first aid room and kit in the primary school, With the mean of 0.6 and SD of 0.5

Table 5: Distribution of School set up

Items	response	percent	%
Who is responsible to run first aid in your school?		12	4.4
A. School director		111	40.8
B. Teachers			
C. Health professional (nurse, health officer		12	4.4
D. All		122	44.9

E. No one is responsible			
		15	5.5
In your school , do you have first aid room and kit ?	Yes	45	16.5
	No	227	83.5
Are there any specific hazards or risks on the school site on children accident and injury?	Yes	45	16.5
	No	227	83.5
Are there any Emergency medication in your school?	Yes	0	0
	No	272	100

5.1.6 General approach for appropriate pediatrics first aid in primary school teachers

The level of primary school teachers effect in General approach for appropriate pediatrics first aid was assessed using the variables shown in Table 6.Nighty two (33.8%) of the respondents had knowledge on evaluating "C" (Circulation). Of the respondents Only 68 (25%) had pediatrics first aid positive effect of KAP of the teacher which is about 1 in 4 respondents.

Table 6: Distribution of General approach for appropriate pediatrics first aid

Items	response	percent	%
Do you know 4Cs of Pediatric First Aid / **Check, Call, Care, Complete**	Yes	68	25
	No	204	75
Could you "Check" step during the 4Cs of Pediatric First Aid/ Make sure the surroundings are safe Find out what happened and who was involved and Perform the Hands-off ABCs and Hands	Yes	68	25
	No	204	75

The main purpose of the Hands-off ABC/Decide if you need to call EMS	Yes	44	16.2
	No	228	83.8
When evaluating "A" (Appearance), you are looking to see whether the child/ **Is alert and responsive**	Yes	68	25
	No	204	75
When evaluating "C" (Circulation), you are looking for/Pale or bluish skin color	Yes	92	33.8
	No	180	66.2
A written emergency and disaster plan should include / Procedures for communicating with parents or guardians, Staff responsibilities and tasks during an emergency or disaster and How to account for children in the facility"s care	Yes	68	25
	No	204	75

5.2 Univariate and multivariate Analysis

5.2.1 Socio-demographic characteristics with General approach for appropriate pediatrics first aid in primary school teachers

From those respondents who had general conceptualization of pediatrics first aid 61(89.7) were at governmental primary schools. Of those respondents found to play on General approach for appropriate pediatrics first aid 50(73.5) were orthodox. Regarding to ethnicity teacher from Amhara origin had positive effect on General approach for appropriate pediatrics first aid accounted 44(64.7%). (See table 7)

Table 7: Distribution of each socio demographic characteristics with General approach for appropriate pediatrics first aid in primary school teachers

Items	General approach for appropriate pediatrics first aid		
	Pediatrics first aid is not an effect KAP	pediatrics first aid is an effect KAP	Total
	N (%)	N (%)	N (%)
Age			
25-30	97(47.5)	35(51.5)	132(48.5)
31-49	94(46.1)	28(41.2)	122(44.9)
≥50	13(6.4)	5(7.4)	18(6.6)
Sex			
Male	123(60.3)	36(52.9)	159(58.5)
Female	81(39.7)	32(47.1)	113(41.5)
Marital status			
Married	88(43)	26(38.2)	114(41.9)
Single	114(55.9)	40(58.8)	154(56.6)
Widowed	2(1)	0	2(1)
Divorce	0	2(1)	2(1)
Work experience			
1-5	98(48)	37(54.4)	135(49.6)
6-10	57(27.9)	19(27.9)	76(27.9)
11-15	14(6.9)	4(5.9)	18(6.6)
>16	35(17.9)	8(11.8)	43(15.8)
Educational status			
TTI certificate	9(4.4)	5(7.4)	14(5.2)
Diploma	87(42.9	37(54.4)	124(45.8)
Degree	104(51.2)	26(38.2)	130(48)
Master	1(05)	0	1(0.5)
Others	2 (1)	0	2(1)
Ethnicity			
Amhara	111(54.4)	44(64.7)	155(57)
Oromo	42(20.6)	11(16.2)	53(19.5)
	23(11.3)	5(7.4)	28(10.3)
Guraghe	25(12.3)	7(10.3)	32(11.8)
Others	3(1.5)	1(1.5)	4(1.5)
Religion			
Orthodox	164(80.8)	50(73.5)	214(79)
Muslim	17(8.4)	10(14.7)	27(10)
Catholic	1(.5)	0	1(0.4)
Protestant	21(10.3)	8(11.8)	29(10.7)

Table 7: Distribution of each socio demographic characteristics with General approach for appropriate pediatrics first aid in primary school teachers

Items	General approach for appropriate pediatrics first aid		
	Pediatrics first aid is not an effect KAP	pediatrics first aid is an effect KAP	Total
	N (%)	N (%)	N (%)
School type			
Govern	187(91.7)	61(89.7)	248(91.2)
Private	14(6.9)	6(8.8)	20(7.4)
Others	3(1.5)	1(1.5)	4(1.5)
Monthly Income ETB			
<1500	16(7.8)	11(16.2)	27(9.9)
1500-3000	125(61.3)	46(67.6)	171(62.9)
3001-4500	59(28.9)	11(16.2)	70(25.7)
>4500	4(2)	0	4(1.5)

5.2.2 Knowledge, Attitude, practice and school set up with General approach for appropriate pediatrics first aid

From the respondents those who were Knowledgeable only 3(4.4%) had effect on conceptualization of General approach for appropriate pediatrics first aid,some of them 33 (48.5%) had positive attitude towards pediatrics first aid , 39(57.4%) of the study participants practiced when cases came to the school and from those responded as there is good set up of school to apply appropriate pediatrics first aid only 37(54.4%) had positive effect on general approach for appropriate pediatrics first aid. (See table 8 below).

Table 8: Knowledge, Attitude, practice and school set up with General approach for appropriate pediatrics first aid

Items	General approach for appropriate pediatrics first aid		
	Pediatrics first aid is not an effect Of KAP of the teacher	pediatrics first aid is an Effect of KAP	Total
	N (%)	N (%)	N (%)
Knowledge			
Not knowledgeable	191(93.6)	65(95.6)	256(94.1)
Knowledgeable	13(6.4)	3(4.4)	16(5.9
Attitude			
Positive	134 (65.7)	33 (48.5)	167(61.4)
Negative	70(34.3)	35(51.5)	105(38.6)
Practice			
Not practiced	68(33.3)	29(42.69)	97(35.7)
Practiced	136(46.7)	39(57.4)	175(64.3)
School set up			
Good	120(58.8)	37(54.4)	157(57.7)
Poor	84(40.2)	31(45.6)	115(42.3)

5.2.3 Independent factors of general approach for pediatrics first aid

In bivariate analysis variables which have p-value < 0.05 with general approach for appropriate first aid resorted and were entered together in multivariable logistic regression in order to look the independent effect of predictor variables by controlling all other necessary variables. So that in the final model variables included knowledge, ethnicity, school category, attitude, practice and school setting of the participants were significantly associated in the bivariate analysis also remained significantly associated in multivariable regression model. Unlike the results of the bivariate logistic regression Ethnicity, knowledge and practice of school teachers were showing an association with general approach for appropriate first aid in the adjusted model. As shown

from table below. Knowledge of the participant was statistically significant associated to general approach for appropriate first aid. Those study participants who had been considered as not knowledgeable were 70% less likely for conceptualizing general approach for appropriate pediatrics first aid when compared to those who had considered as knowledge[AOR=0.3, 95%CI (0.114, 0.0.67)]. Practice of respondents was also statistically significant associated to general approach for appropriate first aid. Those respondents who had already an exposure for first aid practice were 54% more likely conceptualizing general approach for appropriate pediatrics first aid when compared to those who were not exposed for first aid practice [AOR=4.6, 95% CI (1.4, 15.0)]. Ethnicity had also exhibited a significant association with general approach for appropriate first aid with a p=0.006 [AOR=1.5, 95%CI (1.03, 2.2)]

Table 9: Independent factors of general approach for pediatrics first aid

variables	COR (%)	AOR (%)	P=Value
Ethnicity			0.04
Oromo	1.20 (0.35, 1.21)	1.073(0.62, 1.83)**	
Amhara	1	1	
Tigre	0.902(0.47, 1.53)	0.807(0.37, 1.72) **	
Gurage	1.34(0.23, 1.652)	1.861(0.13, 1.512) **	
Somali	0.934(0.27, 2.09)	0.890(0.37, 1.72) **	
Others	2.321(0.755-4.643)	1.108(0.933-3.364)**	
Knowledge			0.006
knowledgeable	0.4(0.23, 0.95)*	0.3(0.114, 0.67)**	
not knowledgeable	1	1	
School category			
government	1		
private	2.801(0.47, 1.52)		
others	1.607(0.37, 1.74)		
Attitude			
Positive attitude	1.231(0.33, 1.22)		
Negative attitude	1		
Practice			0.01
Good practice		4.6(1.4-15)*	
Poor practice		1	
School setting			
Good setting	0.807(0.37, 1.72)		
Poor setting	1		

* =0.01 ≤ P ≤ 0.05;** is P < 0.01

Chapter Six: Discussion

Findings of this present study revealed that 48.5% were in 25-30 age groups. One hundred fifty nine (58.5%) were males. One hundred fifty four (56.6%) of the study participants were single. The two major ethnic groups were Amhara and Oromo accounting for 57% and 19.5% respectively. More than three fourth (78.7%) of the respondents were Orthodox. Regarding education 47.8% of respondents were degree holders. Two hundred forty eight (91.2%) of the respondents were Governmental school teachers. One hundred seventy one of the respondents had monthly income between 1501-3000 ETB. The findings of this study are compatible with study findings from similar studies done in South Africa, Tanzania and in Egypt disclosed that 52%, 45% and 49% of all the study respondents were 25-30. As to the marital status, religion, educational status, and the school type study from Egypt shown as it was 87%,54%,74% and 19% of all their study participants were found to be Married, Muslim, Degree holders and publicly owned Schools respectively. However the distribution of those socio-demographic characteristics in studies done in South Africa and in Tanzania were (64%, 54%); (34%, 43%); (46%, 64%) and (53%, 35%) for marital status, religion, educational status, and the school type respectively. The possible differences in the distribution of those characteristics could be methodological, geographical, demographical and other related internal and external factors.

Studies in Uganda, Tunisia, and in Kenya revealed that of all study participants who have been involved in the assess the knowledge of respondents 80%,74% and 56% had found to be knowledgeable towards general paediatrics first aid. However, in this study only 6% of participants have found to be knowledgeable towards pediatrics first aid in the study area. The possible difference in the distribution could be argued with the explanation stated at the end of the paragraph which states the distribution of socio demographic characteristics above.

In this study 57 % of the study participants practiced and conceptualizing general approach for appropriate pediatrics first aid, However the study conducted in U.S.A showed that 72% of the respondents practiced and conceptualizing general approach for appropriate pediatrics first aid.

This study is conducted to establish determinants of General approach for appropriate pediatrics first aid implementation at primary schools in Addis Ababa. We found that only 25% of teachers had positive effects on general approach for appropriate pediatrics first aid**.** This proportion of general approach for appropriate pediatrics first aid is low but it is higher than what is reported from other studies conducted from East Africa. Findings done in Eastern Uganda showed that 19% of teachers participants had positive effects, another study in Pakistan raveled that only 3% of teachers were practiced on General approach for appropriate pediatrics first aid. In contrary to this study Researches done in Tanzania and Cameroon showed that 61.6% ,57.3% have participated in General approach for appropriate pediatrics first aid.

The difference between this finding and the other studies could be attributed to the different methods used and other Literatures showed that there is low KAP of teachers in many sub-Saharan countriestowards General approach for appropriate pediatrics first aid. Several factors have been indicated for negative effect of the primary school teachers due to cultural, school health system, socio-economic factors, and lack of information.

Chapter seven: Conclusion

Conclusion: This study assessed the primary school teachers on general approach for appropriate pediatrics first aid in schools and its determinate factors. It found out some picture of KAP of general approach for appropriate pediatrics first aid in Addis Ababa. It revealed that those variables that are involved in the final model of logistic regression knowledge, attitude, practice, ethnicity and school set up were found to be independent factors for general approach of appropriate pediatrics first aid. From the study participants those who were knowledgeable, Only three (4.4%) of the them had positive effect on general approach for appropriate pediatrics first aid. From those who were not knowledgeable 65(95.6%) participated on pediatrics first aid. Thirty three (48.5%) of them had positive attitude towards pediatrics first aid, 39(57.4%) of the study participants practiced when cases came to the school and from those responded as there is good set up of school to apply appropriate pediatrics first aid only 37(54.4%) had positive effect on general approach for appropriate pediatrics first aid. Of all study participants 75% had no effect on general approach for appropriate pediatrics first aid. Low positive effect of the KAP of teachers‟ affects successful implementation of the general approach for appropriate pediatrics first aid in schools and increase morbidity, mortality and disability of primary school children. The role of schoolstaffs is crucial in scaling up general approach for appropriate pediatrics first aid in schools to decrease mortality and disability of primary school children.

Recommendations

- Ministry of health and education should do advocacy activities; allocate budget and other resources to the city that could support schools to implement appropriate pediatrics first aid.
- Sub cities should Increase awareness of the school teachers and school teachers‟ sensitization about the benefits of appropriate pediatrics first aid program is essential for justifying the effect of socio-economic and cultural factors.
- Health providers should encourage, support and give training on general approach for appropriate pediatrics first aid in schools to implement in practice.

Strength and limitation of the study

Strength

- The strength of this study was that, being conducted at the primary school teachers directly which could reflect the actual experience of the teachers during the study period which is better than information obtained from school directors and Sub city education offices.

Reference

1. Moshiro, Heuch, Åstrøm, Setel, Hemed&Kvåle 2005
2. Krug EG, Sharma GK, Lozano R: The global burden of injuries.*Am J Public Health* 2000, **90:**523-526. PubMed Abstract | PubMed Central Full Text
3. Bruce B, McGrath P. Group interventions for the prevention of injuries in young children: a systematic review. Inj Prev. 2005;11:143–147. doi: 10.1136/ip.2004.007971. [PMC free article] [PubMed] [Cross Ref]
4. Olympia RP, Brady J, Kapoor S, Mahmood Q, Way E, Avner JR. Compliance of child care centers in Pennsylvania with national health and safety performance standards for emergency and disaster preparedness. PediatrEmerg Care. 2010;26:239–247. doi: 10.1097/PEC.0b013e3181d6d9c8. [PubMed] [Cross Ref]
5. Guyer B, Ma S, Grason H, Frick KD, Perry DF, Sharkey A, McIntosh J: Early childhood health promotion and its life course health consequences.

   AcadPediatr 2009, **9:**142-149. PubMed Abstract | Publisher Full Text
6. Eichelberger MR, Gotschall CS, Feely HB, Harstad P, Bowman LM: Parental attitudes and knowledge of child safety. A national survey**.**
7. Thacker SB, Addiss DG, Goodman RA, Holloway BR, Spencer HC: Infectious diseases and injuries in child day care. Opportunities for healthier children. JAMA 1992, 268:1720–1726.
8. Danseco ER, Miller TR, Spicer RS: Incidence and costs of 1987–1994 childhood injuries: demographic breakdowns**.***Pediatrics* 2000, **105:**E27. PubMed Abstract | Publisher Full Text
9. Grabowski JG, Simmons JD, Eichelberger MR: Preventing unintentional pediatric injuries at evacuation centers.
10. Engeland A, Roysamb E, Smedslund G, Sogaard AJ: Effects of first-aid training in junior high schools.
11. Bollig G, Wahl HA, Svendsen MV: Primary school children are able to perform basic life-saving first aid measures
12. Li F, Jiang F, Jin X, Qiu Y, Shen X: Pediatric first aid knowledge and attitudes among staff in the preschools of Shanghai, China**.**
13. (UNICEF 2001).
14. Statistics South Africa 2006,& South African Cities Network 2011.
15. Washington (DC): World Bank; 1994. World Bank. Better health in Africa: Experiences and lessons learned.

16. Bickler SW, Rode H. Surgical services for children in developing countries. Bull World Health Organ. 2002;80:829–35. [PMC free article] [PubMed
17. Cywes S, Kibel SM, Bass DH, Rode H, Miller AJ, De Wet J. Pediatric trauma care. S Afr Med J. 1990;78:413–8. [PubMed]
18. Rivara FP. Epidemiology of childhood injury I.Review of current research and presentation of a conceptual framework. Am J Dis Child. 1982;136:399–405. [PubMed]
19. Child and adolescent injury prevention: a global call to action. Geneva, World Health Organization and UNICEF, 2005. http://whqlibdoc.who.int/publications/2005/9241593415_eng.pdf. [Accessed: September 17, 2008].
20. Yang GH, Zhou MG, Huang ZJ, Wang LJ: Study on the trend and disease burden of injury deathes in Chinese population, 1991–2000. Chin J Epidemiol 2004, 25:193–198.Carter YH, Bannon MJ, Jones PW: The role of the teacher in child accident prevention. J Public Health Med 1994, 16:23–28.
21. Sleet, DA, RA Schieber, A Dellinger. Childhood injuries. The Enclyclopedia of Public Health, Vol I (Ed., L Breslow). New York: Macmillan Reference, USA 2002, pp 184-187.
22. Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System [online]. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. www.cdc.gov/ncipc/wisqars. [Accessed Aug 2008].
23. Bernard SJ, Paulozzi LJ, Wallace DL. Fatal injuries among children by race and ethnicity--United States, 1999-2002. MMWR SurveillSumm 2007; 18;56(5):1
24. Schnitzer PG. Prevention of unintentional childhood injuries. Am Fam Physician 2006; 74(11):1864-9.
25. Danesco ER, Miller TR, Spicer RS. Incidence and costs of 1987-1994 childhood injuries: demographic breakdowns. Pediatrics 2000;105(2):E27.3.
26. World Health Organization. World Report on child injury prevention. December 2008: http://www.who.int/violence_injury_prevention/child/injury/world_report/report/en/index.html (Accessed May 25, 2012).
27. World Health Organization.www.who.int/violence_injury_prevention/en/

28. Canadian Council of Motor Transport Administrators. National occupant restraint program (NORP) 2010: http://www.ccmta.ca/english/committees/rsrp/norp/norp.cfm (Accessed January 2012).
29. Boland et al 2005; Du et al 2007; Hwang et al 1997; Kmet& Macarthur 2006 (4 YENEBERE
30. Steinberg, L.; Dahl, R.; Keating, D.; Kupfer, D. J.; Masten, A. S.; Pine, D. S. 2006. The Study of Developmental Psychopathology in Adolescence: Integrating Affective Neuroscience with the Study of Context. *Handbook of Developmental Psychopathology*. D. Cicchetti, (ed.). John Wiley & Sons, New York.
31. Scott K. A lost decade: Income equality and the health of Canadians. Paper presented at the Social Determinants of Health Across the Life-Span Conference. Toronto, November 2002. http://www.ccsd.ca/pubs/2002/ks-healthconf/index_files/frame.htm (Accessed May 28, 2012).
32. Brownell MD, Derksen SA, Jutte DP, Roos NP, Ekuma O, Yallop L. Socio-economic inequities in children's injury rates: Has the gradient changed over time? Can J Public Health 2010;101(Suppl 3):S28-31.
33. Krug EG, Sharma GK, Lozano R. Th e global burden of injuries. *American Journal of Public Health*, 2000, 90:523– 526.
34. CelisA et al. Family characteristics and pedestrian injury risk in Mexican children. *Injury Prevention*, 2003, 9:58–61
35. Gagliardi M, Neighbors M, Spears C, Byrd S, Snarr J: Emergencies in the school setting: are public school teachers adequately trained to respond? Prehosp Disaster Med 1994, 9:222–225.
36. Baser M, Coban S, Tasci S, Sungur G, Bayat M: Evaluating first-aid knowledge and attitudes of a sample of Turkish primary school teachers.JEmergNurs 2007, 33:428–432
37. Abernethy L, MacAuley D, McNally O, McCann S: Immediate care of school sport injury. InjPrev 2003, 9:270–273.
38. Brown BR Jr, Butterfield SA: Coaches. A missing link in the health care system. Am J Dis Child 1992, 146:211–217.

39. Federal Democratic Republic of Ethiopia Population census commission. Summary and statistical report of the population and housing census: Population size by Age and Sex. Addis Ababa : UNFPA;2007.
40. http://www.google.com.et/url?url=http://www.biomedcentral.com/1471 2431/12/121&rct=j&q=&esrc=s&sa=U&ei=FyqhVK_VJIv7UICBg6AL&ved=0CBMQFjA A&usg=AFQjCNEWGdkl64brrEb9MJHLTW_rzF-lYg
41. Abdul G, Sathirakorn P, Robert S. Chapman, Alessio P, Sheh M. Provision and Utilization of Routine Antenatal Care in Rural Baluchistan Province, Pakistan: a Survey of Knowledge, Attitudes, and Practices of Pregnant Women. *Journal of Applied Medical Sciences*2012; 1: 93-116 .
42. American Academy of Pediatrics: Pediatric Fist Aid for caregivers &teachers ,Revised 1st edn.sudbury: Jones & Bartlett publisher,2007

Annex II. Questionnaire

Participant information sheet and consent form

ADDIA-ABEBA University of Medical Science, Department of Emergency medicine .

My name is _____and I am one of the data collectors from AA university postgraduate research team. We are here to study KAP of primary school teachers regarding pediatric first aid service in Addis Ababa Ethiopia. You are selected to participate in this study. The information you provide will help to plan on prevention and management of pediatric emergencies services in schools . The questions takes an average of 40 minutes to complete. Whatever information you provide will be kept strictly confidential .Your name will not be written on this form, and will never be used in connection with any of the information you tell me. I wish you to provide me your honest answer to the questions you want to respond as this would help us to come up with genuine conclusions and recommendations that would potentially help Ministry of education of Ethiopia, ADDIS-ABEBA educational bureau and schools improve these services towards pediatric first aid. I am happy to answer any questions you may have; do you have questions?

Place of data collection:

Sub city_____ Woreda _____

Date of data collection _____

Name of the data collector _____ Signature_____

I certify that I have filled this questionnaire in accordance with the training I was given and instructions stated in it. I confirm that the information in it is correct.

Name of Supervisor _____ Signature _____

Date Checked _____

If you need any further information about the study, please contact the following person.

Altayehu- MengeshaMobile Phone +251913297429

Questioner

Instruction: Choose and Circle the answer that the respondent‟s answer under each questions.

SOCIO DEMOGRAPHIC CHARACTERISTICS

Socio-Demographic characteristics
Instruction: - please provide short answer to the socio-demographic questions

Sr.No	Items	Response
101	**Age**	A. 25-30yr B. 30-49 C. >50
102	**Educational status**	A. TTI certificate B. Diploma C. Degree D .Master E. Others
103	**Marital status**	**1.**married 2.single 3. widowed 4.. divorced
104	Year of experience	a.1-5 b.6-10 c.11-15 d.>16
105	**Religion**	**1. Orthodox** **2. Muslim** **3. Catholic** **4. Protestant** **5. Other (Specify) _____**
106	**Ethnicity**	**1. Oromo** **2. Amhara** **3.Tigre** **4.Guragae** **5. Somali** **6. Others (specify)_____**
107	School type	**1.**governmental 2. Private 3 .others

108	What is your total monthly Income?	_____ Eth. Birr

Knowledge of respondents towards pediatrics first aid

Instruction: for the statements assessing knowledge and awareness on first aid, please choose one correct answer.

Sr. No	Items	Response	
200	What does pediatric first aid mean?	a. Cardiopulmonary resuscitation (CPR b. Immediate medical care given to a child who is injured or suddenly becomes sick c. Required only if a child"s parent or guardian cannot arrive quickly d. Provided only by physicians, nurses, and paramedics	
201	When an emergency occurred in a primary school, what you should do first**:**	a. Survey the scene first in the accidents b. Call EMS c. Call the parent or guardian d. Provide first aid immediately	
202	Which statements about first aid treatment is correct?	a. You should rush into a burning building b. Find out who is involved c. You should care for crying child not the quiet child d. If the scene is not safe, for the child who may have fallen, you should move the child to a safe place by using the cradle carry quickly	
203	A child fell and cut her knee on a sharp rock. To control the bleeding, you should:	a. Place firm, direct pressure on the wound b. Put a cold pack on the wound directly c. Flushing the injured area with water d. Cover the wound with an antibiotic ointment	

204	A child's nose is bleeding. To control the nosebleed, you should:	a. Have the child tilt her head back b. Have the child lie down and place a cold pack on her nose c. Ask the child to blow her nose until the bleeding stops d. Pinch the soft parts of her nose and press against the bones of her face	
205	To reduce the risk of infection, clean small wounds by:	a. Rubbing the dirt out with a soapy wash cloth b. Pouring alcohol on the injured area c. Flushing the injured area with running water d. Wiping the wound with a commercially packaged antiseptic w	
206	A child twisted his ankle playing ball. To help reduce swelling, you should:	a. Put ice directly on the child's ankle b. Place warm compresses on the ankle c. Apply cold, wrap, and elevate the injured ankle d. Place the injured part in a splint	
207	For splinters or other puncture wounds:	a. Leave and splinter in place for parents to remove b. Soak the wound in clean water c. Apply an antiseptic to the wound d. Use tweezers to remove them	
208	First aid care for fainting includes:	a. Lay the child on his or her back, loosen any tight clothing and raise his legs b. Lay the child flat on the floor c. Lay the child down and using pillows to make her head higher than her feet d. Have the child blow through a straw	

Sr.	Items	Response	

No		
210	To care for an obviously broken bone:	a. Cover the injury with a hot pack and fix the injured area b. Attempt to straighten any deformed area c. Have the child assume a comfortable position and call EMS d. Move the broken bone into the child's body
211	A child swallowed something that might be poisonous and is responsive. The first action you should take is:	a. Give the child emetic b. Remove traces of the poisonous from the child's mouth first and then call EMS c. Call the parent or guardian d. Give the child plenty of fluid
212	The first step in the first aid care for a child who has inhaled a poisonous substance is:	a. Call the poison control center for advice b. Identify the poison c. Remove the child from the toxic area first d. Have the child lie down
		e. Call the poison control center for advice f. Identify the poison g. Remove the child from the toxic area first h. Have the child lie down

You can give more than two answers for the following questions:

213. Which is your prioritized for first aid?

a. breathing maintenance b. stopping bleeding c. Splinting fractures d. all

e. a &b f. a &c g. b &c

214. Which are sign of air way problem

a. Fast breathing b. Slow breathing c. Strider d. All e. a &b f. a &c g. b &c

215. Which procedure are used for to open air way?

a. Jaw trust b. head tilt and chin left c. I don‟t know d. a &b

216. Which are used for to give artificial breath?

a. Mouth to mouth b. Mouth to nose c. I don‟t know

d. Other specify …… e. a&b

217. Which are important to stop sever on-going bleeding?

a. Apply tourniquet b. Apply pressure and dress

c .lift the injured part above the body level d. apply alcohol e. a &b

g. b &c h. a &c

218. Management of fracture be

a. apply splint b. splint should not be use c. I don‟t know

219. which pediatric emergency is your priority ?

a. unconscious child b. wounded child c. a child presented with fracture d. I don‟t know

Attitude questions

300.Do you believe that it is necessary to provide first aid immediately for a child presented with any emergency situation in school?

a. Yes b. No c. uncertain

301.Do you have willingness to provide first aid for a child presented with any emergency situation in school?

a. Yes b. No c. Uncertain

302.If your answer for question number 2 is „No", what is your reason?

a)Could apply wrong treatment and cause harm

b)Fear of infection

c)I don't know how to give first aid

d)Fear of legal concern

e. Other specify……

303. If a victim has neck injury, do you think that moving the neck of victim aggravates his problem?

a) Yes b) no c) uncertain

304. Do you believe that your school teachers provide appropriate first aid for pediatric emergency in the school?

a) Yes b) no c) uncertain

Practices questions

400. Have you ever attended first aid for pediatric emergency in school?

a. Yes b. No

401. If answer for question no 1 is „yes", did you gave first aid?

a. Yes b. No

402. If answer for question no.2 is "yes", what was your first action?

a. Call to 939 or ambulance b. Transfer to near hospital

c. Give first aid d. Transfer to police station

e. Other specify…….

403. Did you have a trend victim with air way problem?

a. Yes b. No

404. If question no 4 is „yes", what did you do? ……
……

405. Did you have a trend victim with bleeds heavily in your school?

a. Yes b. No

406. If question no 6 is „yes", what did you do? ……
……..……

407. Did you have a trend victim with c- spine injury in your school?

a. Yes. b. No

408. If question no 8 is „yes", what did you do? ……
……

Questions to assess schools' capacity to run pediatric first aid in the school.

500. Who is responsible to run first aid in your school?

A. School director
B. Teachers
C. Health professional (nurse, health officer----etc
D. All
E. No one is responsible

501. In your school , do you have first aid room and kit ?

a. Yes B. no

502. Are there any specific hazards or risks on the school site on children accident and injury?

A. yes
B. No

503.Are there any Emergency medication in your school?

A. Yes
B. No

600. ITEMS FOR THE OUTCOME VARIABLE (RESPONSES ASSESSING THE GENERAL GUIEDLINE FOR APPROPRIATE PEDIATRICS FIRST AID

601. The 4Cs of Pediatric First Aid are:
a. Call, Care, Complete, Collaborate
b. Check, Call, Care, Complete
c. Call, Check, Care, Complete
d. Care, Call, Check, Complete
601. When conducting the “Check” step during the 4Cs of Pediatric First Aid, you should:
a. Make sure the surroundings are safe
b. Find out what happened and who was involved
c. Perform the Hands-off ABCs and Hands-on ABCDEs
d. All of the above
602. The main purpose of the Hands-off ABCs is to:
a. Check for child abuse
b. Determine whether the child has a fever
c. Decide if you need to call EMS
d. Gain information for the incident report
603. When evaluating “A” (Appearance), you are looking to see whether the child:
a. Has brushed his teeth and combed his hair
b. Is alert and responsive
c. Is present that day
d. Is angry or grumpy
604. When evaluating “C” (Circulation), you are looking for:
a. A pulse
b. Pale or bluish skin color
c. A fever
d. Normal movement

606. A written emergency and disaster plan should include:
a. Procedures for communicating with parents or guardians
b. Staff responsibilities and tasks during an emergency or disaster
c. How to account for children in the facility‟s care
d. All of the above