



Saint Paul's Hospital Millennium Medical College
Department of Emergency and Critical Care Medicine

**Knowledge, attitude, and practice of first aid among traffic police officers in
Addis Ababa, Ethiopia**

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Addis Ababa, Ethiopia

October, 2022



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Addis Ababa, Ethiopia**

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**Thesis Submitted to The Department of Emergency and Critical Care
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October, 2022

Declaration

I hear by declaring that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

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Signature:

Place: Addis Ababa

Submission date:

This thesis is to be submitted after approval by my advisers

Abstract

Introduction: An overwhelming proportion of road traffic injuries and deaths occur in low and middle-income countries, including Ethiopia, in prehospital environments. Such victims arrive at the treatment centers too late, after the golden hour, or develop irreversible complications. There is lack of evidence regarding knowledge, attitude, and practice of first aid among traffic police officers in Ethiopia

Objective: To assess knowledge, attitude, and practice of first aid among traffic police personnel in Addis Ababa, Ethiopia.

Methods: A cross-sectional study was conducted using a pretested, structured, self-administered questionnaire on traffic police officers in Addis Ababa, Ethiopia. Data was entered using Excel 2016 and analyzed using SPSS version 26. Descriptive analysis was used to summarize baseline characteristics and determine the level of first aid related aid-related attitude and practice. Bivariable and multivariable regression analyses were employed to determine factors associated with the outcome variable. Odds ratio (OR) with a 95% confidence interval (CI) was computed, and a p-value <0.05 was considered significant.

Results: A total of two hundred and seventy-eight traffic police officers were included. Males predominated with a male-to-female sex ratio of 2.4:1, and the median age of the participants was 32 years. Of all respondents, 162 (58.3%;95% CI: 52.4–64.1%) had good first aid related knowledge, 167 (60.1%;95%CI: 54.3–65.9%) had positive attitude while 143 (51.4%; 95% CI: 45.5–57.4%) showed safe first aid practice. Multiple logistic regression analysis revealed that having a history of witnessing a victim in the preceding one year [AOR (95%CI=1.86 (1.06,3.27)] and a good level of knowledge about first aid [AOR=3.14(95%CI: 1.90,5.19)] were significantly associated with self-reported first aid practice among the traffic officers. Multiple logistic regression analysis that those who have previous first aid training, good first aid related knowledge, and work experience greater than 5 years significantly associated with a positive(favorable) attitude towards first aid among traffic polices.

Conclusion: Despite a relatively better attitude, the level of first-related knowledge and practice in the study population is low. Therefore, concerned bodies should work jointly to enhance officers' knowledge and practice level in a context-friendly manner.

Keywords: First aid, Knowledge, Attitude and Practice, Traffic police officers, Factors, Ethiopia

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List of Abbreviations and Acronyms

AARTMA	Addis Ababa Road Traffic Management Agency
AOR	Adjusted odds ratio
COR	Crude odds ratio
CI	Confidence interval
EMCC	Emergency Medicine and Critical Care
FA	Firs Aid
LMICs	Low- and Middle-Income Countries
PTCS	Prehospital Trauma Care System
RTA	Road Traffic Accident
SPSS	Statistical Package for Social Sciences
TPO	Traffic Police Officer
WHO	World Health Organization

1. Introduction

1.1. Background

First aid is the immediate assistance provided to an ill or injured person until professional help arrives. It is concerned not only with physical illness or injury but also with other initial care, including psychosocial support for people who are emotionally distressed due to experiencing or witnessing a traumatic event. First aid interventions seek to preserve life, alleviate suffering, prevent further illness or injury and promote recovery. First aid can be initiated by anyone in any situation and includes self-care. The provision of first aid, at any level of training, include recognizing, assessing, and prioritizing the need for first aid; providing care by using appropriate competencies; and recognizing limitations and seeking additional treatment when needed, such as activating emergency medical services or seeking other medical assistance (1).

Road traffic injuries are the eighth leading cause of death in the world, resulting in 1.35 million deaths and between 20 and 50 million nonfatal injuries each year, and are the leading cause of death among young people aged 5–29 years. They are expected to become the fifth leading cause of death globally by 2030, and 93% of the world's fatalities on the roads occur in low- and middle-income countries, even though these countries have approximately 60% of the world's vehicles (2). Death's dues to RTA were three times higher in low-income countries than high income countries. Among the nations of Africa, Nigeria has the greatest proportion of traffic deaths, 25%, followed by the Democratic Republic of Congo, Ethiopia, Kenya, South Africa, Tanzania, and Uganda. Most of these deaths occur prior to hospitalization. The availability of a prehospital trauma care system (PTCS) is important if the death and disability associated with RTIs are to be reduced (2). A systematic review and meta-analysis of trauma systems in low- and middle-income countries (LMICs) found a 25% reduction in mortality risk from trauma in all areas with a PTCS (3).

Deaths and injuries from road crashes rival those of HIV/AIDS, malaria and TB, killing over 3,000 persons every day around the world. Road traffic injuries cause considerable economic losses to individuals, their families, and to nations as a whole (4).

The Ethiopian Federal Police Commission's report revealed that 2,161 road traffic deaths were registered nationwide in 2007 and this figure more than doubled in 2018, increasing to 4,597. Annual trends of RTA fatalities are on the rise. The impact of crashes that occurred in the country between 2016 and 2018 is as follows: 14,194 fatalities, 22,647 serious injuries and 21,159 minor injuries. The trends imply that more Ethiopian lives are lost due to road traffic injuries than to other causes. Citizens die on the roads at an average of 4,732 persons per year; or every day, approximately 13 Ethiopians do not return home due to being victims of road traffic crashes. The distribution of road traffic crashes in the country is uneven, with road fatalities and injuries concentrated on roads in the central part of the country (5).

Traffic police officers are the frontline persons to encounter and respond for an RTA, so it is important that they are aware of the first aid measures provided for the injured or sick persons. Traffic police is the part and parcel of the towns and cities and they play a key role in minimizing accidents by controlling the movement of vehicles and people on the road. Upon witnessing an accident, a traffic police officer must be able to provide the necessary first aid and take the victim to the nearest hospital or call an ambulance. Traffic police take first aid courses in their stay at police training colleges (6).

An overwhelming proportion of road traffic deaths and injuries in low and middle-income countries occurs in prehospital environments. Lay responders such as traffic police officers play an important role in providing initial assistance to victims of road crashes, either alone or in collaboration with others.

1.2. Statement of the Problem

Pre-hospital care is one of the most critical lifesaving services given at the scene and during patient transportation. The outcome of patients at facility-based treatment is highly dependent on the quality of pre-hospital care. In developing countries like Ethiopia, where prehospital Emergency Medical Service is not well developed and limited to specific urban areas, WHO recommends training lay first responders like traffic polices and others to provide first aid (7).

According to WHO, most trauma-related deaths occur in the pre-hospital setting. Evidence shows pre-hospital care alone contributes a 25 per cent reduction in trauma-related mortality (3). Delayed arrival of patients “after the golden hour” or development of complications by patients are daily experiences in Ethiopia (5). In Addis Ababa only 20.3 per cent of patients arrive at hospitals by ambulance services (8).

Traffic police officers are mainly responsible for enforcing traffic laws and ensuring road safety. They are also the first to respond for road traffic related accidents, by doing so they need to have the necessary first aid knowledge and skill to provide first aid timely for those in need of it. As most trauma related mortalities occur in prehospital setup, timely provision of first aid is of paramount value in reducing the severity of injury and mortality. Lack of first aid knowledge will limit the provision of care. Therefore, this study was designed to assess traffic police officers’ knowledge, attitude and practice with regard to first aid as well as identifying factors affecting the care.

1.3. Rationale of the Study

Traffic polices are the first respondents to road traffic accidents and they can be trained to provide a first aid on trauma scene. They can be trained as a lay first line respondents in first aid providing first aid to those in need whether it is in trauma or non-trauma scenario. Most of the time, traffic police spend their time on road side monitoring the traffic flow and enforcing traffic law and this will provide a good opportunity. Traffic police have more exposure to RTAs and therefore represent an important group of bystanders that, if skilled, may play an important role in curbing the high burden of fatalities, loss of property, and associated traffic injuries.

Integrated prehospital emergency medical system is not well developed in all region of Ethiopia including the capital city, Addis Ababa. Moreover, limited study had been conducted in Ethiopia before to assess traffic polices first aid knowledge and practice, and determine their role in providing first aid care. This study will provide a momentous input in assessing the overall first aid practice among traffic polices and provides away to improve it. It will identify difficulties in providing first aid and provide direction to improve it.

2. Literature Review

2.1 Background

A study conducted on trends and barriers of emergency medical service use in Addis Ababa Ethiopia on March 2017, ambulances was utilized by 20.3 % of patients and taxi or private car was the major (74.2%) means of patient transportation. The most common site of scene was patient's residential (52.8%), followed by road-side (37.1%), and a larger proportion of trauma patients were extricated and moved from the site of trauma by a by stander (58%), followed by police (24%) (8).

A study conducted on post road traffic crash emergency care in Aligarh district of Uttar Pradesh, India, result showed that lay person was the first to respond on the accident scene 448 (67.36%) and majority of patients reach health facility by private car. Majority of first respondents provided some sort of care, but it lacks quality. Traffic police were among the first respondents. There was significant delay in reaching health facility and only 155 (23.30%) of victims get ambulance service. So, training lay persons including traffic police on first aid is off paramount value (9).

As to study conducted on factors impacting mortality in prehospital period after road traffic accident in Urban India, lack of prehospital emergency medical service and delayed transfer of patients to health facility was associated with increased mortality (10).

According to a study done on prehospital trauma care has showed decreased mortality, especially for patients with longer transfer time to health facility when trained lay responders are involved in prehospital care (11).

2.2.1 Knowledge about First aid

In 2014, a cross-sectional survey was conducted to assess knowledge, experience, and practice of Royal Thai traffic police of Thailand in responding to road traffic accident (RTI), and the association between respondent characteristics and their practice of responding to RTI. Among, the 123 traffic policemen included in the study, a majority of traffic police reported dealing with RTI cases in the previous year (76%), having prior experience of post-crash rescuing (76%) and responding within 10 minutes of being informed about accidents (78%). There were 65 respondents (56%), who had received training on handling RTI cases and they were more likely

to respond within 10 minutes to RTI than those who had not received such training (85% versus 69%). The study found that 38.2% of the policemen had poor knowledge while the rest (61.8%) had either fair or good knowledge (12).

A study was conducted in 2021 among taxi drivers and conductors in the New Taxi Park, Kampala City, Uganda showed that, 86.7% were aware of where first aid should be initiated, and 84.1% know that it should be initiated by bystanders on the scene, 30.1% were not able to identify any sign of airway compromise and 88.7 % of participant s doesn't know maneuvers that can be used to open blocked airways. Regarding first aid methods of arresting bleeding, application of tourniquets (49.9%) and application of pressure and dressing (49.9%), and application of a splint was identified by the majority (65.2%) as the first aid for the broken limb. The level of first aid knowledge was higher in those who have witnessed more accidents, those who are married, higher level of education, and those who had a first aid kit (13).

A study conducted in Hubballi-Dharwad, India from May–June 2019, 60.2% had adequate knowledge about first aid, 98.6% knows the meaning of first aid, and 70% knows how cardiopulmonary resuscitation was done on adults (6).

A study conducted in Kollupitiya, Bambalapitiya, and Kirulapona police areas in Sri Lanka, 64.6% of study participants had good knowledge on identifying signs of air way problem, less than 50% had good knowledge about the management of an unresponsive patient who is not breathing and management of a patient who is breathing yet unresponsive and less than 50% of the subjects had good knowledge regarding management of a patient with bleeding (14).

According to a study conducted in Addis Ababa, Ethiopia in March 2015 among taxi drivers, 395 (50.3%) had adequate first aid knowledge, 86% doesn't know the first step to be taken on accident scene, 72.2% were not able to identify the best first aid management of mechanically obstructed airway and 37% of the them did not know how to stop bleeding. 321(40%) of the respondents knew the appropriate and safest way to stabilize fracture and more than 456(58%) correctly identified the best position for transporting an unconscious patient (15).

According to a study in conducted in Ndola, Zambia, 170(77.3%) knew what first aid was and 137 (62.3%) knew the suitable way of moving an unconscious victim. And also 179(81.4%) and 116(52.7%) did not know the best and safest way to stop bleeding and appropriate treatment for a

suspected collarbone fracture respectively. In this study 38(17.3%) had prior training in life saving skills. Traffic Police Officers scored the highest knowledge score when compared to minibus drivers and conductors, they were having some form of life saving skill training (16).

A study done in Tumkur, Karnataka state, India on practice and perception of first aid among lay first responders', rushing to the victim (42.5%) and calling 108 (emergency number) (42%) was perceived as the first step to be taken at the scene of emergency and only 13.8% make sure the scene is safe for them and others. Nearly 55% felt that assessing consciousness of the victim was the first thing in victim evaluation and 25.5% check airway and breathing. Tying the cloth or bandage (76%) at the bleeding site and tied down on their back (68.5%) were perceived as the best way to control bleeding and to transport the unconscious respectively (17).

2.2.2 Attitude towards First aid

A study was conducted in 2021 among taxi drivers and conductors in the New Taxi Park, Kampala City, Uganda, majority of participants had a good attitude towards first aid 97.1% of them strongly agreed that first aid was an important aspect, 98.6% were willing to undergo training to acquire first aid skills and 85.8% were willing to provide first aid to the victims (13).

As to the study conducted in Hubballi-Dharwad, India, 53.7 % of participants have positive attitude towards first aid and 98% had interest to take first aid training and only 58% has previous first aid training (6).

In another study done in Addis Ababa, it was observed that 631 (80.4%) of respondents an appropriate attitude towards first aid, 777 (99%) thought that first aid was necessary. More than 93% were willing to take first aid training and 732 (80.6%) participants were willing to provide first aid to road traffic accident casualties. Potential obstacles preventing them from providing were concern of inadequate first aid knowledge in 362(46.1%), fear of the scene of the accident in 174(22.2%), fear of doing more harm to the victim 161(20.5%) and fear of complications related to legal issues 88(11.2%) (15).

In the study done in Ndola, Zambia, 198(90.0%) of the respondents had a positive attitude towards first aid, and 88.2% were willing to train in first aid (16).

2.2.3 Practice regarding First aid

As of the, study was conducted in 2021 among taxi drivers and conductors in the New Taxi Park, Kampala City, Uganda, 37.1% of the participants had ever used a first aid kit, and 52.5% had attended an accident victim and 8.1% did not know who to contact first for emergency rescue in case of need (13).

As to the study conducted in Hubballi-Dharwad, India, 88.4% had witnessed RTA cases and 18.5% of them provided first aid while 64% called ambulance. 89% had attended RTA. This study showed that, 61.1% had good practices and 87.5% had good practice in maintaining of airway of unconscious patient (6).

In comparison, 86.7% has a witnessed road traffic accident within the past one year and 74.8% has attended to a road traffic victim in a study conducted in Kollupitiya, Bambalapitiya, and Kirulapona police areas in Sri Lanka, only 34.8% had good practice towards pre- hospital care after RTA. The major reasons for not attending to a RTA victim was lack of confidence due to inadequate knowledge (59.7%) and legal complications that follow later were 53.6% (14).

According to the study in Addis Ababa 467(59.5%) of participants had witnessed a traffic accident in the past one year and 207(44.3%) had given first aid to victims immediately, and bleeding control was the major kind of first aid provided 129(55%). The main challenges faced while providing first aid was, 98 (74.3%) reported lack of first aid kits, 30(22.7%) reported overcrowding, and 4(3%) reported uncooperative victims (15).

According survey was conducted in Dar es Salaam, Tanzania between July–September 2017, more than two thirds of the traffic police officers (n = 241; 70.9%) reported wearing gloves during the provision of care, only 4.7% (n=16) officers reported applying the chin lift/head tilt maneuver for compromised airway, 81.8% (n=278) reported applying direct pressure to the bleeding area with a cloth or bandage, nearly half of the officers (n = 158; 46.8%) reported applying a splint to fractured limb. Regarding the attitude towards provision of post-crash care 99.1% either strongly agreed or agreed to provide care (18).

In a study in conducted in Ndola, Zambia, 169 (77%) of the respondents had witnessed an RTA in the previous one year and 106(63%) of them provided some form of help to the victims of the RTA (16).

As to the study done in Tumkur, Karnataka state, India, 60% of participants had witnessed more than two emergencies in last six months and 55% had provided some sort of help and calling an ambulance was the most common type of help (42%) and 68 % of participants had knowledge on correct position of victim transportation (17).

3. Objective

3.1 General objective

- ✓ To assess the knowledge, attitude and practice of first aid among traffic police in Addis Ababa, Ethiopia from June 1st to July 31st, 2022

3.2 Specific objectives

- ✓ To assess first aid knowledge among traffic police in Addis Ababa, Ethiopia from June 1st to July 31st, 2022
- ✓ To determine traffic police attitude towards providing first aid in Addis Ababa, Ethiopia from June 1st to July 31st, 2022
- ✓ To assess the level of first aid practice among traffic police in Addis Ababa, Ethiopia from June 1st to July 31st, 2022
- ✓ To assess factors affecting the implementation of first aid among traffic police in Addis Ababa, Ethiopia from June 1st to July 31st, 2022
- ✓ To assess factors affecting the attitude of first aid among traffic police in Addis Ababa, Ethiopia from June 1st to July 31st, 2022

4. Methods

4.1. Study Setting

The study was conducted in Addis Ababa, Ethiopia. Addis Ababa is the capital city of Ethiopia. It is also the largest city in the country by population, with a total population of 3,384,569 according to the 2007 census. It was the main business and commercial center in the country. The city is divided into eleven sub cities. The 11 sub cities are: Addis-Ketema, Akaky-Kaliti, Arada, Bole, Gullele, Kirkos, Kolfe Keraniyo, Lideta, Nifas Silk-Lafto, Yeka and Lemikura sub cities. The traffic police are under Addis Ababa Police Commission and they are distributed in 11 cities as divisions. The number of traffic polices in each division varies according to the size of sub cities (Addis Ababa Road Traffic Management Agency).

4.2. Study Period

The study was conducted from June 1st to July 31st, 2022 G.C.

4.3. Study Design

A descriptive cross-sectional study was conducted using a pretested structured questionnaire to assess the knowledge, attitude, and practice of traffic police personnel in regard to the provision of first aid.

4.4. Study Population

4.4.1. Source Population

The source population included all the traffic police personnel working in Addis Ababa, under Addis Ababa Road Traffic Management Agency (AARTMA).

4.4.2. Sample Population

All traffic police personnel working in five of traffic police divisions (Addis-Ketema, Gullele, Arada, Kolfe-Keranio and Nifas Silk-Lafto sub cities).

4.5. Eligibility criteria

4.5.1. Inclusion criteria

- All traffic police personnel working in Addis Ababa under Addis Ababa Road Traffic Management Agency

4.5.2. Exclusion criteria

- Those traffic police officers who are not available during the study period due to various reasons such as sick leaves or annual leaves.
- Those who are not permanent employees of and those who are not under Addis Ababa Road Traffic Management Agency.

4.6 Sample Size Determination

The sample size for this study is calculated using a single population proportion formula. Assuming the population of traffic police officers (TPO) with inadequate knowledge to be 50% as the prevalence of the problem in the study area and with the intention of maximizing the sample size:

The following assumptions were considered in calculating the sample size. Since the prevalence of the problem in the study area is not known, P value is taken as 50% (0.5) and 95% confidence interval was used, with 5% margin of error tolerated, the sample size was determined by using single population proportion formula.

$$n = \frac{z^2 p(1-p)}{e^2}$$

n = the required sample size

p = the proportion of TPO with inadequate knowledge=0.5

$Z_{\alpha/2}$ = the critical value at 95% confidence level = 1.96

e = precision (margin of error) = 5%

Accordingly,

$$n = \frac{(1.96)^2 * 0.5(1 - 0.5)}{0.05^2}$$

$$n = \frac{(1.96)^2 * 0.5(0.5)}{0.05^2}$$

$$n = 384$$

Since the source population is 1000, which is <10,000, population correction formula was used to determine adjusted minimum sample size.

$$n_f = \frac{n}{1+n/N}$$

Where,

n= initial sample size (384)

N= total number of traffic police officers during the study period under the city traffic police administration (1000)

n_f= minimum final sample size

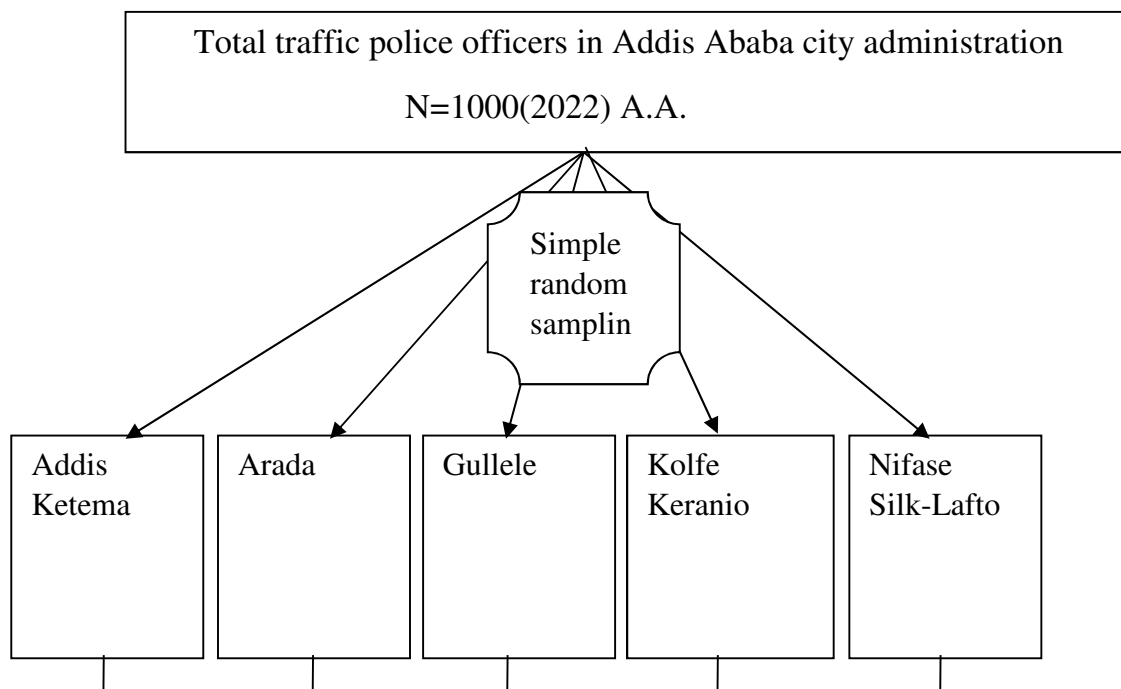
$$\text{Thus } n_f = \frac{n}{1+n/N} = 384/1+384/1000 \approx 277$$

By adding 10% drop out, the final sample size was=305

4.7 Sampling procedure

As the study population settlement was far apart and difficult for data collection, five sub cities were selected by convenient sampling method.

The traffic police officers who were available and willing to participate were informed about the research during office hours. In order to list all sample traffic police officers, the data collectors take the list of traffic police officers from the city traffic police administration office. And data were collected after informed consent was taken.



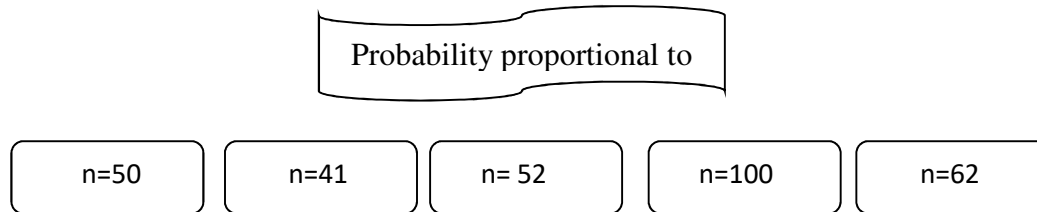


Figure 1. Schematic representations of sampling procedure

List of the traffic police officer was taken from each sub city traffic police administration office database and convenient sampling method was used to select the sample during data collection.

4.8 Data Collection tool and procedure

Structured questionnaires in English version was adopted from different literature developed for similar purposes by different authors (6,16), it was then customized to suit the local condition. The tool consisted of four sections, the first section was sociodemographic data and three sections on knowledge, attitude, and practice regarding first aid. The English version of the questionnaire was translated to Amharic and Oromiffa version for their better understanding and necessary data were collected by self-administered questionnaires. Six nurses were recruited for data collection from the traffic police officers at their most convenient time, by a employing a drop and pick technique.

4.9 Data Quality Control

To guarantee the data quality, data collection tool was prepared after thorough review of relevant literatures and related studies. Before embarking up on data collection, the translated tool was pretested on 5% samples among traffic police officers working in Yeka sub city before the actual data collection period to assure the validity of the survey tool. Based on the finding, amendments were made on the questionnaires. Afterwards, data were collected by six nurses who received training for one day and regular supervision was done by the principal investigator on daily basis throughout the data collection period. After completion of the data collection, each questionnaire was checked for completeness before proceeding to data coding.

4.10 Data Processing and Analysis

Data entering, coding, and cleaning were performed using Excel 2016 and then exported to SPSS version 26 to carry out statistical analysis. Frequency and cross tabulation were used to check for missed values and variables. Data analysis included descriptive statistics, frequency, percentage, and mean. Binary logistic regression was used to see association between dependent and independent variables, by computing crude odds ratio. Those variables with p-value of ≤ 0.25 on binary logistic regression were further considered for multivariate logistic regression to determine independent associations of each variable and control confounding variable to obtain adjusted odds ratio (AOR) were computed with a 95% confidence interval (CI). Hosmer-Lemeshow goodness-of-fit test was run to ascertain the fitness of the model, declaring data fitness with p value of > 0.05 . A p-value < 0.05 was declared a statistically significant association.

4.11. Study variable

4.1.1. Dependent variable

- ✓ Practice of first aid among traffic police officers
- ✓ Attitude of traffic polices officers toward first aid

4.1.2. Independent Variables

- ✓ Age category
- ✓ Sex
- ✓ Marital status
- ✓ Educational status
- ✓ Work experience
- ✓ History of training
- ✓ History of attending a victim in the preceding one year
- ✓ First aid related knowledge

4.12 Operational definitions

- **First aid:** refers to the first and immediate assistance given to any person suffering from either a minor or serious illness or injury prior to professional medical help is available

- **First aid knowledge level:** respondents who responded at least mean of the total first aid knowledge-related questions correctly were considered as having a good level of knowledge. Those who obtained less than the calculated mean of the total correct score were considered as having a good level of knowledge.
- **First aid attitudinal level:** Individual whose cumulative score in the attitudinal question items equals or exceeds the mean were categorized as having favorable attitude or unfavorable attitude if participants scored less than the mean score.
- **First aid practice level:** respondents who scored equal to or more than mean of the total first aid practice-related questions were considered as having safe of practices. Those who scored less than the mean was considered as having an unsafe practice.

4.13 Ethical Consideration

Ethical clearance for the research was obtained from Department of Emergency Medicine and Critical care of St. Paul's Millennium Medical College, ethical review committee. Permission to conduct studies involving traffic police officers was granted by the office of Addis Ababa Police Commission. All participants will be informed of the purposes of the studies and the data collection processes. Furthermore, participants will be told that their participation was voluntary. They were also requested to sign a consent form upon agreeing to participate. To ensure that the participation in the studies was voluntary and not influenced by their respective authorities, the process of recruiting participants was entirely at the discretion of the researchers. To maintain data confidentiality, only the research team will have access to the collected data, which will be kept safely.

4.14 Dissemination of the result

The result of this study will be shared to St. Paul's Hospital Millennium Medical College, Department of Emergency Medicine and Critical care, as well as Addis Ababa Polis Commission and Addis Ababa Road Traffic Management Agency.

4. Results

4.1. Sociodemographic data

The total number of the distributed questionnaires in this study was 305, out of which 278 were filled properly, making a response rate of 91.1%. Among the included respondents, majority (197;70.9%) were males, and the median age of the participants was 32 years, with an interquartile range of 28–36. Well more than half (159;57.2%) of all participants aged from 26 to 35 years by the time of data collection whereas about a quarter (73;26.3%) belonged to the age group that ranged from 36 to 45 years (Table 1).

With regard to marital status, close to three-fourths (207;74.5%) were married whereas fifty-seven (20.5%) reported to be unmarried, as detailed in Table 1. In relation to self-reported educational status, one hundred and fifteen (41.4%) had college certificate while 105 (37.8%) participants stated to have been educated up to a secondary school level (Table 1). Moreover, close to half of the participants (116;41.7%) had work experience that spanned from 5 to 10 years whereas a third (82;33.1%) had more than 10 years of work experience. Nearly half (135;48.6) of the participants declared to have taken at least one first aid related training. Majority (98;68.6%) of these were trained either by the Red cross society or Tabita Ambulance (Table 1).

Table 1. Socio-demographic characteristics of traffic police working in selected sub cities of Addis Ababa, 2022

Variable	Frequency	Percent (%)
Sex		
Male	197	70.9
Female	81	29.1
Age category		
≤25 years	35	12.6
26–35 years	159	57.2
36–45 years	73	26.3
>45 years	11	4.0
Marital status		
Single	57	20.5
Married	207	74.5
Divorced	12	4.3
Widowed	2	0.7

Educational status		
Primary school	17	6.1
Secondary school	105	37.8
College certificate	115	41.4
University degree +	41	14.7
Work experience		
<5 years	70	25.2
5–10 years	116	41.7
>10 years	82	33.1
Prior first aid training		
Yes	135	48.6
No	143	51.4
Training centre (n=135)		
Red cross society	52	36.4
Tabita Ambulance	46	32.2
Ministry of Health	26	18.2
Police college	11	7.7

4.2. Knowledge level of participants

In this study, first aid-related knowledge was assessed with eleven items concerning its definition, basic procedures, course of actions and management options. The correct answers to each item were scored as 1 and the incorrect answers as 0. Respondents whose cumulative score equals to or exceeds the mean (7.6) were considered knowledgeable and those who scored below the mean were considered not knowledgeable. Accordingly, well more than half (162;58.3%) of all the respondents were knowledgeable with regard to first aid [95%CI:52.4–64.1%] while the remaining 116 (41.7%) had inadequate knowledge, as detailed in Figure 1.

Specifically, among all the knowledge-assessing question items responded by the participants, the most correctly-answered one was the definition of first aid (88.8%), followed by the assessment of responsiveness (88.1%). In contrast, most (71.6%) of the participants failed to recognize the best position of transporting an unconscious victim. Also, about two-thirds (62.9%) of the participants answered incorrectly to the question ‘What is the first step being taken in approaching an accident scene’ (Table 2).

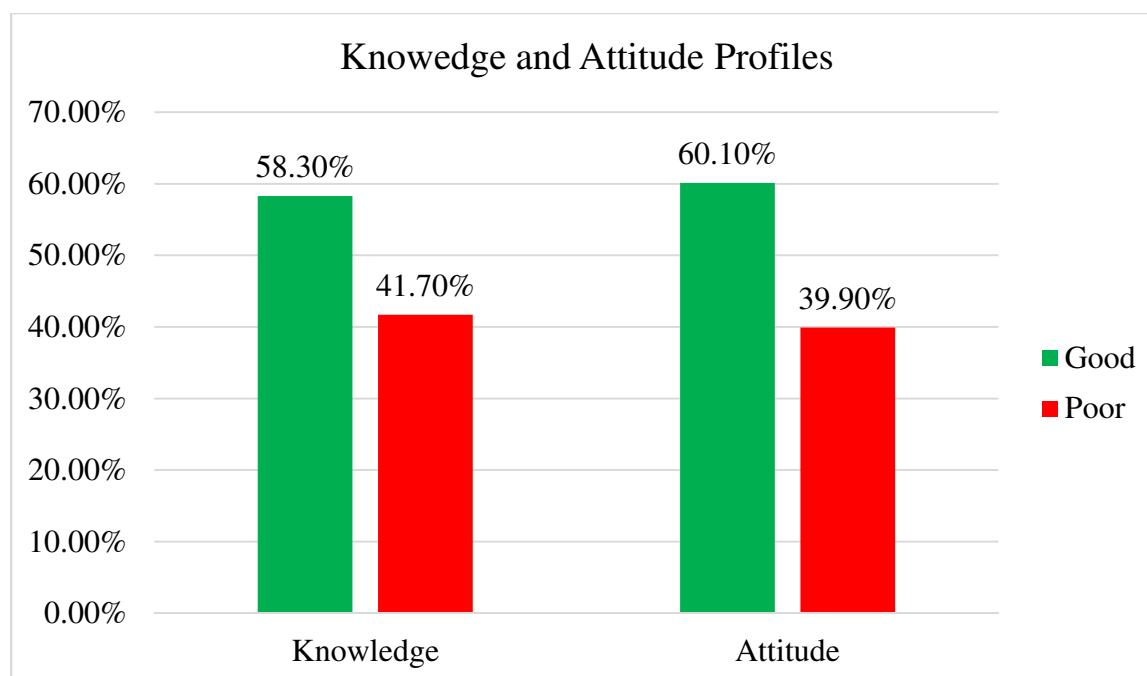


Figure 2. First aid related knowledge and attitude profiles of traffic police working in selected sub cities of Addis Ababa, Ethiopia from June 1st to July 31st, 2022

4.3. Attitude levels of participants

With respect to the attitude of participants towards first aid delivery, majority (167;60.1%) had positive attitude [95%CI: 54.3–65.9%] while more than a third (111;39.9%) had negative or unfavorable attitude towards first aid as they scored below the mean (5.24), as depicted in Figure 1.

Moreover, almost all (95%) of the participants recognized the importance of first aid and their responsibility to conduct first aid during times of need and are willing to take first aid related training. However, only 173 (62.2%) participants were confident enough to provide appropriate first aid for victims (Table 2).

Table 2. Correct responses to knowledge and attitude questions among traffic police working in selected sub cities of Addis Ababa, Ethiopia from June 1st to July 31st, 2022 (n=278)

Variable	Frequency	Percent
Knowledge items		
First aid definition	247	88.8
Acceptable way of assessing responsiveness	245	88.1
Best and safest way to stop bleeding	238	85.6

Best time to initiate first aid	230	82.7
Possible signs of an obstructed airway	218	78.4
Airway maneuvers	197	70.9
Breathing assessment techniques	190	68.3
First thing to do when evaluating an unconscious victim	181	65.1
Best individual to start first aid	181	65.1
First step to do when approaching an accident scene	103	37.1
Best position of transporting an unconscious victim	79	28.4
Attitude items		
Willing to take FA-related training	264	95.0
Responsibility of providing first aid	264	95.0
General importance of first aid	264	95.0
First aid saves life	246	88.5
Willingness to provide first aid	245	88.1
Confidence to provide first aid	173	62.2

FA: First aid

4.4. Practice profile of participants

According to the response of the interviewees, practice regarding overall provision of first aid was safe in more than half ($n=143; 51.4\%$; 95%CI: 45.5–57.4%) of the traffic police as they scored correctly at least 4 of the 5 practice-assessing items whereas the remaining 135 (48.6%) described unsafe practices, scoring below the mean (3.51) (Figure 2).

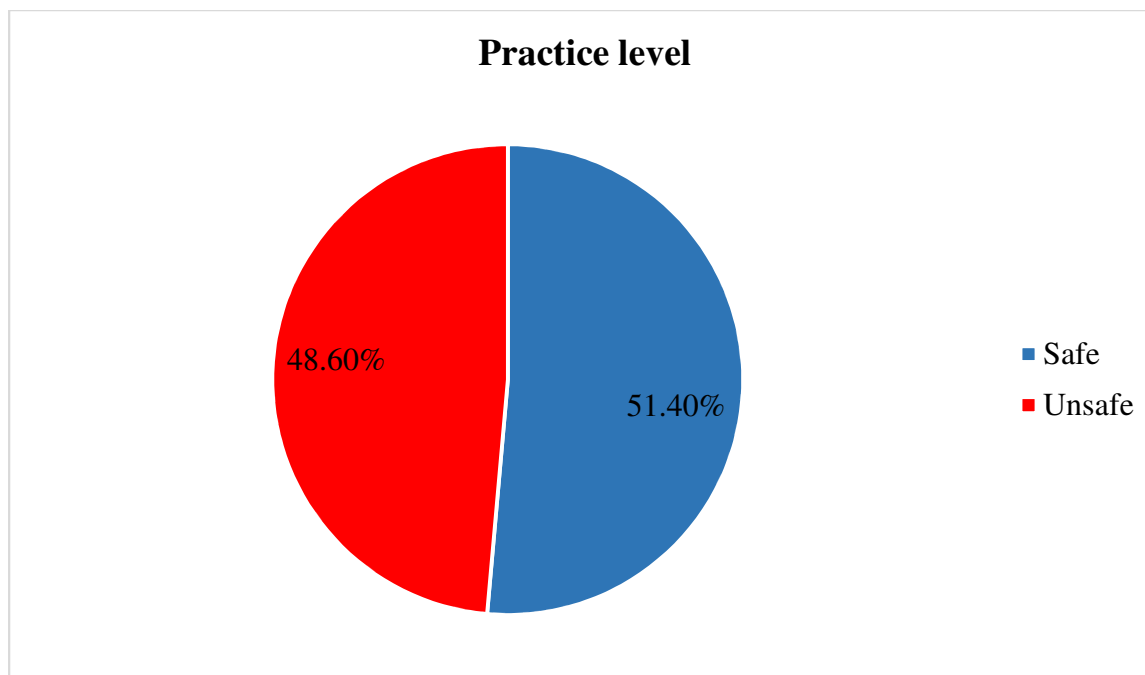


Figure 3. First aid related practice profiles of traffic police working in selected sub cities of Addis Ababa, Ethiopia from June 1st to July 31st, 2022

Specifically, almost all (275;98.9%) of the respondents responded correctly to the proper practice of handling a fractured extremity. On the contrary, the least frequently answered question item was the practice of opening an obstructed airway, as only about one-third (91;32.7%) of the participants responded correctly (Table 3).

Table 3. Correct responses to practice questions among traffic police working in selected sub cities of Addis Ababa, Ethiopia from June 1st to July 31st, 2022 (n=278)

Variable	Frequency	Percent
Proper practice of handling a fractured extremity	275	98.9
Proper practice of immobilizing a person with an injured head and/or neck	262	94.2
Proper practice of controlling bleeding	189	68.0
Proper practice of extricating or moving victims	159	57.2
Proper practice of opening an obstructed airway	91	32.7

Further, about three-fourths (204;73.4%) had history witnessing a post road traffic accident victim in the preceding one year. The most common action taken was transporting the injured to a health facility, as 118 (57.8%) of the traffic police officers reported to do so. Finally, legal complications such as perceived fear of involvement in subsequent investigations (13;39.4%) and perceived fear of legal consequences (9;27.3%) were the most frequently cited barriers among those who hesitated to provide first aid (Table 4).

Table 4. Practice related characteristics and perceived barriers among traffic police working in selected sub cities of Addis Ababa, Ethiopia from June 1st to July 31st, 2022 (n=278)

Variable	Frequency	Percent
History of attending a victim in the preceding one year		
Yes	204	73.4
No	74	26.6
First course action given (n=204)		
Transporting the injured to a health facility	118	57.8
Calling for an ambulance	55	27.0
Attending to the victim	20	9.8
No action taken	11	5.4
Reasons for not providing first aid (n=33)		
Fear of involvement in subsequent investigations	13	39.4
Fear of legal consequences	9	27.3

Fear of exposure to infectious blood	7	21.2
Lack of adequate knowledge	4	12.1

4.5. Factors associated with first aid related practice

In the present study, eight potential variables: age category, sex, marital status, educational status, work experience, history of training, history of attending a victim in the preceding one year and first aid related knowledge were included in the regression analysis. In order to determine the factors associated with first aid related practice while controlling possible confounders, independent variables that yielded p value of ≤ 0.25 in the binary logistic regression were exported to stepwise multiple regression model to compute adjusted odds ratio in determining safe practice.

In view of that, only three variables, namely prior history of first aid-related training, history of attending a victim in the preceding one year and knowledge about first aid were observed in the bivariable regression analysis to be associated with first aid practice. Following multivariable logistic analysis, the only variables that showed statistically significant association with safe practice were history of attending a victim and knowledge about first aid.

Specifically, this study showed that the odds of safe practice were about two times as much among traffic police with a history of attending a victim in the preceding year in comparison to those who lacked such a history [AOR (95%CI =1.86 (1.06,3.27)]. Furthermore, when compared to those who had poor knowledge about first aid, traffic police who had good knowledge were more likely to have safe first aid practice [AOR=3.14(95%CI: 1.90,5.19)] with p value of <0.001 (Table 5).

Table 5. Factors affecting first aid-related practice among traffic police working in selected sub cities of Addis Ababa, Ethiopia, 2022

Variable	Practice		COR(95%CI)	AOR(95%CI)
	Safe (%)	Unsafe (%)		
Prior training				
Yes	81(60.0)	54(40.0)	1.96(1.22,3.16)	-
No	62(43.4)	81(56.6)	1 ⁺	-
History of attendance				
Yes	113(55.4)	91(44.6)	1.82(1.06,3.12)	1.86(1.06,3.27)*
No	30(40.5)	44(59.5)	1 ⁺	1 ⁺
Knowledge				

Poor	41(35.3)	75(64.7)	1 ⁺	1 ⁺
Good	102(63.0)	60(37.0)	3.11(1.89,5.11)	3.14(1.90,5.19)**

Only factors which showed p value of <0.25 in binary regression are shown here.

*P value < 0.05; **P value < 0.001; 1⁺: Reference category

4.6. Factors associated with first aid related attitude

In the present study, eight potential variables: age category, sex, marital status, educational status, work experience, history of training, history of attending a victim in the preceding one year and first aid related knowledge were included in the regression analysis. In order to determine the factors associated with first aid related attitude while controlling possible confounders, independent variables that yielded p value of ≤ 0.25 in the binary logistic regression were exported to stepwise multiple regression model to compute adjusted odds ratio in determining safe practice.

Specifically, this study showed that those who have previous first aid training, good first aid related knowledge, and work experience greater than 5 years more likely to have a positive(favorable) attitude towards first aid (table 6).

Table 6 Factors affecting first aid-related attitude among traffic police working in selected sub-cities of Addis Ababa, Ethiopia, 2022

Variable	Attitude		COR(95%CI)	AOR(95%CI)
	Favorable (%)	Unfavorable (%)		
Age category				
≤25 years	19	16	1	
26–35 years	90	69	1.10(0.53,2.29)	-
36–45 years	50	23	1.83(0.80,4.19)	-
>45 years	8	3	2.25(0.51,9.91)	-
Sex				
Male	124	73	1.50(0.89,2.53)	-
Female	43	38	1	-
Educational status				
Primary school	13	4	2.54(0.71,9.14)	-
Secondary school	69	36	1.50(0.72,3.13)	-
College certificate	62	53	0.92(0.45,1.88)	-
University degree	23	18	1	-
+				
Work experience				
<5 years	41	29	1	1
5–10 years	59	57	0.73(0.40,1.33)	0.43(0.22,0.84)*
>10 years	67	25	1.89(0.98,3.67)	1.06(0.52,2.19)
Prior training				

Yes	103	32	3.97(2.37,6.66)	3.75(2.08,6.78)**
No	54	79	1 ⁺	1 ⁺
History of attendance				
Yes	126	76	1.51(0.88,2.59)	-
No	39	35	1 ⁺	-
Knowledge				
Poor	52	64	1 ⁺	1 ⁺
Good	115	47	3.01(1.83,4.96)	1.88(1.08,3.27)*

Only factors which showed p value of <0.25 in binary regression are shown here.

*P value < 0.05; **P value < 0.001; 1⁺: Reference category

5. Discussion

Pre-hospital care of trauma patients has been identified to be one of the most important factors in determining the ultimate clinical outcome (19,20). By extension, assessment of first aid practice among personnel in close contact with road traffic accidents is highly pivotal to designing programs for future intervention that would target in furthering patient care, by significantly reducing disability and mortality. Thus, the present study was designed with the aim of assessing knowledge, attitude and practice of first aid along with associated factors among traffic police officers in Addis Ababa, Ethiopia. Subsequently, the study discovered several important findings. It showed that majority of the police officers had favorable attitudes while a significant portion of them have poor first aid related knowledge and alarmingly unsafe practice. Moreover, it was demonstrated that safe first aid practice was contributed by factors such as witnessing a post-crash victim in the preceding one year and good knowledge level with regard to first aid.

In this study, it was demonstrated that 58.3% of the traffic police officers had adequate knowledge with respect to first aid. This close to the finding reported by Nekar and others who observed that 60.2% of Indian traffic police had adequate knowledge regarding first aid (6). However, it was different from the observations of Lukumay and their co-researchers who documented a low level of knowledge about first aid in only 37.1% of traffic police in Dar es Salaam, Tanzania while a large majority possessed either fair or good levels of knowledge (18). Similarly, the present finding was different from the profile of policemen in Thailand, where only 38.2% had poor knowledge while the rest (61.8%) had either fair or good knowledge (12). Apart from this, the current finding

is better than the figure obtained a previous Ethiopian study, which showed a lesser percentage (50.3%) of the taxi drivers in a similar setting had adequate first aid knowledge (15).

The study found that majority (60.1%) of the traffic police officers had positive attitude, with 95% officers affirming that it is their responsibility to provide first aid. This is in close proximity with the Tanzanian study that revealed that almost all (99.1%) admitted that it is their responsibility to provide such aid (18). The present finding was lower than the attitude level recorded in the previous Zambian study (90%), among minibus drivers, conductors and road traffic police officers (16). This is a relatively better finding than that of Nekar and others whose study showed favorable attitude in only 53.7% of the traffic police officers in their setting (6). In fact, such positive attitude among traffic police officers might be due to the fact that provision of first aid is an integral part of their job description.

The current study showed that safe practices regarding first aid were reported in only half (51.4%) of the traffic police officers. This finding is in agreement with the works of Lukumay et al. who documented a poor practice in delivering post-crash first aid in Tanzanian setting (18). On the contrary, the present finding is quite lower when compared to the finding (61.1%) observed among traffic police personnel of Hubballi-Dharwad, India (6).

This poor practice of first aid in the study set up corroborates with the report of Woyessa et al. that demonstrated that majority (74.1%) of road traffic accident victims in Ethiopia do not receive emergency care service at the scene or during transportation to the hospital. This is particularly of great concern given the fact that lack of receiving pre-hospital care in Ethiopian setting was an important contributing factor for death among victims (21).

The large differences in the knowledge, attitude and practice profiles among the traffic police between this study and the previous estimates in other settings could be attributed to various reasons and can include the socio-professional characteristics of the participants sampled, the sample size of the studied populations, the study design, the study period as well as the construct-assessment tool used along with the cut off points used. Also, the discrepancies can be attributed the relative availability of training resources and enforcement of guidelines in higher income countries such as Thailand.

Consistent with existing reports (15), the current study showed that having adequate first aid related knowledge increases likelihood of safe practices. This is unsurprising given the fact that individuals with good level of knowledge are more likely to translate their accumulated knowledge into practice under normal circumstances and when equipped with necessary kits. In addition to this, it was observed that having history of exposure to a road traffic injury victim in the preceding one year enhances the probability of safe practice among traffic police officers. This might due to the possibility that officers with such a history can have case-based capacity-building sessions or discussions and actual experiences which would enhance their practice. Also, they might have been purposely trained and deployed to places where casualties are more frequent.

6. Strength and limitation

6.1 Strength

- These documents can serve as baseline evidence to design training programs and interventions.
- The study was conducted in Addis Ababa, where most of the nation's burden of road traffic accident occurs.

6.2 Limitation

- There could be recall bias since traffic police officers were asked for events already happened prior to the survey.
- The assessed practice of the traffic police officers was self-reported and hence, the findings may differ from their actual practice if observed directly.
- Comparative analysis was difficult as limited reports directly relating to traffic police post-trauma first aid care are available, both globally and locally.
- It might be difficult to generalize the findings to all traffic police officers in Ethiopia, as this study was done in Addis Ababa, where much of government infrastructure and emphasis was given.

8. Conclusion and Recommendation

8.1 Conclusion

The present study showed that majority of the police officers had favorable attitudes while a significant portion of them have knowledge gap, with alarming level of unsafe practice. Moreover, it was demonstrated that safe first aid practice was contributed by factors such as having a history of witnessing a post-crash victim in the preceding one year and good knowledge level with regard to first aid.

8.2 Recommendation

Based on the findings obtained in the study, the following recommendations can be forwarded.

To health professionals,

Whenever possible, trained health professionals such as EMCC workforce should work in proximity with the traffic police authorities to scale up their knowledge and design appropriate mechanisms. Furthermore, health professionals should also consider preparing a user-friendly post-accident first aid handy guide to traffic police for reference.

To regulatory bodies and policymakers,

The Ethiopian Transport Authority, along with other concerned stakeholders including AARTMA, should consider capacity building mechanisms with the help of hand-on trainings to consolidate officers' knowledge which could be translated to safe practices. This is particularly worthwhile as the majority of officers (95%) were willing to attend future sessions on first aid. Moreover, they should consider consolidating the certification curriculum, integrating knowledge to continuous professional development (refresher courses with updated modules), setting periodic inspections, enforcing effective safe practice regulations while also providing with the necessary equipment. Furthermore, the paramedic's involvement with police officers by strengthening call centers and creating a system that collaborate and work with police officers, may strengthen the prehospital care practice and improve the quality of service provided.

To researchers,

Future studies should be done to validate the current findings, and they should employ stronger study designs including qualitative data to have in-depth evidence regarding the perceived barriers.

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10.Assurance of Principal Investigator

I the undersigned agree to accept all responsibilities for the scientific and ethical conduct of the research project. I will provide timely progress report to my advisor and seek the necessary advice and approval from my primary advisors in the course of the research. I will communicate timely to my advisors all stakeholders involved in the study including any source of funding for this research.

Name of the student: _____

Signature: _____

Date: _____

Approval of the Clinical Advisor

Name of the primary advisor: _____

Signature: _____

Date: _____

Approval of the Clinical Advisor

Name of the primary advisor: _____

Signature: _____

Date: _____

Approval of the Public Health Advisor

Name of the primary advisor: _____

Signature: _____

Date: _____

11. Annex

Questionnaires

Sociodemographic data

- 1. Age in Year _____**
- 2. Gender**
 - a. Male**
 - b. Female**
- 3. Marital Status**
 - a. Single**
 - b. Married**
 - c. Divorced**
 - d. Widowed**
- 4. Level of Education**
 - a. Primary school**
 - b. Secondary school**
 - c. College diploma**
 - d. University degree and above**
- 5. Work experience in years _____**
- 6. Have you ever taken first aid training?**
 - a. Yes**
 - b. No**
- 7. If Yes to the above question, from where did you get the training?**
 - a. Red Cross Society**
 - b. Tabita Ambulance service**
 - c. Ministry of Health**
 - d. Police college**

Knowledge-Based questions

- 8. What is first aid?**
 - a. The immediate assistance provided to a suddenly injured or sick person until professional help arrives or that person has recovered.**

- b. It is the help provided in the hospital only.
 - c. It is assistance provided by a health care professional only.
 - d. Don't know
- 9. Where should first aid be initiated?
 - a. As soon as the victim reaches the hospital
 - b. Immediately at the scene
 - c. Don't know
- 10. Who initiates first aid?
 - a. Traffic police
 - b. Health worker
 - c. A bystander regardless of his/her profession
 - d. Don't know
- 11. What is the first step being taken in approaching an accident scene?
 - a) Assessing scene safety
 - b) Checking for responsiveness
 - c) Calling an ambulance
 - d) Don't know
- 12. How do you assess responsiveness?
 - a. By calling his/her name (talking to the person) 1. Yes, 2. No
 - b. Tapping his/her shoulder 1. Yes, 2. No
 - c. Applying pressure to nail bed 1. Yes, 2. No
 - d. By using sharp materials 1. Yes, 2. No
 - e. Don't know 1. Yes, 2. No
- 13. What is the first priority for an unconscious person?
 - a. Making sure airway is patent (opening airway)
 - b. Controlling bleeding
 - c. Managing fracture
 - d. Don't know
- 14. What are the signs of an obstructed airway?
 - a) Choking or gagging 1. Yes, 2. No

- b) Noisy breathing 1. Yes, 2. No
- c) Struggling to breathe 1. Yes, 2. No
- d) don't know 1. Yes, 2. No

15. Mention any airway maneuvers

- a. Jaw thrust 1. Yes, 2. No
- b. Chin lift with head tilt 1. Yes, 2. No
- c. Recovery position 1. Yes, 2. No
- d. Don't know 1. Yes, 2. No

16. How do you assess whether someone is breathing or not?

- a. Looking for movement of the upper abdomen or lower chest 1. Yes, 2. No
- b. Listening for the escape of air from nose and mouth 1. Yes, 2. No
- c. Feel for breath on the side of your face 1. Yes, 2. No
- d. Don't know 1. Yes, 2. No

17. First aid for bleeding

- a. Applying a tourniquet 1. Yes, 2. No
- b. Apply pressure dressing 1. Yes, 2. No
- c. Apply alcohol 1. Yes, 2. No
- d. Lift the injured part above the body level 1. Yes, 2. No
- e. Don't know 1. Yes, 2. No

18. Which one is the proper way of positioning the unconscious victim?

- a. Sitting position
- b. Laying supine
- c. Recovery (Stable Side) Position
- d. Don't Know.

Practice-Based questions

19. Have you ever used a first aid kit?

- a. yes
- b. no

20. Whom do you contact in case of emergency?

- a. Ambulance service

- b. Known doctor/health care provider
- c. Police
- d. Don't know

21. Have you attended to any victim in the last 1 year?

- a. No
- b. Yes

22. If yes to Q No 25, what is the first course of action do you take?

- a. Attended to the victim's injuries
- b. Called ambulance/police
- c. Took victim to the health unit
- d. No action was taken
- e. Other action

23. How do you open an obstructed airway?

- a. Applying head tilt and chin lift maneuver
- b. Opening the mouth and removing foreign bodies
- c. Putting the victim in a supine position
- d. don't know how to open the airway

24. How do you control bleeding?

- a. Applying pressure to the wound 1. Yes, 2. No
- b. Raising and supporting the injured part above the heart 1. Yes, 2. No
- c. Apply bandage to the wound 1. Yes, 2. No
- d. Don't know how to control bleeding 1. Yes, 2. No

25. How do you take care of a fractured extremity?

- a. Advise the causality to stay still and support the injured part with your hands
- b. Bandage the injured part to unaffected part the of body
- c. Immobilize the injured part with available material
- d. Allow the causality to ambulate. 1. Yes, 2. No
- e. Don't know 1. Yes, 2. No

26. What precautions do you take when extricating or moving traumatized patients?

- a. Spine precaution**
- b. Extremity**
- c. Abdominal**
- d. Chest**
- e. Don't know**

27. How do you immobilize a person with an injured head and/or neck?

- a. Allow the causality to move 1. Yes, 2. No**
- b. Keep the head, neck and spin aligned by placing your hand on the side of the head 1. Yes, 2. No**
- c. Place a rolled towels or other padding around the casualties' neck and shoulder 1. Yes, 2. No**
- d. Don't know 1. Yes, 2. No**

Attitude Based Questions

28. Are you willing to provide first aid?

- a. Yes**
- b. No**
- c. Uncertain**

29. If answer No for Q-32, Why

- a. Lack of Knowledge 1. Yes, 2. No**
- b. Fear of legal consequences 1. Yes, 2. No**
- c. Fear of involvement in a subsequent investigation 1. Yes, 2. No**
- d. Fear of exposure to blood or body fluids 1. Yes, 2. No**
- e. Lack of first aid kit – 1. Yes, 2. No**
- f. Other 1. Yes, 2. No**

30. Do you feel responsibility of providing first aid?

- a. Yes**
- b. No**
- c. Uncertain**

31. Are you willing to take first aid training?

- a. Yes**
- b. No**
- c. Uncertain**

32. Do you think first aid is important?

- a. Yes**
- b. No**
- c. Uncertain**

33. Do you believe that providing first aid will save life?

- a. Yes**
- b. No**
- c. Uncertain**

34. Are you confident enough to provide first aid?

- a. Yes**
- b. No**
- c. Uncertain**

በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሕክምና ኮሌጅ

ድንገተኛ እና ጽኑ ህክምና ትምህርት ክፍል

በአዲስ አበባ በሚገኙ የትራፊክ ፖሊስቶ በመጀመሪያ ህክምና እርዳታ ላይ ያላቸውን እውቀት አመለካከት እና ተግባር ላይ የሚጠና ጥናት ።

ይህንን ጥናት ውጤታማ ለማድረግ እርሶ ይህንን መጠይቅ እንዲሞሉ ተመርጠዋል። የእርሶ ትክክለኛ መረጃ በጣም ጠቃሚ ነው። ስለሆነም የእርሶ ስም በመጠይቁ ላይ አይጠቀስም በተጨማሪም መረጃው ሚስጥራዊ ነው እናም በጥናቱ ላይ ያለመሳትፍ ሙሉ መብት አሎት ነገር ግን የእርሶ በጥናቱ መሳተፍ በጣም ጠቃሚ በመሆኑና በጤና አገልግሎት ስርዓቱ ላይ ትልቅ ለውጥ የሚያመጣና በድንገተኛ አደጋ እና ድንገተኛ ህመም የሚሞቱ ሰዎችን ቁጥር በመቀነስ ረገድ ትልቅ አስተዋጾ አለው።

አጥኚ፡- ዶ/ር ዘመኑ ረጋሳ (ድንገተኛ እና ጽኑ ህክምና 3ኛ ዓመት ተማሪ)

ስልክ ቁጥር፡- 0913122258

በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ኖት?

አዎ ☐

አይደለሁም ☐

ጊዜዎችን መሰዋዕት አድርገው ስለተሳተፉ ከልብ አመሰግናለሁ ።

የመረጃ ሰብሳቢው ስምና ፊርማ

ስም

ፊርማ

ቀን.....

የምርምር መጠይቅ

ሶሲዮዲሞግራፊ

1. ዕድሜ -----
2. ጾታ ወንድ ☐ ሴት ☐
3. የትዳር ሁኔታ ያገባ/ች ☐ ያላገባ/ች ☐ የፈታ/ች ☐ የሞተበት/ባት ☐
4. የትምህርት ደረጃ የመጀመሪያ ደረጃ ☐ ሁለተኛ ደረጃ ☐ የኮሌጅ ዲፕሎማ ☐ የዩኒቨርሲቲ ዲግሪ እና ከዚያ በላይ ☐
5. የሥራ ልምድ በአመት-----
6. የመጀመሪያ ህክምና እርዳታ ስልጠና ሰልጥነህ/ሽ ታውቃለህ/ታውቂያለሽ?
 አውቃለሁ ☐ አላውቅምም ☐
7. ለ 6ኛ ጥያቄ መልስዎ አውቃለሁ ከሆነ ስልጠናውን ያገኙት ከየት ነው-----

በእውቀት ላይ የተመሰረቱ ጥያቄዎች

1. የመጀመሪያ ህክምና እርዳታ ምንድን ነው?
 - a. የባለሙያ እርዳታ እስኪመጣ ወይም ያ ሰው እስኪያገግም ድረስ በድንገትኛ ለተጎዳ ወይም ለታመመ ሰው የሚሰጠው አፋጣኝ እርዳታ
 - b. በሆስፒታል ውስጥ ብቻ የሚሰጠ እርዳታ ነው
 - c. በጤና እንክብካቤ ባለሙያ ብቻ የሚሰጥ ረዳት ነው
 - d. አላውቅም
2. የመጀመሪያ ህክምና እርዳታ የት መጀመር/መሰጠት አለበት?
 - a. ተጎጂው ሆስፒታል ከደረሰ በውሀላ
 - b. ወዲያውኑ ጉዳት/ህመም በደረሰበት ቦታ
 - c. አላውቅም
3. የመጀመሪያ ህክምና እርዳታ መሰጠት ያለበት በማን ነው?
 - a. በጤና ባለሙያ

- b. በትራፊክ ፖሊስ
- c. አደጋው/ድንገተኛ ህመም ሲከሰት ባለ በማንኛውም ሰው
- d. አላውቅም

4. አደጋ ወደደረሰበት ቦታ ሲኬድ የመጀመሪያው እርምጃ ምንድን ነው?

- a. የትዕይንት ደህንነትን መገምገም
- b. ምላሽ ሰጪነትን መፈተሽ
- c. አምቡላንስ መጥራት
- d. አላውቅም

5. አንድ የታመመ/የተጎዳን ሰው ምላሽ ሰጪነት/የንቃት ሁኔታ እንዴት ይገመግማሉ?

- a. ስሙን በመጥራት (ከሰውየው ጋር በመነጋገር) አዎ . አይ .
- b. ትከሻውን መታ መታ በማድረግ አዎ . አይ .
- c. ጥፍሮቹን በደንብ በመጫን አዎ . አይ .
- d. ሹል የሆኑ ቁሳቁሶችን በመጠቀም አዎ . አይ .
- e. አላውቅም አዎ . አይ .

6. ንቃቱ ለወረደ/ለቀነሰ ሰው የመጀመሪያ ቅድሚያ የሚሰጠው/የሚደረገው ምንድነው?

- a. የአየር/የመተንፈሻ ቱቦ/ቧንቧ ክፍት መሆኑን ማረጋገጥ
- b. የደም መፍሰስን መቆጣጠር
- c. ስብራትን ማስተካከል
- d. አላውቅም

7. የአየር ቧንቧ መዘጋት ምልክት የሆነው የቱ ነው?

- a. የሚተናነቅ ድምጽ አዎ . አይ .
- b. የሚንከረፋ ድምጽ ያለው አተነፋፈስ አዎ . አይ .
- c. ለመተንፈስ መታገል አዎ . አይ .
- d. አላውቅም አዎ . አይ .

8. የተዘጋ የአየር መተላለፊያ ቧንቧን መክፈቻ መንገድ የሆነው የቱ ነው?

- a. አገጩን ወደ ፊት ማንሳት/መሳብ አዎ . አይ .

- b. ጭንቅላቱን ከግንባሩ ወደኋላ ማጋደል እና አገጩን ወደ ፊት ማንሳት አዎ . አይ .
- c. በማገገሚያ አቀማመጥ ማስተኛት አዎ . አይ .
- d. አላውቅም አዎ . አይ .

9. አንድ ሰው መተንፈሱን ወይም አለመተንፈሱን እንዴት ይገመግማሉ?

- a. የላይኛው ሆድ ወይም የታችኛው ደረት እንቅስቃሴን በማየት አዎ . አይ .
- b. ከአፍንጫ እና ከአፍ የሚወጣውን አየር በማዳመጥ አዎ . አይ .
- c. በአፍንጫው አየር መግባቱን እና መውጣቱን በጉንጫ ጎን በመስማት አዎ . አይ .
- d. አላውቅም አዎ . አይ .

10. የደም መፍሰስን ለማቆም የሚደረግ የመጀመሪያ እርዳታ የቱ ነው

- a. በገመድ ማሰር አዎ . አይ .
- b. ደም የሚፈስበትን ቦታ በጨርቅ ተጭኖ መያዝ አዎ . አይ .
- c. አልከል ማድረግ አዎ . አይ .
- d. የተጎዳውን አካል ከሰውነት ደረጃ በላይ ከፍ አድርጎ መያዝ አዎ . አይ .
- e. አላውቅም አዎ . አይ .

11. እራሳቸውን የሳቱ/የማያውቅ ተጎጂዎች ትክክለኛው የአቀማመጥ መንገድ የትኛው ነው?

- a. ቀና አድርጎ በመቀመጫ አቀማመጥ ማስቀመጥ
- b. ፊታቸውን ወደላይ አድርጎ ማስተኛት
- c. ፊታቸውን ወደ ጎን አዙሮ በማገገሚያ አቀማመጥ ማስተኛት
- d. አላውቅም.

በተግባር ላይ የተመሰረቱ ጥያቄዎች

1. የመጀመሪያ እርዳታ መስጫ መሳሪያ ተጠቅመህ/ሽ ታውቃለህ/ታውቂያለሽ?

- a. አውቃለሁኝ
- b. አላውቅም

2. አደጋ ወይም ድንገተኛ ህመም በሚጋጥምበት ጊዜ ማንን ማግኘት አለቦት?

- a. አምቡላንስ
- b. የታወቀ ዶክተር/ የጤና እንክብካቤ ባለሙያ
- c. ፖሊስ

- d. አላውቅም
3. በባለፈው 1 ዓመት ውስጥ ድንገተኛ አደጋ/ህመም የደረሰበት ተጎጂ ገጥሞት ያውቃል?
- a. አዎ ያውቃል b. አያውቅም
4. ለ ጥያቄ ቁ-3 መልስዎ አዎን የውቃል ከሆነ ምን አይነት የመጀመሪያ እርምጃ ወሰዱ?
- a. ተጎጂው እስኪሰጥም ጠበቅኩት
- b. አምቡላንስ/ፖሊስ መጥራት
- c. ተጎጂውን ወደ ጤና ተቋም መውሰድ
- d. ምንም አይነት እርምጃ አልወሰድኩም
- e. ሌላ
5. የተዘጋገበ አየር መተላለፊያ መንገድ/ቱቦ እንዴት ይከፍታል?
- a. ጭንቅላት ዘንበል ማድረግ እና አገጭን ማንሳትን
- b. አፍን በመክፈት ባእድ ነገር ካለ ማውጣት
- c. ተጎጂውን ወደላይ አዙሮ ማስቀመጥ
- d. የአየር መተላለፊያ መንገድን እንዴት እንደሚከፈት አላውቅም
6. የደም መፍሰስን ለማቆም ትክክለኛው መንገድ የትኛው ነው?
- a. ቁስሉን በጨርቅ ነገር ጫን አድርጎ መያዝ አዎ . አይ .
- b. የተጎዳውን ክፍል ወደላይ ከፍ አድርጎ መያዝ አዎ . አይ .
- c. የተጎዳውን አካል በማሰሪያ መቁጠር አዎ . አይ .
- d. ሁሉም አዎ . አይ .
- e. የደም መፍሰስን እንዴት መቆጣጠር እንደሚቻል አላውቅም አዎ . አይ .
7. የተሰበረ አጥንትን ለመንከባከብ ትክክለኛው መንገድ የትኛው ነው?
- a. ተጎጂውን የተሰበረውን አጥንት በእጁ ደግፎ ባለበት እንዲቆይ ማድረግ አዎ . አይ .
- b. የተጎዳውን የአጥንት ክፍል ካልተጎዳው የሰውነት ክፍል ጋር አጣምሮ ማሰር አዎ . አይ .
- c. በተገኘ ቁሳቁስ የተጎዳውን አጥንት እንዳይንቀሳቀስ መደገፍ አዎ . አይ .
- d. ሁሉም አዎ . አይ .
- e. ተጎጂውን እንዲንቀሳቀስ ማድረግ አዎ . አይ .

8. ጉዳት የደረሰባቸውን በሽተኞች ከአደጋው ስፍራ ሲያወጡ ወይም ሲያንቀሳቅሱ በዋናነት ምን ዓይነት ጥንቃቄዎችን ማድረግ ያስፈልጋል?
- a. የአከርካሪ አጥንት ጥንቃቄ b. የሆድ እቃ ጥንቃቄ
- c. የደረት ጥንቃቄ d. አላውቅም
9. የተጎዳውን ታካሚ ጭንቅላት እና አንገትን አንዳይንቀሳቀስ ለማድረግ ትክክለኛው መንገድ የትኛው ነው?
- a. ተጎጂው እንደፈለገ እንዲንቀሳቀስ መፍቀድ አዎ . አይ .
- b. እጅዎን ከጭንቅላቱ ጎን ላይ በማድረግ ጭንቅላትን ፣ አንገትን እና አከርካሪ አጥንቱ በአንድ መስመር ላይ እንዲስተካከሉ ያድርጉ አዎ . አይ .
- c. በተጎጂዎቹ አንገት እና ትከሻ ላይ የተጠቀለለ ፎጣ ወይም ሌላ ንጣፍ ያድርጉ አዎ . አይ .
- d. አላውቅም አዎ . አይ .

በአመለካከት ላይ የተመሰረቱ ጥያቄዎች

1. የመጀመሪያ እርዳታ ለመስጠት ፈቃደኛ ነህ/ነሽ ?
- a. አዎን ፈቃደኛ ነኝ
- b. የለም ፈቃደኛ አይደለሁም
- c. እርግጠኛ አይደለሁም
2. ለ ጥያቄ ቁ-1 መልስዎ የለም ፈቃደኛ አይደለሁም ከሆነ ለምን?
- a) የእውቀት ማነስ አዎ . አይ .
- b) የሕግ ተጠያቂነትን መፍራት አዎ . አይ .
- c) በቀጣይ ምርመራ ውስጥ የመሳተፍ ፍርሃት አዎ . አይ .
- d) ለደም ወይም የሰውነት ፈሳሾች የመጋለጥ ፍርሃት አዎ . አይ .
- e) የመጀመሪያ እርዳታ መስጫ ቁሳቁስ እጥረት አዎ . አይ .
- f) ሌላ
3. የመጀመሪያ እርዳታ የመስጠት ሃላፊነት ይሰማዎታል?
- a. አዎ

- b. አይ
 - c. እርግጠኛ አይደለሉም
4. የመጀመሪያ እርዳታ ስልጠና ለመውሰድ ፈቃደኛ ነህ?
- a. አዎ
 - b. አይ
 - c. እርግጠኛ አይደለሉም
5. የመጀመሪያ እርዳታ አስፈላጊ ነው ብለው ያስባሉ?
- a. አዎ
 - b. አይ
 - c. እርግጠኛ አይደለሉም
6. የመጀመሪያ እርዳታ መስጠት ህይወትን ያድናል ብለው ያምናሉ?
- a. አዎ
 - b. አይ
 - c. እርግጠኛ አይደለሉም
7. የመጀመሪያ እርዳታ መስጠት እችላለሁ ብለው ያምናሉ?
- a. አዎ
 - b. አይ
 - c. እርግጠኛ አይደለሉም