

# Knowledge, Attitude, and Associated Factors towards Prehospital Care among Emergency Health Care Providers Working in Selected Prehospital Care Centers in Addis Ababa, Ethiopia: A Cross-Sectional Study

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**Keywords:** attitude; emergency health care provider; knowledge; prehospital care

## Abbreviations:

AAFEPR: Addis Ababa City Fire and  
Emergency Prevention Rescue Agency  
ECCN: emergency and critical care nurse  
EMT: emergency medical technician  
EHCP: emergency health care provider  
NMC: Nordic Medical Center  
RTA: road traffic accident  
SPHMMC: St. Paul's Hospital Millennium  
Medical College  
SSA: sub-Saharan Africa

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## Abstract

**Background:** Patients' health outcomes can suffer as a result of poor knowledge and unfavorable attitude towards prehospital emergency care. The purpose of this study was to assess emergency health care providers' (EHCPs') knowledge, attitude, and associated factors towards prehospital care in selected prehospital Emergency Medical Service institutions in Addis Abeba, Ethiopia.

**Methods:** An institutional-based cross-sectional study design was conducted among EHCPs working in the three selected prehospital emergency medical care centers in Addis Ababa. Data were collected using a standard self-administered questionnaire, cleaned, coded, and entered into EPI Data Version 6, and then exported to SPSS Version 26 for further analysis. The generated data were compiled using frequency tables, charts, and percentages. Logistic regression analysis was used to see the association between independent and dependent variables.

**Results:** One hundred thirty-five (135) study participants were included in this study, with a response rate of 95.7%. The mean age of the respondents was 29.2 years (SD = 4.86). Almost three-quarters of the respondents (71.1%) were aged between 26 and 35 years. Of the total participants, 58.5% and 62.2% of EHCPs had good knowledge and a favorable attitude towards prehospital care, respectively. The study revealed that profession (AOR = 3.2; 95% CI, 1.03 - 7.65), educational status (AOR = 1.17; 95% CI, 1.08 - 4.93), and having training (AOR = 2.25; 95% CI, 1.33 - 4.52) were significantly associated with the knowledge of EHCPs. This finding also revealed that the respondent's knowledge (AOR = 1.36; 95% CI, 1.05 - 2.32) and having training (AOR = 3.2; 95% CI, 1.24 - 7.83) were significantly associated with EHCPs' attitudes towards prehospital care.

**Conclusions:** The knowledge and attitude of EHCPs regarding prehospital care were found to be good and favorable as compared to previous studies. In-service training regarding emergency health conditions and the time needed to care for the patient is important for quality prehospital emergency medical care.

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## Introduction

Prehospital care is emergency medical care provided to patients prior to their arrival at the hospital after Emergency Medical Services have been activated.<sup>1</sup> For severely ill or injured patients, acting quickly in the prehospital period is crucial with decisions and interventions greatly affecting outcomes.<sup>1,2</sup>

Evidence showed that a health care provider who doesn't have adequate knowledge about prehospital emergency care results in dissatisfaction with the care given to the client.<sup>3</sup> While a health professional or care provider having good knowledge, attitude, practice, or skills in prehospital emergency management leads to proper handover of the patient to the emergency department, which has a great role in decreasing the morbidity and mortality of



the individual, increasing health-related quality of life, and having a significant role in increasing the life expectancy of the community.<sup>4,5</sup>

According to the World Health Organization (WHO; Geneva, Switzerland), road traffic accidents (RTAs) are currently the eighth leading cause of death globally and the tenth leading cause in sub-Saharan Africa (SSA), resulting in 1.402 million deaths per year world-wide in 2016, and from these, 284,000 were in SSA.<sup>6</sup> In Africa, the challenge is even more pressing, which currently shows RTA deaths could rise by 30% to 1.85 million per year by 2030, making it the world's seventh biggest cause of death. In Ethiopia, the prevalence of RTAs is still high despite little attention being given.<sup>7</sup> Providing efficient and effective post-crash care and prehospital treatment for injuries, hemorrhage, and other medical and obstetrical emergencies timely by paramedics has a great role in reducing morbidity and mortality of the patients.<sup>8,9</sup> Therefore, this study was intended to assess the knowledge, attitude, and associated factors of emergency healthcare providers (EHCPs) towards prehospital care in Addis Ababa, Ethiopia. To the best of the investigator's knowledge, there are no data available on the knowledge and attitude of EHCPs towards prehospital care and associated factors in Ethiopia.

Assessing EHCPs' knowledge, attitude, and associated prehospital care factors will have a significant impact on future plans to improve EHCPs' knowledge and the quality of prehospital care. It can also help any interested researchers develop baseline findings for further research in this area.

## Methods

### *Study Design, Setting, and Period*

An institutional-based cross-sectional study was conducted among prehospital EHCPs from November 20 through December 4, 2022.

This study was conducted in the capital city of Ethiopia, Addis Ababa. In Addis Ababa, there are one government and three private prehospital care centers, with approximately 192 nurses working in these facilities. For this study, Addis Ababa City Fire and Emergency Prevention Rescue Agency (AAFEPR), Nordic Medical Center (NMC), and TEBITA Ambulance (Pre-Hospital Emergency Medical Service PLC) were selected as the study areas.

Ethiopia's AAFEPR was established in 1934 to prevent and control fire and related accidents. In 2008, it started to provide prehospital care to the community. It has more than 160 emergency care providers and nine stations, of which the main branch is found in the Arada sub-city.

The TEBITA Ambulance service is Ethiopia's first commercial provider of prehospital Emergency Medical Services. It has a total of 17 emergency medical technicians (EMTs) and is located in Addis Ababa.

The NMC, also located in Addis Ababa, is run by Norwegians and is staffed by highly experienced international and Ethiopian medical professionals. They deliver high-quality medical services 24/7 and are the preferred medical provider for a number of international organizations, embassies, and health insurance companies. The NMC offers emergency and critical care medical services throughout Ethiopia. It has a total of ten emergency and critical care nurses (ECCNs) working in the ambulance. This study is reported in line with the STROCCS checklist (available as Supplementary Material, online only).<sup>10</sup>

### *Source Population*

The source populations were all prehospital EHCPs in Addis Ababa, Ethiopia.

### *Study Population*

The study population included all prehospital EHCPs (ECCNs and EMTs) in AAFEPR, NMC, and TEBITA Ambulance who were available during the data collection period.

### *Eligibility Criteria*

All prehospital emergency care provider ECCNs and EMTs who had more than six months of work experience and were on duty during data collection period were included.

### *Sample Size and Sampling Technique*

A single population proportion formula was used (by taking  $Z = 1.96$ ,  $P = 50\%$  since there is no similar study conducted in Ethiopia, and  $d = 0.05$ ) to get the minimum sample size  $n_0$  of 384. Since there was a population  $N$  of 192, a finite population correction formula was used to get a sample size  $n$  of 128. Adding a 10% non-response rate gave a final sample size  $n$  of 141.

Using proportional allocation to the size of each individual institution, a sample of 121, seven, and 12 participants were taken from AAFEPR, NMC, and TEBITA Ambulance, respectively. Finally, a simple random sampling method was utilized in each institution to get the allocated numbers of EHCPs.

Knowledge and attitude of EHCPs towards prehospital care were the dependent variables, whereas age, sex, marital status, occupation, training, working unit, educational level, work experience, availability of protocols and guidelines, and equipment availability were considered as the independent variables.

### *Data Collection Tools and Procedures*

Data were collected using a self-administered structured questionnaire, which has three parts. The first part is the demographic data of the participants. The second part is designed for the knowledge assessment of the EHCPs. The third part is used to assess the attitude of EHCPs, which is adapted and modified from similar studies.<sup>11,12</sup>

After the planned study was reviewed and approved by the Institutional Review Board of St. Paul's Hospital Millennium Medical College (SPHMMC; Addis Ababa, Ethiopia), approval to conduct the study was obtained. Official permission to conduct the study was also obtained from the institutions. Participants were approached, and the purpose of the study was explained to them before requesting their consent to participate in the study. The questionnaire was given to those who consented to participate in the study. Data were collected by three diploma nurses, one degree nurse supervisor, and one facilitator from each center. Data collection took place from November 20 through December 4, 2022.

### *Operational Definitions*

For the purpose of this study, the following definitions were used:

- Good Knowledge: A knowledge score above or equal to the mean score was categorized as having good knowledge.
- Poor Knowledge: A knowledge score below the mean score was categorized as having poor knowledge.
- Favorable Attitude: An attitude score above or equal to the mean score was categorized as having favorable attitude.
- Unfavorable Attitude: An attitude score less than the mean value was considered as having unfavorable attitude.

### Data Analysis and Presentation

The collected data were checked for their completeness, consistency, and accuracy before analysis. Data were checked, cleared, and entered into SPSS version 26 (IBM Corporation; Armonk, New York USA); then frequencies, means, and analyses were performed to obtain a significant association at the bivariate level by  $P < .25$ , followed by multivariate logistic regression at a  $P$  value of  $< .05$ . Finally, the results of the study were processed and analyzed using descriptive statistics like percentage, frequency, and association. Text, tables, and charts were used to present the findings.

### Data Quality Management

The data collectors were trained for two days on how to ask for consent from the study group and fill out the questionnaire. During the data collection period, the supervisor provided supervision and support to the data collector as needed. The questionnaire was checked for completeness and consistency by the principal researcher. Before the actual data collection, a pre-test was done on 10% of the total sample size at the prehospital service center located in the study area (Nebiel Ambulance) to check the completeness, consistency, and quality of the material content. After pre-testing the questionnaire, Cronbach's alpha was calculated by using SPSS window version 26 to test the internal consistency (reliability) of the item, and Cronbach's alpha was 0.81.

### Ethical Approval

Ethical permission was obtained from the SPHMMC's Institutional Review Board. The permission was obtained from AAFEPR, NMC, and TEBITA Ambulance. Informed consent was secured from all study participants after telling them the aim, benefits, and risks of participating in the study. The anonymity of the study subjects' information was kept confidential.

### Results

#### Socio-Demographic Characteristics of the Respondents

One hundred thirty-five (135) study participants were included in this study, with a response rate of 95.7%. More than one-half of the study participants, 76 (56.3%), were females. The mean age of the respondents was 29.2 years (SD = 4.86). Ninety-six (96; 71.1%) were aged between 26 and 35 years. The majority of study participants (109; 80.7%) were fire workers. Regarding the educational background, 96 (71.1%) of the study participants were bachelor degree holders, and 65 (48.1%) of the study participants had six to ten years of work experience (Table 1).

#### Knowledge of EHCPs towards Prehospital Care

The overall knowledge score was calculated by tallying the individual response rates and calculating the mean to categorize the participants' knowledge as good or poor. Based on this, 58.5% of the EHCPs had good knowledge and 41.5% had poor knowledge about prehospital care (Figure 1).

Almost three-quarters (74.8%) of study participants said they had learned more about prehospital care on the job. The majority of study participants (93.3%) said they knew about Basic Life Support (Table 2).

#### Attitude of EHCPs Regarding Prehospital Care

The overall attitude score was calculated by counting the individual response rate and calculating the mean to classify their attitude as favorable or unfavorable. Based on this, 51 (37.8%) of the EHCPs had an unfavorable attitude and 84 (62.2%) had a favorable attitude towards prehospital care (Figure 2).

Variables	Frequency	Percentage (%)
<b>Age Group</b>		
18-25	27	20.0
26-35	96	71.1
36-45	10	7.4
>45	2	1.5
<b>Sex</b>		
Male	59	43.7
Female	76	56.3
<b>Marital Status</b>		
Married	64	47.4
Single	71	52.6
<b>Profession</b>		
Nurse	118	87.4
Emergency Medical Technician	17	12.6
<b>Educational Status</b>		
Diploma	27	20.0
Degree	96	71.1
MSc/MPH	12	8.9
<b>Work Place</b>		
AAFEPR	109	80.7
TEBITA Ambulance Service	12	8.9
Nordic Medical Center	14	10.4
<b>Working Hours in a Day</b>		
≤8 hours	67	49.6
9-12 hours	66	48.9
>12 hours	2	1.5
<b>Service Year</b>		
≤ 2 years	16	11.9
3-5 years	48	35.6
6-10 years	65	48.1
>10 years	6	4.4
<b>Training</b>		
Yes	106	78.5
No	28	20.7

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**Table 1.** Frequency Distribution of Socio-Demographic Characteristics of EHCPs in the Three Selected Prehospital Emergency Medical Service Institutions in Addis Ababa, Ethiopia, 2022 (n = 135)

Abbreviations: AAFEPR, Addis Ababa City Fire and Emergency Prevention Rescue Agency; EHCP, Emergency Health Care Provider.

More than one-half of the study participants (94; 69.4%) strongly agreed that giving prehospital care to needy people is fair, and 97 (71.9%) strongly agreed that learning prehospital care was useful for them. Almost three-quarters of the respondents (74.8%) strongly agreed that prehospital care training was mandatory (Table 3).

#### Factors Associated with Knowledge of EHCPs towards Prehospital Care

In binary logistic regression, it was shown that age group, sex, profession, service year, educational status, and training were significantly associated with the knowledge of EHCPs towards

Variables	Frequency	Percentage %
Have you acquired any prehospital care knowledge through your work?		
Yes	101	74.8
No	34	25.2
Do you hear about prehospital emergency care during your undergraduate study?		
Yes	89	65.9
No	46	34.1
Do you take courses/training about prehospital emergency care after the completion of your education?		
Yes	96	71.1
No	39	28.9
Do you know about Basic Life Support/Advanced Life Support?		
Yes	126	93.3
No	9	6.7
Do you know how CPR (cardiopulmonary resuscitation) is performed?		
Yes	133	98.5
No	2	1.5
Do you know about Revised Trauma Score for the prognosis of injury patients?		
Yes	81	60.0
No	54	40.0
Do you know training related to aspects of prehospital emergency nursing care?		
Yes	103	76.3
No	32	23.7
Do you know the recommended methods of transportation of emergency cases?		
Yes	103	76.3
No	32	23.7
Do you know the components of prehospital emergency ambulance carry?		
Yes	97	71.9
No	38	28.1
Do you know how you can independently manage an emergency patient?		
Yes	118	87.4
No	17	12.6
Do you know the ways you respond if you get suspected acute Myocardial Infarction?		
Yes	109	80.7
No	26	19.3

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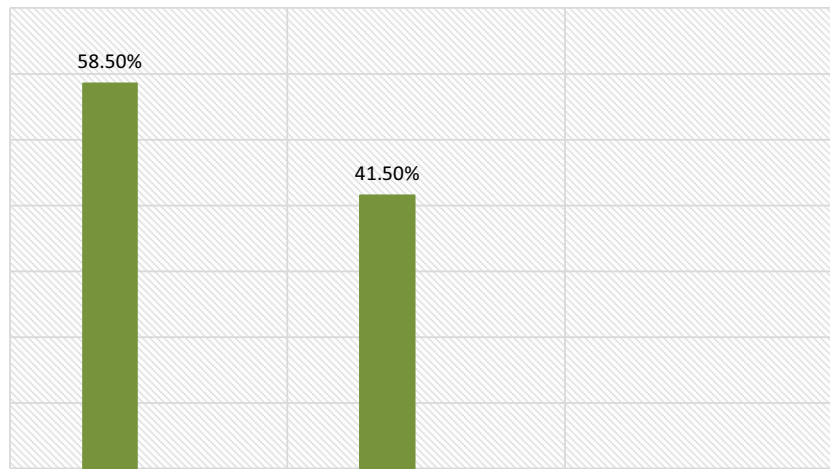
**Table 2.** Knowledge of EHCPs towards Prehospital Care in the Three Selected Prehospital Emergency Medical Service Institutions in Addis Ababa, Ethiopia, 2022 (n = 135)  
Abbreviation: EHCP, Emergency Health Care Provider.



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**Figure 1.** Pie Chart Illustrating Knowledge of Emergency Health Care Providers (EHCPs) towards Prehospital Care Working in the Three Selected Prehospital Emergency Medical Service Institutions in Addis Ababa, Ethiopia, 2022 (n = 135).





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**Figure 2.** Bar Chart Showing the Attitude of Emergency Health Care Providers (EHCPs) towards Prehospital Care Working in the Three Selected Prehospital Emergency Medical Service Institutions in Addis Ababa, Ethiopia, 2022 (n = 135).

prehospital care at a P value <.25. Furthermore, variables with a P value <.25 that were significantly associated with EHCPs' knowledge of prehospital care were candidates for multivariable logistic regression analysis (Table 4).

A multivariable logistic regression model showed that profession, educational status, and training were significantly associated with the knowledge of EHCPs to provide prehospital care with a P value <.05 and a 95% CI. The respondents' profession was significantly associated with EHCPs' knowledge of prehospital care. When compared to nurses, EMTs were three-times more likely (AOR = 3.2; 95% CI, 1.03 - 7.65) to have good knowledge of prehospital care. Respondent educational status was significantly associated with the EHCPs' knowledge of prehospital care. The EHCPs with a master's degree were 17% (AOR = 1.17; 95% CI, 1.08 - 4.93) more likely to be knowledgeable about prehospital care than those with a diploma. Having training was significantly related to health care providers' knowledge of prehospital care. When compared to their counterparts, EHCPs who received training were twice as likely (AOR = 2.25; 95% CI, 1.33 - 4.52) to have good knowledge of prehospital care (Table 4).

#### *Factors Associated with Attitude of EHCPs towards Prehospital Care*

In a binary logistic regression, it was shown that the sex of the respondents, working hours, service year, training, and knowledge of health care providers were significantly associated with their attitude towards prehospital care at a P value <.25. In addition, those variables significantly associated with the attitude of EHCPs towards prehospital care at a P value <.25 were candidates for multivariable logistic regression analysis (Table 5).

A multivariable logistic regression model revealed that respondent knowledge and receiving training were significantly associated with EHCPs' attitudes towards prehospital care, with a P value <.05 and 95% CI (Table 5).

Respondent knowledge was significantly related to health care providers' attitudes towards prehospital care. When compared to EHCPs with poor knowledge, those with good knowledge had a 36% (AOR = 1.36; 95% CI, 1.05 - 2.32) higher likelihood of having a favorable attitude towards prehospital care (Table 5).

Having training was significantly associated with the attitude of health care providers towards prehospital care. The EHCPs who

got training were three-times (AOR = 3.2; 95% CI, 1.24 - 7.83) more likely to have a favorable attitude towards prehospital care as compared to their counterparts (Table 5).

#### **Discussion**

The findings of this study showed that 58.5% of the EHCPs had good knowledge regarding prehospital emergency medical care. This is lower than a study done in India, which revealed a large portion the study participants (80%) had adequate knowledge, 13% had moderate knowledge, and eight percent had inadequate knowledge.<sup>13</sup>

In this study, 37.8% of the EHCPs had unfavorable attitude and 62.2% had favorable attitude towards prehospital care. This is almost similar to the study finding from Rwanda, which indicated that 39.3% of the nurses had favorable attitude towards the emergency care of RTA victims.<sup>11</sup> In contrast, this study is lower than a study done in Indonesia that showed that 84.6% of participants had positive attitude and the remaining 15.5% had un favorable attitude.<sup>13</sup> This discrepancy might be due to the difference in the study area, study design, and geographical location.

The respondents' profession was significantly related to EHCPs knowledge of prehospital care. Emergency medical technicians were three-times (AOR = 3.2; 95% CI, 1.03 - 7.65) more likely to have good knowledge as compared to the nurses providing prehospital care.

Another variable, the respondents' educational status, was found to be significantly associated with EHCPs' knowledge of prehospital care. The EHCPs with a master's degree had a 17% (AOR = 1.17; 95% CI, 1.08 - 4.93) higher likelihood of having good knowledge about prehospital care than those with a diploma. This is similar to the result from Tehran: no significant difference was observed between knowledge and any demographic characteristic ( $P = .05$ ) where education level was related to attitudes towards prehospital care.<sup>11,14</sup>

Having training was significantly associated with health care providers' knowledge of prehospital care. When compared to their counterparts, the EHCPs who received training were twice as likely (AOR = 2.25; 95% CI, 1.33 - 4.52) to have good knowledge about prehospital care. This is similar to a study done

No_	Attitude-Based Questions	Category	Frequency	Percentage %
1	Giving prehospital care to needy person is fair	Strongly Disagree	1	0.7
		Disagree	3	2.2
		Neutral	4	3
		Agree	33	24.4
		Strongly Agree	94	69.4
2	Giving prehospital care to needy person is unpleasant	Strongly Disagree	44	32.6
		Disagree	19	14.1
		Neutral	15	11.1
		Agree	41	30.3
		Strongly Agree	16	11.9
3	The Ministry of Health should prioritize prehospital emergency care on its agenda	Strongly Disagree	13	9.6
		Disagree	14	10.4
		Neutral	36	26.7
		Agree	34	25.2
		Strongly Agree	38	28.1
4	Readiness to join/form a society/an organization providing prehospital care	Strongly Disagree	3	2.2
		Disagree	3	2.2
		Neutral	10	7.4
		Agree	58	43
		Strongly Agree	61	45.2
5	Giving prehospital care to you is very good	Strongly Disagree	4	3
		Disagree	1	0.7
		Neutral	5	3.7
		Agree	42	31.1
		Strongly Agree	83	61.5
6	It is useful for you to learn prehospital care	Strongly Disagree	2	1.5
		Disagree	1	0.7
		Neutral	5	3.7
		Agree	30	22.2
		Strongly Agree	97	71.9
7	Prehospital care training is mandatory for all	Strongly Disagree	2	1.5
		Neutral	6	4.4
		Agree	26	19.3
		Strongly Agree	101	74.8
8	It would be beneficial if the Ministry of Health provided prehospital care training to all	Strongly Disagree	3	2.2
		Disagree	2	1.5
		Neutral	12	8.9
		Agree	40	29.6
		Strongly Agree	78	57.8
9	Prehospital care training should be mandatory in the curriculum.	Strongly Disagree	3	2.2
		Disagree	1	0.7
		Neutral	5	3.7
		Agree	30	22.2
		Strongly Agree	96	71.1

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**Table 3.** Attitude of EHCPs towards Prehospital Care in the Three Selected Prehospital Emergency Medical Service Institutions in Addis Ababa, Ethiopia, 2022 (n = 135)  
Abbreviation: EHCP, Emergency Health Care Provider.

Variables	Knowledge		COR (95%CI)	AOR (95%CI)	P Value
	Good	Poor			
<b>Age Group</b>					
18-25	14	13	1.36 (0.58-3.2)	1.22 (0.65-2.62)	.18
26-35	57	39	1.39 (0.32-6.1)	1.21 (0.23- 5.4)	.21
36-45	6	4	0.87 (0.32-1.86)	0.72 (0.24-1.54)	.11
> 45	2	0	1	1	
<b>Sex</b>					
Male	41	18	2.28 (1.12-4.65)	2.14 (0.85- 3.9)	.32
Female	38	38	1	1	
<b>Profession</b>					
Emergency Medical Technician	14	3	3.8 (1.04-9.94)	3.2 (1.03-7.65)	.03 <sup>a</sup>
Nurse	65	53	1	1	
<b>Training</b>					
Yes	68	38	2.93 (1.52-6.32)	2.25 (1.33-4.52)	.01 <sup>a</sup>
No	11	18	1	1	
<b>Educational Status</b>					
Diploma	14	13	1	1	
Degree	58	38	0.73 (0.45-1.2)	0.21 (0.56-2.60)	.33
MSc/MPH	7	5	1.5 (1.1-5.6)	1.17 (1.08-4.93)	.02 <sup>a</sup>
<b>Service Year</b>					
≤ 2 years	6	10	1	1	
3-5 years	32	16	1.8 (0.96,2.52)	1.4 (0.56,1.45)	.21
6-10 years	35	30	1.52 (0.32-3.74)	1.23 (0.15- 3.07)	.12
> 10 years	6	0	2.61 (1.75-3.90)	2.11 (0.44- 11.73)	.18

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**Table 4.** Multiple Logistic Regression Analysis of Factors Associated with EHCPs' Knowledge towards Prehospital Care in the Three Selected Prehospital Emergency Medical Service Institutions, Addis Ababa, Ethiopia, 2022 (n = 135)  
Abbreviation: EHCP, Emergency Health Care Provider.

<sup>a</sup> Significant association.

in Indonesia, which showed that training had a significant influence on knowledge, attitude, and practice scores for prehospital care.<sup>15</sup>

Respondent knowledge was significantly associated with EHCPs' attitudes towards prehospital care. When compared to EHCP with poor knowledge, those with good knowledge were 36% more likely (AOR = 1.36; 95% CI, 1.05 - 2.32) to have favorable attitude towards prehospital care. Previous training was significantly associated with the attitude of EHCPs towards prehospital care. When compared to their counterparts, the EHCPs who received training were three-times more likely to have a favorable attitude towards prehospital care (AOR = 3.2; 95% CI, 1.24 - 7.83).

#### Limitations

This study was novel in Ethiopia and can serve as a starting point for future researchers. The limitations of this study were the lack of domestic works of literature done in the related study area, and the probable lack of external validity of the findings. In addition to this, this study did not include the level of practice of EHCPs in prehospital care.

#### Conclusion

The majority of the EHCPs had good knowledge about prehospital care, and more than one-half of them had a favorable attitude towards prehospital care. Profession, educational status, and training were significantly associated with the knowledge of EHCPs to provide prehospital care. Knowledge of the respondent and having training were significantly associated with the attitude of EHCPs towards prehospital care. In-service training regarding emergency health conditions and the time needed to care for the patient is important for better prehospital emergency care. Enhancing individual-level education and work exposure in emergency care enables better performance in prehospital emergency care. Further studies should also be conducted in a multi-center approach to address the problem in a broader context.

#### Author Contribution

All authors contributed equally on the conception and design of the study, acquisition of data, analysis and interpretation of data, drafting the article or revising data content, and approval of the final the version.

Variables	Attitude		COR (95%CI)	AOR (95%CI)	P Value
	Favorable	Unfavorable			
<b>Working Hours in a Day</b>					
≤8 hours	45	22	1	1	
9-12 hours	38	28	0.82 (0.36-2.07)	0.52 (0.26-1.07)	.08
>12 hours	1	1	0.95 (0.48-2.16)	0.75 (0.38-1.46)	.38
<b>Service Year</b>					
≤ 2 years	7	9			
3-5 years	31	17	2.85 (0.29, 7.9)	0.77 (0.24,4.8)	.8
6-10 years	41	24	2.1 (0.2, 12.3)	0.51 (0.14,8.2)	.54
>10 years	5	1	1.3 (0.12, 4.87)	0.5 (0.45,10.2)	.74
<b>Knowledge</b>					
Poor	52	27	1	1	
Good	32	24	1.44 (1.1-2.56)	1.36 (1.05-2.32)	.01 <sup>a</sup>
<b>Training</b>					
Yes	63	44	5.25 (1.4-9.6)	3.2 (1.24-7.83)	.03 <sup>a</sup>
No	21	77	1	1	
<b>Sex</b>					
Male	36	23	0.91 (0.22-2.65)	0.74 (0.32-2.43)	.19
Female	48	28	1	1	

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**Table 5.** Multiple Logistic Regression Analysis of Factors Associated with EHCPs' Attitude towards Prehospital Care in the Three Selected Prehospital Emergency Medical Service Institutions, Addis Ababa, Ethiopia, 2022 (n = 135)  
Abbreviation: EHCP, Emergency Health Care Provider.

<sup>a</sup> significant association.

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### Supplementary Materials

To view supplementary material for this article, please visit <https://doi.org/10.1017/S1049023X23005915>

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