COLLEGE OF HEALTH SCIENCES ,SCHOOL OF NURSING AND MIDWIFERY DEPARMENT OF NURSING

KNOWLEDGE AND PRACTICE OF FIRSTAID FOR PEDIATRICS BURN INJURY AND ITS ASSOCIATED FACTORS AMONG CAREGIVERS OF CHILDREN UNDER 18 YEARS OLD IN AMBO TOWN, OROMIA REGION, ETHIOPIA,2025.

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A THESIS SUBMITTED TO THE NURSING DEPARTMENT, SCHOOL OF NURSING AND MIDWIFERY, COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE MASTER OF SCIENCE IN PEDIATRICS AND CHILD HEALTH NURSING.

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ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES SCHOOL OF NURSING AND MIDWIFERY MASTER OF SCIENCE RESEARCH PROJECT SUBMISSION FORM

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APPROVAL SHEET

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I, the undersigned, declare that I have submitted my original work on Knowledge and Practice of First aid for Pediatrics burn injury and Its associated factors among caregivers of children under 18 years old in Ambo Town,Oromia region,Ethiopia ,2025

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By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

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ABSTRACT

Background: Burns are skin injuries from heat, chemicals, or electricity, posing serious risks to children aged 1–5. They vary in severity and can cause shock, infection, and trauma. Quick first aid like using cold water helps, but many caregivers lack proper knowledge due to cultural and training gaps. Prevention and timely care are essential.

Methods: A community based cross-sectional study was conducted in Ambo town from January to February 2025. The study involved 374 participants selected through systematic random sampling from various kebeles. Data were collected using an interviewer-administered questionnaire, which then cleaned, coded, and entered into EPI data version 4.7 and then exported to SPSS version 26 for further analysis. Results were presented using frequency tables, charts, and graphs. Logistic regression was applied to examine the association between independent versus dependent variables, with significance determined by an Adjusted Odd Ratio (AOR), 95% Confidence Interval (CI), and p-values < 0.05.

Result: A total of 374 participants responded to this study with response rate of 100%. The mean age of study participants was 31.05 with a standard deviation of 9.845. This study determined that about 180 caregivers (48.1%) had a good level of knowledge and 197 caregivers (52.7%) showed good practices towards paediatrics burn first aid. The results showed that factors such as place of residence [AOR=3.582; 95%CI:(1.241,10.341), P=0.018], educational background [AOR=5.043; 95%CI:(1.496,16.998; P=0.009], the caregiver's relationship to the child AOR=6.159; 95%CI:(1.667,22.757); P=0.006]. and prior exposure to burn first aid information AOR=2.010; 95%CI:(1.148,3.517); P=0.014] were significantly associated with high level of knowledge. Additionally, having personal experience with burn injuries was significantly associated with better practices in administering paediatric burn first aid [AOR=2.206; 95%CI:(1.367,3.561); P=0.001].

Conclusion and recommendation: This study revealed a clear gap in caregivers' knowledge and practice regarding paediatric burn first aid, highlighting the need for action across all levels of the health system. Strengthening community awareness, integrating burn first aid into health programs, and providing targeted training particularly are crucial. National strategies should also incorporate burn first aid into health promotion efforts, school curricula, and maternal and child health services.

Key words: Burn, First aid, Burn first aid, Caregivers, Knowledge, Practice

1.INTRODUCTION

1.1 Background

Burns are injuries to the skin and nearby tissues caused by heat, radiation, radioactivity, electricity, friction, or chemicals.(1). These injuries cause a serious health problem, especially for children, who are more likely to have accidents and may not recognize danger (2). Children between the ages of 1 and 5 are particularly at risk, as scald injuries are the leading cause of burns in this age category(3).

Burns vary in severity based on how deep they are and the extent of the affected area. The severity is often classified into categories ranging from superficial to full-thickness burns, using the total body surface area (TBSA) affected to determine the injury's extent (4).

Burn injury in paediatrics can cause both immediate and long-term complications. Immediate complications include airway obstruction, hypovolemic shock, infection, and pain. Long-term complications may involve scarring, functional impairments, and psychological trauma, which can impact a child's physical appearance, mobility, and emotional health(5).

Effective burn care begins with immediate first aid at the injury site. Appropriate first aid is crucial for minimizing burn severity, preventing infection, easing pain, and stabilizing the child before professional help arrives(6).For all types of thermal burns, it's recommended to run cold water (between 2 and 15°C) over the burn for 20 minutes.This treatment is most effective within the first hour after injury but can still provide benefits up to three hours later(7).

Failure to provide timely care and poor early decision-making can significantly worsen the outcome and affect health facilities ability to provide effective treatment(8).Early intervention and proper first aid can lower the chances mortality and complications. However, many caregivers do not have the knowledge and skills needed to treat burns properly(9).

Studies showed that gaps in burn care knowledge and practice resulted from cultural beliefs, lack of training, limited access to health education, and misconceptions about burn

management(10). Burn injuries are more common in developing countries, especially in communities facing socioeconomic challenges. (11).

The most effective way to reduce the impact of burns in the community is by focusing in primary prevention although providing first aid continues to be an essential part of managing burn injuries(12). Therefore, gaining insight in to the extent of knowledge and practice as well as identifying factors associated with them is crucial for guiding targeted interventions designed to improve burn outcomes in children.

1.2 Statement of the Problem

Burn injuries are a complicated and severe public health concern, causing over 180,000 fatalities each year globally(13). They are the leading cause of morbidity and mortality in children, with burns being the fifth most prevalent type of non-fatal childhood injuries(14). Although the chance of sustaining burn injury is higher, child maltreatment is significantly contributes to this issue(15).

The child mortality rate due to burns is raised in certain areas compared to global averages, signifying an urgent need for enhanced care and prevention methods(3). Studies have shown a lack of community first aid knowledge, particularly in developing and underdeveloped countries, which worsens the occurrence of paediatric burn injuries(16). These injuries are particularly more common in lower- and middle-income countries, where factors such as lack of awareness, limited access to healthcare, and insufficient home safety measures intensify the problem(17).

In Africa, the rate of burn related fatalities among children under five is almost double that of children globally. A systematic review done on burn care in Africa revealed that proper prehospital care for burn injuries is not frequently implemented (18).In Ethiopia, burns account for 1.5% to 9% of all injuries across age groups and 4% to 15% of injuries in children, with an estimated fatality rate of 11.6%(9).

Previous studies have shown that caregivers' knowledge of burn care is often insufficient, with many failing to follow correct procedures when a burn occurs. Research across various settings has revealed significant deficiencies in caregivers' burn management practices, including neglecting to cool the burn with water or using harmful home remedies that worsen the injury(19).

A global review in 2023 revealed a moderate level of knowledge, scoring 51.44 out of 100(19). Similarly, studies from Saudi Arabia, Indonesia, Malaysia, and Ethiopia reported high percentages of caregivers with poor knowledge. In Al-Baha, Saudi Arabia, 73.6% lacked proper first aid knowledge, while 25.8% of parents in Tabuk showed inadequate knowledge and practice(20). In rural Indonesia, 67% of respondents had poor knowledge, and 93.7% of parents in Kelantan, Malaysia, were similarly inadequate(21). In Addis Ababa, Ethiopia, 66.3% of caregivers demonstrated poor knowledge, and 63.93% showed poor practice(22).

The consequences of inadequate burn care knowledge and practices are severe(9). Using improper first aid techniques like applying ice, ointments, or other inappropriate substances can cause additional tissue damage, increasing the risk of infection, and delay the healing process. Moreover , these errors can delay seeking proper medical care, prolong recovery, and increase healthcare costs(23).

Socio-economic status, education level, and cultural practices are also significantly affected how caregivers respond to paediatric burn injuries. However, there is limited understanding of these factors, especially in developing countries(19).

Despite the raising number of pediatric burn injuries, many caregivers in Ethiopia have limited knowledge of home-based first aid for burns and do not know how to effectively respond to burn emergencies in children (22). Therefore, this study aims to evaluate the knowledge and practices regarding pediatric burn first aid among caregivers in Ambo town and to identify factors that may influence these practices.

The results of this findings will provide valuable insights into the knowledge and practice gaps of caregivers' by identifying areas that need intervention. Additionally, this study will help to address the existing knowledge and practice gap by providing data that is specific to Ambo town, which can guide local health policies, community education initiatives, and healthcare strategies aimed at enhancing the management of paediatric burn injuries.

1.3 Significance of study

The result of this study is greatly beneficial for the Federal Ministry of Health, by allowing the development of targeted burn prevention programs and effective first aid protocols aimed to decrease the incidence and fatality rates associated with paediatric burn injuries.

For caregivers, the study indicates the need to enhance burn first aid knowledge and practice by enabling them to react promptly and efficiently in emergency situations, which will lead to improved outcomes for children who are injured.

The study also highlights the need for enhanced nursing education in paediatric burn management as it calls for more comprehensive training programs to ensure nurses are well-prepared to educate caregivers and handle burn cases effectively.

Lastly, for future researchers, this study serves as a foundation for further research on burn care, particularly in Ethiopia. It identifies gaps in both knowledge and practice, encouraging future studies to explore these areas and focus on community-level interventions and educational programs that could reduce the impact of burns and improve overall care.

2.LITERATURE REVIEW

2.1 Knowledge of caregivers towards burn first aid

Different scholars strived to determine the level of burn first aid knowledge among caregivers across different countries. For instance, in 2023 a global systematic review which included data from 11,763 caregivers participating in 14 studies aimed to evaluate caregivers' knowledge of first aid for burned children and the factors influencing this knowledge. The review, revealed that caregivers' knowledge of burn first aid was 51.44 out of 100, indicating a moderate level of knowledge(24).Several cross sectional studies have further investigated this topic across different regions. For instance, a study published in 2023 in the Al-Baha region of Saudi Arabia aimed to assess the public's knowledge of burn first aid and identify areas for enhancement. In this research, 26.4% of 346 participants had adequate knowledge of burn first aid care(25). In contrast, A 2022 cross-sectional study focused on the assessment of the knowledge, attitudes, and beliefs of parents regarding burn first aid in the Tabuk region of Saudi Arabia, with 299 parents participating, found that 74.2% of respondents possessed adequate knowledge of paediatric burn first aid(26).

Moreover, A 2021 cross-sectional study in Indonesia was conducted to explore myths and misconceptions in the rural communities of Kulon Progo. This study, which involved 74 respondents, found that 33% demonstrated a good level of knowledge(27). Additionally, in 2021, a cross-sectional study was conducted in a residential area of Kelantan, Malaysia, involving 80 parents of young children to assess their knowledge of burn first aid. The study found that 6.3% of the respondents had extensive knowledge of burn first aid(28).Finally in Ethiopia, a study conducted in 2022 aimed to assess the knowledge, attitude, and practice toward burn first aid and its associated factors among caregivers attending burn units in Addis Ababa revealed that 66.3 % had good knowledge(22).In general the level of knowledge varies, the studies highlight differences in caregivers' understanding of burn first aid.

2.2 Factors associated with knowledge

2.2.1 Sociodemographic factors

According to study done to explore the knowledge and practice of parents in Abha and Khamis Mushait, Saudi Arabia, about first aid for pediatric burn injuries among 764 respondents showed that, Age between 31 and 40 have good knowledge towards burn first aid compared to other age groups and parents who have more than 2 children have good knowledge towards burn first aid compared to those parents have less than 2

children(29).Similarly research aimed to determine the knowledge, attitude, and sources of information towards burn First aid among people referred to a burn centre in the North Iran states that the characteristics of age, sex, married status, place of residence, and education level, were significantly associated with the participants' degree of knowledge. Additionally, in 2021, a cross-sectional study was conducted in a residential area of Kelantan, Malaysia, involving 80 parents of young children to assess their knowledge of burn first aid and states female have good knowledge towards burn first aid compared to male(21). Similarly, A 2022 cross sectional study done in Addis Ababa, Ethiopia shows, Female care givers were 4 times more likely to have good knowledge towards burn first aid compared to male caregivers. Care givers lived in Rural areas 61% less likely to have good knowledge towards burn first aid compared to Urban care givers(22).

2.2.2 Clinical and Caregiver related factors

A 2022 cross-sectional study aimed to evaluate the knowledge, attitudes, and beliefs of parents regarding burn first aid in the Tabuk region of Saudi Arabia, involving 299 parents revealed that parents having history of burns were more likely to have good knowledge than who have no history of burn previously(20).

In 2021 a cross-sectional study was done aiming to explore the knowledge and practice of burn first aid among parents in Abha and Khamis Mushait cities in Saudi Arabia enrolling 764 respondents. The study showed that Mothers have good knowledge towards burn first aid compared to fathers and those who have attended previous first aid training have good knowledge compared to those do not attend the first aid training previously(30).Additionally, a study conducted in North Iran in 2021 revealed that participants those who have attended first aid training have good knowledge compared to those do not attend(31).

2.3 Practice of caregivers towards burn first aid

A 2022 cross-sectional study conducted in the Tabuk region of Saudi Arabia aim to evaluate parents' knowledge, attitudes, and beliefs about burn first aid. Involving 299 parents, the study found that 74.2% of participants generally demonstrated proactive practices in paediatric burn first aid(20). Similarly, a study conducted in Addis Ababa, Ethiopia aimed to evaluate caregivers’ knowledge, attitudes, and practices concerning burn first aid among caregivers in burn units. The study, which included 305 participants, revealed that 36.07% had good practices related to burn first aid(22).

2.4 Factors associated with practice

2.4.1Sociodemographic factors

A cross-sectional study performed in Addis Ababa, Ethiopia, revealed that the caregiver's gender and their residential area were significantly associated with the effectiveness of their burn first aid practices. This indicates that variables such as sex and geographical location may affect caregivers ability to deliver proper burn first aid(22).

2.4.2 Clinical and Caregiver related factors

A cross-sectional study carried out in 2019 with in the Majmaah community of Saudi Arabia aimed to evaluate parents' overall knowledge and practices related to burn first aid. The study included 390 parents and found that those who had experienced burn injury to self were more likely to demonstrate better burn first aid practices compared to parents who had never experienced a burn injury. This results indicates that having personal experience with burns may enhance awareness and application of first aid methods(32).

A cross-sectional study carried out among parents in the Tabuk region of Saudi Arabia indicated that fathers exhibited better burn first aid practices compared to mothers(20). Additionally, another study in Saudi Arabia identified significant association between previous burn first aid training and caregivers' level of practice in providing burn first aid(29).Similarly, a cross-sectional study conducted in Addis Ababa, Ethiopia, also found that previous training in burn first aid was significantly associated with level of practice of caregivers in treating burns(22). This highlights the beneficial effect of formal training on caregivers' capacity to manage burns effectively.

Various studies have investigated caregivers' knowledge and practices regarding burn first aid across various regions, showing that factors like personal experience, gender, and training influence their levels of knowledge and practice. The findings suggest that caregivers with prior experience or training tend to perform better in burn first aid. There are also variations in knowledge attributable factors such as gender and place of residence. However, there is persistent gap in knowledge and practices especially in areas where training and resources are scarce. Therefore, this study aims to assess the level of Knowledge and Practice of first aid for paediatrics burn injury and its associated factors among caregivers of children under 18 years old in Ambo town, Oromia region, Ethiopia.

2.5 Conceptual framework

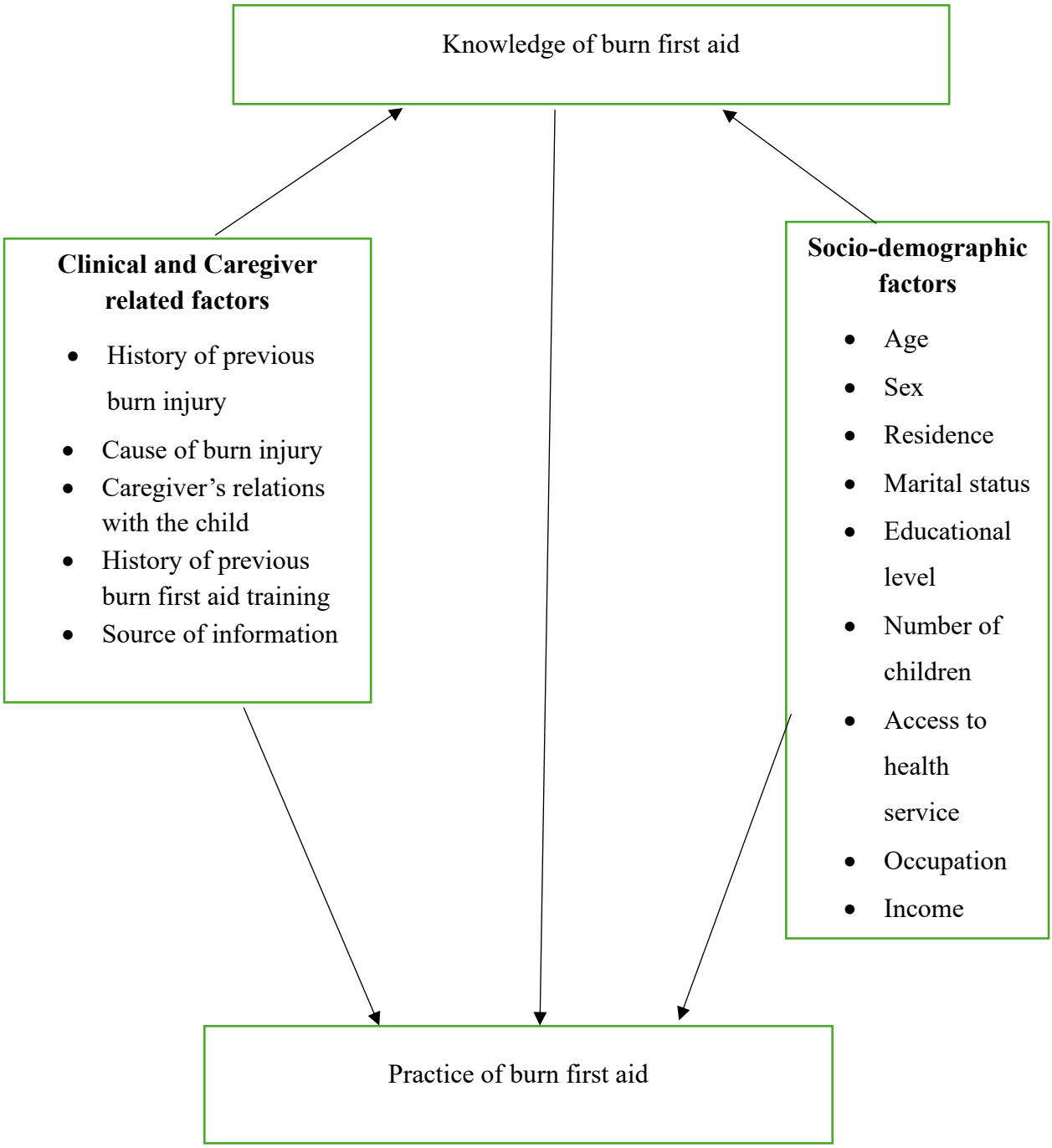

Figure 1 :Schematic presentation of the Conceptual Framework developed from literature review for possible association of factors with pediatric burn first Aid among caregivers of children under 18 years old in Ambo town, Oromia region Ethiopia, 2025(22,29,31,33)

3.OBJECTIVES

3.1 General Objectives

- The general objective of this study was to assess the level of Knowledge and Practice of first aid for paediatrics burn injury and its associated factors among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025.

3.2 Specific Objectives

Specific objectives were:

•To assess the level of knowledge of first aid for paediatrics burn injury among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025

•To assess the level of practice of first aid for paediatrics burn injury among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025

•To identify factors associated with the level of knowledge of first aid for paediatrics burn injury among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025

•To identify factors associated with the level of practice of first aid for paediatrics burn injury among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025

4. METHODS

4.1 Study area and Period

The study was conducted in Ambo Town from January to February 25, 2025 G.C. Ambo is located in Oromia region of Ethiopia approximately 110 km west of Addis Ababa. It serves as the administrative center for the west Shewa zone & and contains six kebele. Based on the data obtained from Ambo health office, Ambo has an estimated total population of 119,752 and total household of 5749. This town has a latitude and longitude of 8059'N 37051'E and an elevation of 2101 meters above sea level(34). The average annual temperature is18.9^{0}c and average annual rainfall of 1120 mm. With regard to health service coverage there are around thirteen public health facilities and twenty-one private clinics. The study was conducted on the six kebeles.

4.2 Study design

Community based cross-sectional study was conducted.

4.3 Population

4.3.1 Source population

All caregivers living in Ambo Town, Oromia region. Ethiopia.

4.3.2 Study population

Caregivers in the household who fulfil the inclusion criteria.

4.3.3. Sample population

A total 374 caregivers recruited from randomly selected households.

4.4 Eligibility criteria

4.4.1 Inclusion criteria

- Caregivers who are 18 and above
- Care givers willing to give consent to respond.

4.4.2 Exclusion criteria

- Individuals who cannot respond and critically ill.
- Caregivers who are health professionals.

4.5 Sampling method

4.5.1 Sample size determination

The sample size for this study was calculated using the single population proportion formula by taking the estimated proportion (P) of 63.93% which is poor practice level of caregivers about burn first aid in Addis Ababa, Ethiopia(22).

Using a 95-percentage confidence interval with 5 % margin of error and 5% non-response rate.

n_i= (Z a/2)2p (1-p)/ w2

where n: is sample size

Z: a/2- with a 95 % confidence interval equal to 1.96

P: 63.93%

W –margin of error which is 5%

According to the above formula,

$$n_i = [(1.96)^2 0.6393(1-0.6393)] / (0.05)^2 = 356$$

Considering 5% non-response rate total sample size was374.

4.5.2 Sampling procedure

The total sample size was allocated proportionally to the six kebeles based on the number of households as described in the Table 1. The sampling frame of this study was the list of house numbers in each kebele and study participants were selected from each stratum(kebele) by using systematic random sampling method.

The interval of the respondents was determined by K=N/n

Where N is total number of house hold in the kebele

n is the desired sample size from the kebele

The first household from each kebele was selected by lottery method. Whenever the household consists of multiple family groups such as lodgers, priority was given to the landlord.

Table 1 : Proportional allocation of sample size among kebeles in Ambo Town.

Kebele	**Total number of households**	**Sample size= (Total household in the kebele/total household in the town) * final sample size**	**Interval**
Ya'ii Gadaa	1131	74	15
Kisoose Odaa liiban	722	47	15
Awaroo Qoora	1021	66	15
Hoora Ayituu	1609	105	15
Torban Kutayee	894	58	15
Sanqalee Farisii	372	24	16

4.6 Operational definitions

Caregiver: in this study, a caregiver refers to any individual who provides direct or indirect assistance and support to a child under the age of 18, particularly in contexts related to health, safety, and daily living. This includes but is not limited to parents, guardians, relatives, babysitters, and childcare providers who are responsible for the well-being of the child:

Good knowledge: A knowledge score above or equal to the mean score was categorized as having good knowledge(22).

Poor knowledge: A knowledge score below the mean score was categorized as having poor knowledge(22).

Good practice: A practice score above or equal to the mean score was categorized as having good practice(22).

Poor practice: A practice score below the mean score was categorized as having poor practice(22).

4.7 Study variables

4.7.1 Dependent variables

- Knowledge of burn first aid
- The practice of burn first aid

4.7.2 Independent variables

- Age
- Sex
- Marital status
- Number of children
- Relation of the caregiver to the child
- Health facility accessibility
- Residence
- Educational status
- Occupation
- Income
- Previous burn first aid training
- Source of information about burn first aid
- Previous burn injury
- Cause of burn injury

4.8 Data collection tool and procedure

A questionnaire was prepared in English language and translated to Amharic and Afaan Oromo language and contains four sections namely Socio-demographic and Socio-economic characteristics, Clinical factor and caregiver related questions, questions to assess knowledge of burn first aid and questions to assess practice of burn first aid.

To assess the knowledge level of caregivers, a structured questionnaire consisting of ten items was administered. The mean knowledge score was calculated across all participants, and those who scored equal to or above the overall mean value of 3.448 were classified as having good knowledge. Similarly, the level of practice was evaluated using twelve items designed to assess caregivers' practical responses to paediatric burn injuries. Participants who obtained a score equal to or higher than the overall mean score of 1.8793 were considered to have good practice.

Furthermore, A total of six data collectors and two supervisors were selected from health extensions and training was given by the investigator before data collection. Questionnaire was adapted and derived from other similar study(22). The questionnaire was checked for

reliability with the results of Cronbach's alpha for knowledge and practice and it was found to be 0.887 for knowledge-based questions, and 0.758 for practical questions.

4.9 Data quality control

Throughout collecting, coding, entry, and analysis, data quality was monitored. Despite this, before the actual data collection, a pretest was done on 5% of the sample size at Guder town and modifications was made accordingly. The principal investigator and the supervisors were also continuously following data collection and checked the data for completeness and clarity daily.

4.10 Data Processing and Analysis

The data was checked for completeness and consistency, cleaned, coded, entered using Epi Data version 4.7 and exported to the SPSS software version 26 for analysis. Then, frequency table, percentage, and charts were used to present the result.

Bivariate analysis and multivariate analysis were computed to see the association between each independent variable and the outcome variable by using binary logistic regression.

The assumptions for binary logistic regression were checked and values below 0.25 in the bivariate analysis was reconsidered as candidate variables for multivariate logistic regression to control all possible confounders.

Adjusted odds ratios with their 95% confidence intervals and P value of less than 0.05 was used to state a result as statistically significant. Both bivariate and multivariate logistic regression were run to find an association between dependent and independent variables.

4.11 Ethical Consideration

The institutional review board (IRB) of Addis Ababa University, College of Health Sciences, granted a written ethical clearance, and consent was requested from the kebele administration offices.

By deleting personal identifiers, participants confidentiality was guaranteed. Before beginning the interview, explanation of the study's purpose was told and each was asked to give their informed consent.

The rights of study participants to decline participation, ask any questions, or withdraw at any moment during the data collection procedure was explained to them.

No one but the researcher has access to any of the data that was obtained, which was kept completely private.

4.12 Dissemination of the result

The results of this study will be presented to Addis Ababa university college of health science school of nursing & midwifery.

Copies of this findings will be given to the kebele administration and ambo town administrations for possible planning and implementation of child health interventions.

Additionally, the findings of this study will also be presented at different seminars, workshops and scientific conferences. The paper will also be submitted to national or international peer-reviewed scientific journals for possible publication.

5.RESULTS

5.1 Sociodemographic and Socioeconomic characteristics of study participants

Data were collected from all selected participants, achieving a 100% response rate, and were analysed accordingly. The respondents had a mean age of 31.05 with a standard deviation of 9.845. The majority of caregivers, 268 (71.7%), were female, and 198 (52.9%) of respondents were married. Additionally, most caregivers, 286 (76.5%), had more than two children. In terms of residence, 350 (93.6%) resided in urban areas, whereas only 24 (6.4%) lived in rural areas. Furthermore, 171 (45.7%) of the respondents reported having access to a health facility within 20 to 30 minutes. Regarding educational status 77 (20.6%) had completed primary school, while 142 (38%) held a university degree or higher. Moreover, 232 (62%) of the caregivers reported a monthly income of less than 5000 ETB. In terms of occupation, the largest group of respondents 164 (43.9%) were employed in non-governmental sectors and 86 (23%) were unemployed. (Table 2)

Table 2:Socio-Demographic and Socioeconomic characteristics of caregivers in Ambo town, Oromia region, Ethiopia,2025 (N = 374).

Socio-demographic &socio-economic characteristics	**Category**	**Frequency (N=374)**	**Percentage**
Sex	Male	106	28.3%
	Female	268	71.7%
Age	18-29	184	49.2%
	30-49	164	43.9%
	>50	26	7.0%
Marital status	Single	134	35.8%
	Married	198	52.9%
	Widowed	15	4.0%
	Divorced	27	7.2%
Number of children	1	88	23.5%
	2	159	42.5%
	3	84	22.5%
	4	29	7.8%
	5	9	2.4%
	6	5	1.3%
Area of residence	Urban	350	93.6%
	Rural	24	6.4%
Health Facility accessibility	<10 minutes	135	36.1%
	10-20 minutes	171	45.7%
	20-30 minutes	58	15.5%
	>30 minutes	10	2.7%

Educational status	No formal Education/cannot read and write	31	8.3%
	Primary school	77	20.6%
	Secondary school	57	15.2%
	Diploma	67	17.9%
	Degree and above	142	38%
Occupation	Unemployed	86	23%
	Farmer	2	0.5%
	Housewife	76	20.3%
	Labourer	8	2.1%
	Government employee	27	7.2%
	Non-government employee	164	43.9%
	Other	11	2.9%
Monthly income	<5000 ETB	232	62%
	5000-10000 ETB	106	28.3%
	10000-20000 ETB	34	9.2%
	>20000 ETB	2	0.5%

5.2 Clinical and Caregiver related characteristics

Out of the total 374 respondents, more than half 252 (67.4%) were parents or grandparents. Although none of the respondents (100%) had received any formal training in burn first aid 269 (71.9%) reported that they had heard about it. Among those who had heard of burn first aid 179 (47.9%) cited family members, friends, colleagues, and guardians as their primary sources of information. Furthermore, most respondents, 250 (66.8%), had personally experienced a burn injury before, and in 248 (66.3%) of these cases, the injury occurred accidentally. Additionally, the majority of these injuries 207 (55.3%) were caused by thermal injury. (Table 3)

Table 3: Clinical and Caregiver related characteristics of caregivers in Ambo town, Oromia region, Ethiopia,2025 (N = 374).

Clinical &caregiver related characteristics	**Categories**	**Frequency**	**Percentage**
Relation of caregiver to the child	Parent/grandparent	252	67.4%
	Family member	73	19.5%
	friend/colleague	3	0.8%
	Guardian	46	12.3%
Participated in burn first aid training	Yes	0	0%
	No	374	100%%
Have you heard about burn first aid	Yes	269	71.9%
	No	105	28.1%

Source of information	Family, friends, colleagues, guardians	179	47.9%
	Books	2	0.5%
	TV	15	4.0%
	Radio	5	1.3%
	Social media	62	16.6%
	Health professionals	6	1.6%
Have you experienced burn injury before to self?	Yes	250	66.8%
	No	124	33.2%
Cause	Thermal	207	55.3%
	Electrical	34	9.1%
	Chemical	8	2.1%
	Other	1	0.3%
How injury happened	Accidental	248	66.3%
	Intentional	1	0.3%
	Unknown	1	0.3%

5.3 Knowledge Level of caregivers towards burn first aid

Respondents were presented with ten questions to assess their knowledge. The first question asked them to define burn first aid and 80 caregivers (21.4%) strongly agreed and 254 (67.9%) agreed suggesting that a significant majority of respondents provided the correct answer. In contrast, 34 (9.1%) were neutral, and 6 (1.6%) disagreed, indicating a lack of clarity among a small portion of respondents. The next question inquired whether burns could result in permanent injuries, 84 caregivers (22.5%) strongly agreed and 211 (56.4%) agreed, while 58 (15.5%) were neutral. Only a few participants18 (4.8%) and 3 (0.8%) disagreed and strongly disagreed, respectively. These findings indicate that majority of respondents answered the question correctly. Regarding the use of water in burn management, the majority of participants recognized that rinsing the affected area with room temperature water is an appropriate initial first aid step. Specifically, 29 (7.8%) strongly agreed and 240 (64.2%) agreed. However, 67 (17.9%) were neutral, while 29 (7.8%) disagreed and 9 (2.4%) strongly disagreed. (Table 4)

In contrast, knowledge was limited when participants were asked whether covering a burn with a clean cloth before reaching the hospital could help reduce the risk of infection. Only 14 (3.7%) strongly agreed and 91 (24.3%) agreed with this correct practice. Meanwhile, 75 (20.1%) responded neutrally, and a significant portion160 (42.8%) disagreed and 34 (9.1%) strongly disagreed demonstrating a gap in knowledge regarding infection prevention. Similarly, when asked whether traditional remedies should be avoided before seeking medical attention, only 14 respondents (3.7%) strongly agreed and 124 (33.2%) agreed. A total of 36 (9.6%) remained neutral, while a larger share 149 (39.8%) disagreed and 11 (2.9%) strongly disagreed suggesting that many participants held misconceptions about the use of traditional treatments in burn care. Additionally, participants were questioned about the appropriate response when clothing catches fire specifically, the "stop, drop, and roll" technique. Only 54 (14.4%) strongly agreed and 124 (33.2%) agreed, while 36 (9.6%) were neutral. A majority 149 (39.8%) disagreed and 11 (2.9%) strongly disagreed. (Table 4)

The participants knowledge score ranged from a minimum of 1.90 to a maximum of 5.00. The overall mean knowledge score among participants was 3.488 with standard deviation of 0.4434. Based on this, 180 respondents (48.1%) were identified as having a good understanding of appropriate burn first aid. (Figure 2)

Table 4: Characteristics of knowledge levels of first aid for pediatric burn injury among caregivers in Ambo town, Oromia region, Ethiopia,2025.

Knowledge based Questions	Categories	Frequency	Percentage
Burn first aid is the immediate care given for a person who sustained burn injury before the victim arrive health institution.	Strongly disagree	0	0%
	Disagree	6	1.6%
	Neutral	34	9.1%
	Agree	254	67.9%
	Strongly agree	80	21.4%
Burn can lead to permanent injuries?	Strongly disagree	3	0.8%
	Disagree	18	4.8%
	Neutral	58	15.5%
	Agree	211	56.4%
	Strongly agree	84	22.5%
Children are the most vulnerable family members for burn?	Strongly disagree	2	0.5%
	Disagree	6	1.6%
	Neutral	19	5.1%
	Agree	136	36.4%
	Strongly agree	211	56.4%
Washing the burned area with room temperature water is the first correct step in case of burn injuries?	Strongly disagree	12	3.2%
	Disagree	26	7.0%
	Neutral	70	18.7%
	Agree	205	54.8%
	Strongly agree	61	16.3%
Applying first aid medicine at home over a burned area leads to a better outcome?	Strongly disagree	9	2.4%
	Disagree	29	7.8%
	Neutral	67	17.9%
	Agree	240	64.2%
	Strongly agree	29	7.8%
In case of burn injury, its beneficial to use antibiotics in management	Strongly disagree	7	1.9%
	Disagree	54	14.4%
	Neutral	111	29.7%
	Agree	189	50.5%
	Strongly agree	13	3.5%
In case of burn injury, covering the burned area with clean cloth before heading to the hospital can decrease the risk of infection	Strongly disagree	34	9.1%
	Disagree	160	42.8%
	Neutral	75	20.1%

	Agree	91	24.3%
	Strongly agree	14	3.7%
All burn injuries must be treated in the hospital	Strongly disagree	3	0.8%
	Disagree	113	30.2%
	Neutral	58	15.5%
	Agree	158	42.2%
	Strongly agree	42	11.2%
Never apply traditional remedies to the burn before going to the health facility, e.g., "Dough, toothpaste, oil, coffee powder, etc." as first aid for burn wounds.	Strongly disagree	38	10.2%
	Disagree	225	60.2%
	Neutral	60	16.0%
	Agree	37	9.9%
	Strongly agree	14	3.7%
Stop, drop, and roll when your clothes catch fire	Strongly disagree	11	2.9%
	Disagree	149	39.8%
	Neutral	36	9.6%
	Agree	124	33.2%
	Strongly agree	54	14.4%

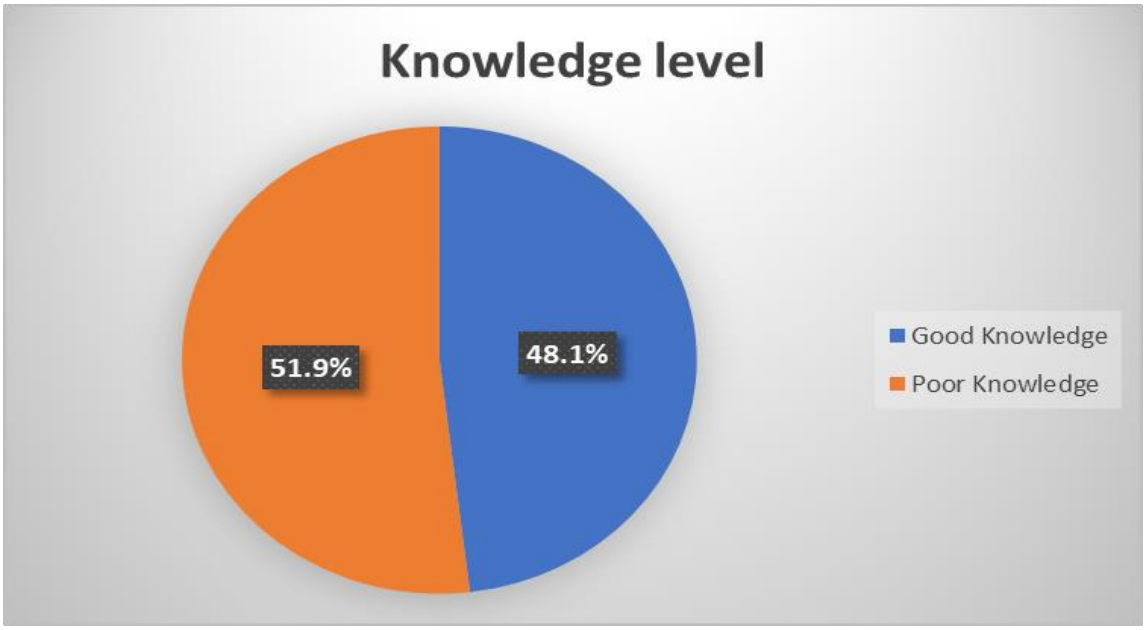

Figure 2: Knowledge level of first aid for pediatric burn injury among Caregivers in Ambo town Oromia region, Ethiopia,2025.

5.4 Practice Level of caregivers towards burn first aid

This study employed 12 questions to assess participants' practices concerning first aid for paediatric burn injuries. When asked where they would seek help for a family member with a minor burn, the majority267 (71.4%) reported seeking care at a health post or clinic, followed by hospitals (21.9%). A small proportion preferred a pharmacy (3.7%) or herbalist/traditional healer (1.1%), while 1.1% responded with "don't know". In case of severe burns, 242(64.7%) indicated they would go to a hospital, and 31.6% would go to a health post or clinic. Only 1.3% each reported going to a herbalist or pharmacy. Regarding immediate responses to hot liquid spill on themselves or family member, 246(65.8%) reported they would apply cold water. Concerning the length of time water would be applied 70(18.7%) said less than 5 minutes,143(38.2%) said for 5 to 10 minutes, 4.5% said 10 to 15 minutes and 1.1% said for up to 20 minutes. When asked what they would do if their clothing caught fire, only 151(40.4%) identified the correct "stop, drop and, roll" technique. Additionaly,226 (60.4%) respondents, reported using dough as a traditional remedy followed by toothpaste 53(14.2%), oil 46(12.3%), aloe vera 23(6.1%), honey 12(3.2%), coffee powder 10(2.7%), and milk 3(0.8%). (Table 5)

The participants practice score ranged from a minimum of 1.7 to a maximum of 2.82. The overall average practice score among participants was 1.8793 with standard deviation of 0.2625. based on this score, 197 respondents (52.7%) were identified as having a good practice of appropriate burn first aid. (Figure3)

Table 5:Characteristics of practice levels of first aid for paediatric burn injury among caregivers in Ambo town, Oromia region, Ethiopia,2025.

Variables	Categories	Frequency	Percent
If someone from your family member received a small/minor burn, where would you take them quickly for treatment?	Herbalist/traditional healer	4	1.1%
	Pharmacy	14	3.7%
	Health post/clinic	267	71.4%
	Hospital	82	21.9%
	Others	3	0.8%
	Don’t know	4	1.1%
If someone from your family member received a large/major burn, where would you take them quickly for treatment?	Herbalist/ traditional healer	5	1.3%
	Pharmacy	5	1.3%
	Health post/clinic	118	31.6%
	Hospital	242	64.7%
	Others(specify)	1	0.3%
	Don’t know	3	0.8%
In case of burn injury, have you ever applied cold water?	Yes	234	62.6%
	No	140	37.4%
Applying water duration	Less than 5 minutes	70	18.7%
	5-10 minutes	143	38.2%
	10-15 minutes	17	4.5%
	Up to 20 minutes	4	1.1%
In case of burn injury, have you removed clothing or accessories from the injured area?	Yes	340	90.9%
	No	34	9.1%
In case of burn injury, if your clothes were caught in fire you should roll on ground	Yes	212	56.7%
	No	162	43.3%
In case of electrical burn injury, I should not touch the injured person if he/she is still in contact with the electrical current	Yes	356	95.2%
	No	18	4.8%
In case of electrical burn injury, first action is to Turn off the source of electricity if possible	Yes	362	96.8%
	No	12	3.2%
In case of burn injury, picking blisters is an incorrect action	Yes	341	91.2%
	No	33	8.8
What would you do if you spill hot liquid on your (or your family member's) arm?	Apply cold water	246	65.8%
	Apply aloe Vera	19	5.1%
	Apply ointment/paste	98	26.2%
	Other	3	0.8%
	Don't know	8	2.1%

What would you do if your clothing caught fire?	Stop drop and roll	151	40.4%
	Smother with cloth	21	5.6%
	Jump in water Run	41 1	11.0% 0.3
	Take off clothing	159	42.5%
	Other	1	0.3%
	Don't know	0	0%
What traditional substance you used when the patient you are caring has sustained burn injury?	Dough	226	60.4%
	Toothpaste	53	14.2%
	Honey	12	3.2%
	Alovera	23	6.1%
	Oil	46	12.3%
	Coffee powder	10	2.7%
	Milk	3	0.8%
	None	1	0.3%

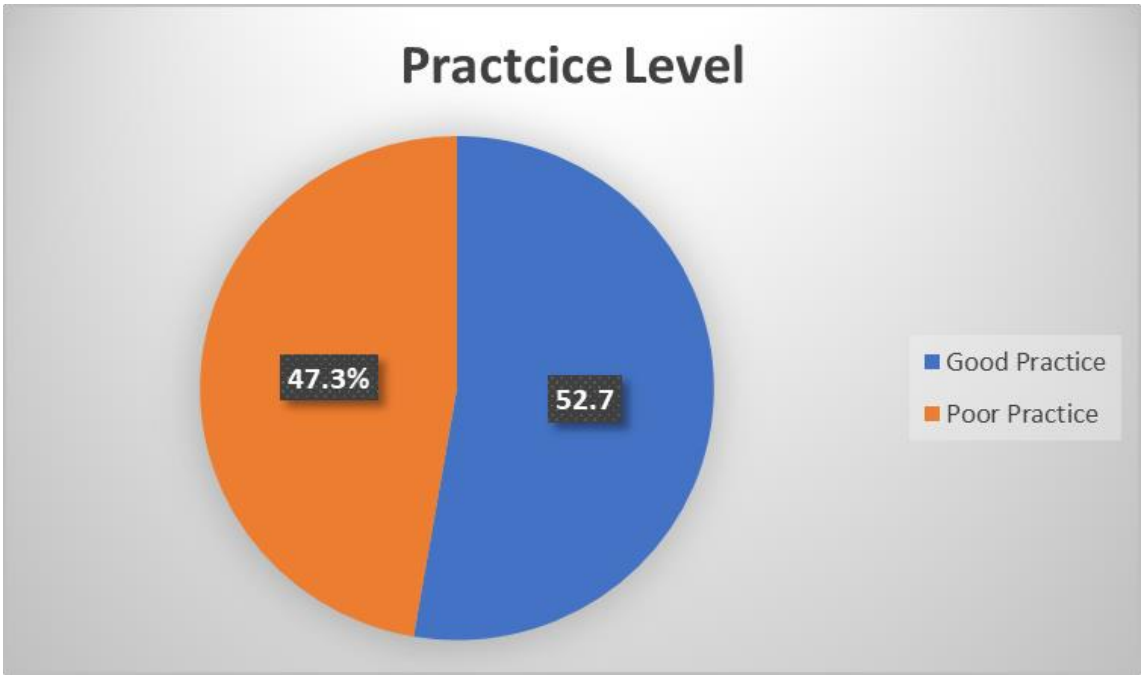

Figure 3: Practice level of first aid for pediatric burn injury among Caregivers in Ambo town Oromia region, Ethiopia,2025

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5.5. Factors associated with caregiver's knowledge of first aid for paediatric burn injury

Binary logistic regression analysis was conducted to examine the association between variables and knowledge of first aid for paediatric burn injury. In the bivariate analysis, variables such as sex, age, marital status, residence, access to health facilities, educational status, and prior exposure to information about burn first aid (i.e., having heard about it) had p-values less than 0.25, making them eligible for inclusion in the multivariate analysis. However, in the multivariate analysis, only residence, educational status, caregiver relationship to the child, and prior exposure to burn first aid information were found to be statistically significant predictors of burn first aid knowledge. (Table 6)

The odd of having good knowledge about burn first aid in caregivers who are residing in urban area is 3 times more likely than who are residing in rural area [AOR=3.582; 95%CI:(1.241,10.341), P=0.018].Caregivers who are diploma holders were 5 times more likely to have good knowledge than who have no formal education [AOR=5.043; 95%CI:(1.496,16.998; P=0.009] while degree holders were 7 times more likely to have good knowledge [AOR=6.913; 95%CI:(2.110,22.652; P=0.001].Parent caregivers were 6 times more likely to have good knowledge compared to guardian caregivers [AOR=6.159; 95%CI:(1.667,22.757); P=0.006]. Respondents who have heard about burn first aid are also 2 times more likely to have good knowledge than who haven't heard [AOR=2.010; 95%CI:(1.148,3.517); P=0.014]. (Table 6)

Table 6: Bivariate and multivariable analysis of factors associated with caregiver's knowledge of first aid for paediatric burn injury among care givers in Ambo town, Oromia region, Ethiopia 2025.

variables	**Categories**	**Levels of knowledge**		**95% Confidence interval (95% CI)**		
		Good	Poor	COR	AOR	P value
Sex	Male	65	41	2.109(1.332,3.340)	1.644(0.943,2.865)	0.079
	Female	115	153	1	1	1
Age	18-29	73	111	1	1	1
	30-49	97	67	2.201(1.433,3.381)	0.831(0.474,1.456)	0.518
	>50	10	16	0.950(0.409,2.209)	0.603(0.198,1.835)	0.373

Marital status	Single	43	91	1	1	1
	Married	116	82	2.994(1.890,4.742)	1.325(0.676,2.597)	0.413
	Widowed	7	8	1.852(0.631,5.438)	1.426(0.379,5.356)	0.600
	Divorced	14	13	2.279(0.986,5.266)	1.431(0.486,4.221)	0.516
Residence	Urban	174	176	2.996(1.150,7.649)	3.582(1.241,10.341)	0.018*
	Rural	6	18	1	1	1
Health facility accessibility	<10 minute	63	72	1	1	1
	10-20 minute	95	76	1.429(0.908,2.247)	1.692(0.987,2.903)	0.056
	20-30 minute	18	40	0.514(0.268,0.986)	0.564(0.272,1.169)	0.123
	>30 minute	4	6	0.762(0.206,2.882)	0.830(0.197,3.503)	0.800
Educational status	No formal education	5	26	1	1	1
	Primary school	21	56	1.950(0.0662,5.745)	2.621(0.776,8.858)	0.121
	Secondary school	23	34	3.518(1.178,10.501)	3.061(0.869,10.788)	0.082
	Diploma	39	28	7.243(2.476,21.183)	5.043(1.496,16.998)	0.009*
	Degree and above	92	50	9.569(3.460,26.456)	6.913(2.110,22.652	0.001*
Relation of caregiver	Parent/grand parent	148	104	14.942(5.199,42.948)	6.159(1.667,22.757)	0.006*
	Family member	271	462	6.163(1.990,19.085)	2.211(0.596,8.194)	0.235
	Friend/colleague	1	2	5.250(0.386,71.421)	3.361(0.166,68.173)	0.430
	Guardian	4	42	1	1	1
Have you ever heard about burn first aid?	Yes	144	125	2.208(1.382,3.529)	2.010(1.148,3.517)	0.014*
	No	36	69		1	1

* = Significant association, AOR: Adjusted odd ratio, COR: crude odd ratio CI: Confidence interval.

5.6 Factors associated with caregiver's practice of first aid for paediatric burn injury

In binary logistic regression, marital status, educational status, relation of caregiver and previous experience of burn injury to self were associated in bivariate analysis with P value

of <0.25. However, only previous experience of burn injury to self was significantly associated with practice level of caregivers.

The odd having good practice in caregivers who have experienced burn injury to self was 2 times more likely to have good practice than who have no history of burn injury [AOR=2.206; 95%CI:(1.367,3.561); P=0.001]. (Table 7)

Table 7: Bivariate and multivariable analysis of factors associated with caregiver's practice of first aid for paediatric burn injury among care givers in Ambo town, Oromia region, Ethiopia 2025.

Variable	**Categories**	**Levels of knowledge**		**95% Confidence interval (95% CI)**		
		Good	**Poor**	**COR**	**AOR**	**P-value**
Marital status	Single	61	73	1.045(0.455,2.400)	1.282(0.484,3.393)	0.617
	Married	118	80	1.844(0.820,4.146)	1.909((0.809,4.504)	0.140
	Widowed	6	9	0.833(0.231,3.003)	1.099(0.288,4.191)	0.890
	Divorced	12	15	1	1	1
Educational status	No formal education	12	19	1	1	1
	Primary school	30	47	1.011(0.430,2.378)	1.112(0.455,2.720)	0.815
	Secondary school	29 43	28	1.640(0.673,3.993)	1.416(0.552,3.634)	0.469
	Diploma	83	24	2.837(1.178,6.829)	2.429(0.963,6.130)	0.060
	Degree and above		59	2.227(1.005,4.938)	1.935(0.826,4.534)	0.128
Relation of caregiver	Parent/grand parent	144	108	1	1	1
	Family member	35	38	0.691(0.410,1.165)	0.776(0.409,1.473)	0.438
	Friend/colle a gue	2	1	1.500(0.134,16.758)	2.367(0.188,29.775)	0.505
	Guardian	16	30	0.400(0.208,0.771)	0.877(0.346,2.222)	0.782

Have you experienced burn injury	Yes	133	117	2.067(1.326,3.222)	2.206(1.367,3.561)	0.001*
	No	44	80	1	1	1

* = Significant association, AOR: Adjusted odd ratio, COR, crude odd ratio CI: Confidence interval.

6.DISCUSSION

6.1 Knowledge of First aid for Pediatrics burn injury and Its associated factors

This study provides valuable insights into caregivers knowledge and practice of first aid for paediatric burn injuries, as well as the factors linked to their knowledge and practices.

In this study, 48.1% of caregivers demonstrated good knowledge of burn first aid. This indicates that more than half of the caregivers lack adequate knowledge, which suggests a significant gap in understanding appropriate first aid practices for paediatric burn injuries. Such a level of knowledge is not be sufficient to ensure proper and timely first aid intervention in cases of burn injuries among children, potentially leading to preventable complications.

However, this result is higher than those reported in studies conducted in the Albaha region of Saudi Arabia (26.4%), Kulon Progo, Indonesia (33%), and Kelantan, Malaysia (6.3%)(21,25,27). The difference in target population may account for the variation. This study focused specifically on primary caregivers of children, who are more likely to encounter paediatric burn injuries and may actively seek information related to child health. In contrast, the albaha region of Saudi Arabia study and kulon prugo(Indonesia) included a more general population, some of whom may not have direct caregiving responsibilities for children. Another possible variation for the higher level of knowledge observed in the present study compared to the Kelantan, Malaysia study is the difference in sample size. The current study involved 374 caregivers, while the Kelantan study included only 74 participants**.**

In contrast , the current finding is lower than those reported in the Tabuk region of Saudi Arabia(26).This difference may be attributed to differences in access to burn first aid training. In this study, none of the participants had received formal first aid training. The result of this finding is also lower than study conducted in burn units in Addis Ababa, Ethiopia(35). This can be due to the difference in study setting. The Addis Ababa research was conducted in hospital-based burn units, where caregivers of burn patients or individuals receiving burn treatment were more likely to have direct interaction with healthcare professionals which can greatly enhance knowledge levels. In contrast, the present study was took place in a community environment where caregivers might have minimal or no engagement with burn care services.

The analysis using multivariate logistic regression in this study indicated a significant association between caregivers' area of residence and level of knowledge regarding paediatric burn first aid. Specifically, caregivers living in urban areas were more likely to demonstrate good knowledge compared to those living in rural areas. This variation can be due to the fact that urban residents generally have greater access to health information, including health extension programs, public awareness initiatives, and opportunities to engage with healthcare professionals, which facilitate knowledge gain. This finding is supported by results from a study conducted in burn units of Addis Ababa(35). One possible for this alignment is the presence of shared population characteristics among both study settings, especially among urban participants. urban populations in Ethiopia regardless of specific region often share similar cultural belief toward healthcare, such as greater trust in formal medical systems and less reliance on traditional remedies compared to rural communities.

Similarly educational status was found to be significantly associated with caregivers' knowledge of paediatric burn first aid**.** Specifically, respondents who are degree holders were more likely to demonstrate good knowledge compared to those with no formal education. This finding aligns with the study conducted in North Iran(31). This may be attributed shared characteristics of caregivers. In this study, a significant number of caregivers held diploma or degree-level qualifications, similar to the Iranian study where a large portion of respondents were degree holders. Individuals with higher education are more likely to have better health literacy**,** making them more capable of understanding, interpreting, and retaining health information related to burn first aid.

In addition, the caregiver's relationship to the child was significantly associated with knowledge of paediatric burn first aid, with parents and grandparents demonstrating higher knowledge levels than guardians. This finding aligns with a study from Abha and Khamis Mushait, Saudi Arabia which reported that mothers had better knowledge of burn first aid (29). The consistency between studies may be explained by the shared role of primary caregivers**,** who are more likely to be involved in daily childcare, encounter burn incidents, and seek out or retain information on appropriate first aid practices.

In contrast to studies conducted in Abha and Khamis Mushait cities (30), where formal burn first aid training was significantly associated with caregivers' knowledge, the current study did not find a significant association between prior training and knowledge level. This might

be due to lack of burn first aid training which make it impossible to assess the impact of training on knowledge.

The present study did not identify a significant association between age, number of children, and marital status with caregivers' knowledge levels but significantly associated in study conducted Abha and Khamis Mushait cities and north Iran(5,30). The possible discrepancy lies in the socio-cultural and demographic context of the study population. In this study area, the majority of caregivers shared relatively homogeneous characteristics, such as similar age ranges (predominantly 18-29years), high rates of marriage, and similar number of children.

In the present study, having heard about burn first aid from any source was significantly associated with good knowledge scores. This indicates the importance of information exposure, even in the absence of formal training. However, studies did not find a significant association between simply hearing about burn first aid and knowledge level. These discrepancies might be due to difference in caregiver's characteristics. In this study, respondents reported never receiving formal training, making any information regarding burn first aid relatively more impactful. In contrast, other settings have access to first aid trainings reducing the relative importance of simply "hearing about" burn care.

6.2 Practice of First aid for Pediatrics burn injury and Its associated factors

In the present study, 52.7% of caregivers demonstrated good practice in paediatric burn first aid**.** This suggests that nearly half of the caregivers do not follow appropriate first aid practices, which may put children at risk of complications or delayed recovery in the event of a burn injury. This level of good practice is not satisfactory, as effective first aid is critical in the immediate management of paediatric burns.

When compared to a study conducted in the Tabuk region of Saudi Arabia, the result of the current study indicates a relatively lower level of proper burn first aid practices among caregivers(26). This disparity can result from, the availability first aid trainings and cultural practices. In this study area, traditional remedies are commonly used, which can reduce the practice level.

On the other hand, the current finding is higher than the results conducted in Addis Ababa burn units(35). The higher level of good practice observed in this study may be linked to the caregivers' prior personal or familial experience with burn injuries. In this study majority of respondents have previous experience of burn injury to self.

One of the key findings of this study is the significant association between previous experience with burn injuries and good first aid practice. This finding is consistent with a study conducted in the Majma'ah community of Saudi Arabia(36). This might be attributed to the similarly high percentage of individuals with previous burn injury experiences. In this study, about 66.8% of respondents and 73.1% of the Majma'ah community reported having experienced a burn injury(36).

In contrast to study conducted in burn units of Addis Ababa, Ethiopia(35), which found a significant association between previous burn first aid training and caregivers' level of practice, the current study did not identify such an association. This discrepancy might be attributed to lack of burn first aid training among all respondents.

7.CONCLUSSION AND RECOMMENDATIONS

7.1 Conclusion

This study found that 48.1% of caregivers had good knowledge and 52.7% had good practice regarding first aid for paediatric burn injuries in Ambo Town. Multivariate analysis identified residence, educational status, caregiver relationship to the child, and prior exposure to burn first aid information as factors significantly associated with knowledge level. Additionally, caregivers with a history of burn experience were more likely to demonstrate good first aid practices. These findings highlight the need for targeted interventions to improve caregivers' knowledge and practice to paediatric burn injuries.

7.2 Recommendations

Based on the findings of this study, which revealed unsatisfactory levels of knowledge and practice among caregivers regarding paediatric burn first aid, the following recommendations are proposed for different levels of the health system and administrative structures:

For Kebele Administrations

Community awareness campaigns should be launched with local health extension workers to educate caregivers on proper burn first aid. Kebele administrators should support this by organizing training sessions at health posts and community centers to ensure wide participation.

Regular refresher trainings and public health campaigns using local languages and media are needed at all levels to improve caregivers' understanding and practice of burn first aid.

For Woreda and Zonal Health Office

The Woreda Health Office should integrate burn first aid into the Health Extension Program, train health workers, monitor program effectiveness, and strengthen referral and emergency response systems for burn injuries.

For Regional Health Bureau Level

The Oromia Regional Health Bureau should develop a standard burn first aid training module, collaborate with NGOs and academic institutions for support, and prioritize rural areas where knowledge gaps are greater.

For the federal ministry of health

The Ministry of Health should include burn first aid in national health promotion, develop and distribute training guidelines, and integrate it into school curriculum and maternal and child health services to raise early awareness.

For researchers

Due to the limited literature on burn first aid, researchers should focus on studying caregivers' knowledge and practices, evaluate the impact of community interventions, and explore regional differences to inform national health policies.

For Caregivers

Caregivers should seek burn first aid training and apply proper techniques for prompt, effective care in case of paediatric burns.

8. STRENGTH AND LIMITATION

8.1 Strength

It addressed an important public health issue by evaluating both knowledge and practice of first aid for paediatric burn injury among caregivers. The identification of key associated factors provides valuable insight for designing targeted interventions.

8.2 limitations

There is a lack of sufficient literature on similar topics, which made comparison with other studies challenging. Additionally, the assessment of practice relied solely on participants' self-reported responses rather than direct observation of actual behavior during burn incidents, which may affect the accuracy of the findings.

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10. APPENDIX

10.1 Assurance of principal investigator

Title: Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers of children under 18 years old in Ambo Town, Oromia region, Ethiopia,2025

My name is _____ I am working as a data collector in the research conducted by Eftu Hawera who is conducting this research for the partial fulfilment of her Master's degree in paediatrics and child health nursing at Addis Ababa University. We are trying to assess Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers in Ambo Town, Oromia region, Ethiopia; we would like your honest opinion concerning the questions.

Title: Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers in Ambo Town, Oromia region, Ethiopia,2024

Purpose: The study aims to assess Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers in Ambo Town, Oromia region, Ethiopia 2024

Duration: The question that is going to be asked will take about 15 minutes.

The benefit of the study: There is no direct benefit to you now. However, the result of the study will help develop an effective burn prevention program in Ethiopia.

Risk of the study: Participating in this study will not have any risk or harm associated with data collection.

Rights of the participant: participating and not participating is the full right and participants can Stop participating in the study at any time. Participants can ask any questions, which is not clear for understanding.

Confidentiality: Any information forwarded was to be kept private and his/her name will not be specified. We would like to express our heartfelt appreciation for your collaboration and thank you in advance.

Address of the principal investigator:

Tel: 0911780701 Email: iftuhawera@gmail.com

10.2 Consent form

Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers of children under 18 years old in ambo town, Oromia region, Ethiopia I am a participant in the study and I clearly understand the objective, and significance of the study and what is expected from me. I also understand that the name, signatures, and all information that I give will be kept and not transferred to other third persons.

Signature---------- date----------

I certify that I have read the above consent procedure to the participant Name and signature of data collector ----------

Date of consent_____

Name of study cite (kebele) _____

Thank You for your willingness to participate!!

10.3 English version of Questionnaire

Part I: Socio demographic and socio-economic characteristics of the caregivers

Instruction: Please encircle the participant's response among the given alternatives after carefully interviewing them. Thank you for your cooperation!!

No_	Socio demographic and socio-economic variable	Answers
1	Sex	1. Male 2. Female
2	Age	_____
3	Marital Status	1. Single 2. Married 3. Widowed 4. Divorced
4	Number of children	_____
5	Area of residence	1. Urban 2. Rural
6	Health facility accessibility (In terms of minute)	_____
7	Educational status	1. No formal education/Cannot read and write 2. Primary school (Grade 1-8) 3. Secondary school (Grade 9-12) 4. Diploma 5. Degree and above
8	Occupation	1. Unemployed 2. Farmer 3. House wife 4. Labourer 5. Government employee 6. Non-government employee 7. Others (specify)……
9	Monthly income in birr	

Part II: Clinical factor and Caregiver related Questions

Please encircle the participant's response among the given alternatives after carefully interviewing them.

1	Relation of the caregivers to the child	1.Parent/grand parent 2.Family member 3.Friend/colleague 4.Guardian Other(specify)……
2	Participated in burn first aid training?	1.Yes 2.No 3.If yes for how long……. By whom…….
3	Have you ever heard about burn first aid?	1.Yes 2.No
4	If yes for Q 2, from where did you hear? You can choose more than one option	1.Family, friends, colleagues, guardians 2.Books 3.TV 4.Radio 5.Social media 6.Health professionals Others (specify)……
5	Have you ever experienced a burn injury before to self?	1.Yes, I have 2.No, I have not
6	If yes for Q 14. What was the cause of burn injury?	1. Thermal 2. Electrical 3. Chemical--- Others (specify)….
7	How did the injury happen?	1. Accidental 2. Intentional 3. Unknown Others [specify]……

Part III: Questions to assess Knowledge of caregivers towards burn first aid in Ambo Town, Oromia region,2024

Instruction: Please encircle the participant's response and circle the number after carefully interviewing them. **(Strongly disagree =1, disagree =2, Neutral =3, agree =4, strongly agree = 5)**

No_	Questions to assess caregivers burn first aid knowledge	1	2	3	4	5
1	Burn first aid is the immediate care given for a person who sustained burn injury before the victim arrive health institution.	1	2	3	4	5
2	Burn can lead to permanent injuries?	1	2	3	4	5
3	Children are the most vulnerable family members for burn?	1	2	3	4	5
4	Washing the burned area with room temperature water is the first correct step in case of burn injuries?	1	2	3	4	5

5	Applying first aid medicine at home over a burned area leads to a better outcome?	1	2	3	4	5
6	In case of burn injury, its beneficial to use antibiotics in management	1	2	3	4	5
7	In case of burn injury, covering the burned area with clean cloth before heading to the hospital can decrease the risk of infection	1	2	3	4	5
8	All burn injuries must be treated in the hospital	1	2	3	4	5
9	Never apply traditional remedies to the burn before going to the health facility, e.g. "Dough, toothpaste, oil, coffee powder, etc." as first aid for burn wounds.	1	2	3	4	5
10	Stop, drop, and roll when your clothes catch fire	1	2	3	4	5

Part IV: Questions to assess practice level of caregivers towards burn first aid, in Ambo Town, Oromia region,2024

Instruction: Please encircle the participant's response among the given alternatives after carefully interviewing them. More than one answer can be possible.

No_	Questions to assess caregivers burn first aid practice	Answer
1	If someone from your family member received a small/minor burn where would you take them quickly for treatment?	1. Herbalist/ traditional healer 2. Pharmacy 3. Health post/clinic 4. Hospital 5. Others(specify) 6. Don't know
2	If someone from your family member received a large/major burn where would you take them quickly for treatment?	1. Herbalist/ traditional healer 2. Pharmacy 3. Health post/clinic 4. Hospital 5. Others(specify) 6. Don't know
3	In case of burn injury, have you ever apply cold water?	1. Yes 2. No
4	Applying water duration	1. Less than 5 minute 2. 5-10 minutes 3. 10-15 minutes 4. Up to 20 minutes
5	In case of burn injury, have you removed clothing or accessories from the injured area?	1. Yes 2. No
6	In case of burn injury, if your clothes were caught in fire you should roll on ground	1. Yes 2. No

7	In case of electrical burn injury, I should not touch the injured person if he/she is still in contact with the electrical current	1. Yes 2. No
8	In case of electrical burn injury, first action is to Turn off the source of electricity if possible	1. Yes 2. No
9	In case of burn injury, picking blisters is an incorrect action	1. Yes 2. No
10	What would you do if you spill hot liquid on your (or your family member's) arm?	1. Apply cold water 2. Apply aloe Vera 3. Apply ointment/paste 4. Other [specify]……. 5. Don't know
11	What would you do if your clothing caught fire?	1. Stop drop and roll 2. Smother with cloth 3. Jump in water 4. Run 5. Take off clothing 6. Other [specify]…… 7. Don't know
12	What traditional substance you use if the patient you are caring has sustained burn injury?	1. Dough 2. Toothpaste 3. Honey 4. Alovera 5. Oil 6. Coffee powder 7. Milk 8. None 9. Others (specify)….

10.4 Amharic version of assurance of principal investigator

የዋና መርማሪ ማረጋገጫ

_____ እባላለሁ በአዲስ አበባ ዩኒቨርሲቲ ፣ጤና ሳይንስ ኮሌጅ የነርሲግ እና ሚዲዋይፊሪ ት/ቤት፣ የነርሲግ እና ሚዲዋይፊሪ ት/ት ክፍል በ “Pediatrics and child Health Nursing” ደህረ ምረቃ ተማሪ የሆነችው ኢፍቱ ሀዌራ በምታደርገው ጥናት በመረጃ ሰብሳቢነት እየሰራሁ ነው። በኦሮሚያ ክልል በአምቦ ከተማ ለሚኖሩ ተንከባካቢዎች የቃጠሎ የመጀመሪያ እርዳታ ጥያቄዎችን በሚመለከት ትክክለኛ አስተያየትዎን እንፈልጋለን።

ርዕስ፡ Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers of children under 18 years old in Ambo town, Oromia region, Ethiopia,2024

ዓላማው፡ ጥናቱ በ2024 በአምቦ ከተማ፣ በኦሮሚያ ክልል፣ የቃጠሎ የመጀመሪያ ህክምና እርዳታ በህፃናት ላይ ያለውን ጉዳት እና ተያያዥ ጉዳዮችን ለመገምገም ያለመ ነው።

የሚፈጀው ጊዜ፡ የሚጠየቀው ጥያቄ 15 ደቂቃ ያህል ይወስዳል።

የጥናቱ ጥቅም፡ አሁን ለእርስዎ ምንም አይነት ቀጥተኛ ጥቅም የለውም። ይሁን እንጂ የጥናቱ ውጤት በኢትዮጵያ ውጤታማ የሆነ የቃጠሎ የመጀመሪያ ህክምና እርዳታ ፕሮግራም ለማዘጋጀት ይረዳል።

የጥናቱ ስጋት፡ በዚህ ጥናት ውስጥ መሳተፍ ከመረጃ አሰባሰብ ጋር የተያያዘ ምንም አይነት አደጋ ወይም ጉዳት አይኖረውም።

የተሣታፊ መብቶች፡ መሳተፍ እና አለመሳተፍ ሙሉ መብት ነው እና ተሳታፊዎች በማንኛውም ጊዜ በጥናቱ መሳተፍ ማቆም ይችላሉ። ተሳታፊዎች ማንኛውንም ጥያቄዎች መጠየቅ ይችላሉ።

ሚስጥራዊነት፡ ማንኛውም መረጃ በምስጢር ይጠበቃል እና ስምም አይገለጽም። ለትብብርዎ ያለንን ልባዊ አድናቆት ለመግለጽ እንወዳለን እና አስቀድመን እናመሰግናለን።

የዋናው ተመራማሪ አድራሻ፡-

ስም፡- ኢፍቱ ሀዌራ

ስልክ፡ 0911780701

ኢሜል፡ iftuhawera@gmail.com

10.5 Amharic version of consent form

የፍቃድ ቅፅ

በአምቦ ከተማ፣ ኦሮሚያ ክልል፣ ውስጥ ባሉ ተንከባካቢዎች ላይ በሚደረገው የቃጥሎ የመጀመሪያ እርዳታ ጥናት ላይ ተካፋይ ነኝ ። የጥናቱን ዓላማ እና አስፈላጊነት እንዲሁም ከእኔ የሚጠበቀውን በግልፅ ተረድቻለሁ። እኔም የምሰጠው ስም፣ ፊርማ እና ሁሉም መረጃዎች እንደሚጠቅሙ እና ለሌሎች እንደማይተላለፍ ተረድቻለሁ።

ፊርማ - - - - - ቀን - - - - - ---

ከላይ ያለውን የስምምነት ቅፅ እንዳነበብኩ በፊርማዬ አረጋግጣለሁ ---------- ---

የስምምነት ቀን_____

ቀበሌ _____

የጠያቂው ስም እና ፊርማ_____

ለመሳተፍ ፈቃደኛ ስለሆኑ እናመሰግናለን!!

10.6: Amharic version of Questionnaire

ክፍል አንድ፡ የተንከባካቢዎች ስነ-ህዝብ እና ኢኮኖሚያዊ ባህሪያት

መመሪያ፡ እባኮትን በጥንቃቄ ቃለ መጠይቅ ካደረጉ በኋላ የተሳታፊውን ምላሽ በተሰጡት አማራጮች መካከል ይከበቧቸው። ስለ ትብብርዎ እናመሰግናለን!!

ቁጥር	**ስነ-ህዝብ እና ኢኮኖሚያዊ ባህሪያት ጥያቄዎች**	***መልሶች***
1	*ፆታ*	1. ወንድ 2. ሴት
2	እድሜ	
3	የጋብቻ ሁኔታ	1. ያላገባ 2. ያገባ 3. ባል የሞተባት 4. የተፋታ
4	የልጆች ብዛት	
6	የመኖሪያ አካባቢ	1.ከተማ 2.ገጠር
7	የጤና ተቋም ተደራሽነት (በሰዓት አንፃር)	
8	የትምህርት ደረጃ	1 መደበኛ ትምህርት አልተከታተልም። 2. የመጀመሪያ ደረጃ ትምህርት 3. የሁለተኛ ደረጃ ትምህርት 4. ዲፕሎማ 5 የዩኒቨርሲቲ ዲግሪ እና ከዚያ በላይ
9	*ሥራ*	*ሥራ አጥ* ገበሬ የቤት እመቤት የመንግስት ሰራተኛ የመንግስት ያልሆነ ሰራተኛ
10	ወርሃዊ ገቢ በብር	

ክፍል ሁለት፡ ክሊኒካዊ ሁኔታ እና ከተንከባካቢ ጋር የተያያዙ ጥያቄዎች

<u>መመሪያ፡</u> እባክዎን በጥንቃቄ ቃለ መጠይቅ ካደረጉ በኋላ የተሳታፊውን ምላሽ በተሰጡት አማራጮች መካከል ይከበቧቸው።

ቁጥር	**ጥያቄዎች**	***መልሶች***
1	የተንከባካቢዎች ግንኙነት	1. ወላጅ 2. የቤተሰብ አባል 3.ጓደኛ / ባልደረባ 4.ጠባቂ ሌላ (ይግለጹ) ……
2	በቃጠሎ የመጀመሪያ እርዳታ ስልጠና ላይ ተሳትፈዋል?	1. አዎ 2.አይ 3አዎ ከሆነ ለምን ያህል ጊዜ …… በማን ……
3	ስለ ማቃጠል የመጀመሪያ እርዳታ ሰምተው ያውቃሉ	1. አዎ 2.አይ
4	አዎ ከሆነ ከየት ነው የሰሙት? ከአንድ በላይ አማራጮችን መምረጥ ይችላሉ	1.ቤተሰብ, ጓደኞች, የስራ ባልደረቦች, አሳዳጊዎች 2.መጽሐፍት 3.ቲቪ 4.ሬዲዮ 5. ማህበራዊ ሚዲያ 6.የጤና ባለሙያዎች ሌሎች (ይጥቀሱ)……
5	የቃጠሎ ጉዳት አጋጥሞዎት ያውቃሉ?	1.አዎ, አለኝ 2.አይ, የለኝም
6	አዎ ከሆነ መንስኤው ምን ነበር?	1. ሙቀት 2. ኤሌክትሪክ 3. ኬሚካል --- **4.** ሌሎች (ይጥቀሱ)….
7	ጉዳቱ እንዴት ተከሰተ?	1. ድንገተኛ 2. ሆን ተብሎ 3. ያልታወቀ **4.** ሌሎች [ይጥቀሱ]……

ክፍል ሶስት፡ የቃጠሎ የመጀመሪያ ህክምና እርዳታ ዕውቀትን ለመገምገም የቀርቡ ጥያቄዎች

መመሪያ፡ እባኮትን የተሳታፊውን ምላሽ በጥንቃቄ ቃለ መጠይቅ ካደረጉ በኋላ ቁጥሩን ክብ ያድርጉ። **(በጣም አልስማማም =1፣ አልስማማም =2፣ ገለልተኛ =3፣ እስማማለሁ =4፣ አጥብቆ እስማማለሁ = 5**)

ቁጥር	ጥያቄዎች	1	2	3	4	5
1	የቃጠሎ የመጀመሪያ ህክምና እርዳታ ተጎጂው ወደ ጤና ተቋም ከመድረሱ በፊት የተቃጠለ ጉዳት ለደረሰበት ሰው የሚሰጠው አፋጣኝ እንክብካቤ ነው።	1	2	3	4	5
2	ቃጠሎ ወደ ዘላቂ ጉዳት ሊያመራ ይችላል?	1	2	3	4	5

3	ልጆች ለቃጠሎ በጣም የተጋለጡ የቤተሰብ አባላት ናቸው	1	2	3	4	5
4	የቃጠሎ ጉዳት ቢከሰት የመጀመሪያው ትክክለኛ እርምጃ የተቃጠለውን ቦታ በክፍል ሙቀት ውሃ መታጠብ ነው?	1	2	3	4	5
5	በተቃጠለው ቦታ ላይ የመጀመሪያ እርዳታ መድሃኒቶችን በቤት ውስጥ ማድረግ ወደ ጥሩ ውጤት ያመራል?	1	2	3	4	5
6	የቃጠሎ ጉዳት በሚደርስበት ጊዜ አንቲባዮቲክን መጠቀም ጠቃሚ ነው	1	2	3	4	5
7	የቃጠሎ ጉዳት በሚደርስበት ጊዜ ወደ ሆስፒታል ከመሄዳቸው በፊት የተቃጠለውን ቦታ በንጹህ ጨርቅ መሸፈን የበሽታውን አደጋ ይቀንሳል	1	2	3	4	5
8	ሁሉም የቃጠሎ ጉዳቶች በሆስፒታል ውስጥ መታከም አለባቸው	1	2	3	4	5
9	ወደ ጤና ተቋም ከመሄድዎ በፊት ባህላዊ መድሃኒቶችን በቃጠሎ ላይ በጭራሽ አይጠቀሙ, ለምሳሌ. "ሊጥ፣ የጥርስ ሳሙና፣ ዘይት፣ የቡና ዱቄት፣ ወዘተ."	1	2	3	4	5
10	ልብስዎ ሲቃጠል ያቁሙ፣ ይጣሉ እና ይንከባለሉ	1	2	3	4	5

ክፍል አራት ፡ የቃጠሎ የመጀመሪያ እርዳታ የተግባር ደረጃን ለመገምገም የተዘጋጁ ጥያቄዎች

መመሪያ፡ እባኮትን በጥንቃቄ ቃለ መጠይቅ ካደረጉ በኋላ የተሳታፊውን ምላሽ በተሰጡት አማራጮች መካከል ይክበቧቸው። ከአንድ በላይ መልስ ሊሰጥ ይችላል.

ቁጥር	ጥያቄዎች	መልስ
1	ከቤተሰብዎ አባል የሆነ ሰው ትንሽ ቃጠሎ ከደረሰበት በፍጥነት ለህክምና የት ይወስዷቸዋል?	1) ከዕፅዋት የተቀመመ/የባህላዊ መድኃኒት ባለሙያ 2) ፋርማሲ 3) የጤና ፖስት / ክሊኒክ 4) ሆስፒታል 5) ሌሎች (ይጥቀሱ) 6) አያውቁም
2	ከቤተሰብዎ አባል የሆነ ሰው ትልቅ/ከፍተኛ ቃጠሎ ከደረሰበት ለህክምና በፍጥነት የት ይወስዷቸዋል?	1) ከዕፅዋት የተቀመመ/የባህላዊ መድኃኒት ባለሙያ 2) ፋርማሲ 3) የጤና ፖስት / ክሊኒክ 4) ሆስፒታል 5) ሌሎች (ይጥቀሱ) 6) አያውቁም
3	በቃጠሎ ጉዳት ግዜ, ቀዝቃዛ ውሃ አድርግው ያውቃሉ?	1. አዎ 2. አይ
4	የውሃ ቆይታ ምን ያክል ነው?	1. ከ5 ደቂቃ በታች 2. 5-10 ደቂቃዎች 3. 10-15 ደቂቃዎች 4. እስከ 20 ደቂቃዎች ድረስ

5	የተቃጠለ ጉዳት በሚደርስበት ጊዜ ከተጎዳው አካባቢ ልብሶችን ወይም ጊጦችን አውጥተዋል?	1. አዎ 2. አይ
6	በተቃጠለ ጉዳት ጊዜ ልብሶችዎ በእሳት ከተያዙ መሬት ላይ ይንከባለሉ	1. እውነት 2. ውሸት
7	የኤሌክትሪክ የቃጠሎ ጉዳት ቢከሰት, የተጎዳውን ሰው አሁንም ከኤሌክትሪክ ፍሰት ጋር ግንኙነት ካደረገ መንካት የለብኝም	1. እውነት 2. ውሸት
8	የኤሌክትሪክ የቃጠሎ ጉዳት ሲደርስ, የመጀመሪያው እርምጃ ከተቻለ የኤሌክትሪክ ምንጭን ማጥፋት ነው	1. እውነት 2. ውሸት
9	የቃጠሎ ጉዳት በሚደርስበት ጊዜ ውሃ ያዘሉ ቁስሎችን ማፍርጥ የተሳሳተ እርምጃ ነው	1. እውነት 2. ውሸት
10	ትኩስ ፈሳሽ በእርስዎ (ወይም የቤተሰብዎ አባል) ክንድ ላይ ቢያፈሱ ምን ያደርጋሉ?	ቀዝቃዛ ውሃ ያድርጉ አልዎ ቬራ ያድርጉ ቅባት ያድርጉ ሌላ [ይግለጹ]..... አላውቅም
11	ልብሶት በእሳት ቢቃጠል ምን ያድርጋሉ?	1. ያቁሙ እና ይንከባለሉ 2. በጨርቅ ማሸት 3. በውሃ ውስጥ ይዝለሉ 4. ሩጡ 5. ልብስ አውልቁ 6. ሌላ [ይግለጹ]..... 7. አላውቅም
12	የሚንከባከቡት ልጅ የተቃጠለ ጉዳት ሲደርስበት የተጠቀሙበት ባህላዊ ንጥረ ነገር ምንድን ነው?	ሊጥ የጥርስ ሳሙና ማር የወየራ ዘይት ዘይት የቡና ዱቄት ወተት ምንም ሌሎች (ይጥቀሱ)….

10.7 Afaan Oromoo version of assurance of principal investigator

Mirkaneessa qorataa muummee

Maqaan kiyya _____ jeedhama Qorannoo Iftuu Haweera gaggeessaa jirtu keessatti daataa walitti qabaa ta'ee hojjechaan jira. Gaaffilee gargaarsa jalqabaa guubaf goodhamanifi waantota Kanaan wal qabatan ilaalchisee yaada amanamaa keessan barbaanna.

Mataduree: Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers of children under 18 years old in Ambo town, Oromia region, Ethiopia,2024

Kaayyoo: Qorannoon kun Beekumsa fi shaakala kunuunsitoota magaalaa amboo, naannoo Oromiyaa jiran kessati gargaarsa jalqabaa gubaa daa'immaniif keenaman madaaluuf kan akeekedha

Yeroo: Gaaffiin gaafatamuuf deemu gara daqiiqaa 15 fudhata.

Faayidaa qorannichaa: Amma kallattiin faayidaan issin argatan hin jiru. Haa ta'u malee, bu'aan qorannichaa sagantaa gargaarsa jalqabaa gubaa bu'a qabeessa ta'e qopheessuuf gargaara.

Balaa qorannichaa: Qorannoon kana irratti hirmaachuun balaa ykn miidhaa odeeffannoo walitti qabuu wajjin walqabatu hin qabaatu.

Mirga hirmaataa: hirmaachuu fi hirmaachuu dhiisuun mirga guutuu waan ta'eef hirmaattonni yeroo barbaadanitti qorannicha irratti hirmaachuu Dhaabuu ni danda'u. Hirmaattonni gaaffii kamiyyuu gaafachuu ni danda'u.

Iccitii: Odeeffannoon kamiyyuu dhuunfaatti kan eegamu yoo ta'u, maqaanis hin ibsamu. Gargaarsa keessaniif dinqisiifannaa onnee irraa madde ibsuun dursinee isin galateeffanna.

Teessoo qorataa ijoo

Maqaa: Iftuu Haweera

Bilbiila: 0911780701

Imeelii: iftuhawera@gmail.com

10.8: Afaan Oromoo version of consent form

Unka Hayyamaa

Mata duree: Knowledge, Practices towards of first aid for paediatrics burn injury and associated factors among caregivers in Ambo town, Oromia region, Ethiopia

Ani hirmaataa qorannichaa waanan ta'eef kaayyoo, fi hiika qorannichaa akkasumas waan narraa eegamu sirriitti hubadheera. Maqaan, mallattoon, fi odeeffannoon ani kennu hundi akka icitiidhaan qabamu malee namoota biroof akka hin dabarre nan hubadha.

Mallattoo---------- guyyaa---------- --------

Hojimaata hayyamaa armaan olii dubbisuu koo nan mallatokootin nan mirkaneessa

Maqaa fi mallattoo daataa walitti qabaa ----------. --------

Guyyaa hayyama_____ .

Maqaa gandaa _____ .

Fedhiin hirmaachuu keessaniif Galatoomaa!!

10.9 Afaan Oromoo version of questionnaire

Kutaa 1: Amaloota hawaasa fi hawaas-dinagdee kunuunsitootaa

Qajeelfama: Maaloo deebii hirmaataa erga of eeggannoodhaan gaafattee booda filannoowwan kennaman gidduutti marsi. Tumsa keessaniif galatoomaa!!!!

Lakk.	Gaafiwwan	Deebii
1	Saala	1. Dhiira 2. Dhalaa
2	Umurii	
3	Haala Gaa'elaa	1. Kan hin fuune/hin herumnee 2. Kan fudhee/ herumtee 3. Abban manna/ hatii manaa jalaa dutee 4. Kan gargar bahaan
4	Baay'ina ijoollee	
5	Naannoo jireenyaa	1) Magaalaa 2) Baadiyyaa
6	Dhaqqabummaa dhaabbata fayyaa (Sa'aatiitiin) .	
7	Haala barnootaa	1) Barnoota idilee hin qabu/Dubbisuu fi barreessuu hin danda'u 2) Mana barumsaa sadarkaa tokkoffaa 3) Mana barumsaa sadarkaa 2ffaa 4) Dippiloomaa kolleejjii 5) Digirii Yuunivarsiitii fi isaa ol
8	Hojii	1) Hojii dhabeeyyii 2) Qotee bulaa 3) Haadha manaa manaa 4) Hojjetaa 5) Hojjetaa mootummaa 6) Hojjetaa miti mootummaa 7) Kanneen biroo (ibsi).....
9	Galii ji'aa birriidhaan	

Kutaa 2: gaafille kilinikaa fi Gaaffiiwwan Kunuunsituu wajjin walqabatan

Maaloo deebii hirmaataa erga of eeggannoodhaan gaafattee filannoowwan kennaman gidduutti marsi.

1	Hariiroo kunuunsitoonni mucaa wajjin qaban	1.Warra/maatii 2.Miseensa maatii

		3.Hiriyaa/hiriyaa hojii 4.Eegduu Kan biroo(ibsi).....
2	Leenjii gargaarsa jalqabaa gubaa irratti hirmaattaniittuu?	1.Eeyyee 2.Lakk 3.Yoo eeyyee ta'e hanga yoomiitti..... Eenyuun.....
3	Waa'ee gargaarsa jalqabaa gubaa dhageessanii beektuu?	1.Eeyyee 2.Lakk
4	Gaaffii 3 ffaaf eeyyee yoo ta'e eessaa dhageessan? Filannoo tokkoo ol filachuu dandeessu	1.Maatii, hiriyoota, hiriyoota hojii, eegdota 2.Kitaaba 3.TV 4.Raadiyoo 5.Miidiyaa hawaasaa 6.Ogeessota fayyaa Kanneen biroo (ibsi).....
5	Kana dura miidhaan gubaa ofii irratti isiin mudatee beekaa?	1.Eeyyee, qaba 2.Lakki, hin qabu
6	Yoo eeyyee ta'ee, Sababni miidhaa gubaa maal ture?	1. Ho'aa 2. Elektirikii 3. Keemikaalaa---. **4.** Kanneen biroo (ibsi).…
7	Miidhaan sun akkamiin mudate?	1. Akka tasaa 2. Itti yaaduudhaan 3. Kan hinbeekamne **4.** Kaan [ibsu].....

Kutaa 3: Gaaffilee Beekumsa kunuunsitoota gargaarsa jalqabaa gubaaf qaban madaaluf qophaa'e.

Qajeelfama: Maaloo deebii hirmaataa of eeggannoodhaan erga isaan gaafattee booda lakkoofsa sana marsi. **(Cimsee walii hin galu =1, walii hin galu =2, Giddu galeessa =3, walii galuu =4, cimsee walii galuu = 5)**

Lakk.	**Gaaffilee**	1	2	3	4	5
1	Gargaarsi jalqabaa gubaa jechuun nama miidhamaan dhaabbata fayyaa osoo hin ga'iin dura miidhaan gubaa irra ga'eef kunuunsa hatattamaa taasifamuudha.	1	2	3	4	5
2	Gubuun miidhaa dhaabbataa geessisuu danda'a	1	2	3	4	5
3	Ijoolleen miseensota maatii gubachuuf baay'ee saaxilamoodha?	1	2	3	4	5

4	Tarkaanfiin sirrii jalqabaa yoo miidhaan gubaa irra gahe bakka gubate bishaan ho'a kutaatiin dhiqachuudha	1	2	3	4	5
5	Qoricha gargaarsa jalqabaa mana keessatti bakka gubate irratti dibachuun bu'aa fooyya'aa argamsiisa?	1	2	3	4	5
6	Yoo miidhaan gubaa irra gahe, antibaayootikii fayyadamuun faayidaa qaba.	1	2	3	4	5
7	Yoo miidhaan gubaa irra gahe, gara hospitaalaatti osoo hin deemin dura bakka gubate huccuu qulqulluudhaan haguuguun carraa dhukkuba qabamuu hir'isuu danda'a	1	2	3	4	5
8	Miidhaan gubaa hunduu hospitaala keessatti yaalamuu qaba	1	2	3	4	5
9	Dhaabbata fayyaa osoo hin deemin dura gonkumaa qoricha aadaa gubaa sanatti hin dibatinaa, fkn. "Daakuun, shaampoo ilkaanii, zayita, daakuu bunaa fi kkf."	1	2	3	4	5
10	Yeroo uffatni kee ibiddaan qabamu dhaabadhu, gadi dhiisi, garagalfadhu	1	2	3	4	5

Kutaa 4: Gaaffilee sadarkaa shaakala kunuunsitoota gargaarsa jalqabaa gubaaf qaban madaaluf qophaa'e.

Qajeelfama: Maaloo deebii hirmaataa filannoowwan kennaman gidduutti erga of eeggannoodhaan gaafattee booda marsi. Deebiin tokkoo ol ta'uu danda'a.

Lakk.	Gaaffiiwwan	Deebii
1	Namni miseensa maatii keessanii irraa gubaa xiqqaa yoo qabaate daftanii eessatti geessuun yaaltu?	1. Ogeessa baala mukaa/ qoricha aadaa 2. Mana qorichaa 3. Buufata/kilinika fayyaa 4. Hospitaala 5. Kan biroo(ibsi). 6. Hin beeku
2	Namni miseensa maatii keessanii irraa gubaa guddaa yoo qabaate eessatti daftani yaalaaf geessitu?	1. Ogeessa baala mukaa/ qoricha aadaa 2. Mana qorichaa 3. Buufata/kilinika fayyaa 4. Hospitaala 5. Kan biroo(ibsi) 6. Hin beeku

3	Yoo miidhaan gubaa si mudate bishaan qabbanaawaa goodhatani beektuu?	1) Eeyyee 2) Lakki
4	Daqiiqa meeqaf bishaan qabanawaa goodhatu	1) Daqiiqaa 5 gadi 2) Daqiiqaa 5-10 3) Daqiiqaa 10-15 4) Hanga daqiiqaa 20
5	Yoo miidhaan gubaa si mudate, uffata ykn meeshaalee gargaarsaa bakka miidhame irraa baasteettaa?	1.Eeyyee 2.Lakki
6	Yoo miidhaan gubaa si mudate, yoo uffata kee ibiddaan qabame lafatti gagaragaluu qabda	1.Eeyyee 2.Lakki
7	Yoo miidhaan elektirikii gubate, namni miidhame ammallee kaarentii elektirikii waliin yoo wal qunname tuquu hin qabdu	1. Eeyyee 2. Lakki
8	Yoo gubaan elektirikii sii qunamee tarkaanfiin jalqabaa yoo danda'ame Madda ibsaa dhaamsuudha	1. Eeyyee 2. Lakki
9	Yoo miidhaan gubaa sii quuname , madaa bishaan kuufate dhosuun tarkaanfii sirrii hin taanedha	1. Eeyyee 2. Lakki
10	Dhangala'aa ho'aa harka kee (ykn miseensa maatii keetii) irrattii yoo dhangalaafte maal goota?	1. Bishaan qabbanaawaa goodhachu 2. oliveraa dibachu 3. Dibatadibachuu 4. Kan biroo [ibsi]..... 5. Hin beeku
11	Uffanni kee ibiddi yoo qabate maal goota?	1. Dhaabbadhu drop and roll 2. Huccuudhaan xuuxuu 3. Bishaan keessa utaaluu 4. Fiiguu 5. Uffata baafadhu 6. Kan biroo [ibsi]..... 7. Hin beeku
12	Yeroo dhukkubsataan ati kunuunsitu miidhaan gubaa irra ga'e wanta aadaa akkamii fayyadamtu?	1. Bukoo 2. Shaampoo ilkaanii 3. Damma 4. Aloo Veeraa 5. Dibata 6. Bunaa daakuu 7. Aannan 8. Homaa 9. Kaan (ibsi)....