



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCE**  
**SCHOOL OF MEDICINE**  
**DEPARTMENT OF EMERGENCY MEDICINE**

**ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE ON FIRST  
AID MANAGEMENT OF CHOKING AND ASSOCIATED FACTORS AMONG  
KINDERGARTEN TEACHERS IN ADDIS ABABA GOVERNMENTAL  
SCHOOLS, ADDIS ABABA, ETHIOPIA, 2019.**

**BY: ALI MAALIM (BSc, MSc candidate)**

**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, COLLEGE OF  
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**ADDIS ABABA, ETHIOPIA**

**JUNE 2019**

**Approval by the board of examination**

This thesis by Ali Maalim is accepted in its present form by the board of examiners as  
Satisfying thesis requirement for the degree of master in emergency medicine and critical care.

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## Statement of declaration

By my signature below, I hold and affirm that this thesis is my own original work in partial fulfillment of the requirements for the degree of master in emergency medicine and critical care nursing. I have abided by all ethical principles of scholarship in the preparation, data aggregation, information analysis and completion of this thesis. All the sources of the materials used for this thesis and all people and institutions who gave support for this work are fully acknowledged. I confirm that I have mentioned and referenced all sources used in this text file. Every attempt has been constituted to avoid plagiarism in the planning of this thesis. Brief quotations from this thesis may be used without special permission, provided that accurate and complete acknowledgement of the source is made. Petitions for license for extended quotations this thesis in whole or in part may be accorded by the Head of the Department or all consultants of the thesis when in his or her opinion the proposed usage of the cloth is in the pursuit of scholarship and publication. In all other instances, however, permission must be obtained from the author of the thesis.

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## Acronyms and abbreviations

ACEP	American College of Emergency Physician
AOR	Adjusted odd ratio
CDC	center for disease control and prevention
COR	Crude odd ratio
CPR	cardio-pulmonary resuscitation
FB	foreign body
FBAO	foreign body airway obstruction
KAP	knowledge, attitude and practice
KG	kindergarten
SD	standard deviation
SPSS	statistical packages for social sciences
WHO	world health organization

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## Abstract

**Introduction:** Choking is defined as the hindrance of respiration by a foreign body obstruction in the internal airway, including the pharynx, hypopharynx, and trachea. It is a leading cause of morbidity and mortality in the pediatric population with preschool children at the greatest risk. Young children are at increased risk because of their tendency to put objects in their mouth, immature dentition, inability to adequately chew their food, poor coordination of swallowing, and smaller airway. Lack of kindergarten teacher's knowledge and skills toward choking first aid may led to serious health consequences.

**Objectives:** The objective of this study was to assess knowledge, attitude and practice towards first aid management of choking among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia.2019.

**Methods and material:** Institutional based cross-sectional study design was applied to the study area, pretested structured self-administered questionnaires was used for data collection.

**Result:** None of the study participant answered all questions correctly; only 83(37.05%) scored mean and above for knowledge questions on choking first aid.

Among all participant 97 (43.3%) had faced the choked child in the school compound and only 42 (43.2%) of them had provided choking first aid to the victim.

Majority of the respondent agree that choking need immediate management and most of the study participant had positive attitude towards choking first aid.

Multiple logistic regression analysis showed Kindergarten teachers with the previous first aid training were 2.902 times more knowledgeable than those kindergarten teachers without previous first aid training (AOR: 2.902, 95% CI: 1.612, 5.227).

**Conclusion and recommendation:** The level of choking first-aid knowledge and skills among kindergarten teachers in Bole, Gulele and kirkos subcities in Addis Ababa was low. There is an urgent need to train teachers regarding choking first aid management.

**Key word:** choking, first aid, KAP, kindergarten, teachers.

# Chapter one

## Background

### 1.1 Introduction

Injuries and accidents are one of the leading causes of childhood deaths worldwide.(1) In many low-and middle-income countries, children face a greater risk of death and disability from injuries than their peers in the high-income world. According to the World Health Organization (WHO) global health estimates released in 2017, injuries caused 4.92 million deaths in 2015, and of those 366 thousand were children under 5 years, and 352 thousand were children aged 5±14 years (2). Children are exposed to many hazards and risks as they grow and develop into adulthood, and unintentional injuries are the leading cause of death and disability for children and teenagers in the United States (US) (3). Injuries caused about 25 thousand deaths between 0-14-year olds in Ethiopia in 2015 (2).

Choking is defined as the blockage or hindrance of respiration by a foreign body obstruction in the internal airway, including the pharynx, hypopharynx, and trachea (4). It is the fourth leading cause of unintentional injury death in United States. Five thousand fifty one people died from choking in 2015, National safety council 2018. (5) It is a leading cause of morbidity and mortality in the pediatric population, with children younger than 3 years at the greatest risk. Young children are at especially increased risk because of their tendency to put objects in their mouth, immature dentition, inability to adequately chew their food, poor coordination of swallowing, and smaller airway. (6).

First aid is the immediate assistance provided to a sick or injured person until Professional help arrives. So early treatment of such emergencies decreases morbidity and deaths among school aged children. (7) First aid definition adopted in 2014 by American College of Emergency Physicians (ACEP), which refers to first aid as the actions taken in response to somebody who is wounded or has unexpectedly become ill. The National First-aid Science Advisory Board clarified, everybody can and must learn first-aid, i.e. education and training in first-aid should be universal. Therefore, kindergarten teachers must know the basic first aid skills to prevent preventable morbidity and mortality related to choking hazard in kindergarten school. (8)

Choking occurs among preschool children when foreign object like foods or small objects block the airway and prevent oxygen from getting to the lungs and brain. Brain damage or even

death occur if brain remain without oxygen for more than four minute and in kindergarten teachers are actually first responder in case of choking incident. Therefore training the teachers on choking first aid is of life saving importance. Simple steps of choking first aid can prevent dangerous consequences caused by lack of knowledge, alertness or acting wrongly.(3)

School-aged children spent about 30% of their time in schools in many nations. In these settings, they are at a greater risk of injuries such as choking and medical emergencies due to the higher level of involvement in sports and extracurricular activities. According to the Centre for Disease Control and Prevention (CDC), sports and recreation-related injuries are reported for more than 2.6 million school children worldwide annually. Timely administration of first aid in response to injuries and medical emergencies will help to reduce complications, the cost of treatment and mortality among children. (9)

Physical activities related injuries are the most common types of the school injuries, Other common kinds of school accidents were coma, epistaxis, shortness of breathing, fractures, joint dislocation, hematoma, burns, choking, seizures, insect bites and poisoning. (10)

Pediatric emergencies such as the accidental choking are more likely to occur in kindergarten school settings since student spent significant time there. Kindergarten school are the best place to give first aid to those injured or choked children in absence of mothers. The kindergartens teacher has vital role in caring for children, supervision and prevention of health hazards. They should be well trained on first aid and emergency control to save children lives and the first aider should have adequate knowledge and skills about what is he doing and be encouraging and reassuring to the victims, 84% of injuries occurring in the kindergarten required first aid treatment, early and appropriate treatment of such emergencies can help reduce morbidity and mortality. Properly administered first aid can mean the difference between life and death, rapid versus prolonged recovery, and temporary versus permanent disability. (11)

Worldwide, studies about the knowledge, attitude, and skills of kindergarten teachers towards choking first aid are limited. As far as investigator's knowledge no study was done in Ethiopia about the level of Knowledge, attitude and practice of KG school teachers towards providing choking first aid. Therefore, this study aims to explore the choking first aid knowledge, attitude and practice of kindergarten school teachers at Government schools in Addis Ababa, Ethiopia.

## 1.2 Statement of the problem

Hundreds of pediatric choking deaths occur every year in the United States. Between 1999 and 2013, 2103 children under 15 years of age died due to foreign body airway obstruction. Studies show that ninety percent of deaths occur in infants and children less than 5 years of age and 65% in those less than 2 years of age. These deaths are usually attributable to aspiration of foods, toys or other small objects.(12)

Foreign bodies (FBs) in the aero-digestive tract are important causes of morbidity and mortality in the two extremes of life and pose diagnostic and therapeutic challenges. The ingestion and aspiration of FBs occur most commonly in children's population, especially in their first six years of life. (13)

Foreign body airway obstruction is a common pediatric emergency as well as adult and perhaps among the greatest cause of accidental death at home among world- wide children, although the exact incidence is not known because many are not recognized especially in rural communities. It is equally a major source of morbidity and mortality in even the most sophisticated centers. In the pediatric age group especially under-fives, due to their inquisitiveness, adventurous nature, lack of molars for proper mastication, playing and running with food in the mouth with consequent incoordination in swallowing and glottic closure. (14)

Choking is related to the consumption of food and this explains the higher incidence at mealtimes, particularly lunch and dinner, with a lower incidence during breakfast time and overnight. It may be that people are more alert at breakfast (which is often a smaller volume meal) or that lunch and dinner includes foods which the diner is more likely to choke on. The National Food Survey 1970 British Cohort study found that in 2016 there was a higher proportion of people eating meat-based ready meals and that meals are eaten faster at lunch and dinner. (5)

Choking on food poses an important and relatively under addressed problem for US children. Approximately 66 to 77 children younger than 10 years of age die from choking on food each year in the United States, and greater than 10, 000 emergency department visits yearly can be attributed to choking on food among children aged 14 years and younger. (4)

While morbidity in FBAO has been associated with diagnostic delay, it has also been associated with delay in getting expert medical help. Half of the primary caregivers (51%) would try to remove the foreign body themselves, probably leading to a possible delay in instituting correct management. The clinical course and outcome of aspiration of foreign bodies largely depends on the nature/type of foreign body, the site of arrest or impaction along the tracheobronchial

tree and perhaps availability of skilled manpower especially in developing countries, it can get impacted at any point from the laryngeal inlet to the terminal bronchioles, but more often these FBs get lodged in the right main bronchus. This is due to the right main stem bronchus being more in line with the trachea, thereby, creating a relatively straight path from the larynx to bronchus.(14)

Four preschool aged children died from choking on albendazole tablets during a deworming campaign in Ethiopia in 2007. Forcing very small children to swallow large tablets may cause choking and asphyxiation, when those first responders are trained on choking first aid, they may have saved the life of many children. (15)

A study conducted in Ethiopia among KG teachers, revealed that about 28.4% of respondents faced children with choking in kindergarten school. (16)

Research done in China and Turkey has shown that kindergarten teachers cannot adequately manage an emergency such as choking at school. In most instances this is due to teachers lacking the necessary knowledge and skills. (17)

Kindergarten Children are vulnerable to choking accidents at schools, lack of choking first aid knowledge and skills of their teachers may lead to serious health consequences and this study was expected to identify the gap.

### 1.3 Significance of study

The study would be helpful in gaining information about the KG teacher's knowledge, attitude and practice toward choking first aid. It would also show the gap that exist among KG teacher's KAP on choking first aid. The data obtained in this study will be used by concerned bodies for planning and evaluating the KG teacher's KAP towards choking first aid and to take a measure to solve the problems.

The recommendations given if considered will going to benefit the teachers at large by helping them getting training on choking first aid management and then providing first aid management of choking for choked victim.

It will serve as a benchmark study for further research in this area.

The finding will be used as important information for different concerned bodies like ministry of women and child affairs, ministry of Education and ministry of health.

For ministry of education, this study will be used as input to plan appropriate interventions and modification of kindergartner teacher training curriculum. The Policy maker will use it to generate a new policy concerning child care in kindergartens.

Finally, this study will be used for prevention of child morbidity and mortality from preventable and treatable life threatening choking at prehospital kindergarten setting and promotion of appropriate lifesaving treatment at Kindergarten school.

## Chapter two

### Literature Review

#### 2.1 Concept of choking

Choking is defined as accidental inhalation or consumption of foods or other substances resulting in obstruction of airways and thus suffocation. Signs and symptoms of choking in a conscious child above one year of age includes: incapability to talk or breath, high-pitched noises, unproductive coughing but cyanosis and losing consciousness develop if blockage is not removed. In addition, while these are signs of choking, the first aid provider should not interfere unless the airway is completely obstructed, because the body's mechanism to clear the obstruction may be more effective than other techniques.(8)

#### 2.2.1 Knowledge of KG teachers on choking first aid

The study conducted in Slovenia to analyze kindergarten teacher's knowledge of first aid in Slovenian kindergarten showed that teachers are familiar with the responsibilities related to first aid. In the case of burns, braises and fractures, they would act correctly, but in case of life threatening situations, like cardiopulmonary resuscitation, intoxication, unconsciousness and choking, less than 20% would properly provide first aid. Statistically significant differences in age and work experience ( $p < 0.05$ ) were found. Kindergarten teachers are aware of their responsibility for children's lives and are well familiar with non-life threatening situations. In case of an emergency, most respondents would act wrongly. The results also showed that kindergarten teachers overestimate their knowledge of first aid. (18)

The study done in Iraq to analyze knowledge and attitude of primary school teachers regarding choking's first aid in Erbil, Iraq indicated that, there were inadequate knowledge among study samples as most of teachers had moderate to low level of knowledge with significant association between years of experience and level of knowledge. Moreover teacher's attitude was significantly associated with their age, marital status, educational background and levels of experience. The study concluded that the most of teachers had low to poor knowledge regarding choking first aid, and their attitude toward first aid was good.(3)

Chinese research conducted for assessing knowledge and attitude of kindergarten's staff regarding pediatric first aid in Shanghai, China; showed that none of 1067 study participants were answered all questions correctly and just 39 individual (3.7%) carried out successful scores. while the correct answers for choking is 30.1%. Nutshell, these scores carried out using multiple linear regression and revealed that higher scores were related with higher education and previous first aid training. The result of study indicated low level of knowledge regarding first aid. (1)

The study done in India on awareness, attitude and practice of first aid among school teachers in Mangalore displayed that 6 out of 146 teachers have adequate knowledge about choking first aid.(9)

In other study done in Saudi Arabia, on assessment of knowledge and attitude of teachers towards first aid showed that out of 396(100%) of respondents two third 256(64.6) were aware of Heimlich's maneuver to manage choking and choking condition requiring first aid were faced by teachers (1; 1%) once in a year.(7). Another study conducted in this country also indicate that out of 187 primary school teachers 68.4% know correctly how to manage a case of choking due to a swallowed foreign body while only 24% of them know correctly how to manage a case of foreign body in the nose. (10)

A study done in South Africa on evaluating the need for first aid and basic life support training among kindergarten practitioners in Cape Town, South Africa showed that out of 214(100%) study subjects 113(53%) were correctly answered question related to choking first aid.(17)

A study conducted in Ethiopia on assessment of first aid KAP and associated factors among KG in Addis Ababa, revealed that only 37.6% were knowledgeable on choking first aid management and about 44(28.4%) of respondents encountered children with choking. (16)

### 2.2.2 Attitude of KG teachers towards choking first aid

The study done in Iraq to analyze knowledge and attitude of primary school teachers regarding choking's first aid in Erbil, Iraq showed that teacher's attitude was significantly associated with their age, marital status, educational background and levels of experience. The study concluded that the most of teacher's attitude toward choking first aid was positive. (3)

Chinese research done in shanghai for assessing knowledge and attitude of kindergarten's staff regarding pediatric first aid in Shanghai, China; showed that Attitude concerning first aid

administration was positive in majority of participants, and majority of them felt positively toward first aid learning and accepted the importance of learning such skills.(1)

The study done in India on awareness, attitude and practice of first aid among school teachers in Mangalore showed that most teachers 95% felt that knowledge about first aid was important to their professional life. Willingness to enroll in any future first aid training programs was stated by 66% participants. (9)

A study done in South Africa on evaluating the need for first aid and basic life support training among kindergarten practitioners in Cape Town, South Africa showed that out of 214(100%) All study participant thought that first aid and BLS training was important and 99% wanted further training in this field. (17)

A study conducted in Ethiopia on assessment of first aid KAP and associated factors among KG in Addis Ababa, revealed 75% of them had positive attitude for first aid. (16)

### 2.2.3 Practice of teachers on choking first aid

A study done in Egypt to evaluate the effectiveness of health educational program on the first aid practice among kindergarten school teachers at Port Said, an intervention study which was observational to assess their practice towards first aid of common emergency problems such as choking. The study results revealed that significant improvement practice of the studied group in the post and follow up intervention in comparison to pre intervention. Also, the total practice was improved in post and follow up intervention compared to pre intervention as cleared by mean and SD of  $17.4 \pm 6.6$ ,  $16.1 \pm 7.8$  and  $9.2 \pm 5.1$  respectively. (11)

A study conducted in Ethiopia on assessment of first aid on KAP and associated factors among KG in Addis Ababa, showed that about 44(28.4%) of respondents encountered children with choking, 36(82%) stood behind the child encircling the child's chest by hands and pressed it (Heimlich maneuver) whereas 34(77.3%) of them called ambulance.(16)

## Conceptual framework

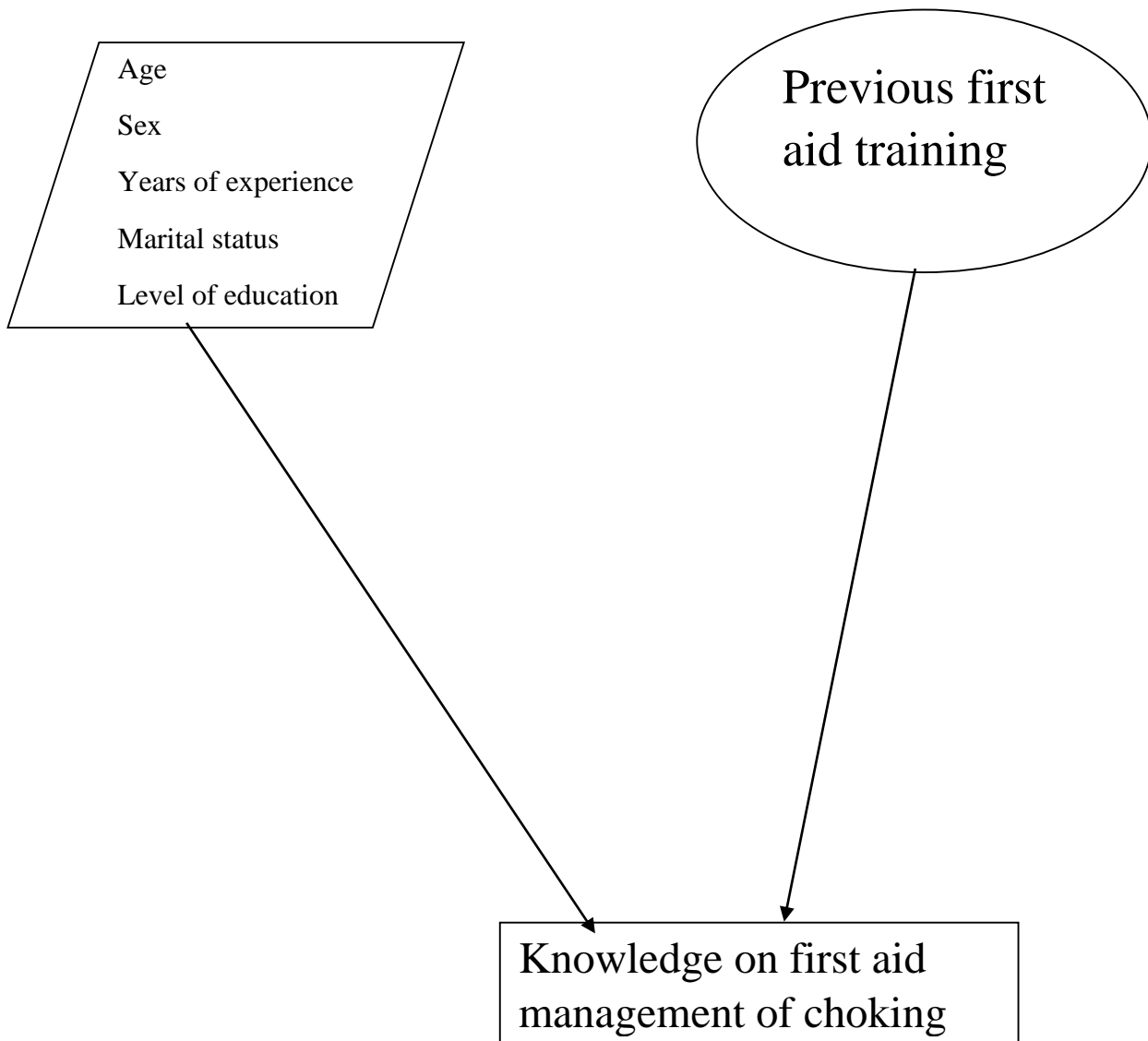


Figure 1: conceptual frame work

## Chapter Three

### OBJECTIVES

#### 3.1 General Objective

- To assess knowledge, attitude and practice towards first aid management of choking among kindergarten teachers in Addis Ababa governmental schools Addis Ababa, Ethiopia, 2019.

#### 3.2 Specific objectives

- To assess knowledge of KG teachers towards first aid management of choking among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia, 2019.
- To assess the attitude of kindergarten teachers towards first aid management of choking among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia, 2019.
- To assess the practice of kindergarten teachers towards first aid management of choking among kindergarten teachers in Addis Ababa governmental schools, Addis Ababa, Ethiopia, 2019.
- To assess factors associated with KAP on first aid management of choking among kindergarten teachers in governmental schools, Addis Ababa, Ethiopia, 2019.

## Chapter Four

### Methodology

#### 4.1 Study area

The study was conducted in selected governmental kindergarten schools in Addis Ababa Ethiopia.

Addis Ababa is the capital city of Ethiopia which covers an area of 520.14 km<sup>2</sup>. It has ten sub cities which encompasses 116 districts. According to the National population and Housing Census of Ethiopia projection figures in 2011, the total population of Addis Ababa is 2,980,001 with a male to female ratio of 47.64% to 52.36% (19)

In Addis Ababa there are 239 Government kindergarten schools employing 43 male and 1520 female KG teachers working in those KG schools (20).

The study was conducted at Government kindergarten school in Bole, Gulele and kirkos sub cities of Addis Ababa, Ethiopia 2019.

#### 4.2 Study design and period

Institution based cross-sectional quantitative study design was employed to the study area.

The study was conducted in selected sub city of Addis Ababa governmental KG schools Addis Ababa, Ethiopia from March to April 2019.

#### 4.3 Population

##### 4.3.1 Target population

All Government Kindergarten school teachers in Addis Ababa, Ethiopia.

##### 4.3.1 Source population

All Government kindergarten school teachers in Bole, Gulele and kirkos sub cities of Addis Ababa, Ethiopia.

##### 4.3.2 Study population

All Government kindergarten school teachers working in selected Districts in Bole, Gulele and kirkos sub cities of Addis Ababa.

##### 4.3.3 Study unit

Kindergarten teachers working in selected schools of selected Districts in Bole, Gulele and Kirkos sub cities of Addis Ababa.

## 4.4 Inclusion and Exclusion criteria

### 4.4.1 Inclusion Criteria

Kindergarten teachers working in selected kindergarten schools.

### 4.4.2 Exclusion criteria

Study participants who were not present during data collection period due to different reasons like sick leave, annual leave, maternity leave was excluded from the study.

## 4.5 Sampling size and sampling procedure

### 4.5.1 Sample size determination

The sample size was determined using single population proportion based on the following formula

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

$$n = (1.96)^2 \times 0.5 (1-0.5) / (0.05)^2 = 384$$

Where n is the sample size

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

d= margin of error or error of precision

p = estimate of population proportion

With the following assumptions:-

Prevalence of KAP on choking first aid is 50% since similar study on the same topic in the study area is not available, 50% of population proportion is considered

Margin of error d=5% is accepted

A confidence interval of 95% is assumed ( $Z_{\alpha/2}=1.96$ ).

Since total population of Government KG teachers in 3 randomly selected sub cities which are:- Bole 156 KG teachers, Gulele 172 KG teachers and kirkos 154 KG teachers that is a total source population of 482 was found from Addis Ababa city administration Education Office then I consider correction formula since source population was less than 10,000

$$i.e. n_f = n_i / (1 + n_i / N) = 384 / (1 + 384 / 482) = 214$$

Where:  $n_i$  = initial sample size = 384

$N = \text{source population} = 482$

$n_f = \text{final sample size} = 214$

When I consider the 10% non-response rate the final sample size was as follows

$n_f = 214 + 10\% \text{ of } 214 = 214 + 21 = 235$

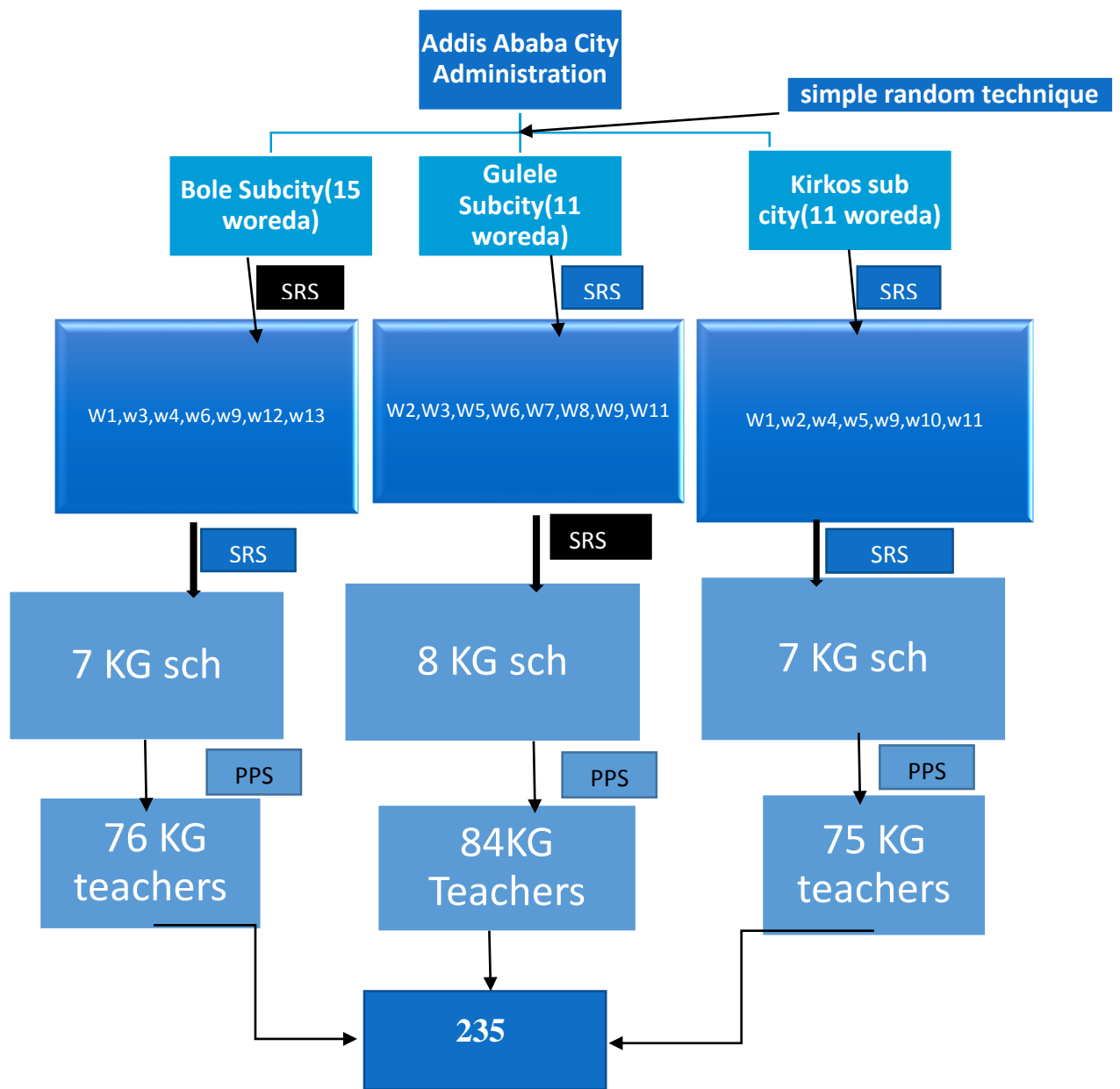
#### 4.5.2 Sampling procedure and technique

To select 235 Government Kindergarten teachers, multistage random sampling was used. Primary sampling unit (subcities: Bole, Gulele and Kirkos) were selected by using simple random sampling method, similarly from 37 districts in those subcities, 22 were randomly selected by lottery method.

Among 50 Government kindergarten school in Bole, Gulele and Kirkos sub cities, 22 were selected randomly by taking total school to meet sample size. The school were allocated proportionally. Finally, information was collected from randomly selected school.

The procedure was indicated below with schematics presentation.

Schematic presentation of sampling procedure (see at next page)



SRS- simple random sampling

Pps- probability to proportional size allocation

Figure 2: schematic presentation on sampling procedure of Government kindergaten school teachers in Bole, Gulele and kirkos sub cities of Addis Ababa, Ethiopia, 2019.

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

$$n_1 = \frac{156 \times 235}{482} = 76$$

$$n_2 = \frac{172 \times 235}{482} = 84$$

$$n_3 = \frac{154 \times 235}{482} = 75$$

$$n_f = n_1 + n_2 + n_3 = 76 + 84 + 75 = 235$$

Where  $n_1$ - $n_3$  samples from each sub cities

$N$  = total population of study area

$n_i$  = total population in each sub city.

*Table 1: Name of selected schools, their woreda and number of teachers in Bole, Gulele and Kirkos sub-city, Addis Ababa, Ethiopia, 2019.*

S.No	School Name	Sub-city	Woreda(District)	Number Of Teachers		
				M	F	Total
1.	Ayer Amba	Bole	1	0	12	12
2.	Berhan Zarey	Bole	3	0	6	6
3.	Misraq dil	Bole	4	1	11	12
4.	Misraq bar no 2	Bole	6	1	9	10
5.	Bole Addis	Bole	9	3	14	17
6.	Yebulbula raey	Bole	12	2	10	12
7.	Bole community	Bole	13	0	7	7
8.	Yekatit 12	Gulele	2	0	8	8
9.	Jerusalem	Gulele	3	0	10	10
10.	Addis Berhan	Gulele	5	1	13	14
11.	Fiqir LeSera	Gulele	6	0	12	12
12.	Addis Tesfa kokeb	Gulele	7	0	4	4
13.	Berhan Helena	Gulele	8	2	14	16
14.	Dil Amba	Gulele	9	2	9	11
15.	Miraf	Gulele	11	0	9	9
16.	Atse Tewodros	Kirkos	1	0	16	16
17.	Temja Yazj	Kirkos	2	0	9	9
18.	Worha Yekatit	Kirkos	4	0	6	6
19.	Meserete Ethiopia	Kirkos	5	0	13	13
20.	Behrawi	Kirkos	9	0	9	9
21.	Felege Yordanos	Kirkos	10	1	12	13
22.	Wondmamach	Kirkos	11	1	8	9
	Total			14	221	235

## 4.6 Study variables

### 4.6.1 Dependent variables

Knowledge of kindergarten teachers towards first aid management of choking

Attitude of kindergarten teachers towards first aid management of choking

Practice of kindergarten teachers towards first aid management of choking

### 4.6.2 Independent variables

Sex

Age

Marital status

Previous first aid training

Year of experience

Educational level

## 4.7 Operational Definition

Choking – is an act of coughing when foreign object enter into a person’s airway.

Choking first aid –is immediate care given to choking person until full medical treatment is available.

Adequate knowledge – a participant who scored a mean and above for knowledge questions.

Inadequate knowledge – a participant who scored below mean for knowledge questions.

Positive Attitude- a participant who answered correctly mean and above for attitude questions.

Negative attitude – a participant who scored below mean for attitude questions.

Good Practice–when kindergarten teacher was able to answer 70% practical questions.

Poor practice – when kindergarten teachers answered below 70% of practical questions

Kindergarten–a pre-elementary school where children who were not old enough for primary school attend classes.

## 4.8 Data collection methods

### 4.8.1 Data collection tools

Data collection tool was adopted and modified from previously studied literatures

(3),(14),(16) and (21). Data was collected by using pretested, structured self-administer questionnaire which consisted of socio-demographic information, knowledge questions,

Attitude questions and Practice question of kindergarten teachers on first aid management of

choking. The questionnaire was prepared by English language and translated to Amharic language.

#### 4.8.2 Data collection procedure

Data collection was done by three diploma holding nurses and one supervising BSc nurse. Training was given for one day on clarification of some terms and assessment tools, aim of the study, concerning need for strict confidentiality of respondents information, time of data collection, timely collection and reorganization of the collected data from respective kindergartens and submission on due time. The questionnaire was filled by kindergarten teachers. Data was collected for approximately one month including training and pretest, it was facilitated by data collection facilitators and supervisor.

#### 4.9 Data quality management

Data quality was ensured during collection, coding, entry and analysis. Before actual data collection, pretest was done on 5% of sample size in similar population out of study area which was Nefas Silk Lafto sub city. During data collection, adequate training and follow up was provided to data collectors and supervisor.

Data collectors was supervised on how they were administering questionnaires to the study participants. Codes was given to the questionnaires during the data collection so that any identified errors was tracked back using the codes. The filled questionnaires was checked for completeness by data collectors, supervisor and Principal investigator on a daily basis. Consequently, any problem encountered was discussed among the survey team and was solved as soon as possible. Collected Data was initially checked manually for completeness then coded and entered into Epi-Data version 7.0 and was cleaned thoroughly and then data was transferred to SPSS version 25 for further analysis.

#### 4.10 Data processing and analysis

The collected data was checked for its completeness, consistency and accuracy before analysis. Data was coded, entered and cleaned using Epi-data 7.0 and exported to SPSS 25 for analysis. Regression was applied to assess the association between dependent and independent variables. Data was processed and analyzed by using descriptive statistics like percentage and frequency. Result was presented by text, table, pie chart and bar graph. Bivariate and Multivariate logistic regression analysis were conducted to identify factors affecting the knowledge, attitude and practice of kindergarten teachers on first aid management of choking. Variables reaching

$p < 0.25$  at bivariate analysis level were considered further for multiple logistic regression analysis. The statistical significance was declared at  $p < 0.05$  with 95% confidence level.

#### 4.11 Ethical consideration

Ethical clearance was obtained from Addis Ababa University, College of Health Science, School Of Medicine, Department of Emergency Medicine and Research Review Board Committee. The official letter was written to Addis Ababa City administration Education bureau, permission was obtained from selected Sub City education bureau. Informed consent was obtained from respondents who had participated in the study. In addition, all the responses was kept confidential and anonymous by assuring that any information will never be passed to any third party or institution without their agreement and participant was not to be forced to the study.

#### 4.12 Plan for Dissemination of the Result

The results of this study will be disseminated to Addis Ababa University College of Health Science, school of Medicine, Department of Emergency Medicine, selected Sub City Education Bureau, Addis Ababa Education Bureau, Federal Ministry of Education, Ministry of Health, Ministry of women and children affairs, Regional health bureau and other concerned bodies through publication on an appropriate journal. Effort will be made to present on professional association meetings and to publish in peer review journals.

## CHAPTER FIVE

### Result

A total of 224 participants were interviewed with a response rate of 95%. The majority of respondents 211 (94.2%) were females with a male to female ratio of 1:16. The study result revealed that the average age of the respondents ranges from 28 to 58 years with mean of  $30.79 \pm 7.259$ . The majority of participants were between 25 – 29 years old which accounted for 67(29.9%) of study participants.

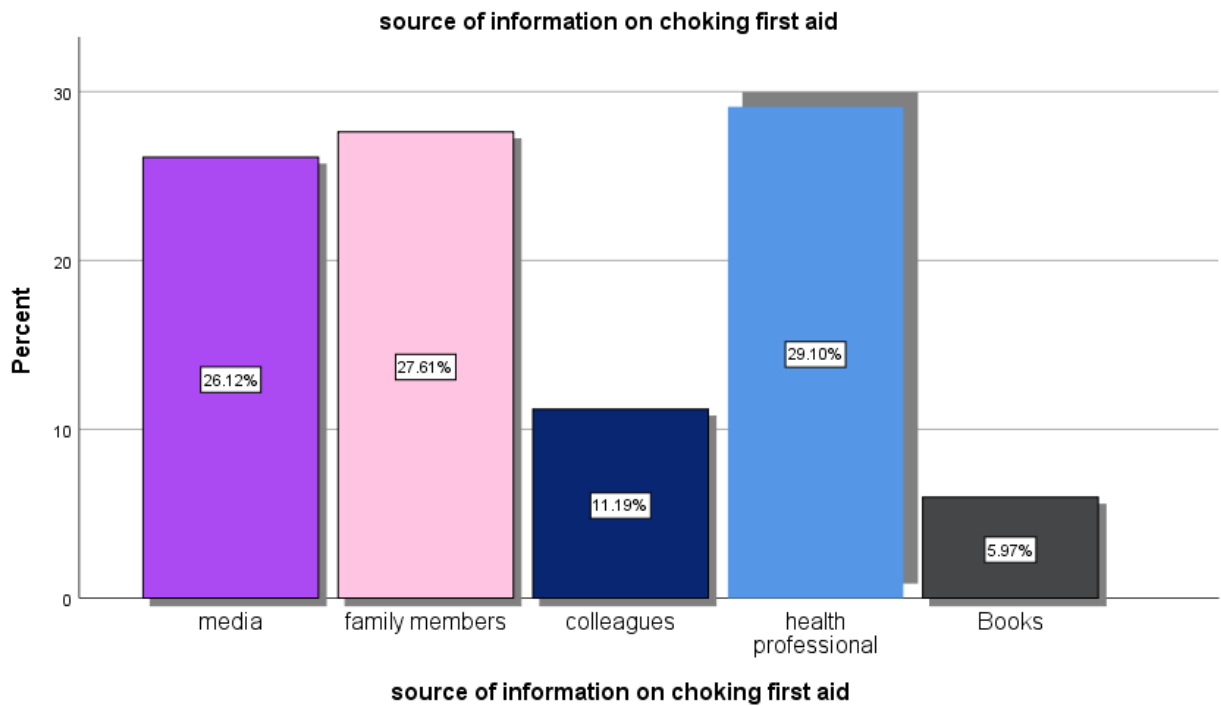
Among study participants, 111 (49.6%) were married and 110 (49.1%) were single. Regarding the academic qualification of kindergarten teachers, the study showed that most 152 (67.9%) were at Certificate level, 70(31.3%) and 2 (0.9%) were Diploma and Bachelor Degree holders respectively. Regarding the years of experience, most 98 (43.8%) had one to five years of experience. The study revealed that majority 122 (54.5%) had not taken previous first aid training. (See table 2)

*Table 2: socio-demographic characteristics of kindergaten teachers among selected Government schools in Addis Ababa Ethiopia, 2019.*

variable	Frequency	Percent
Sex of respondent		
male	13	5.8
Female	211	94.2
Marital status of respondent		
Married	111	49.6
Single	110	49.1
Divorced	3	3.1
Level of education		
Certificate	152	67.9
Diploma	70	31.3
Degree	2	0.9
Years of experience		
< 1 year	37	16.5
1-5 years	98	43.8
5-10 years	58	25.9
>10 years	31	13.8
Age Groups of respondent		
20 – 24	42	18.8
25 - 29	67	29.9
30 – 34	60	26.8
35 – 39	28	12.5
40 and older	27	12.1
Previous first aid training		
Yes	102	45.5
No	122	54.5

## 5.1 Knowledge of Kindergarten teachers on first aid management of choking

Majority of respondents 130 (58%) had ever heard about choking first aid while 94 (42%) had never heard about choking first aid. Regarding the source where they heard from, majority 39(29%) heard from health professional. (See figure 3).



*Figure 3: source of information on choking first aid among kindergarten teachers in Addis Ababa, Ethiopia, 2019.*

Regarding knowledge on choking first aid, Majority of respondents 117 (52.2%) don't know while 107 (47.8%) know choking first aid, among those who knows choking first aid, majority 40 (37.4%) learned from health professional, while 32 (29.9%), 22 (20.56%), 10 (9.3%) and 3 (2.8%) learned from friends, previous first aid training, family members and their previous studies respectively. (See figure 4).

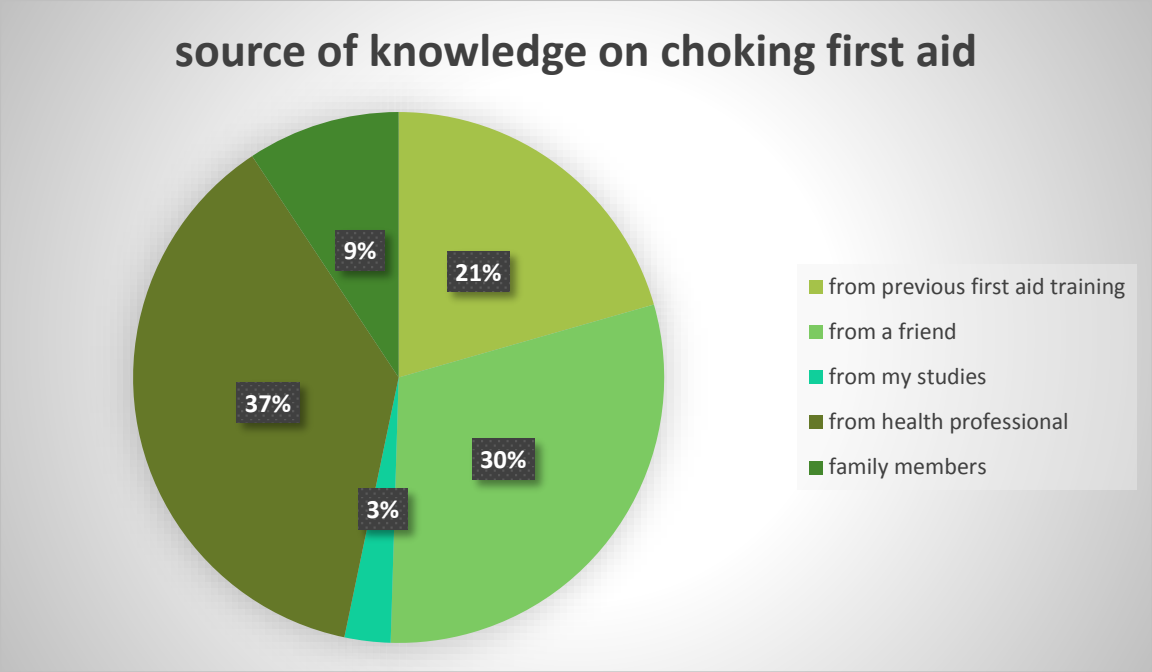


Figure 4: source of knowledge on choking first aid among kindergarten teachers in Addis Ababa, Ethiopia, 2019.

Regarding universal sign of choking, majority 120 (53.6%) responded as clinching at the throat. With regard to student behaviors that led to choking, majority of respondents one hundred and forty five (64.7%) responded that playing, talking and laughing while eating would led to choking. (See table 3).

Table 3: responses of kindergarten teachers towards student behaviours that may led to choking among selected Government school teachers in Addis Ababa Ethiopia, 2019.

Questions	Yes		No	
	Frequency	Percent	Frequency	Percent
Which student behavior may led to choking				
Playing, talking and laughing while eating	145	64.7	79	35.3
Putting object in their mouth	77	34.4	147	65.6
Running while eating	70	31.3	154	68.8
Playing football	66	29.5	158	70.5

On factors leading to choking among preschool children, majority 84 (37.5%) responded as improper chewing of food, immature molars, running with food in their mouth and adventurous nature of preschool children.

Among study participants, majority 114 (50.9%) responded that coins was not a potential choking hazard while 37 (16.5%), 33 (14.7%), 29 (13%) and 11 (4.9%) responded that whole grapes, hot dogs, Applesauce, popcorn were not potential choking hazard respectively.

Majority of participants 159 (71%) responded that the Golden time for providing choking first aid was two minute. The others 16 (7.1%), 9 (4%) and 25 (11.2%) responded three, four and five minutes respectively. Only 15 (6.7%) responded as one hour being the Golden time for providing choking first aid.

Regarding symptom of complete airway obstruction, most of participants 126 (56.3%) responded as inability to produce sound and cough while 43 (19.2%), 32 (14.3%), and 23 (10.3%) responded as coughing, blood in saliva and crying loudly respectively.

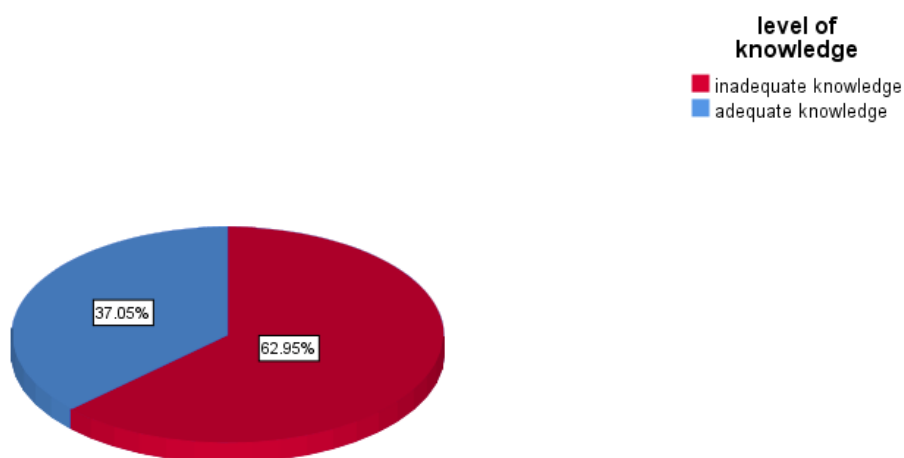
On prevention of children from choking, 180 (80.4%) responded as proper chewing of food while 147 (65.6%) responded as stop talking while eating food. (See table 4).

*Table 4: Responses of kindergarten teachers toward prevention of children from choking among selected Government schools in Addis Ababa Ethiopia, 2019*

Questions	Yes		No	
	Frequency	Percent	Frequency	Percent
How can you prevent children from choking				
Keep solid things away from children	132	59	92	41
Stop talking while eating	147	65.6	77	34.4
I don't know	86	38.4	138	61.6
Proper chewing of food	180	80.4	44	

Majority of participants 125 (56.3%) responded that choking was induced by aspiration of fluids, 52 (17.9%) responded that aspiration of fluid not cause choking while the remaining 47 (13.4%) teachers were not sure whether aspiration of fluid can cause choking or not.

*Figure 5: knowledge level of kindergaten teachers on choking first aid management among selected Government kindergaten schools in Addis Ababa Ethiopia, 2019.*



Out of all respondents 83 (37.05%) scored mean and above for knowledge question which was considered as more than half of study participants had inadequate knowledge on choking first aid management, With a Mean of  $7.67 \pm 2.2$ .

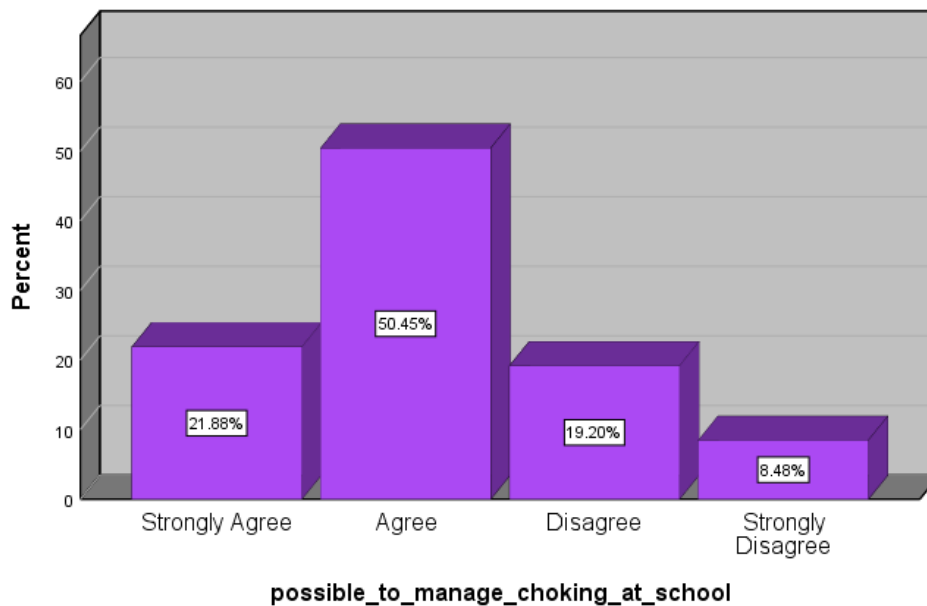
*Table 5: Respondent's answers frequency and percent for specific questions on knowledge assessment in Addis Ababa, Ethiopia, 2019.*

Questions	Yes		No	
	Frequency	Percent	Frequency	Percent
The universal sign of choking	120	53.6	104	46.4
Factors led to choking among preschoolers	84	37.5	140	62.5
Potential choking hazard item	29	12.9	195	87.1
Golden time for providing choking first aid	9	4	215	96
Symptoms of complete airway obstruction	126	56.3	98	43.8
Symptoms of partial airway obstruction	59	26.3	165	73.7
Choking induced by aspiration of fluids	125	55.8	99	44.2

## 5.2 Attitude of Kindergarten Teachers towards first aid management of choking

Majority of participants 128 (57.1%) agree that choking should need immediate management, Similarly most of respondents 153 (68.3%) strongly agree that everybody should know about first aid management of choking, majority of study participant 99 (44.2%) strongly disagree that choking would not cause death or life threatening condition even if not treated.

Majority of participants 113 (50.4%) agree that it was possible to manage choking at school without taking a victim to the health institution. (See figure 6)



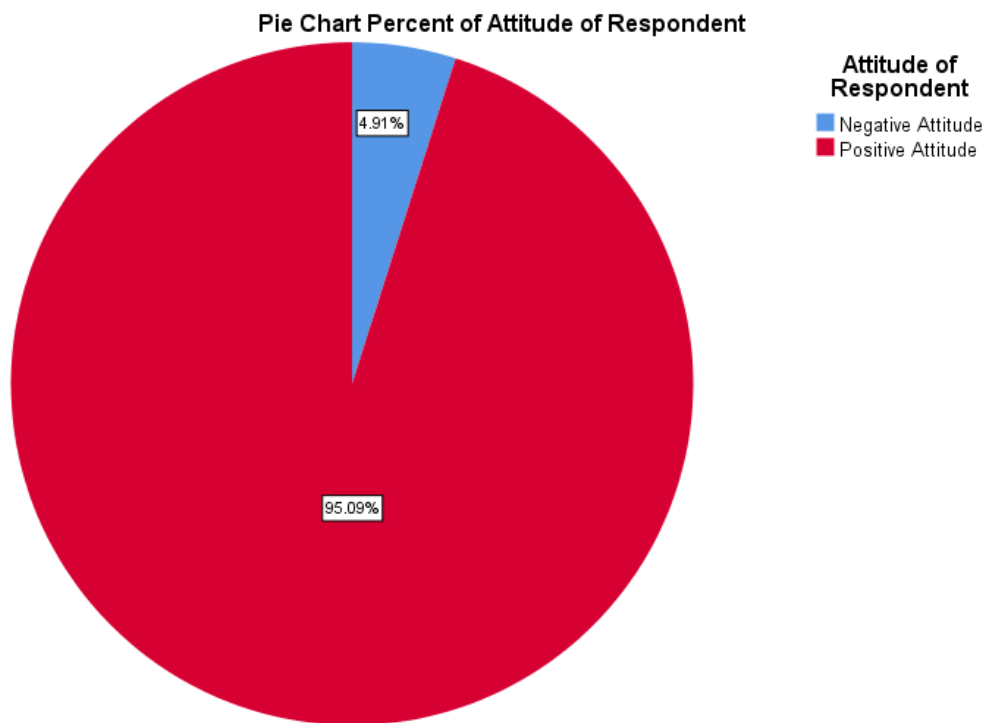
*Figure 6: shows Kindergarten teacher's degree of agreement on possibility of managing choking at school among Government kindergaten school teachers in Addis Ababa Ethiopia, 2019.*

Seventy five (33.5%) strongly disagree that they should sweep their fingers blindly into throat of choked victim, sixty eight (30.4%) disagree while Fifty seven (25.4%) and twenty four (10.7%)

Agree and strongly agree respectively that they should sweep their fingers blindly into throat of choked victim and take him/her to the health institution.

Majority of respondents 106 (47.3%) agreed that they would not provide choking first aid without knowledge and One hundred and twenty six (56.3%) strongly agree that if choking first aid is not given within golden time, it may led to death.

The mean Attitude of respondents were  $5.49 \pm 1.12$ .



*Figure 7: Attitude level of kindergaten teachers on choking first aid management among Government kindergaten school teachers in Addis Ababa Ethiopia, 2019*

*Table 6: Frequency and percent of Attitude on choking first aid management among Government kindergarten school teachers in Addis Ababa Ethiopia, 2019.*

Question items	Strongly Agree Freq. (%)	Agree Freq. (%)	Uncertain Freq. (%)	disagree freq. (%)	Strongly disagree freq. (%)
Choking should need immediate management	66(29.5%)	128(57.1%)	0	23(10.3%)	7(3.1%)
Everyone should know about first aid management of choking	153(68.3%)	54(24.1%)	0	8(3.6%)	9(4%)
Choking does not cause death/life threatening condition even if not treated	12(5.4%)	31(13.8%)	0	82(36.6%)	99(44.2%)
It is possible to manage choking at school without taking a victim to the health hospital	49(21.9%)	113(50.4%)	0	43(19.2%)	19(8.5%)
We should sweep our fingers blindly into the throat of choked victim & take victim to health institution	24(10.7%)	57(25.4%)	0	68(30.4%)	75(33.5%)
You must not provide choking first aid without knowledge	35(15.6%)	106(47.3%)	0	56(25%)	27(12.1%)
If choking first aid is not given within golden time, it may led to death	126(56.3%)	76(33.9%)	0	16(7.1%)	7(2.7%)

### 5.3 Practice of kindergarten teachers on first aid management of choking

Most of participants 123 (54.9%) responded that choking had occurred in their presence outside school while 101 (45.1%) responded that choking had not occurred in their presence outside school. Among those participants who encountered choking in their presence outside school 63 (51.2%) had provided choking first aid while 60 (48.7%) had not provided choking first aid for the victim.

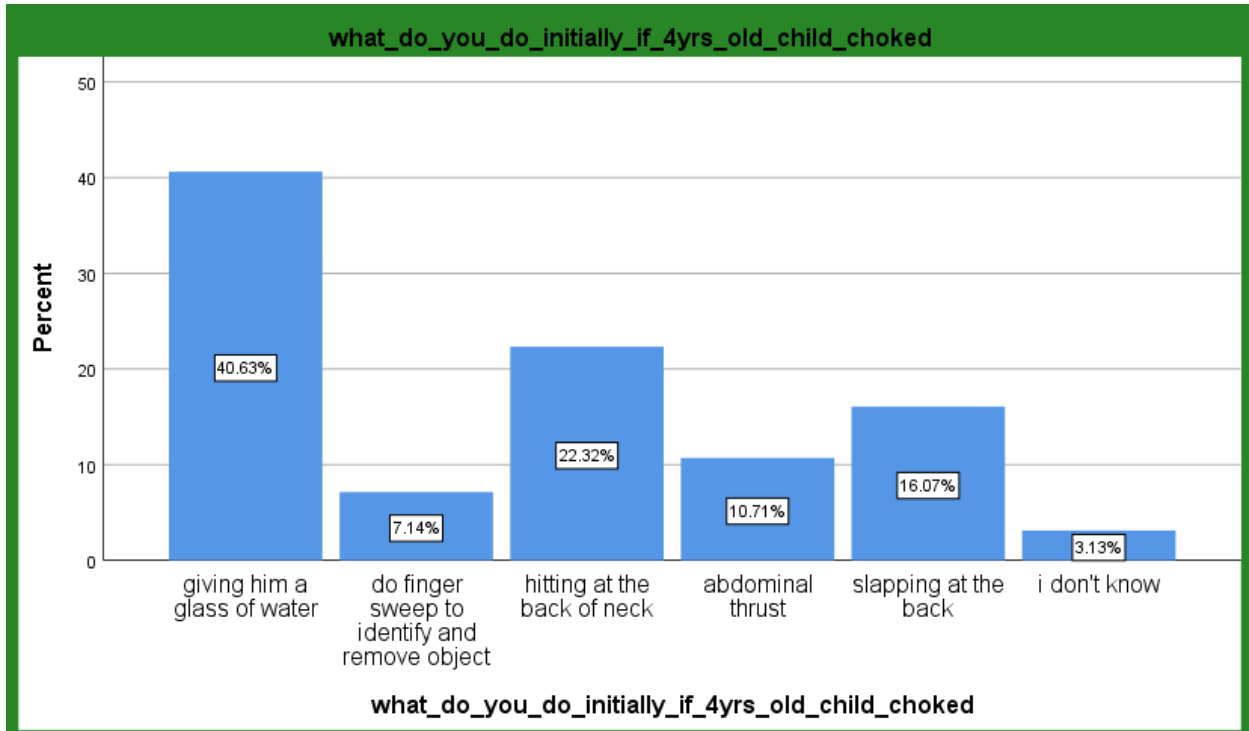
Among the participants, 97 (43.3%) responded that choking had occurred in front of them in the school compound while 127 (56.7%) responded that choking had not occurred in front of them in the school compound. Among those teachers who had encountered choking in the school only 42 (43.3%) provided choking first aid while 55 (56.7%) had not provided choking first aid in the school compound.

When assessed the reason for not providing choking first aid among those teachers that choking occurred in their presence, 79 (68.7%) responded that they don't know choking first aid, 19 (16.5%) responded as fear of complication 13 (11.3%) fear of law, while 4 (3.47%) responded as fear of communicable disease transmission.

On assessing the skill of teachers on choking first aid, the participants responded what they would do initially if they had seen a four year old child suddenly developed choking with food during lunch in their Kindergarten and he developed difficulty of breathing and speaking with complete obstruction of airway and food was not visible? (After calling ambulance).

91 (40.6%) responded that they were giving him a glass of water while 50 (22.3%) responded they were hitting at the back of neck.

Figure 8: Action takteachersen by kindergaten teachers when they faced a choked child with complete airway obstruction among Government kindergaten school teachers in Addis Ababa, Ethiopia, 2019.



Then the participants was assessed on what they would do next if their initial procedure failed, 167 (74.6%) responded as they would sent a victim to health institution, 24 (10.7%) were to done chest thrust, 21 (9.4%) were to done finger sweep, 8 (3.6%) to done abdominal thrust, 4 (1.8%) responded as they don't know what they would had done.

The participants stated that they would have done initial procedure and subsequent procedures respectively as 64 (28.6%) responded they would have done for 3 and 5 times, while 64 (28.6%), 40 (17.9%), 28 (12.5%), 20 (8.9%) and 8 (3.6%) responded as they don't know, for 3 and 3 times, for 2 and 10 times, for 5 and 5 times and for 5 and 3 times respectively.

The location of the body that they would have done the initial and subsequent procedures respectively would be 78 (34.8%) responded that they don't know, 52 (23.2%) responded as just below the neck and base of the ribs 48 (21.4%) responded as between breast bone and the base of

the ribs, 29 (12.9%) responded as between shoulder blades and the base of the ribs, while 17 (7.6%) responded as below the shoulder and at the umbilicus.

The study result revealed that the majority 54 (24.1%) responded as hitting at the back of neck when they faced a 5 years old child suddenly developed choking during meal time in their kindergarten and developed difficulty of breathing and unable to talk with complete airway obstruction, foreign body was visible and accessible.

The study shows that 98 (43.8%) would have given a glass of water and call ambulance if they faced a child choking and coughing. The majority of study participants 76 (33.9%) responded as to contact responsible school authority If a child was choking in their kindergarten during break time, had difficulty of breathing and speaking and as they were providing choking first aid he lost consciousness and become breathlessness.

The participants responded if a 9 months old male infant of their neighbor was choked in their presence, he cannot coughed, cried or breathed the first thing they should have done would be, 67 (29.6%) responded as they would have put their fingers in his mouth and done finger sweep to find out what was choking him.

The respondents were having a lunch with a friend who was also kindergarten teacher and he begun to choke on some food. He can't spoke, breathed or coughed up. When assessed how they would have helped him, 132 (58.9%) responded as they would have given a glass of water, 61 (27.2%) would have given back slap, 15 (6.7%) would have done abdominal thrust, 8 (3.6%) would have putted their fingers down his throat to tried to dislodged the obstruction while 8 (3.6%) would have done chest thrust.

The majority of participants 152 (67.9%) responded that they had given her a water to drunk when a 15 years old girl was choking while eating and she can be able to spoke, 45 (20.1%) responded as to encouraged her to cough, 23 (10.3%) as to helped her to buckled her throat while 4 (1.8%) responded as to have given her a piece of injera.

The mean practice response of participants is  $1.30 \pm 1.32$

Percentage of respondents practice

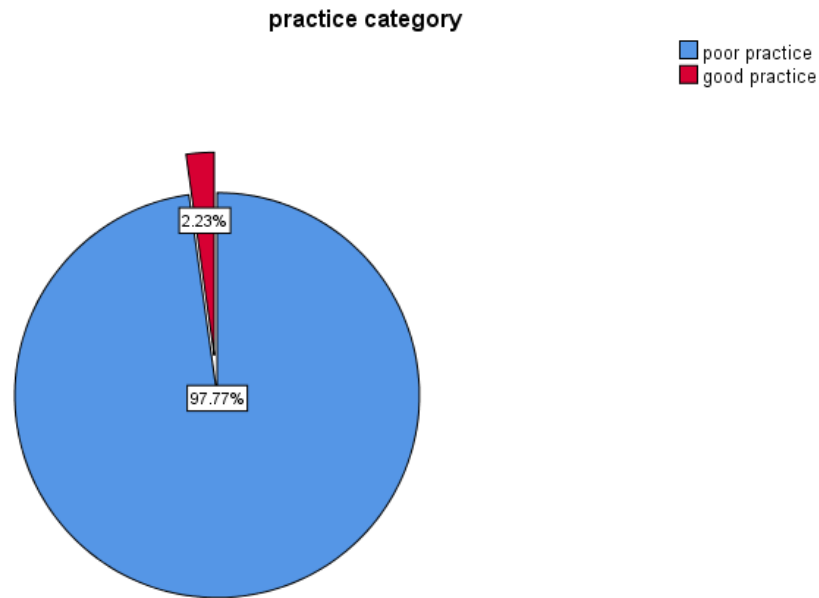


Figure 9: practice category of kindergarten teachers on choking first aid management among Government kindergarten teachers in Addis Ababa, Ethiopia, 2019.

Table 7: Respondent's answer Frequency and percentage for specific question on practice assessment among Government kindergarten school teachers in Addis Ababa, Ethiopia, 2019.

<b>Faced choking victim outside school n=224</b>	<b>Frequency</b>	<b>Percent</b>
Yes	123	54.9
No	101	45.1
Total	224	100.0
<b>Given first aid n=123</b>	<b>Frequency</b>	<b>Percent</b>
Yes	63	51.2
No	60	48.8
Total	15	100.0

<b>Faced a choking child in the school n=224</b>	<b>Frequency</b>	<b>Percent</b>
Yes	97	43.3
No	127	56.7
Total	224	100.0
<b>Action taken when faced child choking with complete Airway obstruction, object no visible</b>	<b>Frequency</b>	<b>Percent</b>
Giving a glass of water	91	40.6
Do finger sweep to identify & remove object	16	7.1
Hitting at the back of neck	50	22.3
Abdominal thrust	24	10.7
Slapping at the back	36	16.1
Don't know what to do	7	3.1
Total	224	99.9
<b>Action taken when faced a child choking, Develop talking and breathing difficulty, Foreign body is visible and accessible</b>	<b>Frequency</b>	<b>Percent</b>
Taking to health institution	51	22.8
Notifying the school director	35	15.6
Remove foreign object	26	11.6
Hitting at the back of neck	54	24.1
Giving a sip of water	42	18.8
Abdominal thrust	14	6.3
Chest thrust	2	0.9
Total	224	100
<b>Action taken when child is choking and coughing</b>	<b>Frequency</b>	<b>Percent</b>
Slap at the back	52	23.2
Give a glass of water & call EMS	98	43.8
Abdominal thrust	38	17
Encourage a child to cough	22	9.8
Chest thrust	14	6.3

Total	224	99.9
<b>Child choked, became breathlessness and unconsciousness</b>	<b>Frequency</b>	<b>Percent</b>
Contacted responsible school authority	76	33.9
Slapped at the back	54	24.1
Given two rescue breath and do CPR	59	26.3
Begun to do CPR with compression sequence of CPR	11	4.9
Don't know what to do	22	9.8
Hitting at the back of neck	1	0.45
Did finger sweep	1	0.45
Total	224	100
<b>Faced infant with choking can't cough or cry</b>	<b>Frequency</b>	<b>Percent</b>
Abdominal thrust	44	19.6
Given back slap	64	28.6
Put fingers in his mouth and do finger sweep	67	29.6
Call ambulance and wait for it to arrive	48	21.4
Blow at the fontanel	1	0.45
Total	224	100

#### 5.4 Factors affecting knowledge of kindergarten teachers toward first aid management of choking.

Binary and multiple logistic regression analysis were done to analyze factors associated with knowledge of choking first aid management. On the binary logistic regression analysis, sex, age, marital status, years of experience and previous first aid training were all associated with knowledge of first aid. On multiple logistic regressions, only previous first aid training were found to have significant association with knowledge of choking First aid at 95% CI with P value<0.05.

*Table 8: Binary and multiple logistic regression analysis of selected factors affecting knowledge on first aid management of choking among Government kindergarten school teachers in Addis Ababa, Ethiopia, 2019.*

Variable		knowledge level		Linear regression (95% CI)			
		adequate Freq. (%)	inadequate Freq. (%)	COR(p<0.25)	p- value	AOR(P<0.05)	p- value
Sex	Male	7(3.1%)	6(2.7%)	1.729(0.562,5.325)	0.340	0.492(0.145,1.668)	0.255
	Female	76(33.9%)	135(60%)				
Age	20-24	10(23.8%)	32(76.2%)	1	0.06*	1	
	25-29	26(38.8%)	41(61.2%)	0.156(0.54, 0.455)	0.01*	5.889(1.528,22.7)	0.10
	30-34	25(41.7%)	35(58.3%)	0.338(0.132, 0.862)	0.23*	2.576(0.844,7.866)	0.097
	35-39	8(28.6%)	20(71.4%)	0.468(0.181,1.206)	0.116*	1.991(0.696,5.695)	0.199
	40 and older	14(51.9%)	13(48.1%)	0.200(0.64,0.629)	0.06*	4.532(1.278,16.069)	0.19
Experience	< 1 yrs.	14(37.8%)	23(62.2%)	1	0.240*	0.548(0.157,1.909)	0.345
	1-5yrs.	37(37.8%)	61(62.2%)	0.440(0.166,1.165)	0.098*	0.926(0.343,2.496)	0.879
	>5-10 yrs.	23(39.7%)	35(60.3%)	0.438(0.193, 0.997)	0.049*	1.032(0.367,2.899)	0.952
	>10 yrs.	18(58.1%)	13(49.9%)	0.475(0.196, 1.152)	0.099*	1	
Marital status	Married	45(40.5%)	66(59.5%)	1	0.134*	0.770(0.61,9.686)	0.840
	Single	37(33.6%)	73(66.4%)	1.828(0.161,20.742)	0.627	0.993(0.78,12.652)	0.996
	Divorced	1(33.3%)	2(66.7%)	1.056(0.93,12.019)	0.965	1	
Previous first aid training	Yes	58(56.9%)	44(43.1%)	3.149(1.810,5.478)	0.000*	2.902(1.612,5.227)	0.000**
	No	25(20.5%)	97(79.5%)				

**N.B** \* Shows significant association for binary logistic regression 95% CI

\*\* Shows significant association for multiple logistic regression at 95% CI

1 Reference

## CHAPTER SIX

### Discussion

Knowledge and skills of kindergarten teachers can help in the prevention of morbidity and mortality related to complications of accidents among preschoolers. The teachers play a major role in management of emergencies that can occur to children therefore they should be prepared for that duty. (9).

The knowledge of first aid management of choking among kindergarten teachers in this study was found to be inadequate with 37.05% respondents replied correctly to knowledge question, the absence of compulsory first aid training during kindergarten teacher training in Ethiopia could be a reason behind this finding. The result was similar to study done in Iraq where most of teachers had answered nine questions wrongly in 12 questions regarding knowledge of choking first aid management. (3). This study was also similar to a previous study done in Ethiopia which showed that the knowledge of kindergarten teachers on first aid was low with 39.7% of respondents replied correct answers for knowledge questions. (16)

The finding was also in line with a study done in India on awareness, attitude and practice of first aid among school teachers in Mangalore which showed that 6 out of 146 teachers have good knowledge about choking first aid management. (7). This survey was also similar to a Chinese research conducted for assessing knowledge and attitude of kindergarten's staff regarding pediatric first aid in Shanghai, China; which showed that none of 1067 study participants were answered all questions correctly and just 39 individual (3.7%) carried out successful scores. while the correct answers for choking was 30.1%. these scores carried out using multiple linear regression and revealed that higher scores were associated with previous first aid training which was similar to current study. The result of study showed low level of knowledge regarding first aid. (1).

Prior studies regarding the Knowledge of first aid management of choking among kindergarten teachers had been scarce (16).

The finding revealed that teachers' knowledge towards first aid management of choking was inadequate with a mean of  $7.67 \pm 2.2$ , it was less than the study conducted in Egypt on government kindergarten teachers which revealed that the teacher's knowledge towards first aid was inadequate with a knowledge mean and SD of  $22.2 \pm 5.0$ . The difference may be due to availability and accessibility of training facilities in Egypt (11).

The study found that there was no significant association between socio-demographic characteristics such as sex, age, level of education and years of experience and marital status but there was a significant association between previous first aid training and knowledge score of the respondent (AOR: 2.902, 95% CI: 1.612, 5.227). This survey was also similar to a study done in Ethiopia which showed that kindergarten teachers with previous first aid training were 6.540 times more likely to be knowledgeable when compared to those who had no training (AOR: 6.54, 95% CI: 2.493, 17.157). Similarly, a study in China revealed a significant association between previous first aid training and knowledge ( $t=2.506$ ,  $p=0.012$ ). (1, 16)

Young children are more likely than adults or older children to suffer choking because their airways are narrower, their chewing and swallowing coordination was not fully developed, and they often put non-food items in their mouths so teacher's knowledge towards choking first aid would be important in the kindergarten school.

The inadequate knowledge in the current study can be attributed to the fact that very little attention was given by school functionaries and administration towards training of kindergarten school teachers on choking first aid. This may also be explained by the fact that the majority of studied teachers did not attend any training courses in choking first aid.

Majority of respondents agree that choking needs immediate management which was similar to the study done in Iraq where majority of teachers responded that choking first aid should be provided within golden time. (3)

Present study indicated that the teachers' attitudes about first aid of choking were positive. This was in contrast with the results of two studies carried out in Turkey which concluded that most of the teachers do not have correct attitudes about first aid in general. The result of this study was similar to a study done in Iraq and Sri Lanka where most of the teachers were found to have a positive attitude toward first aid. (3).

There was no significant association between kindergarten teacher's socio-demographic characteristics and level of attitudes, this was in contrast with the study done in Iraq where the study found significant association between their level of attitude and socio-demographic characteristic. (3)

Majority of study participant had poor practice only very few teachers scored above the mean for practice Question, more over significant number of kindergarten teachers had bad and dangerous practice toward choking victim like hitting at the back of neck, putting fingers into throat of victim blindly, giving a water to drink and blowing at the fontanel of the victim so immediate intervention would be needed to prevent this life threatening practice from happening and changing it to good practice.

## Chapter seven

### Strength and Limitation

#### 7.1 Strength

The study tried to assess the knowledge, attitude and practices of the participant towards choking first aid management comprehensively. This study has not been done in this study area so that it is probably the first study.

#### 7.2 Limitations

Being cross sectional is one limitation for this study. There may be level of understanding bias since it is self-administered questionnaire. Being quantitative lone is the other limitation. The study was also limited in that it used self-report checklist for practice assessment. Observational study is better for practice assessment but didn't carry out due to time and budget constraint.

## Chapter Eight

### Conclusion and Recommendation

#### 8.1 Conclusion

The knowledge of kindergarten teachers towards choking first aid is found to be low while they have positive attitude towards providing choking first aid. It is very important to increase their choking first aid knowledge and skills. As the study shows there is a lack of choking first aid training among kindergarten teachers, even those trained complain that the training doesn't included choking first aid. Teaching first aid offers an opportunity to educate teachers about risk factors for choking hazard identification, prevention of risk and early intervention since choking need immediate management and it even led to death if complete airway obstruction occurred and choking first aid is not given within golden time.

The study also revealed a life threatening practice of kindergarten teachers to choked victim like hitting at the back of neck, the neck of a preschool are not mature enough so this may led injury to c-spine which may led to other life threatening condition. So immediate intervention is needed to provide training on choking first aid to kindergarten teachers.

#### 8.2 Recommendation

For ministry of education, this study can be used as input to plan appropriate interventions and modification of kindergartner teacher training curriculum.

- The Policy maker should generate a new policy concerning child care in kindergartens.
- Ministry of Education should include first aid course in the kindergarten teachers' curriculum.
- Since Kindergarten student spent longer duration at school they are having their meal at school and the current study showed that significant number of kindergarten teachers reported choking incident at school Ministry of Health should consider working with schools in order to reduce childhood morbidity and mortality by providing first aid training for teachers.

- Kindergarten schools should consider working with the catchment health institutions in order to fill the existed gap on choking first aid and invite health professionals to give choking first aid training for teachers.
- Teachers should use any opportunity to update their knowledge and skill on first aid management of choking.
- Researchers may use this result as baseline for further study

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## ANNEXES

### Annex I: Information sheet

**Addis Ababa University**

**College of Health Science**

**Department of Emergency medicine**

Good Morning/Good Afternoon!

This Study is prepared to Collect Data on assessment of knowledge, attitude and practice towards choking first aid among Government kindergarten teachers in Addis Ababa City.

My Name Is \_\_\_\_\_, I am conducting the research on the assessment of Knowledge, attitude and practice of choking first aid among kindergarten teachers in Bole, Gulele and Kirkos Sub Cities, Addis Ababa, Ethiopia.

The study is being conducted by Ali Maalim Issack, Addis Ababa University, Department of Emergency Medicine, in Postgraduate Program. The objective of this study is to assess knowledge, attitude and practice towards choking first aid among kindergarten teachers in governmental schools, Addis Ababa. The assessment is made for the partial fulfilment of Master's Degree in Emergency Medicine and critical care nursing. The results of the study will be used as base line information to design appropriate intervention strategies to increase kindergarten teachers' knowledge, attitude and practice of choking first aid. The questionnaire contains closed ended questions and will be provided in self-administered form. You are therefore kindly requested to provide genuine answers to the questions. The information you provide is confidential and is used only for the purpose of this study. If you have any question, don't hesitate to ask the data collector. Your cooperation and participation until the completion of the questionnaire is very necessary for the successful completion of the study.

If you have questions regarding this study or would like to be informed of the results after its completion, please feel free to contact the principal investigator through the following address:

**Address of the principal investigator: Ali Maalim Issack**

Mobile number: +251 932544189

Email: [alimaalim1162@gmail.com](mailto:alimaalim1162@gmail.com)

Annex II: Consent form

In signing this document, I am giving my consent to participate in the study entitled “Assessment of knowledge attitude and practice towards choking first aid among Governmental kindergarten school teacher in Addis Ababa city”.

I have been informed that the purpose of this study is to assess knowledge, attitude and practice towards choking first aid among government kindergarten school teachers in Addis Ababa.

I have understood that participation in this study is entirely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any way. I have also been informed that my participation or non-participation or my refusal to answer questions will have no effect on me.

I understood that participation in this study does not involve risks. I understood that Ali Maalim is the contact person if I have questions about the study or about my rights as a study participant.

We therefore ask your genuine willingness. However, you have the right to refuse if you are not voluntary to participate by making thick mark in -No’ in the box below.

Do you agree to participate      Yes                       No

If yes proceed to the next page

Thank you in advance for your cooperation

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

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

**Persons to contact:**

If you have any question to ask, please contact

Principal investigator: Ali Maalim Issack

Tel: +251-932544189, Email = [alimaalim1162@gmail.com](mailto:alimaalim1162@gmail.com)

## Annex III: Questionnaire

### Part 1

#### Socio-demographic characteristics of kindergarten teachers in Addis Ababa

<b>Ser. no</b>	<b>Socio-Demographic</b>	<b>Response</b>	<b>Remark</b>
<b>1</b>	Sex	1. Male 2. Female	
<b>2</b>	Age	_____in years	
<b>3</b>	Level of education	1. Certificate 2. Diploma 3. Degree 4. Masters 5. Other (specify) _____	
<b>4</b>	Marital status	1. Married 2. Single 3. Divorced 4. Widowed/	
<b>5</b>	Service year	1. <1 yrs. 2. 1 - 5 yrs. 3. >5-10 yrs. 4. >10	
<b>6</b>	Previous first aid training	1. Yes 2. No	

## Part II

### Questions to assess kindergarten teacher's choking first aid knowledge in Addis Ababa

1 i) have you heard about choking first aid?

A) Yes B) No

ii) If yes for from which source you heard?

A) Media B) family members C) colleagues D) health professional E) others, specify

2, i) Do you know choking first aid?

A) Yes B) No

ii) If yes where you learn from?

A) From my previous first aid training B) from a friend C) from my studies D) from health professional E, others, specify\_\_\_\_\_

3, which of the following(s) is (are) the universal sign(s) of choking?

A) Coughing and/or crying B) knocking at the chest C) clinching at the throat D) wheezing  
E) A and D

4, which of the following student's behaviors may led to choking? (Multiple answer is possible)

A) Playing football B) running while eating C) putting objects in their mouth D) playing, talking and laughing while eating

5, which of the following factor(s) led to choking among preschool children?

A, improper chewing of foods B) immature molars C) running with food in their mouth with subsequent incoordination between their swallowing reflexes and glottis closure D) adventurous nature E) all of the above

6, the following(s) are potential choking hazards except?

A) Hot dogs B) coins C) applesauce D) whole grapes E) popcorn

7, Golden time for providing choking first aid is\_\_\_\_?

A) 2 minute B) 3 minute C) 4 minute D) 5 minute E) 1 hour

8, which of the following is a symptom(s) of complete airway obstruction?

A, crying loudly B) coughing c) inability to produce sound and cough D) blood in saliva

9, how can you prevent children from choking? (You can choose more than one answer)

A) Keep solid things away from children B) stop talking while eating C) I don't know how to prevent child from choking D) proper chewing of food

10, symptoms of partial obstruction of airway?

A) Inability to produce sound B) wheezing C) unable to breath D) sneezing

11, is choking induced by aspiration of fluids?

B) Yes B) No C) Not sure

### **Part III**

#### **Questions to assess attitude of kindergarten teachers towards choking first aid in Addis Ababa governmental KG schools.**

**Answer the following question by saying:** - strongly agree, agree, Disagree, strongly disagree

1, choking should need immediate management?

A, Agree B, Disagree C, strongly agree D, strongly disagree E, not sure

2, everybody should know about first aid management of choking?

A, strongly agree B, agree C, Disagree D, strongly disagree E, not sure

3, choking does not cause death or life threatening condition even if not treated

A, agree B, Disagree C, strongly agree D, strongly disagree E, not sure

4, it is possible to manage choking at the school without taking a victim to the health institution.

A, strongly agree B, Agree C, Disagree D, strongly disagree E, not sure

5, we should sweep our fingers blindly into throat of choked victim and take him/her to the health institution as soon as possible

A, strongly agree B, Agree C, strongly disagree D, Disagree E, not sure

6, you must not provide choking first aid without knowledge

A, Agree B, Disagree C, strongly agree D, strongly disagree E, not sure

7, if choking first aid is not given within golden time, it may led to death.

A, strongly agree B, Agree C, Disagree D, strongly disagree E, not sure

## Part IV

### Questions to assess practice of kindergarten teachers on choking first aid in Addis Ababa

#### Practice

1, i) had choking occurred in your presence outside school?

A) Yes B) No

ii) if yes have you provided choking first aid management?

A) Yes B) No

2, i) had choking occurred in front of you in the school compound?

A) Yes B) No

ii) if yes have you provided choking first aid immediately?

A) Yes B) No

iii) if No for Q 1 ii and Q 2 ii what is the reason for not providing choking first aid?

A) I don't know choking first aid B) fear of law C) fear of complication D) fear of communicable disease transmission E) others specify\_\_\_\_\_

3, what do you do initially if you see a 4 year old child suddenly choking with food during lunch at your kindergarten school and he develop difficulty of breathing and speaking with complete obstruction of airway and food is not visible?(after calling ambulance)

A, giving him a glass of water B, do finger sweep to identify and remove object C, hitting at the back of neck D, abdominal thrust E, slapping at the back F, others, specify\_\_\_\_\_

4, what will you do next if your initial procedure in Q 1 failed?

A, finger sweep B, sent to health institution C, chest thrust, D, Abdominal thrust E, others specify\_\_\_\_\_

5, how many time(s) will you do the procedures you answered in Q 1 and 2 respectively?

A, 3 and 5 B, 2 and 10 C, 3 and 3 D, 5 and 5 E, 5 and 3

6, at which location of the body will you perform the procedure you answered in Q 1 and 2 respectively?

A, between breast bone and the base of the ribs B, below the shoulder and at the umbilicus C, between shoulder blades and the base of the ribs D, just below the neck and the base of ribs E, I don't know

7, what do you do if you face a 5 years old child who suddenly develop choking during meal time in your kindergarten and develop difficulty of breathing and unable to talk with complete obstruction of airway, foreign body is visible and accessible?

A, talking him to health institution B, notifying school director and calling the parents  
C, remove the foreign body by yourself D, hitting at the back of neck  
E, giving a sip of water f, Abdominal thrust g, others, specify\_\_\_\_\_

8, what do you do if child is choking and coughing?

A, chest thrust B, slapping at the back C, giving a glass of water and call ambulance  
D, Abdominal thrust E, encourage him to cough and call ambulance

9, a child is choking in your kindergarten during a break time, one student came running and inform you, you run and see a child has difficulty of breathing and speaking, As you are proving choking first aid, his condition worsen and suddenly he lost consciousness and breathless. What will you do?

A, slapping at the back B, give two rescue breathing and do CPR C, do cardiopulmonary resuscitation D, contact responsible school authority E, I don't know what to do F, others, specify\_\_\_\_\_

10, a 9 months old boy of your neighbor is choking in your presence, he cannot cough, talk or breathe, the first thing you should do is\_\_\_\_\_?

A, give abdominal thrust B, give back slaps C, put your finger in his mouth and do finger sweep to find out what is choking him D, call ambulance and wait for them to arrive

11, you are having a lunch with your friend who is also a KG teacher and he begun to choke on some food. He can't speak, breath or cough up. What will you do to help your friend?

A, give him a glass of water B, give back slaps C, do abdominal thrusts D, put your finger down his throat to try to dislodge the obstruction of airway E, chest thrust

12, what will you do if a 15 years old girl suffered from choking while eating, she can be able to speak?

A, encourage her to cough B, help her to buckle her throat C, give her a water to drink D, give her a peace of injira

### የፍቃደኝነት ስምምነት

### አዲስ አበባ ዩኒቨርሲቲ

### የጤና ሣይንስ ኮሌጅ

### የኢመርጅንሲ ሜዲሲን ዲፖርትመንት

እንደምን አደሩ/እንደምን ዋሉ , ስሜ  ይባላል። በእውቀት አመለካከት እና በክህሎት ላይ ያተኮረ የመታነቅ የመጀመሪያ ደረጃ ህክምና እርዳታ አሰጣጥ በሚል ርዕስ ላይ በአዲስ አበባ ከተማ አስተዳደር በቦሌ ፣ በጉላሌ እና በቂርቆስ ክፍለ ከተማ በሚገኙ የመዋዕለ ህፃናት ትምህርት ቤቶች ውስጥ በሚሰሩ የተመረጡ የመዋለ ሕጻናት አስተማሪዎች ላይ በሚደረግ ጥናት መረጃ እየሰበሰቡ እገኛለሁ።

ጥናቱ እየተካሄደ የሚገኘው በአሊ ማሊም ይስሃቅ በአ.አ ዩኒቨርሲቲ በድንገተኛ ትምህርት ክፍል የድንገተኛ ና ፅኑ ህሙማን ነርስ የሁለተኛ ዲግሪ ተመራቂ ተማሪ ነው። የዚህ ጥናት አላማ የአስተማሪዎችን የመታነቅ የመጀመሪያ ደረጃ ህክምና እርዳታ አሰጣጥ በእውቀት፣ አመለካከትና ክህሎት ላይ ያላቸውን ክፍተት ጥናት ለማድረግና አስፈላጊውን የማስተካከያ ስርዓት ለሚመለከተው አካል ለማሳወቅ ነው። የጥናቱ ውጤት ተገቢ የሆነ ስትራቴጂ ዲዛይን ለማድረግ እና የመዋለ ሕጻናት አስተማሪዎችን እውቀት፣ አመለካከትና ክህሎት የመታነቅ የመጀመሪያ ደረጃ እርዳታ ላይ እውቀታቸውን ለማሳደግ እንደ መሠረታዊ መረጃ ያገለግላል። ቃለ መጠይቁ ዝግ እና ክፍት የሆኑ ጥያቄዎችን የሚያካትት እና በእርስዎ የሚሞላ ሆኖ የቀረበ ነው። ስለዚህ ለቃለ መጠይቁ ተገቢ የሆነ መልስ እንዲሰጡ በአክብሮት አጠይቆታለሁ።

የሚሰጡት መረጃ በሚሰጠር የሚያዝ እና ለዚህ ጥናት ብቻ በጥቅም ላይ የሚውል ይሆናል። ማንኛውም አይነት ጥያቄ ካሎት መረጃ ሰብሳቢውን ይጠይቁ። ለዚህ ጥናት ስኬታማነት እስከ ቃለ መጠይቁ መጠናቀቅ ድረስ ትብብሮት እና ተሳትፎዎት ወሳኝ ነው። ስለዚህ በጎ ፍቃደኝነትን እጠይቃለሁ።

ሆኖም ግን በዚህ ቃለ መጠይቅ ላይ ለመሳተፍ ካልፈለጉ በሚከተለው ሣጥን ውስጥ አይደለሁም የሚለውን ምልክት በማድረግ መተው ይችላሉ።

ፍቃደኛ ነወት አዎ   አይደለም

ለትብብርዎ በቅድሚያ እናመሰግናለን።

የመረጃ ሰብሳቢው ስም \_\_\_\_\_ ቀን \_\_\_\_\_ ፊርማ \_\_\_\_\_

የቃለ መጠይቅ ኮድ \_\_\_\_\_

የሚያናግሩት ግለሰብ ማንኛውም ጥያቄ ካሎት እባክዎትን

አሊ ማሊም የዋና ተመራማሪ በስልክ +251-932544189, Email-alimaalim1162@gmail.com በኩል ያናግሩ።

ቃለ መጠይቅ

## ክፍል 1

በአ.አ የሶሻሎ ዲሞክራሲያዊ ጣህሪ ያላቸው የመዋለ ሕጻናት አስተማሪዎች

ተ.ቁ.	ሶሻሎ ዲሞክራሲያዊ ጣህሪ	ምላሽ	መግለጫ
1	ጾታ	1. ወንድ 2. ሴት	
2	እድሜ	----- ዓመት	
3	የትምህርት ደረጃ	1. ሰርተፍኬት 2. ዲፕሎማ 3. ዲግሪ 4. ማስተር 5. ሌሎች(ይግለጹ)	
4	የጋብቻ ሁኔታ	1. ያገባ 2. ያላገባ 3. የፈታ 4. መበለት	
5	የአገልግሎት ዓመት	1. ከ1 ዓመት በላይ 2. ከ1-5 ዓመት 3. ከ5-10 ዓመት 4. ከ10 ዓመት በላይ	

## ክፍል 2

በአ.አ የመዋለ ሕጻናት አስተማሪዎችን የመታነቅ የመጀመሪያ ደረጃ እርዳታ አሰጣጥ ለማጥናት የቀረበ ጥያቄ

I. ከዚህ በፊት የመጀመሪያ ደረጃ እርዳታ ሥልጠና ወስደዋል ?

ሀ. አዎ      ለ. አይደለም

II. መልሶት አዎ ከሆነ የመታነቅ የመጀመሪያ ደረጃ እርዳታ ያካተተ ነበር ?

ሀ. አዎ      ለ. አይደለም

2.I ስለ መታነቅ የመጀመሪያ ደረጃ እርዳታ ስምተው ያውቃሉ ?

ሀ. አዎ      ለ. አይደለም

2.II መልሶት አዎ ከሆነ ከየትኛው ምንጭ ነው የሰሙት ?

ሀ. ሚዲያ      ለ. ከቤተሰብ አባል      ሐ. ኮሌጅ      መ. የጤና ባለሙያ      ሠ. ሌሎች ይግለጹ-----

3.I የመታነቅ የመጀመሪያ ደረጃ እርዳታ ያውቃሉ ?

ሀ. አዎ      ለ. አይደለም

III. መልሶት አዎ ከሆነ ከየት ነው የተማሩት ?

ሀ. ባለፈው ከወሰድኩት የመጀመሪያ ደረጃ እርዳታ ለ. ከጓደኞች ሐ. ከጥናቴ

መ. ከጤና ባለሙያ ሠ. ሌሎች ይግለጹ

4. ከሚከተሉት ውስጥ ዓለምአቀፋዊ የመታነቅ ምልክት የሆነው የትኛው ነው ?

ሀ. ማሳል እና/ወይም ማልቀስ ለ. ደረት ላይ መምታት ሐ. በጉሮሮ ላይ እጅን መለጠፍ መ. ማቃሰት ሠ. ሀ እና መ

5. ከሚከተሉት ውስጥ የትኛው የተማሪዎች ባህሪ ለመታነቅ ይዳርጋል? (ብዙ መልስ መስጠት ይቻላል።)

ሀ. ኳስ መጫወት ለ. እየበሉ መሮጥ ሐ. ነገሮችን በአፍ ውስጥ መክተት መ. መጫወት ማውራት እና እየበሉ መሳቅ

6. ከሚከተሉት ምክንያቶች መካከል የትኛው የመዋለ ሕጻናት ተማሪ እንዲታነቅ ሊያደርግ ይችላል ?

ሀ. ምግብን ተገቢ ባልሆነ መንገድ ማግኘት ለ. ያልጠነከረ ጥርስ ሐ. ምግብ በአፋቸው ውስጥ አስቀምጠው መሮጥ መ. እዩኝ እዩኝ የማለት ባህሪ ሠ. ሁሉም

7. ከሚከተሉት ውስጥ ከአንዱ በስተቀር በባህሪያቸው መታነቅን የሚያስከትለው የትኛው ነው ?

ሀ. ሆት ደግስ ለ. ሣንቲም ሐ. አፒልሶስ ሐ. ዎልግራፕስ መ. ፈንድሻ

8. የመታነቅ የመጀመሪያ ደረጃ እርዳታ ለመስጠት ወርቃማ ጊዜ የትኛው ነው ?

ሀ. 2 ደቂቃ ለ. 3 ደቂቃ ሐ. 4 ደቂቃ መ. 5 ደቂቃ ሠ. 1:00 ሰዓት

9. ከሚከተሉት ውስጥ የትኛው ሙሉ ለሙሉ የመታነቅ ምልክት ነው ?

ሀ. በከፍተኛ ድምጽ ማልቀስ ለ. ማሳል ሐ. ድምጽ ማውጣት ማቃት መ. በምራቅ ውስጥ ደም መኖር

10. ልጆች እንዳይታነቁ እንዴት ልናደርግ እንችላለን (ከአንድ በላይ መልስ መምረጥ ይችላሉ)

ሀ. ጠጣር ነገሮችን ከልጆች በማራቅ ለ. ምግብ ሲበሉ እንዳያወሩ በማድረግ ሐ. ልጆች እንዳይታነቁ ምንም ማድረግ እንዳለብን እኔ አውቃለሁ መ. ምግብን በተገቢው ሁኔታ እንዲያገኙ በማድረግ

11. በከፊል የመታነቅ ምልክት የትኛው ነው ?

ሀ. ድምጽ ማውጣት አለመቻል ለ. ማቃሰት ሐ. መተንፈስ አለመቻል መ. ማስነጠስ

12. ፈሳሽ ነገሮች መታነቅን ሊያስከትሉ ይችላሉ ?

ሀ. አዎ ለ. አይደለም ሐ. እርግጠኛ አይደለሁም

### ክፍል 3

በአ.አ የኬጂ አስተማሪዎችን የመታነቅ የመጀመሪያ ደረጃ እርዳታ ለመገምገም የቀረበ ጥያቄ የሚከተሉትን ጥያቄዎች በጣም እስማማለሁ እስማማለሁ አልስማማም በጣም አልስማማም በማለት ይመልሱ

1. መታነቅ ወዲያውኑ መረዳት የሚያስፈልገው ክስተት ነው ?

ሀ. እስማማለሁ ለ. አልስማማም ሐ. በጣም እስማማለሁ መ. በጣም አልስማማም

2. ሁሉም ሰው ስለ መታነቅ የመጀመሪያ እርዳታ ህክምና ማውቅ አለበት ?

ሀ. በጣም እስማማለሁ ለ. እስማማለሁ ሐ አልስማማም መ. በጣም አልስማማም

3. መታነቅ እርዳታ ባይደረግም እንኳን ሞትን አያስከትልም

ሀ. እስማማለሁ ለ. አልስማማም ሐ. በጣም እስማማለሁ መ. በጣም አልስማማም

4. ተጎጂው ወደ ጤና ጣቢያ መውሰድ ሳያስፈልግ መታነቅን መርዳት ይቻላል

ሀ. በጣም እስማማለሁ ለ. እስማማለሁ ሐ አልስማማም መ. በጣም አልስማማም

5. ተጎጂው ወደ ጤና ጣቢያ ከመውሰዳችን በፊት ጣታችንን ወደ ጉሮሮው በመስደድ የታነቀውን ነገር ማስወገድ ይቻላል።

ሀ. በጣም እስማማለሁ ለ. እስማማለሁ ሐ አልስማማም መ. በጣም አልስማማም

6. ያለ እውቀት የመታነቅ የመጀመሪያ ደረጃ እርዳታ መስጠት የለብዎትም

ሀ. እስማማለሁ ለ. አልስማማም ሐ. በጣም እስማማለሁ መ. በጣም አልስማማም

7. በወርቃማ ሰዓት ውስጥ በምግብ የመታነቅ የመጀመሪያ ደረጃ እርዳታ ካልተደረገ ለሞት ይዳርጋል

ሀ. በጣም እስማማለሁ ለ. እስማማለሁ ሐ አልስማማም መ. በጣም አልስማማም

ክፍል 4

በአ.አ የኬጂ አስተማሪዎችን የመታነቅ የመጀመሪያ ደረጃ እርዳታ ለመገምገም የቀረበ ጥያቄ

1. I. ባሉበት ቦታ ከትምህርት ቤት ውጪ የመታነቅ አደጋ አጋጥሞት ያውቃል ?

ሀ. አዎ ለ. አይደለም

II. መልሶት አዎ ከሆነ የመጀመሪያ እርዳታ አድርገዋል ?

ሀ. አዎ ለ. አይደለም

2. I. በትምህርት ቤት ቅጥር ግቢ ውስጥ በእርሶ ፊት መታነቅ ገጥሞት ያውቃል ?

ሀ. አዎ ለ. አይደለም

II. መልሶት አዎ ከሆነ ወዲያውኑ የመጀመሪያ እርዳታ አድርገዋል ?

ሀ. አዎ ለ. አይደለም

III. መልሶት ለጥያቄ ቁጥር 1 እና ቁጥር 2 አይ የሚል ከሆነ የመጀመሪያ ደረጃ እርዳታ ያልሰጡበት ምክንያት ምንድን ነው ?

ሀ. የመጀመሪያ ደረጃ የመታነቅ እርዳታ መስጠት አላውቅም

ለ. የሕግ ፍራቻ

ሐ. የውስብስብነት ፍራቻ

መ. የተላላፊ በሽታ ፍራቻ

ሠ. ሌላ ካለ ይግለጹ -----

3. በመዋለ ሕጻናት ውስጥ የ4 ዓመት ሕጻን በድንገት በምሳ ሰዓት በምግብ ታንቃ ቢያገኛት እና መተንፈስ እና መናገር ቢያቅታት ምን ያደርጋሉ? (ለአንቡላንስ ከደወሉ በኋላ)

ሀ. በብርጭቆ ውሃ መስጠት ለ. ምግቡን ለማውጣት ጣት መክተት

ሐ. ማጀራት መምታት መ. ሆድ መጫን ሠ. በጀርባ በኩል መምታት ሠ. ሌላ ካለ ይግለጹ

4. የጥያቄ ቁጥር 1 ሳይሳካ ቢቀር ምን ያደርጋሉ?

ሀ. ጣት መክተት ለ. ወደ ጤና ጣቢያ መላክ ሐ. ደረት መጫን መ. ሆድ መጫን

ሠ. ሌሎች ካሉ ይግለጹ

1. በጥያቄ ቁጥር 1 እና 2 ላይ የሰጡትን መልስ በተከታታይነት ምን ያህል ጊዜ ይሰጣሉ?

ሀ. 3 እና 5 ለ. 2 እና 10 ሐ. 3 እና 3 መ. 5 እና 5 ሠ. 5 እና 3

6. በተራ ቁጥር 1 እና 2 ላይ የሰጡት መልስ በቅደም ተከተልነት በየትኛው አካል ክፍል ላይ ፈጸማል;

ሀ. በጡት አጥንት እና በመገጣጠሚያ መካከል ለ. ከጉልበት በታች ሐ. በትከሻ እና በመገጣጠሚያ መካከል መ. ከአንገት በታች እና ከመገጣጠሚያ በታች ሠ. አላውቅም

7. በመዋለ ሕጻናት ውስጥ የ5 ዓመት ሕጻን ምግብ በምትበላበት ጊዜ በምግብ ታንቃ ብተገኝ እና መተንፈስ እና መናገር ቢያቅታት ምን ታደርጋህ ?

ሀ. ለጤና ተቋም መናገር ለ. ለት/ቤቱ ዳይሬተር መናገር እና ለቤተሰብ መደወል

ሐ. ጉዳዩን በራስ መፍታት መ. በስተኋላ በኩል አንገት መምታት ሠ. ትንሽ ውሃ መስጠት ረ. ሆድ መጫን ሰ. ሌላ ካለ ይግለጹ

8. ሕጻኑ የታነቀ እና የሚያስል ከሆነ ምን ያደርጋሉ ?

ሀ. ደረት መጫን ለ. ከኋላ በኩል መምታት መ. ትንሽ ውሃ መስጠት እና አንቡላንስ መጥራት ሠ. ሆድ መጫን ረ. እንዲያስለው ማበረታታት እና አንቡላንስ መጥራት

9. በእረፍት ሰዓት በመዋለ ሕጻናት ውስጥ አንድ ሕጻን በምግብ ቢታነቅ እና አንድ ተማሪ እየሮጠ መጥቶ ቢነግሮት እርስዎ ርጠው ሕጻኑን መተንፍስ እና መናገር እንደማይችል አይተው የመጀመሪያ ደረጃ እርዳታ ሰተውት ሁኔታው ብሰበት ሕጻኑ ራሱን ቢስት እና መተንፈስ ቢያቅተው ምን ያደርጋሉ ?

ሀ. ከኋላ በኩል መምታት ለ. ሁለት ጊዜ እስትንፋስ መስጠት እና የደረት መጫን መስራት

ሐ. የደረት መጫንና ትንፋሽ መስጠትን መሥራት መ. ጉዳዩ የሚመለከተውን የት/ቤቱን አካል መጥራት ሠ. ምን መደረግ እንዳለበት አላውቅም ረ. ሌላ ካለ ይግለጹ

10. የ9 ወር የጎረቤቶች ሕጻን ልጅ እርስዎ ባሉበት ቦታ ቢታነቅ እና መሳል እና መናገር ወይም መተንፈስ ቢያቅታት መጀመሪያ የሚያደርጉት ነገር ምንድን ነው ?

ሀ. ሆድ መደገፍ ለ. ከጀርባ በኩል መምታት ሐ. ጣት በአፍ ውስጥ መክተት እና ምን እንዳለ መፈለግ መ. ለአንቡላን መደወል እና መጠበቅ

11. የመዋለ ሕጻናት አስተማሪ ከሆነ ጓደኛዎ ምሳ እየበሉ ቢታነቅ መናገር እና መተንፈስ ወይም ማሳል ቢያቅተው ጓደኛዎትን ለመርዳት ምን ያደርጋሉ ?

ሀ. በብርጭቆ ውሃ መስጠት ለ. በስተኋላ በኩል መምታት ሐ. ሆድ ላይ መደገፍ

መ. ጣቶችን ጉሮሮ ውስጥ መክተት ሠ. ደረት ላይ መደገፍ

12. የ15 ዓመት ሴት ልጅ ምግብ በምትበላበት ጊዜ ብትታነቅ ነገር ግን መናገር ብትችል ምን ያደርጋሉ?

ሀ. እንድታስል አደርጋታለሁ ለ. ጉሮሮዋን እንድትይዝ እረዳታለሁ ሐ. የሚጠጣ ውሀ እሰጣታለሁ መ. ትንሽ ምግብ እሰጣታለሁ